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# Financial Markets

Monograph

Edited by

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Bielsko-Biala,

2019

Recommended to be published by University of Bielsko-Biala  
(№ K-31/100/2018 from November 28, 2018)

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**Qoqiauri Lamara, Qoqiauri Nino. Financial Markets** : monograph / edited by  
Q 11 **Olha Prokopenko**. – Ruda Śląska : Drukarnia i Studio Graficzne Omnidium,  
2019. – 448 p.

ISBN 978-9941-0-5221-7 (Georgia)

ISBN 978-83-61429-15-9 (Poland)

We considered it purposeful to represent generally necessity and opportunities of existence of financial markets, alongside with their classification in the work; as well as modern trends of financial markets development, influence of global financial crisis upon financial markets; financial institutions and their kinds and functions; in the separate chapter, we represent initial and derivative financial instruments.

We pay special attention to the issues of research of the essence, functions and structures of the investment market, as the component of financial market, as well as principal financial instruments of the investment market.

Transfer of the principal component of the investment market to the wide spectra discussions about investment market, i.e. security market in the financial instruments is provided in sequence in the work. We represent theoretical and practical aspects of security market, and generally, the issues of assessment and management of financial investments; discussion issues of fundamental, technical and graphical analysis of the market is put in the foreground, as well as basic provisions of technical analysis adopted in practice at the global security market.

“Financial Markets” is following work of the cycle of works “Investment Activities” and it is intended for the bachelors, candidates for a master’s and doctor’s degrees, high school teachers, scientists and researchers. It will be interesting for the wide circle of readers interested in the above issues.

Keywords: *Financial Markets, Investment, Financial Crisis, Indicators.*

UDC 336.76

ISBN 978-9941-0-5221-7 (Georgia)

ISBN 978-83-61429-15-9 (Poland)

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## INTRODUCTION

In the encyclopedia manual of “Financial Management” E. Brigham and M. Ehrhardt emphasize that field of finances is related with three interconnected fields: 1. Financial Markets and Institutions; 2. Investments; 3. Operative Financial Management”<sup>1</sup>. And they give wider explanation: financier relates his/her career to: 1. Capital markets and money markets, as well as financial institutions and those, who work at these markets; 2. Tasks of building portfolios formed by the individuals and legal entities separately; 3. Field of corporate finance, including decisions made about strong investment projects of separate forms<sup>2</sup>.

All three branches of financial management described above are necessary and important; they are interconnected and inter-conditioned. We allocated and learnt (within possible bounds) investments as main axis of our scientific research out of the above “Triad” – financial markets and institutions, investments, financial operative management. We published respective scientific works<sup>3</sup>; partially touching upon the first field as well; particularly, we paid attention to the cash flows and securities<sup>4</sup>.

We tried in present work to pay more attention to the problems of capital, money and investment markets; to show the essence, functioning and development of financial institutions and instruments; mechanisms of pricing and kinds of operation at the investment market; again we will try to explain the mechanism of performing investment activities in market economy; for the first time in Georgian economical domain we will try to explain conjuncture of investment market and the mechanism of its research.

Particular continuance of this part of the work is “Security Market”. Until today, we paid great attention to real and intellectual components of the investment market in the process of analyzing investment market. Different explanations may be found to this. The first one is that these two fields are developed in Georgia in particular way. Another explanation is that security market could not be involved in our country, neither theoretically, nor – practically. Saying nothing about

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<sup>1</sup> **Brigham Y., Erhard M.**, 2005. Financial management. St.P. Piter.pg. 57.

<sup>2</sup> Same, pg. 26-27.

<sup>3</sup> **Qoqiauri L.** Investment Market: Theory, Policy, Practice. Tb. Publishing company “Siakhle”. 2002; Theoretical Genesis of the Investments. Tb.: TSU, 2007; Investment Management and Policy (second edition). Tb.: STU, 2012; The Concept of Forming and Developing Investment Market in Georgia. Tb., 2002; Investment Business. Tb.: STU, 2010, etc.

<sup>4</sup> **Qoqiauri L.** Cash Flows: Essence, Management, Analyze. Tb.: “Poligrafia”, 2005. Management of Cash Flows and Discount Analyze (course of lectures). Tb.: TSU, 2008; **Qoqiauri L., Shonia N.** Security Market. Tb.: TSU, 2008, etc.

candidate thesis and published works<sup>5</sup>, in fact there are no fundamental studies in the investment market, i.e. security market today.

There is a kind of vacuum regarding the essence, classification and economical, financial, fundamental, technical and graphical analysis, and perspectives of development of securities. Though the largest share of researches provided in the investment domain comes on the study of securities<sup>6</sup>.

In modern world, no national economy is considered separately from the global economical processes. This touches upon Georgia, which stood on the way of the economy of market type in the beginning of the 90s of last century by means of deep institutional changes.

Financial crisis and resulting negative issues is in the center of global attention. Global crisis proved again the fact that financial market is a sort of generator of the index of assessment of the state of economy in general.

Scientists and researchers relate starting of crisis of economical domain with the following factors:

General cyclical nature of economical development;

High prices on raw materials (including oil);

Overheating of the stock exchanges;

Overheating of credit market and mortgage credit crunch caused in the USA by its virtue.

Using such new, untested financial methods and instruments in practice, as credit default swap, etc.

Subject to the widely developed international economical relations, financial crisis started in the USA was distributed in entire world with chain reaction, especially the states having foreign economical relations with the USA (including, of course, Georgia). Due to the fact that economy of Georgia is integral part of global economy, global financial crisis, of course, affected economy of Georgia as well and caused many problems to the country. The first outcomes of the crisis appeared in the beginning of 2009. Global Economical Crisis slowed economical growth in every country, demands on luxury items, cars and other products was decreased the most, which turned into the

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<sup>5</sup> **Shonia N., Gugeshashvili T., Ghavtadze G.**, 2004. Security Market. Kutaisi, A. Tsereteli State University; **Jibuti M.** 2003. Security Market of Georgia. Tb.: Publishing Company "Siakhle"; **Shonia N.**, 1997. The Issues of Forming Security Market in Georgia. Gori, etc.

<sup>6</sup> **Sharpe W., Alexander G., Bailey D.**, 2006. Investments. Translated from English M.: Finansi I Statistika; **Brigham E., Gapenski L.**, 2005. Financial Management in 2 Volumes. Translated from English. M.: Ekonomicheskaya Shkola, etc. **Brigham E., Ehrhardt M.**, 2005. Financial Management. Translated from English – St.P.: Piter.

grounds of decreasing GDP in the leading countries of the world. During last years, principal conditioning factors of economical growth in Georgia were permanent growth of private capital inflow (direct foreign investments and bank credits) and budgetary resources.<sup>7</sup> Herewith, decreasing direct foreign investments and bank credits turned into the most important factors of Georgian economical growth retardation. Before Global Economical Crisis the Government of Georgia forecasted for GEL 21535.9 million, though after elimination of the outcomes, forecast of the Government is GEL 21308.7 million (decrease was forecasted with 227.2 million Georgian Lari, which made about 1.05% of decrease). Real GDP growth at the initial stage was considered to be 4.0%, and after elimination of the outcomes of Crisis it was 2.5%. In 2008 growth of real GDP made only 2.0% instead of the planned 8%<sup>8</sup>. Though, real situation was more pessimistic and achievement of 2% growth became possible only by directing funds received from donors to the activities providing higher economical activities.

Security market is integral part of financial market, purpose of which is accumulation of financial resources and provision of opportunities for their distribution through realization of different operations related with securities by the separate participants of the Market. i.e. providing mediation in serving temporally free cash resources from the investors between security issuers.

Playing the role of additional or alternative sources of financing economy and macro and micro levels (activities of enterprises of all kinds, different fields of economy, state and international cooperation), securities and capital markets are being constantly transformed. During last decade at the security markets of the most countries of the world evolutionary changes were provided, provoked by economical development and economical globalization. Due to this fact security market, and the securities themselves, their different purposes and targeted aspects required permanent study and analyzing. This is what the second part of present book is dedicated to.

The work includes Introduction, Bibliography, Appendixes and 19 Chapters. We considered it to be purposeful to represent necessity and opportunities of existence of financial markets in the work in general, alongside with their classification, modern trends of development of financial markets, affect of the Global Financial Crisis upon financial markets; Financial institutions, their kinds and functions; We represents initial and derived financial instruments in the separate chapter. We represent in them principal theoretical and practical aspects of functioning of security

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<sup>7</sup> Trends of Georgian Economy, GEPLAC Quarter Review, 2000. October. Pg. 7.

<sup>8</sup> The Strategy of Security from Global Economical Crisis, Government of Georgia, December, 2002. [www.parliament.ge](http://www.parliament.ge)



market, analyze of financial investments, as well as the issues of assessment and management. In the book, we analyze new (in some extent) processes of the said markets.

Actuality of the Book is conditioned with fact that it shows modern situation of the security market, analyzing modern problems of the market of particular states, as well as those of international ones. We systematize principal knowledge of the concepts, functioning mechanism and operations technologies of the security market.

The book successively covers the following topics:

Financial environment: markets, institutions and interest rates;

Financial institutions, their kinds and functions;

Financial instruments;

The essence of the investment market and the mechanism of its functioning;

Mechanisms of pricing and kinds of operation at the investment market;

The mechanism of performing investment activities in market economy;

Functions, structure and participants of security market;

Securities and their kinds, the procedure of their issuance and turnover;

Pricing at security market;

Methods of financial analyze when making investment decisions;

Share indexes of security market; portfolio of securities of securities and methods of their management;

Regulation of security market;

International market of securities;

Portfolio theory;

Classic fundamental research of security market;

Necessity of performing fundamental research of the security market;

Fundamental business values;

Conceptual issues of technical research of securities;

Graphical analysis of security market;

Forecasting methods price development by means of diagrams;

Technical analysis of diagrams by means of typical figures and formations of trend kind;

Peculiarities of functioning of international security market;

Peculiarities of the security market in the beginning of 21<sup>st</sup> century.

We discuss in the Book structure of securities, principal kinds professional activities at the security market and the forms of its regulation. We give thorough and consistent description of the methods of financial analysis of securities, used for making investment decision. Special attention is paid to the share indexes, as they are the most convenient instruments for description of the dynamics of capital market and assessment of situation.

In the book, we discuss different aspects of modern stock operations; organization and technologies of stock transactions, as well as the strategy and technology of different categories of the stock trading participants.

Thus, the book provides optimal minimum of the necessary theoretical knowledge about functioning of security market. The book is interesting for the students, aspirants and teachers; as well as those, who are interested in economy, namely financial investments and its component – security market.

And finally, I have said earlier in one of the manuals – during last period the best foreign manuals (in the best cases, their translations) were used in our country. I think, it is time to prepare qualified domestic manuals. Moreover, when teachers of the University are given real opportunity for this – to create manuals meeting modern requirements of undergraduate and master education.

Same situation made me work out syllabuses-program in the said discipline, in order to simplify to the students searching, study and further work of the desired material.

And one more thing – of course, we tried to maintain generally adopted style of concluding manuals, but in some places we were to express our modest opinion and set sentences regarding this or that key issues.

The logic of building given work and its principal materials are approved by the author for the students involved in the courses of higher education in investments, security market, and investment management; as well as enterprise supervisors and investment managers, and employees of some companies and firms.

The author hopes that recommendations given herein will render practical support to the enterprises; in rising effectiveness of investment activities and that they will be used in preparing new generation of investment managers.

Present Work is published with the series of the manuals of economical profile of Tbilisi, Iv. Javakhishvili State University and Technical University of Georgia. It is intended for renovation of the content and structure of the economical education of universities, as in the universities and

namely in the faculties of economy and business in general, great work is provided for successful implementation of the educational reform and acceleration of the process of joining Bologna states.

I have mentioned it earlier and repeat it here – this process is unrecoverable and requires much effort from each of us. As the teacher of higher school and the scientist, I see my mission in creation of modern manuals, scientific publications and modern programs. I will say more: the book offered by us, similar to other monographs and manuals published earlier, will not give answers to every question of this issue. We set the question differently: we hope that the students, masters and all wise readers will have serious questions, who will have to find answers in the relative works and scientific resources. Permanent searching of monographs, manuals of monographic nature, encyclopedias and virtual material in the permanent process of learning, this is what the author sees her mission in.

We entrust readers to decide if we achieved our goal. As always, there may be defaults in the work. We have never had claims for this. We will be glad to listen to all remarks, constructive critics, business offers, and kind wishes and foresee in our further work. You can send your remarks and offers to the Technical University of Georgia or directly to the author: [lqoqiauri@yahoo.com](mailto:lqoqiauri@yahoo.com)

Contact phone: 599906011; 577770616; 2760595.

**Thank you,**  
**Lamara Qoqiauri**  
**Nino Qoqiauri**  
**July 28, 2018**

## CHAPTER 1. FINANCIAL ENVIRONMENT: MARKETS, ESTABLISHMENTS AND INTEREST RATES

### 1.1. FINANCIAL MARKETS AND INSTITUTIONS IN THE CONTEXT OF THE COMPANY ACTIVITIES

Financial markets and institutions, as economical categories, give rise to huge interest of scientists and practitioners. Herewith, no large enterprise is unable to avoid their activities and ignore processes and operations of the financial market under the conditions of market economy. This explains the condition that financial manager shall, as a minimum, know the principles of organization and functioning of financial markets and institutions.

#### WHAT IS FINANCIAL MANAGEMENT

**In a broad sense, financial management is management of financial flows, initiation of the flows, satisfaction and organization (i.e. implementation, actual realization) of final purpose of the interests of each parties i.e. announcement of offer<sup>9</sup>.**

Financial donors and recipients provide initiation of financial flows; the first are able to represent financial resources, and the second know how to manage them, i.e. they have portfolio of flows. In this latest, they are given opportunity to return resources attracted by resources with investments and issuance of dividends to the portfolio owners. The said condition is well explained by J. Madura: **functioning of financial flows is implemented by means of organization-instrumental triad (markets, institutions, instruments)**.<sup>10</sup> At the markets accumulation, searching and settlement of the request of investment and financing, together with the recipients and donors. Herewith, openness of the market in large and small degree support optimization of cash flows. Financial institutions at the financial markets, and professionally working organizations provide searching and bringing of financial donors and recipients. Practical realization of the offers (distribution) of investment and financial nature, i.e. organization of replacement financial resources and mutually beneficial overflow from their suppliers (donor) to the consumers (recipients), is provided by means of market instruments. In this case it is possible to satisfy purposes of particular participants of the operation.

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<sup>9</sup> Offer (Lat. Offero) – An offer to conclude an agreement including each of its essential condition.

<sup>10</sup> **Madura J.**, 2003. International Financial Management. 7<sup>th</sup> ed. Thomson. pg.17.

## FINANCIAL MARKETS

We separately study below all three components of the Triad. According to the global experience, real market economy is represented without financial markets and its instruments. This is the thesis neoclassic theory of finances is essentially built at. Besides this, we can find its proof without any evidences in macro and micro economical studies. Namely, in 1973 American scientists E. Show and R. Mckinnon separately worked out macroeconomical concepts of financial deepening and financial repression. **The concept of financial deepening means that formation and development of financial markets and institutions is necessary condition for economical development.** Herewith, accumulation of financial assets shall take place in higher rates, compared with the accumulation of non-financial assets. Financial pressure means systematic control (from the side of the government or oligopoly)<sup>11</sup> at the financial markets, which was mostly implemented be means of regulating and controlling interest rate. In case when market economy is at the stage of formation, financial pressure often takes place, which is reflected on the role and obligations in organization of financial institutions, markets, assets and financial flows, as well as the methods and objects of investments and finances. Investments into non-financial assets (gold, real estate) prevail in this case. The resources are inactive, the enterprises lack financial resources, etc. Normal incomes are essentially complicated in development of economy. Though by means of institutional development and improvement of economy financial pressure is replaced with the financial deepening.

In the system of strategic financing of large industrial subjects, especially those who form systems in global, national or regional scales for the economy, capital markets definitely occupy dominated places. We discuss the essence and kinds of financial markets and the place of capital markets in them.

Activities of the most part of the companies, especially of the large ones, are in close relation with different financial markets. Each of them organization or informal system of selling financial assets and instruments. At these markets exchange operations are provided with money or their equivalents, as well as issuance of credit, mobilization of capital, etc; i.e. different combinations of two typical financial procedures – mobilization and investments are realized. Decisive role are

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<sup>11</sup> It shall be mentioned that oligopoly is the type of market structure, which is characterized by the following signs: a) small number of firms and great number of purchasers; b) uniformity or difference of products; c) complexity of entering market: Famous English thinker Thomas Moore (1478-1535) was the first to coin the Term and oligopoly considered “small market” and meant that the firm – sellers are allowed to dictate to the purchasers their price policy. Numbers of economists shared the notion that oligopoly symbolized “competition of the small”.

played by financial institutions, guiding cash flows from the owners to the borrowers. As any market, financial market is intended for establishing direct contacts on the financial resources between purchasers and sellers.

**Herewith, the process of accumulation and placement of financial resources implemented in the financial management of the state and industrial subjects is in direct relation with the functioning of financial markets and financial institutions.**

If task of financial institutions is provision of the most effective transfer of cash resources from owners to the borrowers, **function of the financial market is organization of financial assets and obligations between the purchasers and sellers of financial resources.** Solving this task is complicated by numbers of objective and subjective reasons, as it is necessary to foresee different, sometimes diametrically opposing interest of the participants of financial market, as well as the important risks of performing financial obligations, etc.

Three groups of economical subjects – households, companies and state – represent sellers and purchasers at the financial markets.

Relation between the purchaser and seller is implemented directly or by means of mediators. In the first case, foreseeing mutual interests is implemented by means of direct financing, and in the second – by means of financing implemented with the help of mediators.

### **DIRECT FINANCING**

In case of direct financing, the purchaser replaces financial obligation with cash resources and receives them directly from the seller. Sale and purchase of this financial obligation may be provided at the financial market. The obligations issued by the purchasers are called direct obligations and they, as a rule, are sold at the direct loan markets. Direct financing is implemented by means of private placement, when, for example, the company (seller) sells entire issue of securities to one large institutional investor or the group of small investors. Realization of such operations, as a rule, requires professional knowledge of the interests and requirements of potential purchasers of financial obligations.

Functioning of direct loan markets is related with numbers of difficulties, conditioned by large wholesale nature of sale, and this reduces the circle of possible purchasers. Due to this fact movement of cash resources from the subjects owning budgetary surplus to those having budgetary deficit, are often of mediation nature.

## MEDIATION RELATION

Mediation relation requires existence of financial mediation (financial institutions), accumulating free cash resources of economical subjects and on their behalf supply them to the subjects desiring the resources with particular conditions. Financial mediators purchase from the object requiring cash resources their direct obligations and turn them into other obligations of different characterization (terms of repayment, interest fees), which are sold to the economical subjects having free cash resources.

Financial mediation is often interested by economical subjects having free temporary cash resources (creditors), and those wishing the cash resources (borrowers), as they receive particular priorities and benefits.

From the position of creditors profit of financial mediators is: **in the first place**, the mediators provide diversification of risk by means of distribution of investments between creditors, reducing credit risk. In case of existence of financial mediators there is high credit risk, i.e. the risk of non-repayment of principle sum and accrued interest. Net income of mediator is determined in distinction between existed rate and the one the creditor himself/herself borrowed money. It is deducted the expenditures related with the provision of settlement, issuance of remuneration of the employees, tax repayment, etc.

**The second**, the mediator processes the system of checking solvency of borrowers, creating the system of service distribution, reducing credit risk and credit expenditures.

**The third**, financial institutions support their customers in maintenance of permanent level of liquidity, i.e. opportunity for receiving cash, by creating them. On the one hand, financial institutions have opportunity to guarantee particular part of their assets with cash. On the other hand, financial institutions of some type are set by the government legislative norms regulating liquidity. For example, for commercial banks legislation guarantees maintenance of minimal balances on the accounts and in cash account by means of norms of reservations.

## PROFIT OF THE BORROWER

The Borrowers have particular profit, among which following are the principal ones:

**The first**, financial mediators simplify the problem of finding the creditors, which are ready to issue loans with the conditions acceptable to them.

**The second**, in case of existence of financial mediator, the sum paid for credit is often lower to the borrower (under normal economical conditions), than in case of existence of mediator. This

paradox may be explained by means of reducing credit risk for the initial creditors (depositor) by the financial mediators and the creditors may set lower rate of resource attraction. This sum of the rate, together with the expenditures of mediators is not too big to make it necessary to increase placement rate above the level of existed rate above crediting.

**The third**, financial mediators provide transformation of debts, filling the gap between the borrower's preferences for long-term loans and the creditor's preference for liquidity. This may be provided with the fact that customers do not request their money together, inflow of financial mediation resources is also extended in time.

**The fourth**, financial institutions satisfy demand of the borrowers for large credits by means of aggregation of large sums from multiple customers.

## 1.2. NECESSITY AND OPPORTUNITIES OF FINANCIAL MARKET EXISTENCE<sup>12</sup>

Financial managers and investors are not considered in vacuum. They act in the difficult and developed financial surrounding. This latest includes financial markets and establishments, tax policy and the policy of regulation by the government, as well as economies of other states in total. Their conditions determine the choice of possible financial alternatives, also influencing upon outcomes of different decisions. Consequently, the managers and investors are necessary to know their business environment well.

Correct financial decisions require good understanding of the modern directions of economical development, as well as the levels of interest rates and share markets, though it is difficult to explain what will happen to them even in the closest future. At the conjunction of the two millenniums, economy was being developed under extremely favorable surrounding for the professionals of financial market. Interest rates and inflation level was relatively lower, and share market influenced rapid uprising during past decades. The said condition allowed financial managers and investors to have new opportunities, though we shall not forget that they had new risks as well.

For example the Companies Charles Schwab and Merrill Lynch. This latest was considered to be quite successful during last years. Brokerage activities allowed it increase the shares in 250% during the last five years.

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<sup>12</sup> We considered this Paragraph to be purposeful for processing: Brigham Y., Erhard M., 2005. Financial management. St.P. Piter. In Russian. pg. 226-228.



During the same period Charles Schwab, which is considered to be the leader of selling shares, increased its capitalization in almost 1800%. Internet allowed online brokers (such as Schwab, E\*Trade, DJDirect and Datal) to provide trading with the shares under the conditions of extremely low commission fees, compared with the traditional companies of Merrill Lynch. They offered customers wide range of brokerage services several years ago, when online shopping in fact did not exist. For today, according to some evaluations, there are several hundreds of online brokers rendering services to the millions of customers.

Comparing of indexes of effectiveness of increasing shares in the companies Merrill Lynch and Schwab show that the market is more and more worried with online trading compared with the traditional brokers. Notwithstanding the fact that during recent years prices of shares were dropped in 30%, shares of the company Schwab were increased in 260% during last two years. During the same period shares of the Company Merrill Lynch dropped. After understanding of the sharp changing of the financial environment, this Company performed several activities; particularly, the Company supported its customers in taking part in online shopping.

Influencing significantly upon brokerage activities, same forces similarly influence upon other fields as well. Traditional trade networks – Barnes and Noble and Toys RUS were opposed by such new and aggressive online competitors as Amazon.com and Toys Inc. The procedures of online booking of tickets, hotel reservation and car sale were changed as well. Thus, it becomes evident that financial managers today shall be not only professionals in their narrow financial domains, but they will be aware of the changes in modern technological environment and/or be ready for rapid adaptation of their technologies with them.

Below we discuss the markets through which the companies form their capital, where they sell securities and where prices are fixed to the shares, as well as the companies working on those markets. At the same time, we review important factors determining the level of interest rate on the markets.

*For example: the fields of economy, governments and individuals often are to raise capital from the “outside”. Let us assume that the companies Carolina Power and Light (CPL) plan to increase request on electricity in North Carolina and decided to build new power plant. As the said company has no billion US Dollars for building the Plant, the Company shall appeal financial markets for raising funds. Or otherwise, let us hypothesize that the owner of computer shop in San Francisco Mr. Forng made up his mind to extend his business and start selling of different household*

*appliances. Where can he find money to purchase required assortment of TV sets, washing machines or refrigerator? Similarly, if the Johnsons want to buy new house that costs 100 000 US Dollars, but they have only 20 000 US Dollars of savings, where can the Johnsons get the remaining 80 000 US Dollars? Or if New-York intends to borrow 200 million US Dollars to fund new sewage stations or if federal government is in need of funds to satisfy its demands, they will definitely applies to the financial markets.*

*On the other hand, some people or companies have particular incomes, which are much more than their life demands, i.e. they have funds, which may be invested. For example, Carroll Hauk's income is 36 000 US Dollars, and her expenditures are about 30 000 US Dollars. Ford Motor Company has about 23 billion US Dollars in the resources and marketable securities. These resources may be used for investment.*

### 1.3. CLASSIFICATION OF FINANCIAL MARKETS

Individuals and companies, who want to borrow money, confront those, who have excess funds at the financial markets. It shall be noted that markets are give in plural form. Under the conditions of the developed economy, such as that of the USA, there are various kinds of financial markets. We deal with the financial institutions of different types at each of them. The most often this distinction is expressed in the assets, by means of which sales are provided at the market, as well as the terms and conditions of payments provided with the said assets. Besides this, different markets render services to the customers of different type or they work in the different parts of the country. Find bellow principal types of markets.

1) **Physical asset market.** It is often called the market of tangible or real assets. These are the markets of wheat, car, real estate, computers and engineer devises. On the other hand Financial asset markets deal with the shares, bonds, promissory notes, lease deeds and other financial instruments. All these instruments are only sheets of paper, granting their holders particular rights and obligations in connection with the real assets. For example, corporate bond issued by the Company IBM grants its holder the right to receive particular amount of cash resources (interest income), created by the physical assets of the said company in advance. Ordinary share of the Company authorizes its holder not only to receive the sum (unknown in advance) from the cash resources of the Company, but also to participate in the voting regarding particular issues of the Company business. Different from the ordinary financial assets, conditions of issuing derivative

securities do not determine direct obligations towards active assets and cash resources created by them. Derivative securities represent right or obligation in relation with other securities or financial assets. Futures and options – these are the two important types of derivative securities and their market price depends on conditions of the prices of other assets. For example, prices of the shares of IBM depends on the prices of pork and exchange rate of Japanese Yen. Consequently, evaluation of the derivative securities depends on the price of financial instrument of the respective market.

**2) Spot markets and futures markets** – these are the names of markets, where assets are sold and purchased with the immediate supply or that determined for the future date, for example after six months or one year.

**At the spot markets** exchange of cash resources and assets is provided through direct transaction: as they provide trade based on the termed agreements, foreseeing distribution of market assets in the future. According to the financial instruments participating in the financial transaction, termed market, in its turn is divided into several segments: forward, futures, and optional markets and swap market.

**3) Money markets** – this is highly liquid debt security markets of low risk. New York and London stock exchanges remained to be the largest money markets in the world for a long time, though, during recent period importance of Tokyo broker's board is being rapidly increased.

**4) Capital markets** – these are the markets of middle and long-term obligations and corporate shares. New York Stock Exchange, where shares of the largest US Companies are sold, is the best example of typical security market. There is no strict rule of dividing money and capital markets, but when describing debt markets, under the term of short-term obligations we consider the period less than a year, in intermediate debt – the period from one to five years, and in long-term obligations – those of five and more years.

**5) Mortgage security markets** – they mostly provide quoting of debt instruments, related with the loans of housing, commercial and industrial real estates, as well as agricultural ones, when customer credit markets include loans for purchasing cars and household appliances, as well as the credits for education, vacation, etc.

**6) There also are world, national, regional and local markets.** Subject to the size and scales of the company business, these markets can attract funds from entire world; from separate national economies, or these opportunities may be limited with the regional or narrower limits borders.

7) **Primary markets** – these are the markets, where corporations provide formation of new capital by means of emission of the newly registered securities. If the Company Microsoft plans to issue new ordinary shares, to increase its capital – this will be the primary market transaction. The corporation selling repeatedly issued shares, makes income from their selling.

8) **Initial Public Offering (IPO) Market** – this is the special kind of primary market. When entering this market the companies turn into the shareholders, distributing newly created public shares of open joint stock companies. Ordinarily here former owners of the companies sell part of their shares, and at the same time the company issues new shares for raising additional resources.

9) **Secondary markets** – these are the markets, where investors sell the securities issued earlier. For example, if Dow decides to buy 1000 shares of ATCT, this transaction will probably take place at the secondary market. New York Stock Exchange is the secondary market, as it deals with the securities, which are already in circulation and not the newly issued ones. There also are secondary markets of obligations, lease deeds and loan documents of other type, as well as financial instruments. The corporations selling the securities do not participate in the transactions of the secondary market; consequently such operations do not make any cash resources to them.

10) **Private markets** – (so-called private transaction markets), where transactions are performed directly between two parties. They differ from the public markets (often called open markets), where transactions are provided with standard agreements, on the organized basis. Bank loans and third party car insurance in the insurance company is the example of private market transaction. When such transactions are private, they may be structuralized in any form, in order to make it attractive for both parties. On the contrary, the securities, issued to the public markets (for example, ordinary shares and corporate bonds), finally appear themselves with multiple different investors. Public securities have quite standard features and functioning conditions, which is necessary for their circulation for the wide circle of investors. Their distribution among great number of investors greatly supports growth of liquidity of such securities. Consequently, private market securities are more specific with conditions of circulation. Though they are less liquid while public securities are more liquid, but more standard.

11) **Foreign exchanging market** – is the market, where currency transactions are implemented. Foundation to this market is banks and credit and financial institutions. Money market are the markets, where the assets with less than one year of repayment term are circulated.

Commodity of foreign exchanging market is the objects of currency assets. Currency assets are: a) foreign currency – monetary objects (banknotes, treasury cards, coins, which are legal means of payment or it may be paid by is subject to exchange) and resources of foreign monetary units or international or international and settlement monetary units existed on the accounts; b) Securities (cheque and promissory notes), equity instrument (shares and bonds) and other debt commitment, which are expressed in foreign currency; c) precious metals (gold, silver, platinum, palladium, iridium, rhodium, ruthenium, osmium) and natural precious stones (diamond, ruby, garnet, emerald, sapphire, alexandrite. pearl).

Subjects (participants) of foreign exchanging market are banks, stock exchanges, exporters and importers, and financial and investment establishments, governmental institutions. Object of the foreign exchanging market is financial claim expressed in currency assets.

### **EXCHANGE OPERATIONS**

**Exchanging market subjects may provide operations of following kind:**

**Treasury operations (Spot)** – by immediate distribution of currency, more often within two working days from conclusion of agreement;

**Forward operations** – by distribution of currency within strictly determined period of time;

**Swap** – simultaneous performance of operations of sale and purchase of different terms;

**Hedging** – insurance of open currency positions;

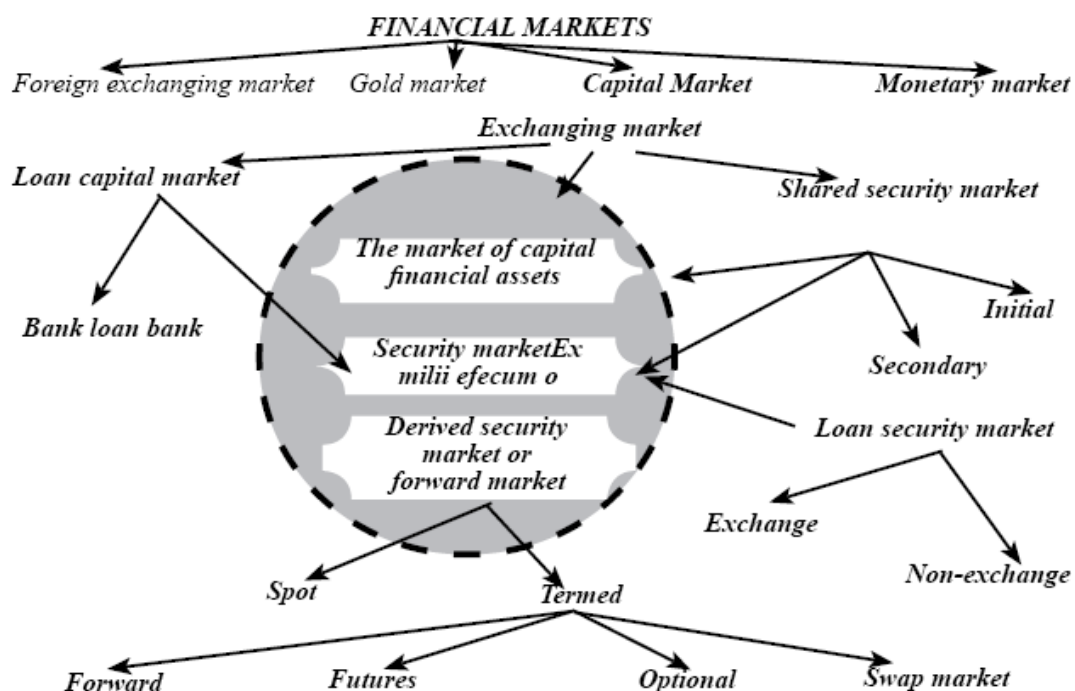
**Arbitration of interest rates** (making profit from receiving deposits and repeated placement with the higher rate) (with agreed periods).

As we have said above, traditionally, they allocate in economical literature several principal kinds of financial markets. One of the possible versions of classification is given in the Figure 1.1.

### **GOLD MARKET**

**Gold market** – this is the market at which they provide cash, wholesale and other transactions with gold, including standard gold bars. Principal share of operations in relation with the physically existed gold are provided between banks and specialized companies. Futures and optional trade on gold are concentrated at the stock exchanges.

Gold market is the field of economical relations, which are related with the sale and purchase of gold, accumulation-filling of the gold reserves of the country, organization of business, industrial consuming, etc.



**FIG. 1.1. EXAMPLES OF CLASSIFICATION OF FINANCIAL MARKETS**

Grounds to the most general division of financial market into the monetary and capital markets is the term of turnover of financial instruments. In the perspectives of the developed country they consider the instrument with the turnover term of less than one year to be the instrument of money market. Long-term instruments (more than five years) belong to the capital market. There is “limited field” with the term from one to five years related with middle-term instruments and markets. Generally, they belong to the capital market as well. Under the conditions of inflation and unformed financial market in our country, they attribute long-term instruments to those of having the period of turnover.

Therefore, limits between short- and long-term financial instruments, as that between monetary and capital markets are not clearly separated. Herewith, such allocation has deep economical content. Instruments of monetary market, in the first place serve for provision of current activities of economical subjects with floating sources. As for the instruments of capital market, they are related with the process of accumulation and long-term investments.

Main instruments of monetary market is treasury promissory notes, bank accepts and bank deposit certificates; as for the capital market – long-term bonds, shares and long-term loans.

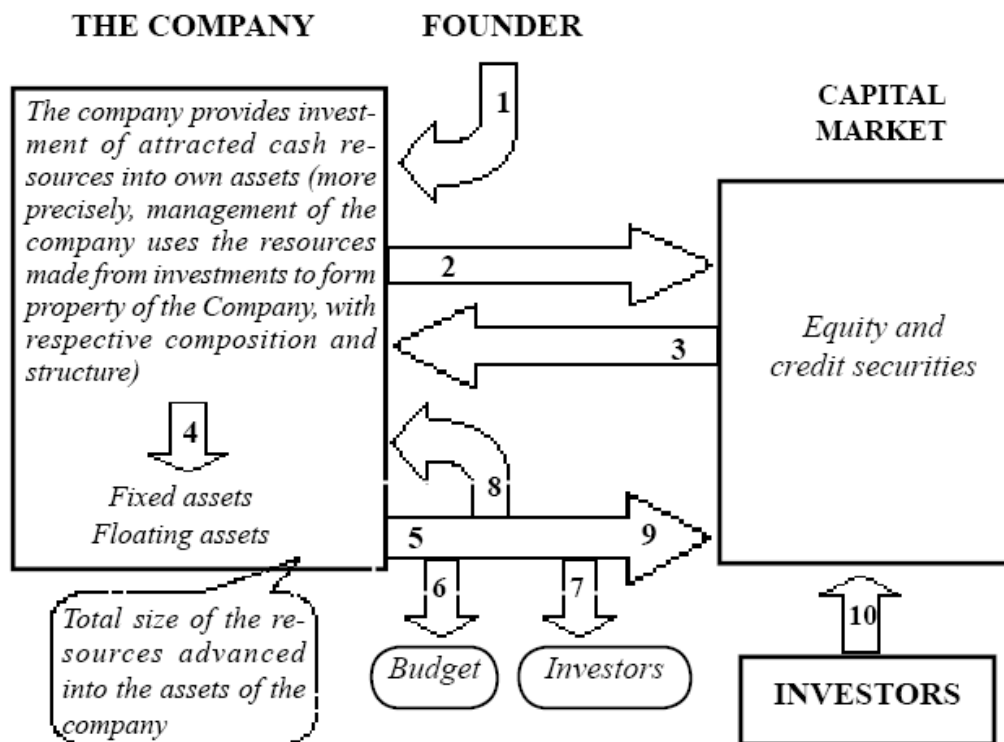
## CAPITAL MARKET

Capital market is the market, where long-term capitals and debt obligations are accumulated and circulated. This is principle kind of financial market, under the conditions of market economy, with the help of which the Companies are seeking for the sources of financing their activities. It may be divided into the exchanging market and bond or credit market.

The market of capital financial assets is an important segment of capital market, which includes stock and credit markets. The scheme of movement of cash flows of relatively common kind connecting a company with the capital market is represented in the Figure 1.2.

The represented scheme belongs to the joint stock company of open type, as well as the enterprises of other form of ownership. They also may have relation with the capital market and play the roles of investor and speculator.

The market of capital financial assets is divided into the primary and secondary markets. In the newest economical literature they also discuss the tertiary and quaternary financial markets<sup>13</sup>.



**FIG. 1.2. FINANCIAL FLOWS, CONNECTING COMPANIES WITH CAPITAL MARKETS**

<sup>13</sup> Gitman, Jonk, 2007. *Elements of Investment*. Translated into Georgian by L. Qoqiauri. Second edition. Tb.; Qoqiauri L. 2010. Investments. Tb.: GTU.

## PRIMARY MARKET

Primary Market of Securities is the market serving emission of the equity and credit securities and their primary placement. This is the market the companies receive necessary financial resources at by means of selling their securities. Entry into the market by the companies with own securities may be provided only by its inclusion into the listing of the stock exchange, which, in its turn, means performance of particular conditions by the company, in relation with the amount of the bonds and shares, as well as the level of capitalization and profit.

*Notice: logics of cash resources exists in the following:*

- 1. Funding business activities of the company at the expense of the capital of their founders (takes place in the process of formation and establishment of the company);*
- 2. The company enters into the market with its securities and for the purpose of formation of long-term resources of finances (periodically taking place and the stages of routine functioning of the company);*
- 3. Formation of the investors' resources, acquiring equity and debt securities emitted by the company, i.e. in exchange for the emitted securities, at first cash resources enter the market (taking place under the condition of the company's functioning in stabile regime, as the result of its moving to the exchanging market; there are the outcomes of following action):*
  - 4. Investment of obtained financial resources into the fixed assets and floating assets;*
  - 5. Generation of cash resources, as the outcome of successful operation of the company;*
  - 6. Payment of taxes determined by law and other transactions;*
  - 7. Payment for actual investors (owners and lenders) in the form of regular income accrued on them, according to the settlement of the reporting period; following are taken into account: a) dividends of owners (making part of the gross margin, composed of two components: profit of the reporting period and the profit reinvested into the company assets according to the outcomes of last periods) and b) interests to the lenders;*
  - 8. Reinvestment of the part of the profit into the assets of the company (i.e. cash resources are not distributed between the owners, but invested into the non-financial assets of the company);*
  - 9. Management of a part of profit in the form of financial investment (i.e. cash resources as outcome of profitable work are used for acquiring securities to create insurance reserve of cash equivalents or investment of temporarily free cash resources to make current income) at the capital market;*
  - 10. Management of the free cash resources to the capital markets.*



## **SECONDARY MARKET**

**Secondary market is intended for turnover of earlier emitted credit and equity securities.** At the Secondary market, the companies do not receive the resources directly. This market is extremely important as it allows receiving of cash resources invested into the securities by the investors, as well as the incomes from the operations related with them. The opportunity for reselling securities is based on the fact that initial investor with his/her right to own and manage securities and he/she is able to resell them to the investors. Existence of the secondary market, in its turn, stimulate activities of the primary market.

**Secondary markets** of finances remind us market of the used cars: they form opportunities for making money by selling “used” (so called earlier emitted) securities, with the difference that prices at the secondary market, as a rule, are higher than during its first placement. Purpose of the secondary markets of securities distribution of already existed resources between participants of the market, according to their requirements and opportunities. Thanks to the existence of the secondary market of finances, number of investors acquiring securities are increased at the primary markets.

When classifying financial markets, we shall name the markets of insurance polices, pension accounts and mortgage markets. These are special markets with their financial instruments and financial institutions – the establishment operating on the basis of agreements. With the amount of total financial assets they today are 1.5-times more than total assets of commercial banks, saving institutions and credit unions in the USA.

Investment policies of insurance companies and pension foundations are directed towards procurements of the long-term financial institutions of such term of repayment, which are the most close to their long-term obligations.

## **NECESSITY OF ALLOCATION OF THE MORTGAGE MARKET**

Numbers of conditions conditions necessity of allocation of mortgage market in the composition of the capital market. In the first place, mortgage credits are always warranties by real obligation of the land plots and buildings. If the borrower is illegible to perform, his/her credit obligations, proprietary rights existed on the warranty is transferred to the creditor. Another thin is that mortgage credits have no standard parameters (nominal values, repayment terms, etc.) and, relatively, it is complicated to sell them at the secondary market. This may be certified by the fact that the volume of secondary mortgage market is significantly lower that that

of the market of securities placed at the capital markets. And the third, mortgage markets, different from other capital markets, are strictly regulated by special governmental authorities in the developed states.

**Equity and credit securities** – these are the instruments for capital formation in long-term period. Besides this, there are operations of exchange nature (i.e. operations of forming company funds, as long-term resources of funding their activities), as well as those of short-term nature, particularly, from the point of making speculative income. This latest is provided by means of specially developed financial instruments, which are also securities, which are also sold at the special markets and are called derivatives, i.e. forward markets.

### **SECURITIES MARKET**

Securities market<sup>14</sup>, as the common concept of capital financial assets and derived securities, in its turn, is the market, divided into the exchange and non-exchange, termed and spot markets.

Exchanging market is the securities market, performed by the stock exchanges. The procedures of participation of the issuers, investors and intermediaries in the transaction, is determined by the stock exchanges themselves. Over-the-counter market is the market intended for circulation of these securities, which are not allowed to the stock-exchange, i.e. they didn't obtain permission for participation in official transactions at the stock-exchange. Due to the fact that terms of taking quoting are determined by the stock-exchange itself and they may be quite difficult for some issuers. There is over-the-counter market, where securities are circulated, which are not quoted at the stock exchange. Over-the-counter market may be quite capacious. For example, in 2006 shares of 4734 companies were being sold at the over-the-counter market NASDAQ in the USA, when capitalization of general market amounted to 7.4 trillion US Dollars (for information, total market capitalization for the companies, quotation of the shares of which takes place at the largest stock exchange of the world in New York for the year 2006, amounted 11.2 trillion US Dollars). At the exchanging market in the USA they sell: a) the most part of bonds of US companies; b) most part of governmental and local authorities; c) securities of open investment trusts (companies, which are able to issue additional shares in circulation on permanent basis); d) new issues of securities; e) large blocks of securities in case of their repeated placement.

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<sup>14</sup> We discuss this issues in more details in the Chapter VII here.

## **SPOT MARKET**

At the spot market, they provide exchange of cash resources on the assets during transactions. At the forward market, they provide transactions with forward contracts, foreseeing distribution of market assets in the future. Forward market, according to the financial instruments participating in it, in its turn, is divided into several segments: forward, future, optional markets and swap market.

For financial managers of typical entrepreneurial-commercial company securities market is of great interest, as, in the first place, status of securities of the company is considered to be the indicator of success of activities of investors; and second, securities market is principal source of additional and financial sources of the company activities (it is known that the Company – the issuer attracts funding at the primary market; as for the secondary market, there profit is made not by the issues of securities, but professional participants of the market).

Assessment of situation at the financial market is provided with the help of special indicators. Following rates belong to such indicators at the leading financial markets of the world: LIBOR (London Interbank Offered Rate); LIBID (London Interbank Bid Rate); FIBOR (Frankfurt Interbank Offer), etc. For example, LIBOR is the distribution rate (seller) at London Deposit Interbank Market and it is an important reference point for interest rates at the international capital market. It is considered with the formula of arithmetic middling (no weighing is provided by the size of certif. resources), for 11:00 by individual rate of the group of the leading banks of London. Consequently, LIBOR is the purchase's rate. In 1999, they established the indicators similar to those of the international bank credit market in post communistic states, namely MIBOR, MIBIO and MIACR.

Of course, other classifications of financial markets may be names as well, but the listing given here is quite enough to show abundance of the types these markets. Besides this, it is noteworthy that distinction between the markets are often erased and finally they are not very important, if we do not touch upon their principal features. For example, there is no essential distinction in the facts if the company raised loans for 11 months at the monetary market or for 13 months – at the capital market. We, of course, shall understand the distinction, existed between these two markets and not to draw a line between them.

Robust economy depends on effective outflow of capitals from the subjects creating savings to the companies and individuals, who are in need of these resources. For example, the Company

Carolina Power C Light is unable to increase capital and due to this fact, residents of the city of Reid (South Carolina) are to stand electricity deficit. The Johnsons have no sufficient resources to improve their housing conditions; Houck cannot use his savings profitably, etc. It is evident that the level of employment and productiveness of labor and, consequently, **life standards without financial markets would be much lower**, i.e. financial markets are essentially important to function successfully and effectively – not rapidly, but also with a little transactional expenditures.

In the Table 1.1 we give listing of relatively important instruments, with the help of which transactions are provided at the financial markets.

**Table 1.1**

**IMPORTANT INSTRUMENTS OF FINANCIAL MARKETS OF THE USA<sup>15</sup>**

<b>Instrument</b>	<b>Market segment</b>	<b>Issuer</b>
US treasury notes	Monetary	Issued by the treasury of USA for financing of governmental expenditures
Bank accepts	Monetary	Promised form of payment by the promissory notes warranted by the bank
Short-term commercial credit notes	Monetary	Issued by the companies of stable financial status. Ordinarily having large nominal
Bank depository certificates	Monetary	Issued by the large commercial banks. Ordinarily having large nominal
Relational funds of money market	Monetary	Investments into the short-term credit obligations
Term Euro-Dollar deposits	Monetary	Issued be the banks outside the USA
Consumer credit	Monetary	Issued by the banks, credit unions, financial companies
Bonds of USA treasury	Stock Monetary	Issued by the government of the USA
Mortgage securities	Stock	To be issued by the receivers of loans of different type, with the mortgages of real estates and other assets
Bonds of local governmental bonds	Stock Monetary	Issued by the governments of states and local governmental authorities for individual and institutional investors
Corporate bonds and leasing signatures	Stock	Issued by private companies for individual and institutional investors
Privileged shares	Stock	Issued by the corporations for individual and institutional investors
Ordinary shares	Stock	Issued by the corporations for individual and institutional investors

<sup>15</sup> Sometimes, they create fund of repayment of privileged shares at the expense of sources of which the company issues shares.

#### 1.4. MODERN TENDENCIES OF DEVELOPING FINANCIAL MARKETS

During last decades financial markets underwent many changes, Technological progress in computer and communication technologies, as well as globalization of bank and trade domains, gave rise to the reduction of influence of governmental authorities upon economical processes, activating competition in whole world. This is resulted in more efficient market with global relations; though, the market became more complicated that it was several years ago. Notwithstanding numbers of multiple important positive changes, leading financial institutions in multiple countries faced new difficulties. At one of the conferences, manager of US Federal Reserve System Mr. Alan Greenspan claims that modern financial markets use stresses of national economy from new and unexpected side, very rapidly and, sometimes instantly. To his mind, central bank of every state shall develop new methods of assessment and reduction of financial risks of functioning of global financial system. Large amount of capital transfers rapidly in whole world in respond to the changes of interest rates and currency exchange rates. And the transfer may damage national financial instruments and economies of strong countries.

##### GLOBALIZATION AND MARKET

Alongside to the growth of market globalization the necessity of large corporation of the authorities regulating separate countries were formed at the international level. The factors, complicating coordination of their activation, are: 1) Different structures of national bank systems and securities market; 2) development trend of creating conglomerates of rendering financial service in the Europe; 3) fear of some countries for losing its independent national monetary policy. Notwithstanding this, attempts of regulatory authorities of functioning of financial markets of different countries for uniting becomes more evident.

##### GROWTH OF SECURITIES MARKET

**Important trend of last years is more rapid growth of derived securities market.** Derivative is know to be financial instrument cost of which is derived from the price of market asset. Such security may be used for reduction of the risk, so for holding speculative games. Good example for reduction of the risk of using derived securities is the fact that net profit of importer from Japan is decreased in the USA, as soon as the exchange rate of Yen and US Dollar is reduced. In such case the company – the importer is able to reduce its risk if it purchases derived securities, conforming Yen to US Dollars. Such action is called hedging and its purpose is reduction of dependence on the risks of the company incomes, on the other hand, speculation with derivatives may give rise to

large profit, but it also rises the risk of investments. For example, Procter & Gamble lost 150 million Dollars from the operations with derivatives and the Company Orange County (California) was even bankrupted, after speculative operations of such securities by its treasurer.

Scales of securities and related transactions pose difficulties to the regulatory bodies, as well as groups of experts and members of the Congress. Chairman of the Federal Reserve System Alan Greenspan noted that theoretically derived securities shall allow the companies to manage their risks better, provided that this is implemented invisibly, to allow innovations “to surplus internal stability of global financial system” at their markets.

**Another important trend considers amendment of ownership structures of corporations**, whose shares are sold at the financial markets. Growth of the amount of the investors owning shares owned by the private shareholders, decreases percentage of corporate securities. How can these two events occur simultaneously at the same place? We shall find answer on this question, in confrontation between institutional and personal ownership on the shares. Today more than 48% of household industries provide investments in shares in the USA. In 1990, this index was 22%; though today 60% of shares belong to the pension funds, mutual funds and insurance companies; but they provided this indirectly, by participation in pension plans and mutual funds. In any case efficiency of the share market today influence greatly upon welfare of US citizens, as this took place earlier.

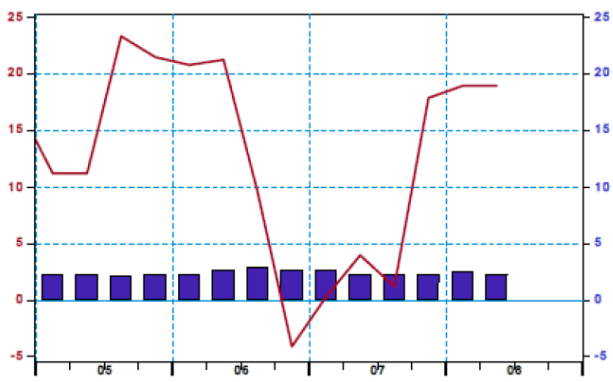
It is noteworthy that, today, the shares are owned by the institutional portfolio managers working in the above funds and companies. Also the fact that if the fund owns large package of shares of the given company, it may face significant fall of prices on such shares, when trying to sell them, in which they are not interested in. Thus, in particular, large institutional investors “freeze” packages of these shares in their portfolios. This phenomenon was named relationship investing, when managers of such funds are to act in the range of long-term strategic stockholders into the shares of the companies, with which they provide management. Different from the private passive shareholders, portfolio managers are able to influence actively upon the managers of the companies working badly and to make them work in accordance with the interests of such owners.

## **1.5. INFLUENCE OF GLOBAL FINANCIAL CRISIS UPON FINANCIAL MARKETS**

Massive deduction of credit rating started in April-May of 2007 and problem of liquidity at the banks (firsts at Northern Rock) and elimination of the influence of devaluation of the assets of

bank with the outcomes of lowering prices on real estates started from 2005 and finally, effect of bankrupting of the banks, turned into the phase of crisis in September, 2008.

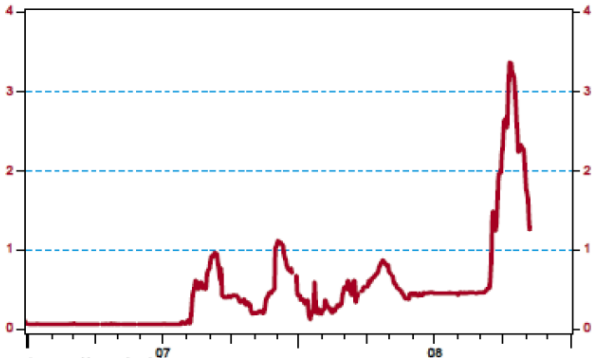
Financial sector affected significantly unprecedented rates of rising prices on utility products, which was sharply decreased after elimination of crisis and credit restriction (Figure 1.3).



**FIG. 1.3. INDEX OF CONSUMER PRICES (A) – BY ENERGY SECTOR 2004 – 100% AND (B) SO-CALLED “NET INFLATION” (CALCULATED WITHOUT FORESEEING CHANGES ON PRICES ON ENERGY-PRODUCTS)**

Compulsory high expenditures on oil products in the consumer structure affected savings of wide layers of population and, relatively, on the volume of investments; it also increased cost of the products. Consequently, request was limited with double-factor effect (second factor, which partially was formulated with the influence of the first one, deduction of corporation profit and deduction of prices on their securities). Particular mutually agreed attempts for using the levers of monetary-credit regulation by the central banks of separate countries, for the purpose of lowering prices on oil in 2007, gave rise to significant fluctuations of exchange rates taking into account tax balances. At the background of multi-dimensional different priorities and difficulties were reflected in the difference between interest rates. Rising prices on oil seemed to be reflected on purchase abilities of US Dollar in the first place, though increasing import of oil (monetary expression) in numbers of countries of the world, when transactions are conducted in US Dollars, gave rise to the growth of the demand on US currency and devaluation of Japanese Yen, Euro and Pound Sterling against it. By the time of starting deduction of prices on oil financial crisis was distributed outside USA, when presidential elections of the USA created expectation of turning situation to the favorable side. Today countries of the world reduce principal interest rates and distinction is reduced between them as well (Figure 1.4).

Securities market was significantly affected by devaluation of the credit derivatives of bank corporations and the companies included in the bank holdings, especially special companies established for the purpose of securitizing credits by banks (SPV) (SPV assets include bonds of commercial debt, namely, in this case, mostly of the mortgage credit debt bonds (CMO), which are securities warranted with one of the kinds of the assets (ABS) the totality of securities warranted with the mortgage (MBS). This is a kind of a pyramid, in which each security of following level was guaranteed only partially with the securities of lower level, and only guaranties for MBS were respective real estate, and partially. Deduction of prices on real estate devaluated securities of all levels.



**FIG. 1.4. LIBOR SPREAD BETWEEN OIS RATES**

**WHAT HAPPENS AT WALL-STREET**

Together with the banks, which can hardly count the loss inflicted from the sub prime credits and at the same time, issuing bonuses to the top managers, the experts of the financial domain often blame so-called Quarts in Wall-Street and global head financial centers. It is difficult to say how much may current processes conform to the opinion “a fish rots from the head down”. On the one hand, financial institute can not be blamed for aggressive crediting for maintenance of market share, if it is conditioned by the positive expectation, but following legal and regulatory norms. Exactly these regulations should not allow banks and other financial subjects to treat resources of depositories and other debtors so irresponsible and rudely, as the millions bit at Monte-Carlo casinos. Existed limits of regulation do not or can not conform to the new methods of risk management (regulatory norms, namely the ratio of conformity of weighted risk assets with the capital, norms of liquidity of reserve requirements, limits of open currency positions and opinions of other formal securities), development of credit derivatives and widening external



balance operations. Herewith, the scheme of bonus reimbursement of employees on which western financial institutes (of course, we do not consider only brokerage houses) are transferred, increase interest of agent in the growth of transaction volumes, i.e. by undertaking obligations with undesired conditions, investment into the high-risk assets or prediction data even with optimistic assessment; for example, with increased assessment of creditworthiness of potential borrower. This is the conflict of interest, when operation promises the customer growth of bonus, and endangers potential loss of the principal.

Let us return to the Quarts and their mathematical methods, which seems to be based on the exact sciences, but we shall recall sophisticated resistances, which are related, for example, with the conformity of two functions striving to one and the same figure or infinity, etc. which are controversial and is known with the name of indifference. It is a paradox but this is the detailing leading us to the most complicated and general concepts of science built on the elementary grounds – dichotomy of discreteness of space and time (this latest is recognized to be the universal in the philosophy). It is paradoxical, but **stroke of genius is in simplicity and saying with the words of Ilia, there are no little and big wonders**. Sophisticated models using the methods of multi-layered multi-variation analysis, often loose focus and their using in management of assets and obligations create new source of risk itself. Besides this most of these models stand far from elementary base and, respectively, outcomes of analysis are hardly perceptual and sometimes inessential. It is also noteworthy that during last several years programs of financial management are available online and their providers try to promote this product by annotation of complicated multidimensional schemes and incomplete promo versions. There are multiple cases of amateurish creativity. Part of managers of insufficient qualification sometimes use this software with blind trust. Except the problem of incorrect decision, we shall not forget the problem of evil intents of the managers and, generally, the employees or the problem of discourteous attitude. The attempts of misleading of market and/or shareholders to achieve desired purpose i.e. asymmetric information is important. Recently it took place in case of Societe Generale, when the management didn't pay respective attention to the current loss hoping that before preparation of audited annual (2008) reports would cover this problem from other reports, and than disappearance of 5 billion, which was notified to the stock exchange and employee was blamed. The trustfulness of the analyze based on the financial market data, more with using random models is to be understood – We trust the reader to make conclusions.

## **CAUSATIVE-CONSECUTIVE ASPECTS OF THE CRISIS**

And still, particularly, what is main virus, which created the syndrome of immunodeficiency and destructed entire economical body and its life-giving financial system, - only separate aspects of it may be shown, and with the diagnostics of the separately eliminated symptoms. According to the reasons and outcomes of the problems, we will connect and discuss relatively wide load; other aspects and reasons, relatively will be represented from the narrower side; i.e. we will not be able to recover causative-consecutive reality completely. Yet it is difficult for the human mind to understand complex domain with more than three dimensions, which is accepted and implemented with theoretical formulation in the computer models and systems of assessment and management. Insufficient quality of non-homogenous trust of financial managers in the products of imperfect cybernetics and virtual illusions of post-industrial economics born by scientific and technological revolution, and simulative computer models of portfolio management of other risks gave essential change to the perception of reality, dependence to the risks, future performance and unnatural directions of financial relations and scale-proportional management, turned into the main provoking factor.

It is extremely difficult to determine what happened first, financial crisis moved to the entire economy, or general economical problems sacrificed functioning of securities of trillions of US dollars. Direction of vector of these attitudes is represented according to the level of the problems discussed, i.e. direction of this vector in development of crisis is changed in dynamics. The problems of the credit rating of banking and credit organization and liquidity seemed to be less before detection of crisis, not because it the credit risks seemed not to be increased, but these risks were simply moved to the balance-free accounts. The reason is clear – in order to avoid using of the increased risk coefficient in calculation of weighted assets by risks on the regulatory demands. In exchange for hiding risks and debtor debts for the purpose of attracting liquid cash resources, using securitization and credit derivatives appeared to be extremely effective, and reaction of regulators appeared to be delayed and quite soft.

### **WHAT ROLE WAS PLAYED BY THE CHANGE OF PRICES ON REAL ESTATE?**

On the one hand, avoiding reductions related with the regulatory arbitrations and predictions based on the trends of economical growth of 10-15 years, encouraged credit managers to the extremely bold credit expansion. At the nominal stage gave rise to the consumer boom, increasing prices on residential apartments and growth of economics. At the background of increased

activities, corporations tried to increase cash flows for investment purposes by means of issuing shares, bonds and other debtor securities and searching for the potential investors (including inexperienced persons, who often search for securities by using internet not by their real profitability, but by the exchange rate, without serious risk-analyzing) with appearance of new corporations and complex securities. Bankruptcy of Enron faded attractiveness of debt securities of corporations, as Financial Balloon was swollen in direction to the credit organization and rapidly increasing credit sector of the economy was separated from the real economy. Formation of Credit Balloon is related with the formation of price balloons on the residential area; by means of availability of mortgage credits, could be continued until changing of situation at the market of real estate, though reduction of immigration in USA and Great Britain, deducted request on the residential apartments at these hugest markets. The banks were interested in rising prices on real estate. This may be explained with the following conditions: mortgage loans were guaranteed with the apartments to be purchased and, relatively, their market price determined existence and/or the size of possible loss on the credits in case of default of the borrowers, before expiration of the credit term, repayment or price of respective credit note or securities guaranteed with it. Interest of the creditor regarding increasing of price on real estate opposes to those of the borrower and, the main thing is, raising price on apartments during the time of credit purchase increases share of expenditures in the cash flows; cash resources of the borrower is an important component of his insolvency. Motivation of uninterrupted growth of prices on the real estate, and reduction of expenditures on credit-ability analyses of the borrower at the background of the diversity of borrowers and complication of competition between credit organizations conditioned focusing on guarantying mortgage credit and these priorities made creditability of the borrower in fact of secondary importance; Though, it should be the primary source of loan repayment and according to the requirements of the prudent law, as the means of loan repayment, shall be used only in the best cases. Though, banks do not violate this request, but making calculation not on repayment of loan in exchange for analyzing outcomes of its creditability (especially, with the respective cash resources), but basing on the decisions on the crediting means that index of default probability is quite high. Under the conditions of 2-3% growth of real sector of economy, and increasing proprietary differentiation, made it impossible to repay credit for more part of the increased number of the borrowers. The apartments transferred to the ownership of banks, the apartments were returned to the market of real estate.

Due to the increased distribution and increasing number of defaults, limiting issuance of mortgage credits gave rise to the catastrophic fall of prices on real estate. This, in its turn, considered reduction of guaranties on mortgage credits. The trend on price reduction and worsening quality of assets, which conditioned exacerbation of the problems of liquidity (during this period, reduction of credit rating, feared investors and hedge-funds), made the banks limit issuance of new credits till minimum. Issuing real estate was mostly provided by using mortgage loans and recession of construction sector followed this without it.

### **CONCLUSIONS ON THE REASONS FOR CREDIT CRISIS**

We formulated reasons for origination of the said and other problems, and particularly financial crisis in paragraphs and more details below:

During crediting, it was not evident to the credit experts if the candidate (future borrower) would be able to generate sufficient cash flows for repayment of the mortgage;

The hypothec almost completely covered the cost of the property to be purchases, i.e. there was a minimal participation of the borrower'

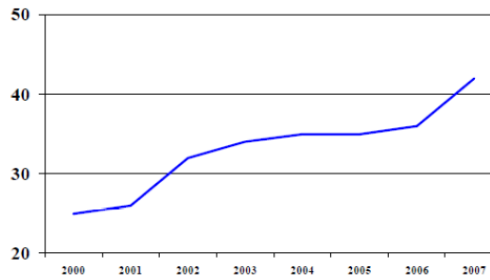
Interest rate on the loans of multiple kinds could be changed and increased sharply, which was not understood by everybody;

Often, the borrower used the mortgage loan for other purposes, to get cash;

Many credit officers and brokerage companies pushed potential borrowers and supported in creation of false profile (mask) of solvency, for the purpose of getting bonus, premium or commissions.

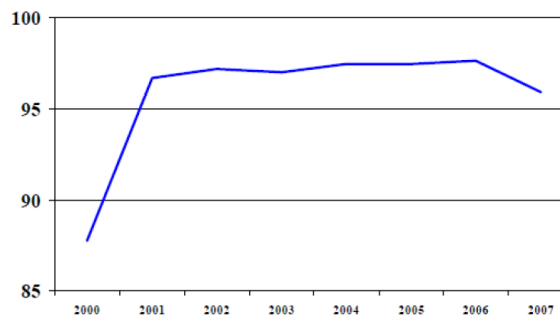
### **SUB-PRIME MORTGAGE. SUB-PRIME CREDITING**

We have already spoken about the issues of borrowing capacities of the borrowers in the section of the economy of expenditures and provision of the accent. We shall add here that analyzing incomes of the borrower became quite difficult. The problem is that, rapidly distributed network marketing, when reimbursement and incomes are not fixed and also development of virtual economy, when complexity of evaluation of human capital and, in the first place, managerial skills as driving forces for assessment of software and other intellectual valuables, as well as corporate relations conditioned frequent cases of making inadequate decisions. Herewith, banks try to disturb the potential borrowers with requesting documents less than their competitors; consequently, share of sub-prime mortgages of incomplete documentations was increased from 25% (in 2000) to 43% by the year 2007 (Figure 1.5).



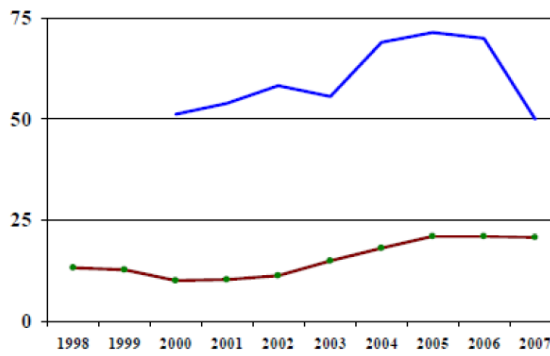
***FIG. 1.5. SUB-PRIME MORTGAGE WITH INCOMPLETE DOCUMENTATION  
(IN %, COMPARED WITH THE ENTIRE MORTGAGE)***

Sub-prime crediting requested crediting requested deduction of requests on participation in purchasing of an apartment by the borrower having low income, due to the fact of not having savings. Predictions of rising prices on apartments made sub-prime mortgage acceptable to the bank. Participation of the borrower in purchasing apartments with mortgage made 14% in 2000, though from the following year it was deducted to 4% and stopped on this level before the crisis. The said fact turned into the important stimulator of speculations (see the Figure 1.6).



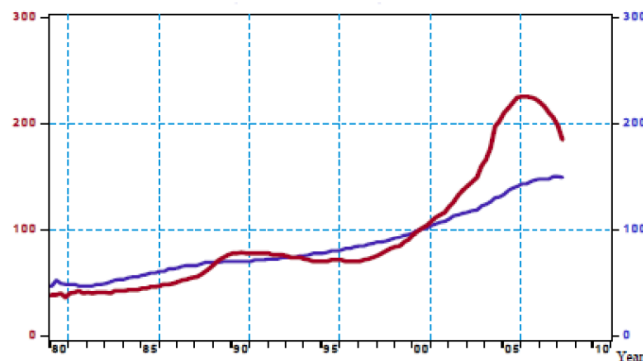
***FIG. 1.6. MORTGAGE LOAN/PRICE OF THE RESPECTIVE REAL ESTATE (%)***

Taking into account high crediting and mortgage and credit derivatives by issuing sub-prime credits (we mean fluctuations of 2001 at the market of real estate and the trend of falling prices on residential and commercial spaces from 2005, also increased expenditures on non-balance operations of managing respective risks and lowering prices on securities warranted with assets, based on the reduction of credit ratings) competence of market risk were provided by banks with the conditions of issuing variable rates of credit. If on the so-called prime mortgage it fluctuated from 10 to 23%, there was higher amplitude and lower limit of the sub-prime: 50%-70% (Figure 1.7).



**FIG. 1.7. SHARE OF VARIABLE-RATED MORTGAGE IN PRIME (A) AND SUB-PRIME (B) MORTGAGE CREDITS**

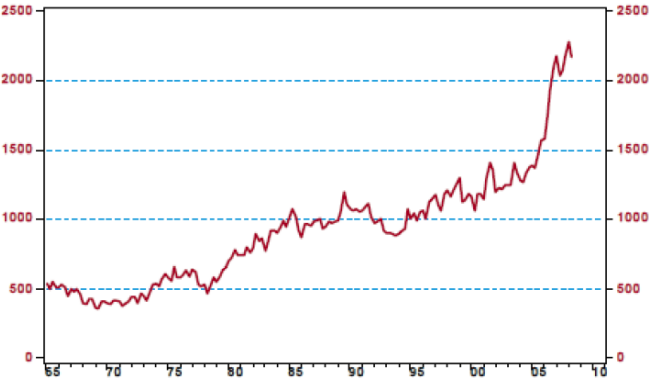
Generally, taking into account the risk of profitability characterizing RAROC models, we consider conceptual ground to be acceptable for crediting and generally, at the level of theoretical base of investment, as the criteria of granting priorities to the uniform creditors, or for selection of one of the investments projects, though we shall consider the way of guarantying and changing respective risks on the different sizes of interest rates. In case of large loans, growth of interest rate influences upon solvency of the counterparty directly and, almost, completely. However, actually, as we can see, interest request for the less solvent persons was higher, than in cases of prime mortgages (Figure 1.8).



**FIG. 1.8. RELATION OF INTEREST RATE ON THE SOLVENCY OF COUNTER PARTY**

It is noteworthy that due to the relation of large part of shares to be used in the form of guaranty in cases of business loans (pledge instead of the mortgage), the banks not only manipulate with

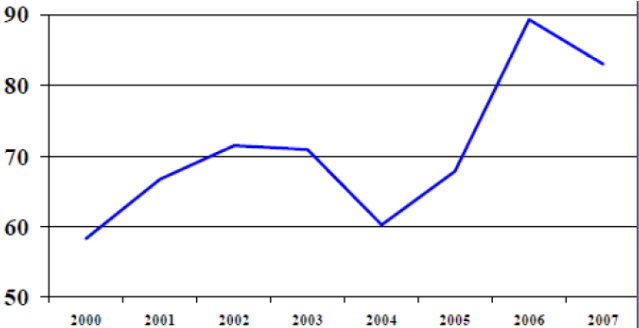
interest rates, but maximally analyze financial condition of business plans and companies. Herewith, opportunities of diversification by the kinds of business, more of the mortgage, are much more here. That is why credit crisis and sizes of defaults were more eliminated in relation with the mortgage; easily found guaranty, which, in all cases were real estate, moved under the ownership of the banks in cases of the default, and the banks they offered to the market, who provided reaction o increased distribution by lowering prices and the banks were unable to repay default by selling the mortgage. Herewith, due to the practice of selling so-called “air”, part of not built apartments were not built even at the moment of default. Construction boom was first replaced with stagnation and than recession became evident. We represent in the figure the dynamics of price indexes of residential houses, against the basic year of 2000. As you can see, after the peak of 2005 the prices were sharply decreased and the number of vacant residential apartments were increased (alongside with the reduction of new constructions this growth is continued at the expense of the apartments, seized mostly by the creditors and developers, which made the photo darker (Figure 1.9).



**FIG. 1.9. NUMBER OF VACANT RESIDENTIAL APARTMENTS (1000)**

Due to the fact of spoiling credits and aggravation of liquidity problem, part of the banks stopped crediting of other kind as well, or it made the conditions stricter. Many large banks underwent reorganization of complexities of securing regulative norms and capital and liquidity ratio; some of them were bankrupted. Since beginning of crisis in the USA number of commercial banks were reduced from 7280 to about 7000 (naming exact number is indefinite, as the processes of merger-union and bankruptcy of the banks is still in process). It became necessary to redeem the largest giants of the reserve system – Fannie Mae and Ginnie Mae.

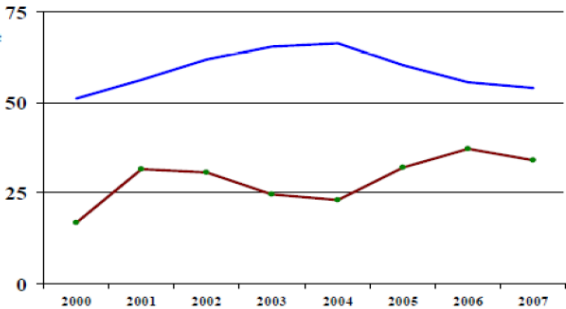
Widening of brokerage loans is one of the most important conditions the share of the so-called “wholesale loans” was increased from 60% of the year 2004 to the 90% of 2009. It’s natural that credit mediators (but only brokers and not dealers) are less interested in the warranty of credit repayment compared with the banks (Figure 1.10).



**FIG. 1.10. THE SHARE OF CREDITING IMPLEMENTED WITH BROKERAGE-WHOLESALE CHANNELS**

Interest of the credit officers in issuance of loans even to the less-solvent customers, was provoked by the bonus remuneration scheme by the issued credits, which we have already spoken about in previous Chapters.

Competition made the banks satisfy request of the borrowers, regarding crediting; the said conditions and deduction of the request on participation of the borrower gave the borrower opportunity for using the credit unreasonably (Figure 1.11), and gave rise to the destruction of the system (i.e. defaults of the system itself and insufficient assessment of its nature).



**FIG. 1.11. SHARE OF CASH CREDITING IN THE A) PRIME AND B) SUB-PRIME MORTGAGE LOANS**

15-year continuous economical raise made people think that it was possible to become rich without real growth of the production, commodity and service sectors. Financial sector became



colossal load to the real sector of economy. Today, real sector makes only 2-3% of entire financial transactions, and others – work inside the finances. Current global economical crisis in 80 years after Great Depression still prove that uncontrolled economy is being developed not only at the edge of maximal opportunities (as they are described by the preachers of apologetic, libertarian ideas of “invisible hand” of the market refusing opinions of Keins and other etatists (French for Etat - state), but it turned into such pyramid of extremely high proprietary difference, which stands upside-down<sup>16</sup> and light fluctuation threats for its destruction. For the collapse of this pyramid it was enough to cut the balancing thread and it was credit line of construction and banking giants (it is not necessary to consider Credit Line determined with banking terminologies), which was “laid” in the air. It shall be noted that construction of new residences took place with the scheme of financial pyramid, so that apartments of multistorey buildings were sold at the stage of casting of foundations. Of course, in case of real calculations, such relations are necessary for stimulation of economical growth, but when making predictions conservative of particular degree is necessary.

Analysts think that the problems of US mortgage market do not make only principal reason for present crisis. The mortgage is related with the real economy, which, in its turn, is an important instrument for the investment request. Mortgage debt amounts to 12-13 trillion US Dollars in the USA, and the volume of the world’s currency market transaction is 2 trillion US Dollars a day and only 4-5% of this are the transactions in real economy, and others are speculative money.

Scales of speculative transactions, are being increased with colossal speed – with 12-15% a year. Monetary system, which allowed such situation, cannot exist for a long time. This destructs the institute of private property, requiring real and not virtual money. The first signs of crisis, as a rule, are reflected at the banks, an only after this – on the sectors of real economy, and finally it transfers to the financial domain and budgetary system of the state. According to the analysts, today we are at the first stage of the Crisis.

As it is known, goods and services with the total cost of 50 trillion US Dollars are produced in the world every year. This sum opposes to the securities with the cost of 1.5 quadrillion US Dollars: governmental and private bonds, shares, promissory notes, etc.

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<sup>16</sup> In “standing upside-down” we mean that in the modern economy its such systemic component, as the totality of market instruments, is much bigger compared with its basis – real sector. According to Bloomberg’s analysts, goods and services with total price of 50 trillion US Dollars are produced in the world yearly; this is the sum opposing to the nominal of 1.5 quadrillion (quadrillion = one thousand trillion) US Dollars of securities: governmental and private bonds, shares, promissory notes, futures, options and financial derivatives of other names and conditions. According to the rating company Fitch, the volume of credit derivatives makes up 45 trillion US Dollars; as for the volume of credit securities market, during last 10 years it was increased from 350 million US Dollars up to 33 trillion US Dollars (as of the year 2008), subject to the certification of the British Banker’s Association (BBA).

This gave rise to the crisis of the “notorious” liquidity, i.e. there is an acute shortage of money in the global financial system<sup>17</sup>. Central banks of different countries started inflow of the billions of US Dollars to rescue financial system of the world. At the particular stage, this corrected the situation, but temporarily. **According to the opinions of some analysts, to feel this cursed pit of quadrillion and half US Dollars, cash resources of the central banks of the USA and Euro Zone will not be enough and pseudo-money, which are called securities, will not turn it into cash.**

#### **WHAT SHALL WE DO?!**

**To protect the world from the catastrophe, to the economical strategists’ and analysts’ mind, they shall work in two directions: to continue crediting of real economy and to maintain at least present level of consumers.**

The first direction is quite difficult, though necessary. New information regarding “economical catastrophe” are appearing every day, which is conditioned by the freezing of crediting. Financial structures want to deal only with the owners of cash, while the crisis emptied of crisis almost each of them. According to the experts, the only way out is inclusion of as much capital as possible into the economy. The volume of recapitalization shall be widened and state control shall become stricter in order to provide nationalization of important part of financial system temporarily and then, after settlement of the situation, to decentralize it. As an example to this, the experts name Switzerland, which returned its shares in banks after fighting the crisis of the 90s.

Because of the Crisis, complete or partial nationalization took place in the banks. Some time ago, Great Britain allocated 50 million Pound Sterling (about 64 billion Euros) for recapitalization of the largest British banks. Most part of this sum 37 billion Pound Sterling came on the following banks: Royal Bank of Scotland, HBOS and Lloyds TSB. In exchange of this, they planned transferring of shares from these companies to the government, including transfer of the control packages of two banks Royal Bank of Scotland and HBOS to the state. As they say, temporary nationalization of the banks will last for more time, than they supposed.

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<sup>17</sup> I hereby specify that analyze of Lora Tyson the advisor of US President’s Economical Team is radically different from the assessment of the lack of money supply, which she represented at the meeting with the students in Tbilisi. She seems to mean such securities and electronic assets together with the money aggregates, which play role of money during healthy relations. Though, when slowing economical activities and increasing risks, this role is not performed, i.e. such assets have no money functions and, relatively, I consider it to be inappropriate to identify them with money, similarly to their liquidity moving to zero under crisis conditions. Our conclusion is optional, as in the postindustrial economy they consider revival of money to be not turning money into cash, but its placement to the more convenient, electronic accounts (thus, the concept of liquidity at the modern stage of forming money and developing functions, requires new understanding). Herewith, notwithstanding the criticism (or specification), I agree with Mr. Tyson’s opinion. Let us remember that in the relatively stable assets, which in the most cases are the real estate, investment of money was activated exactly after “concerns” of the financial market of the years 2000-2001.

As we have said above, today we are only at the first stage of the Crisis, but, according to the economists, the situation will be deteriorated from the new year, which will involve many famous banks, industrial enterprises, laboratories and universities, working places, and finally destinies of people.

Situation in banking domain, though temporarily, but became better, though real sectors of economy remained without money. The banks do not issue money. This dangerous trend endangered not only real sectors of economy, but also separate states. Many countries leave only on the credits of the financial institutions and if the situation remains unchanged, such countries, as Pakistan, Argentina, Mexico, Hungary, the Ukraine and others will appear themselves under default. And not only these countries, even Island stood at the edge of realization of the default risk at the end of 2008 and it blamed financial institutes of the Great Britain in it.

### **THE METHODS OF “FIGHTING” AGAINST CRISIS**

Economical crisis is “treated” differently in different countries today.

In this or that field of economy, fighting crisis may be divided in three models (according to the inflow of sums):

**First**, when total sums are flown to the financial domain, i.e. what the USA did: they allocated 2.3 trillion US Dollars for supporting the banks and ten times less – for supporting real economy. Governments of Canada, Ireland, Netherland and Sweden are acting similarly.

**Second** model may be the method, when the government directs its attempts to the real sectors of the economy. Such way has been selected by the Socialistic China. Its government made investment into the infrastructure, agriculture and social domain. According to the analysts of the company Merrill Lynch, this was the reason for China is still attractive for the investors from all over the world.

Some countries try to support financial sector and real economy equally. This **third** model were appealed by the states after bad example of the USA. Many countries were sure that it would not be possible to overcome the crisis only with the help of the financial domain. Such countries my be Germany, France, Italy, Switzerland and Japan.

Leaders of the European Union declared about 200 billion support for the member states in November. They approved the said anti-crisis plan on December 12 in Brussels. According to the plan, every member state allocates about 1.5% of its own GDP. 30 Euros out of the 2000 billions will be allocated by Investment Bank of the Europe. In the declaration, they underline that EU

states can reduce taxation rates in different sectors of the economy according to their discretion and lower value added taxes. According to the agreement, EU union will not allow bankruptcy of any large financial organization. To maintain creditability of banks, the governments plant to purchase their shares. In other words, for stimulation of economical growth, European Union will provide coordinated activities for stimulation of economical growth.

According to the calculations of experts, leading states of the world have already spent 9.4 trillion US dollars for anti-crisis activities.<sup>18</sup> All kinds of cash resources spent for economical growth today, is justified. The expenditures, spent by the government for social programs and economical activities, may become heavy burden, but the expenditure, which will have to be spent for current inactivity, will be much larger load, than saved sums.

### **FRANCE AND CRISIS**

Numbers of the governments of European countries started inflow of cash resources directly into the economy. The President of France declared that during the following two years he would allocate 26 billion Euros for weakening of the Crisis. The Program, price of which makes to 1.3% of the GDP of France, should warranty at least 0.8% growth of GDP in the next year. The Plan foresees supporting companies at the expense of tax benefits and deductions in the amount of 11.4 billion Euros by means of stabilization of the cash flows. They also plan investment of 10.5 million Euros in infrastructure. After entering Euro into circulation, this year recession is noted for the first time – in the 2<sup>nd</sup> and 3<sup>rd</sup> quarters GDP fell for 0.2% and in the 4<sup>th</sup> quarter they consider growth of this data up to 0.5%. They allocated special subsidies for the most affected sector of the French industry – mechanical engineering and construction.

They plan investment of 4 billion Euros into the infrastructure, which includes projects of securities, medical studies, construction and maintenance of infrastructure objects. Additional 4 billion Euros will be received by the governmental energy and transport companies, and 1.8 billion Euros by the housing sector.

The President of France assumes that in 2009 deficit of French budget was increased in 3.9%. The experts fear that 26 billion Euros will not be enough for recovery of the economy, but participants of the market and the experts approve the decision. Though, it shall be noted, that **for investment of the billions from governmental resources, oppose to the traditional economical policy of France, according to which, stimulation of consumption has always been of great priority.**

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<sup>18</sup> **Source:** Investment Group “Renaissance Capital”.

## **GERMANY**

It is not long time since the Government of Germany provided numbers of activities for reviving economy of the Country, but in the beginning of December there appeared notices in German media that they keep active speaking about processing of new program for stimulation of the economy, though officials do not confirm this. If we believe to the German economical publications, representatives of governing party of Germany are engaged in the intensive dialogues with different ministries regarding the ways of supporting real sectors of the economy. According to the official sources, action plan of following stages has been announced in January, on the basis of which they summarized economical data of all four quarters of 2008.

## **ENGLAND**

Exacerbation of the economical crisis became the reason for reduction of the interest rate of the Unified Royal Central Bank from 3% to 2%. Lowering of the interest rate to 2% was last detected in Great Britain in the 50s of the last century. According to the experts' opinion, notwithstanding multiple billion injections into the economies of the EU states, it will not be possible to stop falling of the growth ratio during following 12-18 months. During the same period, instable prices will be maintained on the real estates and securities markets.

## **UNITED STATES OF AMERICA**

Government of the USA intends to hold numbers of activities not only for short-term stimulation of the economy, but it also plans to make such steps, which will make grounds to the economical growth in the long-term perspective. Management of the US Congress and Obama's economical team processed a package, with the approximate volume of 500 billion US Dollars. It supposedly include infrastructural projects and investments of various kinds, which will condition creation of new working places and economical rise. Even International Monetary Fund, which, as a rule, supported "budgetary restraints" and reduction of debts, calls the government for the increasing costs.

At the meeting of the Big Twenty in Washington, leaders of the world states agreed not to allow procrastination of global recession. With joint efforts, the countries planned to create particular global "New Course", which is similar to the program of costs started by the US President Franklin Roosevelt in 1933. This latest stopped Great Depression.

## **RUSSIA**

As for the Russia, the analysts think the resources not to be enough for maintenance the economy of state banks and that new instruments are to be activated for financing business. The sums, allocated for liquidity of the banking system, were not received by the real economy. This conclusion was made by the Russian experts after analyzing credit activities of the banks. As Moscow, so regional banks deducted financing of enterprises from 3.8% to 3.8% during last two years. In some cases this index is increased up to 6-8 and 15%. Managers of the banks declare that they deal not only with the insufficient amount of money, but also the fact that the situation is absolutely unpredictable and the depositors may start massive withdrawal of their money any time. This is why it is preferable for the banks to make less incomes, but to have cash at hand.

## **THE UKRAINE**

Exacerbation of crisis and moving to the second phase is of extreme danger for the Ukraine. 50% of GDP of this country comes on the export of raw materials. If speaking about separate fields, metallurgy and mechanic engineering make 70% in the GDP. This is where the problems of the Country are accumulated. The metallurgists have excess products and they do not know where to sell them today. The factories are being shut down one after another, which is followed by another problem in the form of unemployment. The Ukrainian analysts emphasize the condition that the banks of the Ukraine overcome financial crisis in particular way, but they do not finance real economy and think that such situation needs nonstandard receipt.

## **GEORGIA**

Government of Georgia started active conversations about the Crisis since 2009. Government of the Country promises business that assistance and support in coming out of the Crisis with minimal loss. Though “minimal loss” is a very optimistic formulation, as global economical crisis turned into another challenge to Georgia after the war. The experts first calculated outcomes of the war. Member of the World Bank Team – International Financial Corporation studies influence of the August War of 2008 on the private sector of Georgia. The study was held in 400 companies operating in Tbilisi, Kutaisi, Batumi, Gori, Zugdidi, Poti and Rustavi, which mostly worked at the construction, trade, transport, service and financial sectors. 77% of the surveyed were affected by the War. Number of employees in these companies was decreased in 3.3%. 55% of the entrepreneurs think that their incomes will not be changed during the following six months, and 33% hopes for the growth of their incomes.

In the first place, the Government intends supporting of such sectors of economy, where more people are employed. According to the President of Georgia, to promote construction business construction companies and developers will be given more than 1 billion US Dollars of financial resource to perform governmental orders in close future.

The experts fear that these orders will be received only by the so-called “privileged” companies. The experts approve support of the construction business and restructuring of the budgetary debt in general, but they consider them not to be enough to overcome problems existed in the construction business. Besides this, they emphasize that **everything is connected to each other in the economy. Due to this fact, it is impossible to support one field. Each segment of the economy shall be equally developed.**

Officially, there is no bank to recognize it, though it is impossible to start business with the help of the bank as by individuals, so legal entities. They stopped issuance of not only commercial, but also social credits, such as, for example, student loans. According to the President of Georgia, with the help of 400 million US Dollars out of 4.5 billions allocated for Georgia, will be spent n revival of the banking sector<sup>19</sup>.

December has always been favorite month for the American retailers, as consumers spent much money for gifts and Christmas decorations, though, according to the analysts, they do not expect growth of purchasing powers of customers this year, as financial crisis made Americans think about their expenditures.

#### **WHAT SHALL THE LEADING COUNTRIES BE WAITING FOR IN THE FOLLOWING YEARS?**

Though they do not mean general existence of the purchasers, and the sellers hope for the following months to be profitable. Thereto, shares of the retail companies, which have been fallen to the record level, may be increased.

“The phenomenon of the saved demand will play its role, as during last several months the customers have been trying to limit their expenditures and save money” – says the analyst of “Stifen Nicolaus” Mr. Richard Jaffe. Experts believe that this December was not similar to those of the last years, though the demand was increased for Christmas. Customers’ better attitude doesn’t change anything, as crediting conditions have become stricter and level of unemployment was increased.

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<sup>19</sup> Data is taken from the materials of central media of 2010-2012.

American sellers were the most supported by the fall of prices on oil worldwide, as at the background of cheapening of business, the customers are ready to spend more money on the gifts. It is absolutely possible to increase the volume of retail sales in December; though there are grounds for assumption that before middle period of the following year, this market will not be recovered.

The experts also note that demand on retail goods was increased at the end of 2008. The customers guess that prices will be decreased. The Americans think that in case of rising price of business and unemployment, the sellers will be affected as demand on their goods will be fallen to the lowest level.

The experts assume that 2009-2011 would be very hard from economical point of view. Most part of the developed economies are in danger of official recession; their debts will be higher and stricter. In this regard the year 2009 was the most difficult for the United Kingdom as well. Companies and customers will continue the trend of limiting expenditures and the index of unemployment will be sharply increased. Prices of the Pound Sterling, as well as commodities, energy resources, prices of shares in capital will be unstable, and it will be hard for the business and investors to plan future.

Many, and especially large businesses will not remain at the old position, and there will be new dilemma for the governments, which of them shall be rendered its service! It is remarkable that part of the large banks did not meet anti-crisis actions of the governmental assistance with huge euphoria; for example, Barclays Bank refused governmental cash assistance from the first announcer of anti-crisis plan Mr. Gordon Brown.

Due to two reasons, the situation will be different from that of the Second World War: one is global and principal reason, which exists in "bursting credit balloons". The population borrowed use sums, especially from the USA and the United Kingdom and the **problem of unrecovered debts gives rise to the fall of level of the life, but also slower activities of global financial economy as well. It fundamentally changes the model of capitalism.** In due course, the world will learn the way present situation was reflected on the relation of business and government, tax payers and private sector, employers and employees, and investors and companies. Importance of the economical crisis upon population of the world will become clearer and everybody will get assured that it will be more disastrous to than collapse of the communism.



## **ORIGINATION OF NEW CAPITALISM?!**

The experts consider arising of new capitalism from the ruins and notwithstanding the fact that it is impossible to determine work of newly built economy, light conjures of future are still detected. According to the main lines, it becomes possible to analyze negative sides of the existed model.

New capitalism may be extremely fair to many people and it may be less different from the model of the 30s, the way out is in more diplomatic, calm and less egoistic actions, which shall not be similar to the casino or action of the player, which receives entire profit.

Let us discuss incorrect methods of approach. For the United Kingdom – if we take debts of the consumers, corporate and foreign sector in total, ratio of loans is more for 300% of the annual economy productiveness, i.e. it is more than 4 000 billion Pound Sterling. There is same conformity of the loans with GDP; and this is the record!

During last annual decade, the population kept borrowing, borrowing and borrowing: the population thought that there will never come the day of repayment of the debt and that it would have the opportunity for repayment of one debt with another. Only in the United Kingdom, the volume of mortgage loans amounted 1200 billion Pound Sterling. Large companies borrowed much. It is noteworthy that during entire political chaos, the banks continued credit lines for small companies. They are unnoticed characters of the tale of the monumental financial non-judgment: even today, total savings of small companies overcome their debts.

Debts were accumulated in the United Kingdom. In 1997 volume of the total current foreign debt of the banks amounted 1 100 billion pound sterling, and in 2008 – 4 400 billion pound sterling.

This trend shows massive and ruthless growth of London City and the industry of financial service, which is being compressed in full force now. This costs working places and dying tax incomes to England.

Though this also shows that debts of the United Kingdom is of extreme volume, compared with the savings of other countries. China has specially massive saving and surplus, currencies of other Asian economies and middle east were used for purchasing assets abroad.

## **CRISIS AND CHINA**

Saying in one word, thousands of Chinese worked like slaves for low remuneration during last years and they are still able to make saving. This touches upon entire nation, and the individuals.

They worked for the Western people to rise their life styles, as it was necessary to increase number of employees and to reduce prices – clever bankers borrowed their savings to the westerners, and for this they could purchase houses, cars and flat screen TVs.

Balance between savings of China, India, Japan and Saudi Arabia and debts of the United Kingdom, as well as decomposition between their massive trade surplus and trade deficit of the United Kingdom will not last long. And today it's time for the Chinese eat a pie, which means that the westerners will have small pieces of the pie. Unfortunately, the Chinese work for the westerners tirelessly – or the West missed main purpose of their desired work. This is why recovery of the balance of global economy is so harmful, which make millions of people poor all around the world.

Scolding of the Minister of Finance of America Hank Paulson by the manager of the Central bank of China is quite expressive. Chinese manager says that high level of consumers and dependence on credits gives rise to the financial crisis of the USA, while it is the biggest and the most important economy of the world. For this reason, the USA shall summarize its policy, increase conformity of saving as a rule and limit trade and fiscal deficit.

This is quite evident statement from the side of China, i.e. they are not going to finance expenditures of the USA and the United Kingdom. They do not want to lend money and they shall be sure in the fact that the money lent by them will not be disappeared due to the hard debts and storm of inflation. The question, how much developed economies are to be pay until they return to some marking of stability is the most actual; and calculation is not easy.

One important figure, which may give the key, is the distinction between the sum lent by banks and borrowed by them from families, businesses and institutes, which will not become players at the financial market. They call this **destruction of the consumer fund of the English Bank, which is extremely important, as it shows degree of independence of British people against foreign funds, which are limited and may be even zeroed during times.** Gap of the consumer fund equaled to zero in 2001, but in July of 2009, according to the data of the English bank, this gap amounted 740 billion Pound Sterling. Typical British bank increased fund of each loan for 40%. The problem of British banks (and those of other countries) is that in August 2007 sources of the funds were dried out and nobody knows if it will have full swing again one day or not.

Fall of the sales market was the most annoying fact. Financial institutes of every country guessed that billion of US Dollars issued in the form of sub-primes to the house owners in

the USA stood at the edge of an abyss. There is a gap at the financial institutes; there was not a single player, to be sure in having no problems for the sub-prime. Their fear was justified in September of 2008, when treasury of the USA risked in case of one of the largest investment bank “Lehman Brothers”.

Bad working of the financial market stopped inflow of money from China; same shall be said about inflow of money from Asia and Middle East. In long-term period, this would be a very good, if such countries of large export would use more wealth, than they produced, for example, to create great opportunities to the western trade companies. Though in transitive period, this phenomenon will become fatal for the western financial markets as the funds take money from banks.

### **TAXES AND CRISIS**

After summer, large companies and financial institutions requested money back from the banks, which led the banking system to the crash. Western banks were not prepared, as they had issued entire money for the mortgage loans, consumers and companies.

Due to this fact, taxpayers were to simplify this breakthrough. During several months, British taxpayers took debts, obligations, and warranties. In Great Britain it is possible to increase the fund of the taxpayers in 1000 billion pound sterling, or more. Reason for this is that British banks still in contact with the British companies and households, who are in need of money and depend on the deposits and loans, which are taken from the British companies and residents. Most part of the credits was issued during the period of revival, and today the world suffers financial crisis. Asian and Middle East recalculation in the United Kingdom, Europe and the USA were not easy to transfer loans from the savings into debts. When they take loans for purchasing houses, or to develop private ownerships, or to finance hedge-funds, such loans made securities expensive. Due to this fact, the loans, conformity of which were increased with the securities became more actual. They concluded multiple transactions, and relatively gave rise to the costs of securities. In 2007, a person should borrow money to purchase company or a house, the lender was ready to lend almost 100% for purchasing. Securities and credits were interconnected. They “burst balloons” of both of them. Cheapening of the assts make the purchasers poorer (hedge-funds, private companies, banks...); they sell other assets cheaper to repay their debts.; this lowers prices of the assets and other borrowers suffer loss as well. When they are unable to repay bank debts, bank resources are exhausted, which means that availability of the credit is limited. Prices of the asset shall find support, which has not taken place

yet – until financial economy is able to get gear again and real economy is able to receive necessary financing; this is when the curing of the global economy starts. As for the alleviation of severity, they history shows that it is necessary to print money of colossal amount, which gives rise to inflation, reducing real cost of the debt.

Naturally, there are several questions – Who is guilty? Where will the policy of supporting banks by the taxpayers bring us?

Perhaps, everybody shall recognize that everybody is guilty in different degree. Governments of the USA and the United Kingdom knew well about the danger, which they faced by the trade deficit of China and other exporting nations. They could correct this deficit, if they used the policy of taxes and interest rates, to reduce much increased consuming. Though the governments decided to act differently, as at one glance this was a difficult case; the governments closed their eyes on the increased loans; while taxes were being entered into the treasury from the hypothec and financial sector; the industry of financial service was gaining name and glory worldwide.

#### **NORTHERN BANKING SYSTEM**

In 2006-2007 there appeared signs, which spoke about malfunction of the markets. For the young financial companies large loans were available very easily, which brought risks. Behavior of central bans is the last straw; unfortunately, Bank of England believed that explosion of credit growth and sharp growth of prices on the assets, would not damage everything after bursting this financial balloon.

The regulators behaved themselves carelessly, who didn't prevent formation of the northern banking system, where trillions of US Dollars were allocated for the long-term loans. Banks and bankers made mistake and didn't assess existed risks properly. Now they salvation in the global scales depends on the good will and the taxpayers. Support of the taxpayers to the banking system from Australia to the south Korea, Germany, France, United Kingdom and the USA make one-fourth the GDP of the world, i.e. it is more that 9 billion Pound Sterling. Due to the different reasons, we shall believe that during many years the taxpayers will not repay taken credit; this credit finances huge financial and trade balance between western and eastern economies. Herewith, if we become witnesses of the semi-permanent nationalization, the world will soon become the witness of the support of taxpayers to the real economy; and after this banks and private sectors will have to work hard to repay debt to their saviors; and these are millions of taxpayers.

## CRISIS LESSONS

It's time to make trade business more visible and to show how much it cares for the fortune of employees and taxpayers. 2009 was difficult and full of crisis. The best lesson was that it's long time till creation of such political and regulatory institutions, which would determine and understand the risk of globalization. The largest part of the world might make huge profit from the open global economy, but in the Europe, USA and Asia, millions of people lost their works; due to this fact profit made from the open global economy lost its attractiveness.

**If free movement of the capital, commodity and service overcome this crisis, if protection of national interests never appears in the front lines, to unite the nation for longer time, better model of monitoring global risks shall be developed and different governments shall care together about neutralization of these risks.**

Some may think that this opposes to the concept of national sovereignty and it moves to the global bureaucracy, but it becomes essential and necessary to conform traditional and global challenges, as these are the challenges, which will not be stopped.

It is generally agreed that central banks and governmental authorities know it quite well how to avoid acute economical crisis. Some think that because of the ability of the central bank to stabilize prices, the economy is not threatened. Besides this, they insist that in the 30s, due to the gold standard central banks lack required flexibility for avoidance of huge depression. Though now central banks do not have this problem. If creation of perspectives require flexibility of monetary policy and nothing more, than why the countries suffer acute economical poverty. Today each central bank is able to carry out "flexible" monetary policy.

**By imitating Keins, many economists seem to believe that money can support economical growth. This theory approximately sounds this way: more money gives rise to more demand on the goods, which, in its turn, will increase distribution of goods and the economy will become prosperous itself.** They forget that more money may weaken the economy and not strengthen it, as attempts for artificial filling of the "money pit" may become only into the generators of the expenditures. The politicians and managers of the central bank do not like inflexible gold standard, but according to some experts, to maintain stability and recover reliance, this is what the world economy is in need of. Modern financial system is exactly based on the trust and it is oriented towards expectation.

Making decision is complicated by the fact that currency-financial relations stands far from

the so-called real economy and the volume of fictitious capital is being developed in the form of separate industry in huge scales; change of the financial and other indexes is largely spontaneous and using financial levers for the existence of firm basis is considered to be vain attempts. It's difficult to find such supports, based on which it will be difficult to rescue financial-economical domain from massive collapse; herewith theoretical concepts brings us in a position of Archimedes, who said: give me the supporting point and I will lift up the earth. "Eureka" sounds polyphonic from the different experts, though which of them will have real effect or the interest of which layer will be satisfied – this is difficult to assess in advance. Making joint systemic decisions requires agreement of the common advantages. Until than the decisions are directed to the neglected gold standard on the micro-level; for example, Gold Deposit offered by TBC Bank would be a good example of it. Limitation of credit issuance is the selection of almost every regulators of the world, but according to the words of the expert of economics Mohammad Yunus: "the right of taking credits is fundamental human right". Every coin has two sides (it's an interesting coincide: in Egyptian mythology we meet the bifacial God Yunus) and for compensation of it is purposeful to increase budgetary expenditures, though central banks minimize interests rates.

## **1.6. PECULIARITIES OF INVESTMENTS CRISIS IN GEORGIA**

It is impossible to characterize expressly the situation created in Georgia. On the one hand, it may be considered as its limit, below which degradation of economical potential takes place, on the other hand, as springboard providing dynamical development under the qualitatively new conditions, to take the country to the direction of stabilization and economical growth.

It is noteworthy that method of approach to the implementation of reforms directed to the spontaneous entering of market relations and global economy was accepted without respective certification. These "kind" intentions of liberalize prices spontaneously may not have any justification, economically unmanaged privatization, decomposition of governmental system of management and regulation and other directive activities of liquidation of old social-economical systems, seem to bring us to the free, civilized entrepreneurship and effective market economy.

The crisis appeared to be the outcome of the complex of multiple reasons, out of which we

shall allocate hard economical heritage of the USSR, and new acute problems formed by means of economical reform. After collapse of the complex of the USSR and its joint public farming, Georgia, similar to all former subjects of the USSR, inherited economical system, which had specifically oriented sectoral structure, disconnected industrial connections, and destructed financial system. This was accompanied with the absolute absence of the legislative base required for formation of the experience of market relation and new grounds of the economy. Besides this, the Country inherited paralyzed economy and administrative-bureaucratic system of its management, which neglected market mechanisms and regulations and stopping scientific-technological progress. Incomes made by export of goods allowed only temporary and partial filling of the increased deficit of the goods, which spoke of the dangerous strengthening of the existed structural disproportions. All these shall be added with the economical outcomes of the collapse of the USSR, which has been earlier developed into the public economical complex. Disorganization of economical relations of Georgia with former Soviet states, turned into the principal reason of economical difficulties at the first stage of realization of economical reforms implemented in the country in the 90s.

Herewith, it would be incorrect to bring reasons of economical collapse only to this level. Outcomes of the implemented economical reforms were of the same importance, as they gave rise to new economical obstacles and disproportions. Negative role was played by the prompt scaled transformation performed within the frameworks of economical reforms and declining of the regulatory role of the government in the process of economical reform. Calculations were quite primitive: new market mechanisms, or simply – the market, will remedy the situation itself, remove disproportions, and provide transfer to the sustainable growth. Herewith, they didn't consider economical development of the world and especially, important experience of economical functioning of the regulated, socially oriented market. They neglected elements of economical democracy, as well as modern parameters of relations of distribution, when global economical crisis of 1929-1933 clearly showed that the mechanisms of self-regulation creating them can not come out of the crisis and form the system of macro-economical regulation.

Macro-economical regulation of the country is not spontaneous, but it is a purposeful, regulated process, which is integral part of accurate processing and realization of transformation strategies and particular plans of the reforms based on it. Uncertainty of purposes and goals, as well as stages, forms and methods of implementation are particular to it. **As for the reforms implemented in**

**Georgia, absence of such strategy became its peculiarity, which made the situation harder.**

It's evident that doctrine of the strategy should take into account global experience of the forms and functions of market economy, as well as whole complex of national-specific conditions of Georgia. This didn't take place: they took only one version of the pattern of the reach foreign experience, which was considered primitively.

Radical economical reforms implemented during transitive period, as well as the course towards democratization of Georgia and attempts of integration into the global economical community, created real preconditions to the creation and functioning of the investment market.

Due to the fact that the economy of Georgia is the part of global economy, global financial crisis, of course, affected the economy of Georgia as well and the country faced multiple challenges. Initial outcomes of the Crisis were already evident in the beginning of 2009 and it was being deepened during a year.

Principal conditioning factor of economical growth of Georgia during last years was permanent growth of private capital flows from foreign countries (direct foreign investments and bank credits) and budgetary sources. Herewith, deduction of direct foreign investment flows and bank credits were important factors preventing economical growth in 2009. Before global economical crisis government of Georgia predicted nominal GDP in the amount of 21535.9 million Georgian Lari, while after the affect of the Crisis prediction is 21308.7 million Lari (they assume deductions of 227.2 million Lari, which is reduction of 1.05%).<sup>20</sup> Growth of real GDP at the initial stage was predicted to be 4.0%, while after detection of the outcomes of crisis they predict 2.5% growth. In 2008 growth of real GDP, instead of the planned 8% will be only 2.0% according to the predictions of the Government. Though, real situation ay be more pessimistic and achievement of 2% growth may be possible only by directing financing received from the donors to the arrangements providing high economical activities.

#### **WHAT REDUCTION OF INVESTMENTS IS CONNECTED WITH?**

The process of significant reduction of investments in Georgia started after August war. At the current stage we also have the trend of reduction of investments originated with the global financial crisis. It is also related with the expiration of the list of the large object to be privatized

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<sup>20</sup> Digital material is taken from the magazines: "Sakartvelos Ekonomika", "Biznesi da Kanonmdebloba", economical parts of the newspapers: "24 Saati" and "Kviris Palitra".



in Georgia, and small privatization objects can not create important nature.

Subject to the package of the economical stimulation package planned by the government, investments into the infrastructure gives rise to the potential share of the consumption of the Gross Domestic Product and the components of state procurements are significantly increased, and the component of investments will be reduced, which finally leads us to unfavorable distribution. Production delay will increase negative balance between export-import and, respectively, negative index of the net export was increased.

As a rule, reduction of GDP and investment flows make principle factors of reduction of budgetary incomes. In short-term period, this is added with the budgetary losses provoked by reduction of taxes (in this case, we mean lowering rate of income tax from 25% to 20%). Notwithstanding this, Government of Georgia assumes growth of the total budgetary incomes. At the background of the significantly reduced economical activities, reduction of the budgetary incomes took place.

#### **LACK OF FINANCIAL RESOURCES FOR BANKS TURNED INTO THE GLOBAL PROBLEM**

Most part of the banks of Georgia took financial resources from the foreign banks, which it issued to the Georgian customers with the increased interest rate.

Increasing interest rate on credits by the banks existed in Georgia in 2008, was conditioned by the growth of rates on the international credits and high indicators of real inflation existed in Georgia. Credit boom existed recently, as well as covering inconformity of deposits and credits, gives rise to the strengthening of banking risks. Herewith, if we take into account the fact that the banks operating in Georgia issue credits exactly to mortgage goods (to the construction companies for construction of the real estate, and to the individuals and legal entities – to purchase real estate), issuing credits to the construction sector turned into the extremely risky case.

Subject to the trend of general increasing of prices, purchase ability of population is being falling down on daily basis. Due to this fact, less people appeal banking institutions for taking loan with the increased interest rate. Many construction companies face the risks of bankruptcy or reduction of activities, and for this they appeal banking institutions in relatively seldom occasions. Herewith, subject to the crisis existed in different domains, banking field appeared to be one of the most sensible in Georgia and this field is not in the best situation today. Consequently, the year 2009

was extremely difficult for the banking sector in Georgia and especially in the first part of the year important changes of conjuncture took place.

Global financial crisis was followed by the growth of prices at the world market and, relatively, restriction of consuming. This trend will be continued in particular way in the future.

Most part of the products of the consuming basket of Georgian population is imported, and index of inflation in the partner and neighboring countries of Georgia is quite high. Growth of prices will be also provoked by with some activities carried out by the government, as it happened in 2008.

After august war, and later in the period of deepening financial crisis, many employed lost job. Termination of issuing credits by banks especially damaged construction and car sale businesses. Construction business was, in fact, stopped and subject to the problems of banking domain, the banks significantly decreased their credit portfolio. Consequently, several thousand employees were dismissed from the different banks and construction companies of Georgia, and thus increasing critically high rate of unemployment.

During last years, poverty was being continuously increased. Even before August war and beginning of the global financial crisis, number of people being below poverty level was more than 1 million. Due to the increased unemployment and growth of prices on consumer products, increasing of the poverty rate was continued in the following years.

#### **THE PROBLEMS PROVOKING CRISIS**

Financial sector was the mostly influenced by the August War – investors were frightened, deposits were limited in the banks, money was mostly withheld by large depositors, which gave rise to the problem of liquidator to the banks.

The war deepened the problems, which existed in the banking sector since April. Dangerous signs appeared in spring and people started withdrawal of money from their accounts. Georgia itself had great deficit of current accounts. There is quite negative figure expressed in US Dollars between income made from export and the sum, which we spend on the import. This distinction was partially filled by the direct foreign investments and the moneys transferred by the citizens of Georgia, who travel abroad to work. Flow of investments was reduced after August War. Amount of transferred money was reduced as well. Today this increased distinction shall be reduced with the assistance, expected by Georgia from donors.

#### **PROBLEMS OF BANKING SECTOR**

In the beginning of 2008 and in spring banks issued great number of consumer loans, credit purchases quite easily. This was the money, which were directed to the pockets of the consumers and spent after this. This supported growth of inflation and in spring it became more than 12% limit. The banks felt the problems in spring and started limitation of credits of this type, but, unfortunately, they limited financing of business as well, which gave rise to the economical problems. Soon liquidity problems appeared, which became harder in August and September. During last time, issuing loans to the businesses was partially recovered, but they are still careful and issue money only to the reliable enterprises. Principal function of each bank, to issue loan for good price. At the same time, credit risk is principal risk for banks and it needs correct management. That is why they are carefully when issuing loan.

Issuing great number of credits by banks was added by selling air by the construction companies and this turned into the systematic crisis. It appeared that they took money from the population. This created great risk, which would be complicated sooner or later. Fortunately this dangerous process was stopped in timely manner and didn't turn into the broader problem. The banks received assistance, as from the banks, so foreign financial institutions and partially settled the problem of liquidity. They reduce expenditures for avoidance of future problems, which is correct decision; and their partners are large international institutions rendering financially assistance. The government has sufficient resource to support the banks.

### **DONORS AND GEORGIA**

Important fact of the year 2008 was allocation of 4.5 million US Dollars without interest by the USA and Europe. After the Second World War to reconstruct ruined Europe 2.5 billion US Dollars were considered with the so-called "**Marshal's Plan**" and this sum was distributed between 17 countries in the Europe. With the help of this assistance, 30% growth was detected in the economy of the Europe after three years. US Dollar of those times was much stable, though, notwithstanding this, the support promised to Georgia is much more large-scale than that of the **Marshal's Plan**. Herewith, this assistant makes foreign investor believe that investment of money is justified here, and he/she knows that during this period there are cheap prices, which would be the additional stimulus. Signing Agreement of Cooperation will support strengthening beliefs of the investor.

### **THE METHODS OF USING ASSISTANCE**

Part of the money, of course, is directed to the social protection. Larger share shall be used for development of infrastructure. This will create working places – to lay a road, somebody shall work there. Though it shall be preliminarily determined that the said sum of money will give particular production after definite period of time, if the sum goes directly to the pockets of people, to spend at the shop and there will be many of them, the prices will be increased; though, if the product is made, it will not give rise to the inflation.

Part of the money shall be used for improvement of liquidity of the banks, under the strict regulation and supervision. In the first place, the banks shall be reliable. The government will not be able to create manufacturing facilities itself; it shall support business by means of the bank; support increasing of business crediting. The government is eligible to issue the said sums with the governmental warranties and respective insurance; also to offer foreign investors – you run business and I will undertake insurance of political risks.

#### **WHAT RESULT SHALL WE GET?**

After reduction of income, the companies were to save costs. In the first place, they started de-hiring and reduction of marketing costs. Restriction of credit purchase services will limit sales of the retailers, though temporarily. They will find other ways to increase sales. Some of them will be closed; this is the market principal, and others will make business. It will be developed in the better direction. Main thing is to keep such actions from becoming massive. The people, who loose job, will find other alternatives. We have been under such situation. It is not new and they will find the way out easily. Donors' financial support shall be used for reduction of such negative influence. The government will not become private organization; it will not be able to build bread factory with own balance, but it will support the business, to simplify tax regime, lowering rates, caring for attraction of investors.

#### **WHAT IS IN STORE FOR LARI?**

Negative balance between export and import shall be financed somehow. We have limited export, neither oil, nor other natural resources. Everything exported is of too little amount. Consequently, there is high demand on US Dollars, and the national bank was to satisfy it with the currency reserves. The reserves are not endless and national bank decided to bind Lari to the Dollar lightly and follow its rate. They held rate of Lari artificially and it was far from the real balance. Finally, they were to lower rate of Lari and reduce demand on US Dollar. Rate of Lari against European currency is determined with correlation of Euro and US Dollars.

If not this, somebody will buy Euro, exchange it on US Dollars, and then convert into Georgian Lari and make money.

At the international market many factors influence upon rate of US Dollar and Euro. Today US Dollar is weakened at the international market. Its rate will depend on the period, the problems remain on the US market. Crisis became relatively weaker in 2009-2011 and the investors had interest in cheap assets, and US Dollar became stronger.

Though during last years situation became worse at the global market. Sharp fluctuations will not reach Georgia, as it has no capital market. We didn't have deep problems. If crisis continues longer, for 2-3 years, the problems will reach us too. If crisis was completed in several months at the foreign market, we would not feel it at all. We think, improvement of the situation will need several years.

#### **WHY THE GOVERNMENT BECAME MAIN INVESTOR?**

Taking into account number of population of the country and their purchase abilities, Georgia is a small market and interest of foreign investors is very low. In the first place, the country shall be profitable from financial point of view and only after this they shall provide detailed analyze of existed political and business risks in Georgia.

They declare tenders; continue the program of road rehabilitation. Economical projects will be activated even at the agricultural sector. The perspective of opening markets of European Union and the United State of America is actual, which, at this stage, is only the matter of discussion. The experts evaluate this initiative of government to be critical and require well-established and well-calculated economical strategy. The business damaged by means of war and financial crisis expects for establishment of temporary tax benefits regime, availability of cheap credit and finding foreign and local investments. As it is known, 5-day war mostly affected banking, construction, tourist and industrial sectors. There are signs of crisis in trade and service domains as well. According to those, employed in these sectors, there already is the demand on cheap products.

#### **WHAT HAPPENS IN THE DEVELOPING COUNTRIES?**

In liberal-democratic countries, other countries of liberal democracies easily make investments. Notwithstanding the fact that democratic countries are significantly different, there is less difference between them than there between undemocratic regimes. Difference between undemocratic regimes is much diverse and each such country needs specific treatment, as frequent change of political and economical institutions, changes business environment entirely.

There are the companies, which exist by establishing political risks on different countries and this got strictly structural appearance. They discuss separately foreign political factors, such as having large and strong neighbors, which are able to influence upon economical situation existed in such country; discussing bureaucratic quality, order of state regime, stability, level of urbanization and macro-economical factors, such as pricing policy, etc.

Though, profit during political risk may be high. Zaire, Republic of Congo, one of the most corrupted countries in the world. Notwithstanding this, huge investments were placed in these countries, especially by the resource companies. They had strong relations with Mobutu regime, but this was still a high risk, as these companies had high expenditures due to the corruption. Having very close relation with the government is high risk, revolutionary overthrowing of which give significant reduction to the opportunities of given company or a firm, to continue successful business in such country. They, as a rule, loose completely their assets and privileges after revolution.

There are several ratings of political risks. Financial ratings are more famous: FITCi, Standard ad Poor, International Risk Group, making bigger accent on the political risks. Pitch granted BB rating to Georgia. Conclusion is that we are still in trade rating and hope for getting investment rating soon.<sup>21</sup> Trade rating means that it is recommended to carry out trade relations in such countries; i.e. sort-term business cooperation will be guarantied to be completed successfully. According to our observation, every country will implement their financial obligations within reasonable terms, if there is no force-majeure situation. Three B is an investment level, i.e. the country, where long-term investments may be provided. Moving to the investment marking means that such country will fulfill its obligations, by no means. Though there are exceptional cases as well. For example, the country accepted as that of the investment level, will appear at the end of the table, in the range of the bankrupt within the period of one month. Such were Malaysia and Indonesia during South-Eastern Asia Crisis. That is why they often say about such companies that they do not often determine micro-risks. Georgia has entered this system of risks 2-3 years ago. Before that, Georgia didn't even get the grading. These companies have assessed about 120-125 countries. They didn't assess other countries, as it doesn't worth it.

#### **WHY IS NOT GEORGIA ATTRACTIVE**

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<sup>21</sup> We will offer materials about new Standard and Poor ratings at the end of the book.

## TO THE INVESTORS TODAY?

It is known that businessman places financial profit above political risk. The country, where annual profit is not more than 3% of the invested money, is useless for any businesspersons. Otherwise, they prefer to place the money to the bank of Switzerland, where he/she will get guaranteed 7%. Today international business is more interested in Hong Kong and Taiwan than in Georgia. Political risks of business are different from the financial risks. It is related with the macro-economical and macro-political phenomenon, which business can not influence upon.

Such risks are: changing legislation, corruption, ineffective bureaucracy, inflation. **They call political risk generally risk of the country, i.e. the risk existed inside the country.** If foreign company knows its own environmental conditions, legislation existed there, supremacy of law and, especially, civil legislation and he/she has understood it and plans business respectively, he/she appears himself/herself under absolutely different domain, when moving to another country and, respectively, another culture.

## DIRECT INVESTMENTS TODAY

The level of investments entering the country gives answers to many questions – how stable the country is, what is its economical policy, investment surrounding, perspective of its economical and sectoral growth, etc.

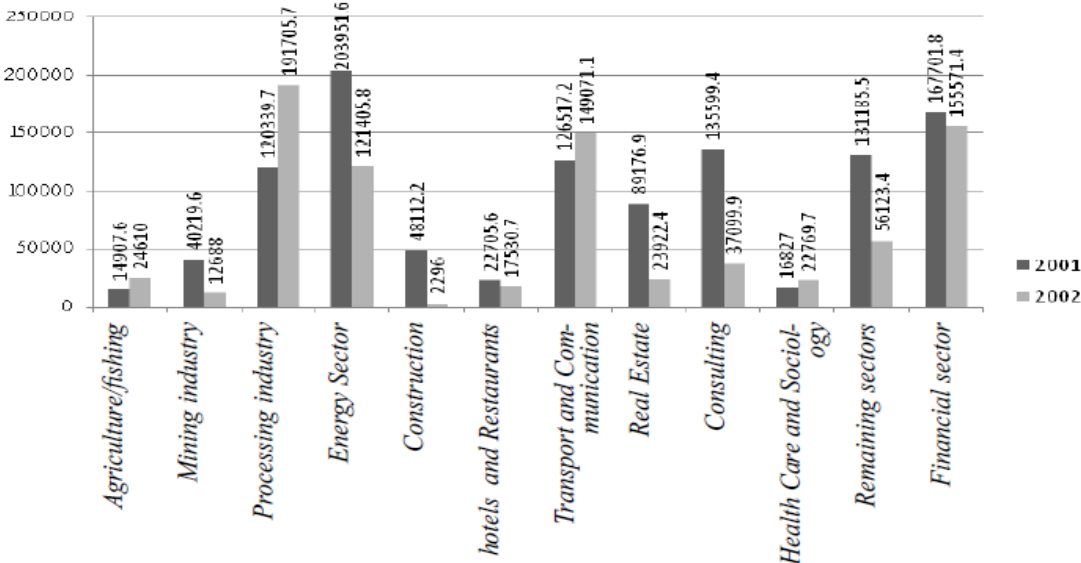
The level of investments entering the country gives answers to many questions – how stable the country is, what is its economical policy, investment surrounding, perspective of its economical and sectoral growth, etc.

In this regard, it is interesting to know preliminary data of the national service of Georgian statistics regarding the volume of direct foreign investments implemented in Georgia: according to these data, direct investments amounted 865 million US Dollars in 2012. This is 23 percents less than specified data of 2011 and 6 percents more, than those of 2010. The largest flows of direct foreign investments entered Georgia in 2007. Compared with these data, indexes of 2012, of course, look more modest.

Observing sectors of investments in 2011-2012, we will see that during last years energy was leading domain; it is followed by the processing industry, financial sector and transport and communication. Special reduction of investment expenditures touches upon every field of industry of 2012, except processing industry and transport and communication, (mostly governmental

investments); there is light growth in the field of agriculture/fishing and health care. This latest shall mostly be related with the obligations undertaken by the companies before the government – the project of building hospitals. Dynamics of direct investments by sectors in the years 2011-2012 are following (Figure 1.12).

Investments discussed in sectoral section speak about the fields, which are developed in the country today. Besides this, dynamics of direct foreign investments by years give good image about interrelation of political life, reforms, stability, predicted future and scales of investments of the country.



**FIG. 1.12. DYNAMICS OF DIRECT INVESTMENTS BY SECTORS**

The Figure shows that two years following Rose Revolution was not easy for Georgia. During the first year particular growth of investments was detected (compared with the data of the year of 2003), though third-fourth years from coming of new government (2006-2007) differs in the investment boom. These were the years, when reforms carried out by the government expressed future image and direction of the country.

Started from the end of 2007, including 2008 Georgia had one of the hardest political and economical year – protests, presidential and parliamentary elections, August war and global economical crisis; these factors were absolutely enough for bring scales of investments in Georgia to the minimum. Reviewing charts speaks of reduction of investments. Overcoming serious crash was possible with the help of financial support allocated for Georgia by the donors



after the war of 2008. Otherwise, this year could turn into the one at the lowest marking with investments for Georgia.

Since 2009 direct investments of Georgia is characterized with the growth of 200-300 million. 2012 is the year of regress in this regard. Parliamentary elections and its quite unexpected outcome is one of the most important factor from this point of view. Pre-election expectation and uncertainty is one of the main reasons for the fact that scale of the investment inflow to the country, was mostly reduced in the second part of 2012.

In the countries being in the process of such transformation, and especially in the post-soviet countries, this is quite expected and logic outcome. Of course, continuance of this trend do not set the best perspective to the economy of Georgia. Prolonging the period of reduction of investments, perhaps, may bring the country to the budgetary crisis.

At the press conference held in March 12, 2013, the Minister of Finance of Georgia Mr. Nodar Khaduri declared that he “predicts entering of direct foreign investments in the amount of 2 billion US Dollars in 2013”. These data are equal to the record data of 2007 and considers growth of the data of 2012 in about 150 percents.

According to the present statistical data and index of economical growth of 2013, this assessment may be considered to be excessive optimism. Though, in this regard, initial data of the fists quarter of 2012 will be of special interest, which shall be known in approximately one month. These data will give answers to the question, how accurately new government could represents future economical political conjures to the society and particular investors and how adequate it was in assessment of economical perspectives of Georgia.

## CHAPTER 2. FINANCIAL INSTITUTIONS: THEIR KINDS AND FUNCTIONS

### 2.1. THE ESSENCE AND FUNCTIONS OF FINANCIAL INSTITUTIONS

Financial markets and financial institutions are important key elements of financial system of any country having developed market economy. Financial institutions are the establishments **providing operations of monetary transaction, investments, crediting and lending cash resources and other operations by means of different financial instruments.** Principle purpose of financial institute is organization of mediation, i.e. effective transfer of cash resources (with direct or indirect form) from savings to the recovery of loan. The first are owners of the so-called “money sacks”. I.e. they are ready to transfer money in exchange for particular cost to the persons, who are in need of the resources. The second have in their portfolios profitable investment projects, but they have no sources required for realization and sufficient for financing.

Financial institutions are the banks, saving institutions (cash accounts), insurance and investment companies, brokerage and exchange companies, investment funds, etc. Financial institutions are committed for providing conformity of different demands of insurers and recovers of money; the first are interested in reliable and relatively risk-free placement of their resources, which means: a) liquidity, i.e. easy assessment of own financial resources in case of necessity and b) making long-term incomes with the acceptable rate. The second – different investment programs required for mobilization of cash resources and implementation of current expenditures.

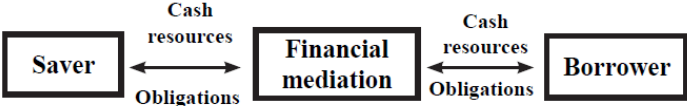
#### FUNCTIONS OF FINANCIAL INSTITUTIONS

Financial institutions perform following functions: a) saving of financial resources; 2) intermediation itself; 3) maturity transformation; 4) risk transfer; 5) organization of foreign exchange operations; 6) supporting liquidity; organization of operations from the purpose of organization-legislative changes. Let us describe them separately.

**Saving of financial resources:** origination of this function is conditioned with the necessity of wide distribution of resources, for the purpose of purposeful investments or consumption for further consumption. Of course, the resources may be accumulated without support of financial institutions; though this is less profitable and not quite secure method.

As we have already said, **intermediation** is principle function of financial institutions and it logically fills saving function, as during accumulation of saved cash resources and providing

particular compulsory payment, financial institutions shall care for their usage, to make income with them. This income shall be enough not only for payment to the savers of money, but also to make own income. Thus cash resources will be directed from the saver to the borrower, and the process of transferring cash resources is directed with origination of obligations for their returning and participation in this process, from the purpose of awarding (Figure 2.1).



**FIG. 2.1. FINANCIAL MEDIATION**

After receiving cash resources, financial mediator undertakes obligation to return them with the particular conditions. The borrower in his/her turn, undertaking cash resources undertakes obligation from the financial mediator, with particular combinations, to refund the said resources together with the remuneration. With the dependence of the used financial instruments, cash resources may be returned by means of the mechanisms of equity market.

Financial mediation is profitable, due to multiple conditions. In the **first** place, not every saver is the specialist in the field of financial operations, which are aware of the perfect credit-debt operations. In the **second** place, in order to have required education in such operations, the savers apply professionals, to be released from the necessity of searching for the particular version of investing resources. I.e. saving his/her time and resources and being engaged in his/her own business. **Third**, his/her money starts working. **Fourth**, saver of money makes income, forcing financial mediator to use resources received from him/her effectively. **Fifth** – by means of the financial mediation, the risk related with this activities may be diversified, reduced or transferred to the third party. **Sixth** – financial mediators are illegible to accumulate large amount of cash resources and to invest them in the projects after their concentration, which is potentially unacceptable for the small investors or the savers.

**FINANCIAL TRANSFORMATION**

Financial transformation exists in the fact that short-term (financial) assets and obligations may be transformed into the long-term assets and obligations. This may be achieved by means of securing, particularly, credit institutions place credits issued by them into the pool, which are

warranted with the relatively uniform property and issue securities with general provision. Reverse version is permissible – loan may be taken for short-term period, but lent for long term. For example, the company is in need of investments, but can not be attracted for the long-term period. In such case, it takes short-term loans and invests them into the long-term project. Herewith, periodical prolongation of short-term credits is required. Also hoping for the current incomes to be enough for interests of short-term credit and refunding principle debt. Of course, here is the risk of increasing interest. It is necessary to have particular faith in recovery of sources of short-term financing.

Operations of banking and investment structures is based on such logics, when the resources attracted for short-term are invested in the long-term projects. Two following conditions are taken into account:

a) Precision and accuracy of accounts with short-term investors. This shall avoid situation of requesting their resources in case of a panic (even at the background of possible loss); b) in such case the law of large figures is activated, when under the condition of abundance of depositors fluctuations related with the resources to be recovered are leveled.

### **TRANSFERRING RISKS**

Most part of financial operations is risky in its nature; due to this fact during their implementation, there is the desire to avoid the risk or reduce its level. This is achieved with different methods, namely, by receiving guaranties and by provision, and transferring part of risk to the financial mediator.

### **ORGANIZATION OF CURRENCY OPERATIONS**

Majority of companies in modern economy in particular extent are related with the currency operations. Under the conditions of the developed market economy, these operations are conditioned with the desire of companies to be transferred to the international markets. Other reasons of currency operations are also operating in the developed economy, namely the desire to create joint enterprises, find foreign investor, open overseas representations, purchase new hardware from the foreign countries, etc. Such transactions are mostly performed with participation of financial institutions.

### **PROVISION OF LIQUIDITY**

Any company is in need of cash resources (we speak about cash resources in the cash account and settlement accounts). However, their size is to be argued. Due to the fact that current activities

of the company (including inflow and outflow of cash resources) may not be exactly determined in advance; there always is the problem of forming insurance reserves of monetary sources, which are used if necessary. Let us assume that it's time for repayment of credit debt, and the money has not been transferred from the debtor, which the Company is based on. The most simple version of insurance from such collision is creation of reserves of financial resources. This is not quite profitable method, as unmovable money doesn't make income and, on the contrary, it brings loss (for example, for inflation). That is why it is relatively productive to invest money into the high-liquidity financial projects, which are offered by the financial institutions, with shares or in short-term obligations.

**Organization of operations from the point of changing organization-legislative forms of the company.** With comparison of such kind transformation of the company into the joint-stock company is a typical operation. Logics of business development is that alongside with the formation of the company and widening of its activities, its establishers are unable to provide respective provision of financing of the company or they do not want to do it due to the numbers of reasons. In such case, the company changes organization-legislative form – it is transformed into the open joint stock company and thus it receives additional opportunities for funding. Due to the fact that such procedure is difficult and consuming, they appeal financial institutions for assistance in realization.

The banks occupy important place in the system of financial institutions (first bank was established in Italy in the 14<sup>th</sup> century. Florence played important role in development of banking. In 1338, there were up to 80 banks in the City; and at the end of the century there were more than 100 of them).<sup>22</sup> They are active participants of financial markets. Herewith, their role is specially multidimensional and are not limited only by issuing of the credits. **First**, they are issuers of securities – shares, bonds, promissory notes, deposit certificates, which are usually less risky, compared with the securities; **second** – the banks provide portfolio investments; **third** – they offer service to other participants of capital market (for example, trust operations or management of portfolio investments on behalf of the customer and with the customer's account, reporting – payment operations and deposit services), **fourth**, they issue credits<sup>23</sup>.

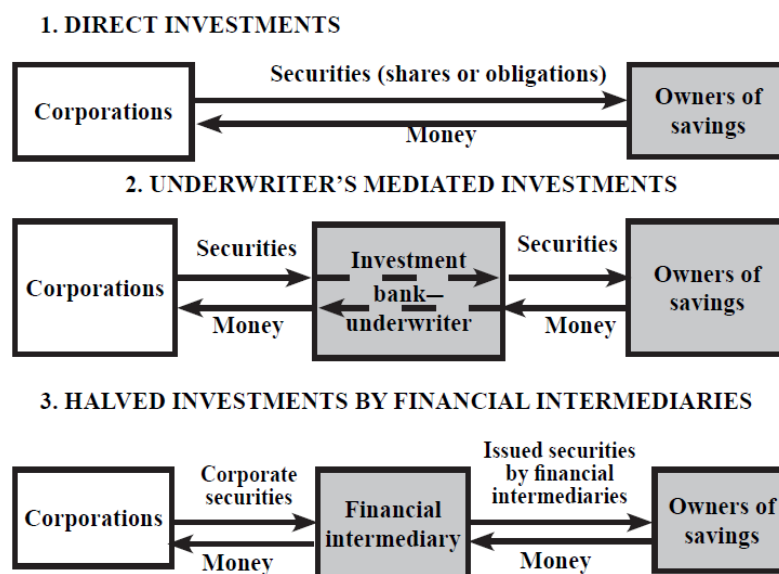
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<sup>22</sup> **Qoqiauri L.** 2012. Elements of Banking (third addition). GTU. pg. 17-40.

<sup>23</sup> We considered these issues to be purposeful not to discuss here, as activities of the banks were widely leant in the Manual "Elements of banking", vol. I; Tb.; TSU, 2007 (second edition).

## 2.2. THE PROCESS OF CAPITAL FORMATION

Transfer of capital from those, who create savings to those, who are in need of the capital, is provided with three different methods, which is expressed in the Figure 2.2.



**FIG. 2.2. MIDDLING OF INVESTMENTS BY MEANS OF FINANCIAL MEDIATION**

1. **Direct investments**, as given in the upper part of the Diagram, are attracted in following case: the enterprise sells its shares or bonds directly to the persons, who perform savings and do not appeal service of any financial structure for this purpose. The enterprise transfers its shares to the investors, who, in their turn, give the company money (which the enterprise is in need of). Naturally, direct investment is the transaction at the primary market.

2. As it is shown in the middle part of the Diagram, **attraction of the capital may be provided by means of the investment bank**, such as Merrill Lynch, which plays role of underwriter in issuance of securities – the Company sells its shares or bonds at the investment bank, which, in its turn, resells them to the investors. We can not say that securities of the enterprise and money of the depositors simply pass the investment bank as “mediator range”. The case is that the bank purchases and maintains securities during particular period and thus undertakes particular risk, that it can not resell securities for the same price, they were purchased from the company initially; this is natural as repeatedly issued securities are used in the transaction, and the corporation makes income from their realization. Such transaction also is considered to be the one of the primary market.

3. **Investment may also be implemented by means of financial intermediary** – such as mutual fund or the bank again. In such case, the intermediary takes money from the investors in exchange for its own securities. After this, the intermediary uses the money to purchase securities of the company and maintain it later. For example, the depositor can place money in bank, buying its deposit certificate, and after this, the bank can lend such money to the small enterprise with the guaranty of real estate. Herewith, the intermediaries, in fact, create new forms of securities; in this case, deposit certificates, which is less risky and more marketable than warranty deeds of the company. Consequently, deposit certificates are the best objects for investors. Existence of intermediaries gives significant growth to the efficiencies of money and capital markets.

In the given example we consider that “user” of the capital is the enterprise, corporation, but, of course, such role may be easily performed by the individual – purchaser of the house, governmental institution, etc.

Direct outflow of capital from the investors to the enterprises may be provided and it truly takes place from one case to another, though usually, for the companies it appears to be more effective to use service of the investment bank, such as Merrill Lynch, Salem on Smith Barney, Morgan Stanley Dean Witter or Goldman Sachs. Such institutions: 1) first support the companies in organization of issuing such securities, which will be attractive to the investors with their features at the given moment; 2) after this they buy such securities from the companies and, finally 3) resell it to the end investors. Though securities are sold twice, this process actually is the transaction of the primary market, in which the bank operates for simplifying transfer from investor to its customers.

Financial intermediaries, which are given in the lower part of the Diagram 5.1, do not simply transfer cash resources and securities between companies and depositors – they, in fact, create new financial products, as the intermediaries actually are large formation, also analyze of credit abilities of potential borrowers, positive effect made on distribution of risks and this way they support separate depositors in diversification of their investments, provided that “not every egg is placed in one financial basket”. And more, the system of specialized intermediaries can provide profitability of savings, as well as rise their convenience of their management. For example: people can bring their money to the bank and make income in the form of interests, and, besides this, they also receive additional opportunities to reimburse their procurements provided by using bank cheque booklets and credit cards, also to perform insurance service often.

### 2.3. KINDS AND FUNCTIONS OF THE INVESTMENT INSTITUTIONS

As it has been mentioned above, investment institute is legal entity created in any organization-legal form allowed by any legislation. It may perform its activities at the securities market in the form of intermediary (financial broker), investment consultant, investment company, and investment fund at the securities market.

#### INVESTMENT CONSULTING

Investment consulting means rendering consulting service regarding issuance and placement of securities. Activities of **investment company** is performed in two directions: a) organization of issuance of securities and issuing warranties in favor of the third parties; b) operations related with securities, on their behalf and with their accounts, including quotation of securities, i.e. declaring vendor's and vendee's prices, according to which the company is liable to purchase and sell (respectively) particular securities. Investment companies create their resources only from the resources of the founders and issuance of own securities, which are sold to the legal entities and who are not eligible to attract cash resources from population.

#### INVESTMENT FUND

**Investment fund** is open joint stock company, which provides accumulation of resources of small investors by means of selling own securities. The fund invests gathered resources into the securities of the emitters, also providing other operations at the financial markets. Investment funds are of three types: open, close and voucher. Open fund provides emitting of securities and undertakes obligation of their repurchasing. Close fund doesn't give such obligations. Voucher investment funds were created at the stage of voucher privatization and provide operations with privatization vouchers.

Special kind of the investment funds is issuance of shares for the purpose of mobilization of cash resources of investors and their investment in securities and bank accounts on behalf of the fund. By purchasing shares of the fund the investors become their co-owners and share the risk related with such financial operations, which are performed by the Fund. Successfulness of such operations is explained in amendment of current prices of the shares. Investment fund is illegible to direct more than 5% of its capital to purchasing of securities of one emitter; also to purchase more than 10% of securities from one emitter. Necessary condition of activity of the investment fund is to have employed specialist in the field of operation of securities, which will have high qualification and respective document certifying its high qualification and experience.



Investment institute is eligible to perform its activities at the securities market, only after obtaining special license, which is issued for one or more activities: intermediary, investment consultant, and investment company.

From the position of long-term crediting opportunities, it is important for the enterprises to develop network of investment banks. Such banks operate successfully abroad. The most famous of them are: Merrill Lunch, Goldman Sachs, Salmon Brothers. Investment banks participate actively in emission of new securities, playing roles of intermediaries between emitters and potential investors.

Other kinds of typical activities of investment banks is also known, namely packaging of the issued small, non-marketable loans, which are identical in nature, terms and incomes and on their basis securities are issued, and terms of enterprises are restructured, which are potential bankrupts. This takes place by redemption of debt obligations of the said enterprises from the crediting banks with discount and issuance of new shares on their basis.

Under the condition of inflation, investment banks are characterized with high-risk level. There are several methods known in the banking practice, which allows restriction of risk. One of such methods is credit securitization, which means participation of two banks in credit operation, as any credit transaction is performed in two stages (processing conditions and concluding transactions: giving money for recovery of loan). The essence of securitization exists in implementation of these stages by different banks. In the western practice, they process different versions of securitization (See Kidwell, Emerson, Blackwell).

#### **FINANCIAL-INDUSTRIAL GROUPS**

One of the forms of investment institutions is financial companies and financial-industrial groups. Financial company performs issuance of securities, monetary operations and other financial transactions, for example, crediting of individual and legal entities.

**Financial-industrial group is the group of enterprises, institutions, organizations, financial and credit institutions and investment institutions, capitals of which is united on voluntary basis or by one of the participants of the group, through consolidation of shares purchased by other participants.** Subject to the essence of the case, financial industrial groups are large industrial capital and unifying-conjunction of large bank capital. Creation of financial and industrial groups may be performed in following ways:

By participants by establishing open joint stock companies;

By participants of the group, by transferring packages of shares owned by them to one of the participants of the group;

By purchasing packages of shares of other enterprises, organizations and establishments by one of the participants of the group, who becomes participant of the group.

The process of forming financial and industrial groups is regulated by the government. Particularly, this is provided by means of preliminary expertise of the project of concluding the group, provided that the creation of the group is certified by entering them into the special register.

## **DEPOSITARIES**

One of the most important kinds of financial institutions are depositories of securities. Storage of securities may be organized by owners of the securities themselves or with special storages of securities – depositories.

Depository activities may be provided only by the following entities: a) investment institutions (investment consultants, except investment funds and voucher investment funds); b) stock exchanges; c) special depositories, providing only depository activities; d) reporting depository organizations, providing depository activities and cash settlement and cash obligation clearing organization activities, also demands, which take place during transactions related with the securities.

The person, which uses service of depository under the conditions of agreements, is called deponent. In such case, special agreement is concluded between deponent and depository, which regulates their relations in the field of depository activities. Such agreement is called **escrow account agreement. Escrow account is the totality of records in the reporting registers of the depository, which is necessary for performance of escrow account agreement by the in relation with the deponent.**

Storage of securities in depositories may be performed with two – close and open methods. In the first case, the depositories are liable to obtain and perform assignment of the deponent in relation with any particular securities, which are recorded at their escrow account, of course, such security shall have individual signs (signs, series, ranks). Open method of storage of securities is the method of registering rights of interchangeable securities in the depository, during which the deponent is able to give the depository assignment for the securities of determined amount, which are recorded at their escrow accounts, without stipulation of their individual signs.

Except storage of the securities, depository is able to perform other functions, including following:

1) organization of information exchange, related with ownership of securities between issuer (owner of the register) and deponent (customer); 2) making income from securities, which are stored at the depository, by means of transferring them to the depository account; 3) recording of warranting obligations of the deponents' securities, and their termination; 4) keeping registers excluding securities on the basis of which the depository is nominal owner, on the basis of agreement with the owners of securities; 5) transferring certificates of securities to the third parties with the assignment of the deponents; 6) verification of certificates of securities for authenticity and solvency; 7) clearing by securities (determining mutual responsibility and demands during distribution (transferring) of securities) to the participant of the operation); 8) Collection and transfer of securities, excluding certificates of securities from turnover, subject to the conditions of their circulation; 9) registration of transaction related with securities.

#### **2.4. PRINCIPAL GROUPS OF FINANCIAL MEDIATORS**

Specialized and quite effective intermediary systems were formed in the USA and other developed countries, which work at separate equity and financial markets. Though the situation is being rapidly changed and separate organizations start service organization, which was not characterizing to it earlier and condition removal of borders between the fields of their activities. Notwithstanding this, they maintain particular classification of financial intermediaries. Characteristics of its principal groups is of high importance.

##### **COMMERCIAL BANKS**

Commercial banks, traditional "financial universal shops", serve wide circle of depositors and borrowers of loan. It has been historically determined that – important establishments, commercial banks – work at the current accounts of private and corporate depositors and with their help federal reserve system widens or limits mass of money. Today several types of establishments also render services from the point of emission of vouchers and thus influencing upon its size and on the contrary, commercial banks start offering wider circle of financial services to the consumers, including brokerage service, sale and purchase of shares and insurance activities.

It shall be noted that commercial banks are different from the investment banks. Commercial banks will lend their own resources, when investment banks support companies in attraction of

capital from other persons. Before 1933, commercial banks also offered investment banking services to their customers, but after Glass-Steigel's Act, 1933 prohibited such activities. For example, Morgan Bank was separated from the independent organization, one of which today is the commercial bank Morgan Guaranty Trust Company, while another Morgan Stanley Dean Witter – is the largest investment bank house. It is noteworthy that the most part of European and Japanese banks is able to render as commercial, so investment services. This condition prevented banks of the USA to participate in international competition equally to others and due to this fact the Congress cancelled Glass-Steigel's Act in 1999.

### SAVING AND LOAN ASSOCIATIONS

Saving and Loan Associations (S&Ls) traditionally serve private residents, attracting cash resources from multiple small depositors and after this, lend such money to the purchasers of real estate and other borrowers. As quality of liquidity is more important for the depositors, than mortgaging real estate, formation of liquidities of such credits become of primary importance for the saving and loan associations. Besides this, saving and loan associations are more experienced in the field of credit analyzing and opening credit lines, than separate depositors. Due to this fact they are able to reduce commission fees on processing and obtaining credit and, at the same time, to rise availability of loans (to make credits available) with the warranty of real estate and finally, saving and loan associations own large, diversified portfolios of credits and other assets. At the same time, they distribute risks with such methods that it was difficult for small depositors to issue loan with the warranty of real estate. By means of influence of the above factors, the depositors make profit, having opportunity for investment in more marketable, better managed and less risky assets. Borrowers are also profitable, as they receive large loans with less expenditures, compared with any other cases.

In the 80s of last century, industry of saving and loan associations faced serious problems, including:

Short-term interest rates, to be paid in accordance with the saving account, were significantly increased compared with the rates of credits issued to the associations'.

Prices were significantly decreased on the commercial real estate, which gave rise to the bankruptcy of many enterprises. All these gave rise to the fact that **multiple saving and loan associations to be united into the large and strong credit institutions, or to be closed.**

## MUTUAL SAVING BANKS

**Mutual Saving Banks** are similar to the saving and loan associations. Such institutions historically are mostly distributed in the north-eastern states of the USA. They received savings mostly from small depositors and issued credits to the purchasers of real estate, cars and large household appliances;

## CREDIT UNIONS

**Credit unions** – these are corporate associations, members of which in the most cases are related with each other in particular way. For example, they work in the same company. Savings of the members of credit union are lent for loans only to the other members of the union, mostly for purchasing houses, cars, consumer items. Credit unions often play the role of relatively cheaper source of cash resources, which are available for the separate borrowers.

## LIFE INSURANCE COMPANIES

**Life insurance companies** receive savings in the form of insurance premium; they invest such resources in shares, bonds, real estates and mortgage securities, and finally provide payments of the insured to the beneficiaries.

## MUTUAL FUNDS

**Mutual funds** are the corporations taking money from the depositors and finally use the received resources to purchase shares issued by the enterprises and governmental structures, long-term and short-term debt instruments. These organizations unify resources and thus reduce risks by means of diversification. They also make scaled effect during analyzing securities, management of portfolio and sale and purchase of securities. Different mutual funds are created for satisfaction of different requests of depositors. There are bond funds for those, who wish to reduce the risk; also share funds for investments, which are ready to share important risks hoping for making large incomes and many other funds. It shall be noted that participatory interest of the mutual funds of the money market making interest income often become the object of trade themselves. Thousand other mutual funds are known generally, which have thousands of strategies to satisfy interests of investors of different type.

## PENSION FUNDS

**Pension funds** are the funds providing pension plans, which are financed by the corporations or governmental agencies, in favor of their workers. These funds are mostly managed by commercial banks by the trust divisions or life insurance societies. Pension

funds place resources mostly in the bonds, shares, mortgage and hypothec securities and real estate.

Changes in the structure of pension funds during last decades influence significantly upon separate persons, and financial markets. Most of historically large corporations and governmental institutions use so-called defined benefit plans for their employees. Under the conditions of such system, the employee warranties fixed level of pension provision, to be received by the employee after retirement, as well as obligation of investment of sufficient amount of resources in advance, which is undertaken by the employer. Under the conditions of the established benefit system, the employees can say nothing or almost nothing regarding the method of investment of resources according to the pension plans. This decision is made by the employer (often professional union). It is noteworthy that the employer himself/herself and not the employee undertakes the risk of making or not making profit with the investments during the given system.

During last years there are many companies (actually every newly created company, especially rapidly developed companies in the field of high technologies) use the system of defined contributions, according to which the employees provide particular payments into the pension fund0assets for investment. This latest is already selected by the employee today. During the system of defined contribution the employee is liable to make correct decision about investment and undertake risks related with making such decision.

#### **WHAT IS PLAN 401 (K)**

The most distributed version of the defined contributions into the pension funds is so-called Plan 401 (K). It was named after the section of the Federal act. Budgetary organizations, including universities, may use similar plant 403 (b). In any case employees shall select independently one of the numbers of alternative versions to invest their resources. As a rule, the employer undertakes obligation to make change in the fixed payment plan, but the employees also can provide additional payments here. After this the employer concludes agreement with the insurance company, and one or more mutual funds, and the employees select the version of investment money – started from practically risk-free investments to the treasury funds and finished with more profitable funds. These latest make investment into the municipal authorities and corporate bonds; also shares and participatory interests of companies and other funds. Out of the multiple operating pension plans, the worker can transfer its investments from the fund of one category to another under the determined conditions. Consequently, if the employee considers that on the given

moment share market is over-estimated, he/she shall be able to request from the mutual fund its savings from credit market to the money market and vice versa, to select optimal conformity of shares and bonds in its pension portfolio.

Listed changes in the structure of pension plan had two important outcomes: first, separate personas are to make decisions about investment of their accumulated pension into different assets. As outcomes of such decisions may mean comfortable living after retirement and also that a person may appear himself/herself in the street. The persons involved in the system of contributions to the pension funds to be aware of the elements of investments. Second, when managers of the plans of the fixed pension provision usually make investments in shares and especially in the bonds. Most part of people today make investments in mutual funds according to the Plan 401 (K). Due to the fact that the assets of the systems of fixed contributions into the pension fund is being increased rapidly according to the Plan 401 (K), the industry of mutual funds is rapidly developed. This, in its turn influences positively upon entire securities market and the businesses of the industrial subjects, who are to form a capital from the financial market.

Historically a trend was formed regarding financial institutions to be significantly regulated. Principle purpose of these regulations was to guaranty their sustainability and thus to protect the investors. Though such regulations often prohibited establishing of the mutual national commercial banks, probable purchasing of assets by financial institutions, restricted interests rates, which could be repaid by them, as well as restrictions for the kinds of service. All these prohibited free movement of capital and thus damaging capital market and US economy in total. Recognizing the said fact, congress of the country sanctioned numbers of amendments of regulatory norms, more amendments are expected in the future.

After performed activities, directed towards deregulation of financial service, a border was erased between different types of establishments. Actually today there is the trend of establishing large financial corporations in the USA today, which include the banks, loan saving associations, investment banking houses, insurance companies, pension and mutual funds, having departments throughout Georgia and entire world. Example to such corporations are the companies most of which started working in one particular domain, and render most services of the financial sector. Such corporations are: Merrill Lynch, American Express, Citigroup, Fidelity and Prudential.

In the column A of the Table 2.1 we list 10 largest banking holdings in the USA of middle period of 2000, and in the column B – the largest banks of the world. Only two of the ten largest companies

are located in the USA (Citigroup and Bank of America). Though banks have become significantly larger after merger, but they still remain to be the largest banks according to the global standards. 10 largest investment banks – from the point of emission of underwriter securities are given in the column C of the Table 2.1. 6 leading underwriters also perform functions of commercial banks (or they are included in the banking holdings). This confirms the fact of erasing borders between different types of financial institutions.

Table 2.1

**10 LARGE BANK HOLDING COMPANIES OF THE USA AND WORLD BANKING COMPANIES AND TEN LEADING BANK-UNDERWRITERS (as of 2000)**

<b>A. The largest banking holdings of the USA</b>	<b>B. The largest banks of the World</b>	<b>C. Large investment banks by emission of underwriter securities</b>
Citigroup Inc.	Deutsche Bank AG (Frankfurt)	Merrill lynch
Bank of America Corp	UBS Group (zurich)	Salomon Smith Barneu
Chase Manhattan Corp.	Citigroup (New York)	Morgan Stanley Sean Witter
J.P. Morgan & Co.	Bank of America (Charlotte)	Goldman sachs
Bank One Corp	Bank of Tokyo (Tokyo)	Credit Suisse First Boston
First Union Corp	Hypovereins Bank AG (Munich)	Lehman Brothers
Wells Fango & Co. Inc	ABN – AMRO Bank NV (Amsterdam)	Deutsche Bank
Fleet Financial Group	HSB Choldings PLC (London)	J.P. Morgan
Sun Trust Banks Inc	Credit Suisse Group (zurich)	Chase Manhattan
National City Corp.	ING Croup (Amsterdam)	ABN-AMRO

**ONLINE SHOPPING SYSTEMS**

The forces conditioning online shopping, avoiding traditional stock exchange also supported establishing of the respective communications and connection systems. These systems, known as Electronic Communication Nets, EC Ns, use modern technologies to relief transactions of sellers and purchasers, to grant them modern communication opportunities. The President of the Company Fidelity Brokerage Services Inc. Mr. Bob Mozzarella thinks that online shopping occupy 20-35% of trading in the National Association of Securities Dealers Automated Quotation System, NASDAQ. Internet network, the first and large and electronic communication systems Goldman Sachs J.P. Morgan and E<sup>x</sup> Trade participates in organization of the network Archipelago, declaring recently about its plans to create own online stock exchange. Similarly, Charles Schwap has



recently published his plans on merger of following companies: Fidelity Investments, Donaldson, Lufkin & Jenrette and Spear, Leeds & Kellogg to process another ECN in Europe – Eurex, BCN – in Switzerland and Germany, provide organization of trades with future contracts. The said merger practically changed entirely futures contracts at Paris, London and Frankfurt traditional stock exchanges during last period. And more, recently it has overcome Chicago Board of Trade, CBOT with the volume of trades and it turned into the world leader in trading of futures contracts. Making application about plans to create similar electronic communication network in the USA, reduced prices in 50% at Chicago Board of Trade.

Electronic communication networks are being developed in the direction allowing investors to participate in trading 24 hours a day. Large customers, who want to participate in the trading even after closing official stock exchange, who are able to use electronic communication network in New York (NYSE) and avoiding stock exchange. The trend of creating new network of round-the-clock trading, is of course, profitable. Notwithstanding this, it shall be noted that it gives rise to particular difficulties to the bodies regulating board of trade and concluding transactions. This is provoked by the factor that they have more chance to react on the situations at the stock exchange and this is provided quite operatively.

## **2.5. PARTICIPANTS OF SECURITIES MARKET AND KINDS OF THEIR ACTIVITIES**

Different from the market of production wealth or services, securities market has sharply expressed specifics, expressed in the demand of organization-legislative and professional nature set to its participants, as well as regulation of the kinds of activities at the market.

### **PARTICIPANTS OF SECURITIES MARKET**

Participants of securities market are:

**Emitters of securities** – industrial subjects wishing to receive additional sources of financing, as well as bodies of executive government and local self-governing bodies, rising loans for covering state and municipal expenditures. They are all responsible with obligations to the owners of securities.

**Owners of securities** – persons, to whom such securities belong with full right on them. They are individuals and legal entities, who have temporarily free cash resources and want to make their investment to receive additional incomes. They distinguish institutional investors – insurance

companies, pension funds, loan and saving funds, etc. They also separate other investors, population, enterprises and organizations. The investors purchase securities on in their names and with own account;

**Professional participants of securities market** – legal entities, including credit organizations and the citizens (individuals), who are registered in the form of enterprises and provide commercial or other activities according to the respective legislations.

Industrial activities at the securities market are:

**Brokerage activities**, during which they perform civil-legislative transactions related with securities through verified or commissioning persons, acting on the basis of agreement; or commission fees; transaction may be also performed the persons having powers of attorney (if any). In such case, the broker plays the role of professional participant of the market.

**Dealer activity**, this is conclusion of transactions on sale and purchase of securities on their own behalf and through announcing prices of sale and purchase of securities determined with their accounts. In such case, the dealer plays the role of professional participant of the market. Here dealer is the legal entity, which is commercial organization.

**Activities on management of securities.** It is performed by legal entity of private entrepreneurial on his/her behalf for particular remuneration for providing entrusted management of securities transferred into his/her ownership and belonging to the third party during particular period of time; subject to the interest of such person or the interests of the third party stipulated by him/her. Such assets are: securities, cash resources received during the process of entrusted management. In such case, professional participant of the market is the manager.

**Clearing activities** – this is the activity in direction to the determination of mutual obligations (gathering conforming and correcting information about transactions related with securities and preparing accounting documentations about them), their calculation during distribution of securities and providing settlement according to them;

**Depository activities** – rendering services regarding storage of the securities certificates, regarding transferring rights on them. Such services may be rendered only by legal entities, who are called depositaries in such case.

**Activities related with keeping register of the owners of securities** – such activity considers gathering, fixation, processing, storing and transferring of data, related with the system of keeping register of the owners of securities. Such services are rendered only by legal entities, who, in such

case, are mentioned to be owners of the register (registrars). It is prohibited for keeping the register to conform this occupation with other kinds of professional activities of securities market. Register may be kept by the issuer, provided that number of the owners of securities is more than 500. Owner of the Register may be independent specialized professional organization participating in the securities market.

**Activities related with organization of trading at the securities market** – this is rendering services supporting signing of civil and legislative transactions between participants of the market related with securities.

**STOCK EXCHANGE**

Organization of mutual relation between participants of the securities market is provided through stock exchange, occupying leading place in the system of organization of market infrastructure. Stock exchange is principal organizational financial market, i.e. the place, where operations on securities are performed, and price forming process is provided spontaneously. Under the modern conditions, up to 150 stock exchanges are being functioned worldwide. New York, Tokyo and London stock exchanges are the largest of all (Table 2.2<sup>24</sup>).

**Table 2.2**

**THE LARGEST STOCK-EXCHANGES OF THE WORLD**

Stock exchange	Year of establishing	Number of companies in the listing	General market capitalization
New York Stock Exchange. NYSE. The Stock Exchange operates with the name NYSE since 1863	1792	3000	13 trillion US Dollars
Tokyo Stock Exchange, TSE	1878	1700	300.2 trillion or 2.4 trillion US Dollars
London Stock Exchange. LSE	1773	2660	374 billion Pound Sterling

Starting stock exchange activities is related with the activities of the so-called bill markets held in the large cities of west European in the 13<sup>th</sup>-15<sup>th</sup> centuries. In the beginning, this was ordinary trade gathering, which later turned into the commodity exchange. Alongside with development of exchange activities, separate operations were formed by means of financial instruments, which

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<sup>24</sup> Reilly, Brown. Pg. 114-117.

is today typical for forward exchanges (for example trading with bills and exchange operations related with currency). Stock exchanges were formed later and it was related with the formation of share capital. Most earlier stock exchanges were established in Antwerp – in 1531; Toulouse and Leon – in 1599; in Rouen – in 1586; in Hamburg – in 1558; in London – in 1566; in Bourges – in 1570; in Amsterdam – in 1586, etc<sup>25</sup>.

In this regard, O. Shtillih fairly noted that the stock exchange can not be originated in one day, similar to Rome, which was not built in single day<sup>26</sup>.

Development of stock-exchanges in Russia commences in the 90s of last century after post-Soviet period. For 1997 there were up to 20 stock exchanges operating for the year 1997. Compared with the countries of highly developed market economy this figure is quite large. For example, in the Great Britain there were six operating stock exchanges; in the USA and France – respectively 7 and 7; in Germany and Japan – 8; in India – 11. First stock exchanges of Georgia established in the 30s of last century. Today they consider following stock exchanges in Georgia: BCG Forex; Stock Exchange Trade Centre of Georgia; International Commodity Exchange of Georgia; Stock Exchange of Georgia; Representation of Forexite in Georgia.

For large companies, participation in the joint stock exchange listing is not only prestigious, but it is also the warranty for availability of essential sources of funding. Due to this fact, it is natural that the companies are trying to move not only to the national, but also foreign stock exchanges. For example, for 2001 439 foreign companies made quotation of their securities at New York stock exchange<sup>27</sup>.

In the international practice of stock-exchange industry, it is an ordinary case that stock exchanges raise strict demands to the companies, who wish to be registered at such exchanges. These demands are of specific nature, i.e. they are determined by the stock exchange itself. For example, in order to allow the company to the listing of New York stock exchange, it shall satisfy following minimal criteria (with the data of 2001):

Chargeable annual profit during last years – 2.5 million US Dollars;

Chargeable annual profit during last two years – 2 million US Dollars;

Number of emitted shares – 1.1 million US Dollars;

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<sup>25</sup> We have first learn these issues and published them in the Manual of **Qoqiauri L.** Perspectives of Development of Stock Exchange and Investment markets in Georgia. Tb., 2001.

<sup>26</sup> **Shtillih O.**, 1992. Stock Exchange and its Activities. Translated from German. SPB, pg. 181.

<sup>27</sup> **Reilly, Brown.** pg. 84.

Number of shareholders owning 100 shares and more – 2000 in the form of lots<sup>28</sup>.

It is noteworthy that owning of trade place at the solid stock exchange is quite expensive pleasure, though it is very profitable investment of capital. For example, in 2000 the trade place was sold at NYSE for record sum – 2.65 million US Dollars. For the year 2003 price of the place was from 1.65 to 2 million US Dollars.<sup>29</sup>

Not every company has a chance to transfer its securities to the solid operating stock exchanges. herewith, the case was not only in the quantitative indexes. Observation of temporary restrictions is also required. In addition to this, the specificity of special dynamics of modern business is characteristic to the high tech companies. Shares of such companies are quite attractive for particular groups of investors. Though with formal signs such companies are illegible to go to the listing at the traditional stock exchanges. Among them computerized non-stock exchange quotations of USA – National Association of Securities Dealers Automated Quotations, NASDAQ – were more recognized. This system is managed by the international organization of brokers and dealers in the USA, which is know as National Association of Securities Dealers.

NASDAQ system created in 1971 unifies up to 3500 dealers and quote more than 4500 securities. The procedure of NASDAQ listing is simplified, and minimal demands for emitters are represented in the form of the so-called two sets of the standards. To let the company to the listing of the said company, it shall satisfy at least one of the represented three standards (Table 2.3)<sup>30</sup>.

Notwithstanding huge risk, new place here was quite popular in the 80s of last century during the period of the boom of leading technologies.

In 2004, index of annual volume of trade with shares according to NASDAQ first overcome similar index of its main competitor NYSE. Principal priority of this stock exchange is operability: each quotation becomes rapidly available to the dealer. Based on the positive experience of the Americans and Europeans, European analogue of NASDAQ was established in Brussels – European Association of Security Dealers Automated Quote System - EASDAQ. In case of formation and functioning of securities market, there will be the issue of establishing similar organization in Georgia as well – market of the shares of high tech companies with minimal demand for capital of the quoted companies.

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<sup>28</sup> **Reilly, Brown**, pg. 114-115.

<sup>29</sup> Same, pg. 116.

<sup>30</sup> Same, pg. 123.

## NASDAQ DEMANDS FOR INCLUSION IN LISTING

Demands	Inclusion in listing			Listed	
	Standard I	Standard II	Standard III	Standard 1	Standard 2
Net material assets million US Dollars	6	18		4	
Market capitalization million US Dollars	-	-	75	-	50
Price of every asset million US Dollars	-	-	75	-	50
Total profit million US Dollars	-	-	75	-	50
Profit before taxation (of last year or last two-three years) million US Dollars	1	-	-	-	-
Number of publicly floating shares (excluding the shares belonging to the managers of emitters, as well as natural persons, owning 0% of shares) one thousand pcs.	1100	1100	1100	750	1100
Operation history or business history, year,	-	2	-	-	-
Market price of floating shares million US Dollars	8	18	20	5	15
Nominal price of purchaser (rate) US Dollars	5	5	5	1	5
Number of such shareholders owning at least 100 shares of the lots	400	400	400	400	400
Number of market makers	3	3	4	2	4
Existence of corporate management system	Yes	Yes	Yes	Yes	Yes

Stock exchange is established in the form of non-commercial partnership or joint-stock company. Herewith, no shareholder or affiliated person of the stock exchange is eligible to own 20% or more (in case of partnership – 20% or more of votes) of the share of each category. This restriction is not used to the member shareholders of the stock exchange. Non-commercial partners – members of the stock exchange were only eligible to be professional participants of securities market. Herewith, the procedures of becoming member, leaving or expulsion from such stock exchange is determined independently by the stock exchange itself and on the basis of its internal documents.

Participants of trades at the stock exchange may be only brokers, dealers and managers. Other persons can provide operations at the stock exchange only by means of mediations of participating brokers. Trading at the stock exchange created in the form of non-commercial partnership, is provided only by its members. The procedures of allowing participation to the trading, expulsion from the membership of participants of trading is determined by the stock exchange in accordance with the established procedures. Herewith, unequal status of the trade participants, as well as transferring participation right to another person is prohibited. Stock exchange is liable to verify procedures of listing (delisting) of securities for holding trading, as well as specificity of transactions, conforming to the demands of normative-legislative norms of the federal body of executive government in relation with the securities market. Stock exchange is liable to provide transparency and publicity of trading. The stock exchange is eligible to fix contributions, fees and other payments for the participants of trading, in exchange for service rendered by her. As well as the size of penalties for breaching the established procedures and rules of charging.

#### **PRINCIPAL ISSUES OF STOCK EXCHANGE**

They distinguish two principal kinds of stock exchanges in global practice:

a) closed stock exchange, where only members of stock exchange are eligible to participate in the trading and b) stock exchanges with free access of participants.

Special issue of the activities of stock exchange is creation of necessary terms and conditions for normal turnover of securities, determining market price and due distribution of existed information about them. Its principal function is organization of operations for sales and purchase of securities. Distribution of financial resources, distribution of additional financial resources to the issuers of securities, opportunities of maintenance and profitable utilization of financial resources accumulated by the savers of financial resources, information provision of the agents of stock exchange, determining market prices of securities, etc.

Following are allowed to the turnover of stock exchange:

Securities, which have underwent the procedure of emission foreseen by law and are included in the securities listing by the stock exchange, allowed to the turnover, according to the domestic documents, such securities, which are not included in the listing of circulated securities of the stock exchange, may be the objects of transaction at the stock exchange according to the procedures, foreseen with the internal documents.

Other financial instruments according to the legislation of the country.

Stock exchange is illegible to perform other activities of investment institute, neither issue securities except its own shares. Necessary condition of activities of stock exchange is existence of the respective license.

## 2.6. INDICATORS OF SECURITIES MARKET

### STOCK INDEXES

In the countries of high developed market economy, where securities market is being operating at the highest level, for determination of joint trends of in the changes of the rate of shares they use special indicators – stock indexes. The most famous indexes of them are: Dow Jones Industrial Average and Standard & Poor's Stock Price Index in the USA; Financial Times Stock Indexes Footsic in Great Britain; Nikkei 225 Index in Japan and Toronto Stock Exchange 300 Composite Index in Canada.

First attempt for construction of formalized generated capital market, which is peculiar averaged characteristic and which reflects trends operating at the stock exchange was performed by Ch. Dow. In 1882, he started publishing of the listing of companies, shares of which were being circulated successfully and in large amount at the stock exchange. Dow didn't exclude opportunities for periodical changes of such listing, which is the unavoidable trend of fall and rise of the activities of companies registered at the stock exchange. Growth of the number of emitter and participants of the market is also unavoidable. It shall be noted that in the beginning of the 80s of 19<sup>th</sup> century, average daily volume of transactions and New York Stock Exchange made 250 thousand shares of daily volume of transactions; after 30 years this figure overcome 100 million shares.

Dow Jones Industrial Average itself, which was built based on relatively successfully circulated shares, first appeared in the newspaper Afternoon News Letter on July 3, 1884. It characterized the dynamics of closing prices of 11 companies (9 railway and 2 industrial companies) at the stock exchange. Since 1886, when the index gained the name of Dow Jones, included 12 industrial companies, including: American Cottoncil, American Sugar, American Tobacco, Chicago Gas, Distilling and Cattle Feeding, General Electric, Laclede Gas, National Lead, North American, Tennessee Coal Q Leon, US Leather (preferred), US Rubber. In 1928 Dow Jones Average included the dynamics of shares of 30 large companies.



It shall be noted that only General Electric is in the listing today. The method of calculating index has not been essentially amended. Listing of the companies, shares of which are included in calculation of the Average is being periodically amended. Though such companies as Boeing, Coca Cola, General Motors, DuPont, IBM, which make the symbols of American economy, have permanently been included in the content of the Average during last decades. As a rule, several indexes are used in different countries. For example, 4 Dow Jones indexes are relatively more often used in the USA, which reflect total trend of changing share rates, – 30 industrial and 20 transport companies, 15 communal service – per companies (general index).

It shall be noted that started from the period of forming indexes, they have created other indexes as well, though Dow Jones Average still remains to be relatively authoritative index at the stock exchange.

S&P500 index is calculated per 500 companies, including 80% of the price of securities of New-York Stock Exchange (including 400 industrial, 20 transports, and 40 financial and 40 utility companies).

Different from the US practice, stock indexes in Great Britain are calculated with average geometric formula. The most famous index here is Futsi 30, which has been first calculated in 1935. Out of the famous indicators FT-Actuaries Index is the most famous, which includes shares of 700 famous companies (more than 80% of the price of securities of London Stock Exchange) /Futsi 100 index (Financial Times – Stock Exchange 100 – Share Index), is being calculated since 1983 on the basis of data of changing price of shares of 100 companies.

### **THE SYSTEM OF RATING OF SECURITIES**

Together with the stock indexes, one of the most important elements for qualified information provision of the participants of stock exchange is the system of securities rating, which is of special importance in the plan of developing portfolio investments. In the economically developed countries, special agencies are operating, which are engaged in processing and analyzing of data of capital market by processing ratings of different kinds of securities per risk level and profitableness. Classification of securities concluded by them help investors in creation of portfolios with the characteristics advantageous to them.

Rating system of assessment securities was created in the USA in the beginning of 20<sup>th</sup> century at Moody's Agency which was subsidiary of Dun & Bradstreet, Inc.

(established in 1909). Its ratings include almost twice more securities than Standard & Poor's (Subsidiary of McGraw-Hill, Inc.) The agency Fitch investors Service Inc. is the third by importance. The ratings represented by the Agency Duff and Phelps gained wide recognition during last years.

The system of rating assessment was distributed in the Europe much later. For example, the system of rating assessment of bonds in the Great Britain was created only in 1973. The ratings, in the first place were subject to the bonds. Under the bond rating procedures they consider granting conditional indicators to the bonds, which are implemented by means of ranging every bond circulating at the given market per quality of reliability of their emitters, subject to the terms and conditions foreseen with the emission prospect. Granted rating is a kind of quality certificate which may be oriented by leaders, i.e. potential provides of financial resources with the maturity terms. Idea of ratings is more than 100 years old. Information-analytical agencies, which are engaged in their reflection, as we have said above, and relatively familiar in the financial world are ratings of agencies: Standard and Poor's, Moody's and Fitch Investors Service (Table 2.4)<sup>31</sup>.

**Table 2.4**

**COMPARATIVE CHARACTERISTIC OF BILL RATINGS**

Category	Agency			Characteristic
	S&P	Moody's	Fitch	
1	2	3	4	5
Highest quality	AAA	Aaa	AAa	The highest quality of debt instrument, which means that the emitter (borrower) has all opportunities to pay interests and principal sum of debts. Bonds of such categories are often called Gilt Edged Securities.
	AA	Aa	AA	Highest quality of debt instruments. Compared with the previous group, these obligations are evaluated lower, mostly for the low margin of payment source of interests.

<sup>31</sup> Reilly, Brown. pg. 705.

**Table 2.4 Continuation**

1	2	3	4	5
Average quality	A	A	A	The bond is characterized with multiple attractive investment characteristics. However, they appear under the influence of these factors more easily, related with the worsening of situation in the economy.
	BBB	Baa	BBB	The emitter has adequate opportunities from the point of repayment of interests and principal sum of the debt; though that separate elements of securing such bonds may be lost, which may give rise to the reduction of solvency of the emitter.
Speculative	Bb	Ba	BB	The bond has small protection upon repayment of interest and principal sum of the debt under favorable and unfavorable conditions of the economy.
	B	B	B	As a rule, the bond loses characteristics of attractive investment instruments. Faith in solvency of the emitter is small in long-term aspect.
Default	CCC	Caa	CCC	Low quality of bond is the danger of default.
	CC	Ca	CC	High-speculative bonds often appear under default situation.
			C	Low rating bond, which means that it has extremely low investment degree.
C	C			Ratings are granted to the bonds, according to which the interest is paid only in case of existence of profit per conditions of emission, and according to which the interest has never been repaid.
D			DDD DDD	Bonds under the default situation (transferred obligations), belong to the speculative bonds and they shall be assessed on the basis of current liquidation price.

Finally, we note that similar methods of approach are used in relation with the ratings in different states and regions. Such ratings are of great importance when receiving financing from the international financial institutions, as well as influencing quotation of securities at foreign stock exchanges.

Given classification shows that the bonds with the rating Aaa, Aa, AAA and AA are of the highest class, reliable and attractive for investment. Reduction of rating gives rise to the risk of owning the securities, i.e. it becomes more and more speculative. The bonds without rating are called profitable i.e. junk bonds.

## CHAPTER 3. FINANCIAL INSTRUMENTS

### 3.1. THE ESSENCE, KINDS AND CLASSIFICATION OF FINANCIAL INSTRUMENTS

Financial Instrument is becoming leading concept in the investment activities, especially at the securities market. This is one of the newest and the most ambiguously explained economical category, which entered our country from the west, together with the elements of market economy. Today this category is not only actively used in the national medical literature, but they are also mentioned in the regulatory documentation. Besides this, they use new financial instruments of separate kinds at the financial market of the country. There are different methods of approach towards explanations of the concept of Financial Instruments. At the initial stage there was quite simple description, according to which they allocated three principal categories of financial institutions: 1) cash resources (cash account and resources, currency existed at the settlement account); 2) credit instruments (bonds, credits, deposits); 3) methods of participation in the nominal capital (shares and participatory interests).

Alongside with the development of capital market, and appearance of financial assets of new kinds, obligations and operations on them (forward agreements, futures trading, options, swaps, etc.) the terminology was being specifying. Namely, it became necessary to separate the instruments from such objects, with which they provide manipulation with these instruments or which make basement to such instrument, i.e. financial assets and obligations. Moreover, new direction was established in the financial domain with the name Financial Engineering, within the bounds of which systematized description of traditional and new financial instruments are given. One of the leading specialists of this field J. Finnert said that financial engineering includes projection, processing and utilization of innovative financial instruments and processes, as well as creative searching for the new methods of approach of solving problems in the financial domain.<sup>32</sup> As for the concept of Financial Engineering itself, it is considered to appear in the circle of practicing financiers in the middle period of 1980. London bankers started establishment of risk management departments in their banks. These are the specialists of this service to be called financial engineers, who started invention of such special operations on financial assets, by means of which it was possible to reduce or transfer the risks.

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<sup>32</sup> **Marshal J., Bansal V.**, 1998. Financial Engineering. Complete guide of financial innovations. Translated from English; M.: INFRA-M, pg. 33.

Later they started processing of financial instruments for the purpose of making profit from speculative operations at the mature market, as well as supporting current operations of capital market, i.e. mobilization of sources of financing.

Financial instruments are in particular extent relation with the different professionals: accountants, financial analysts, audits, financial managers, financial engineers, etc. notwithstanding this fact, it is widely recognized that leading role in this field belongs to the financial engineers themselves, who do not only use the inventions arising within the bounds of financial engineering, but they form new combinations of new instruments or existed instruments, different from other specialists. These combinations allow us to solve the problems of funding, rising liquidity, making additional incomes and lowering risks by determining net financial methods.

Notwithstanding great number of monographic literature regarding financial instruments (we mean, in the first place, foreign sources) they are given in the International Financial Reporting Standards (IFRS)<sup>33</sup>. In these regulations there are not only general explanations and expanding interpretations, but there also are the descriptions of separate examples of financial instruments, assets and obligations. Two standards are touching upon the described category: “explanation and representation of financial instruments” subject to the IFRS-32, **financial instruments may be any agreement with the help of which one company receives financial asset and at the same time another company gets financial obligation of equity instrument.**

#### FINANCIAL AGREEMENT

In the description of financial instrument, the concept of **Agreement** is determined. It considers agreement of two or more entities for establishment of civil rights and obligations, as well as their amendment and termination. Drawing up an agreement means undertaking particular obligations by its parties. According to the obligation, one party (the debtor) is liable to perform particular actions in favor of the second party (the creditor), such as: transferring property, performing work, repayment of money and etc, or abstaining oneself from particular actions; while the creditor is eligible to request from the debtor performance of his/her obligations.

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<sup>33</sup> Alongside with the widening and improvement of regulatory economy, several standards were canceled or merged with others, therefore 35 operates instead of 39. These regulators are practically recognized by every developed country; we mean that the standards are included in the National System of Accounting and Reporting, providing sufficient transparency of the reporting data, their common understanding and interpretation in the international context.

**Obligation** appears on one of the three grounds: law, agreement, civil injury. In the first case, the obligation appears as the necessity of protecting legal requirements (for example, obligation of taxes). On such case they consider desires of the person, who is charged by law (the firm is assigned to pay taxes notwithstanding desires of owners and administration). On such case they consider desires of the person, who is bound by the law (the company is obliged to pay taxes notwithstanding desires of its owners and administrations). In the second case, wills of the parties of Agreement are mandatory. In the third case, obligation occurs by means of inflicted loss.

In business relations, we may have all these reasons, but the agreement, of course if the dominant.

In the description of financial instrument, we mean only such agreements by means of which financial assets, obligations and capital are amended. These categories have not civil and legislative, but economical nature. Their descriptions may be found in, for example, above standards of financial reporting.

#### **FINANCIAL ASSETS**

**Financial assets are:** a) cash resources (i.e. resources existed in the bank account, reporting, as well as currency and special accounts); b) contractual right to request cash resources or other financial assets from other companies (for example: accounts receivable); c) contractual right with another company on exchanging financial instruments with the potentially profitable conditions (for example, option on shares, which is given in the balance of its owner); d) partial instruments of another company (i.e. shares, participatory interests).

**Financial obligations** are called any obligation conditioned with the agreement: a) distribution of cash resources or other financial assets to other companies (for example, accounts payable); b) exchange of financial assets with other companies with proportionally disadvantageous condition (for example, option on shares, which are given in the balance its issuer).

**Share instrument** is the method of participation in the capital (statutory fund) by the industrial person. Alongside with the partial instruments, the role of special importance is played by such debtor financial instruments (credits, loans and bonds) in the investment process, which make special proprietary and statutory outcomes to the issuers (creditors) and owners (borrowers).

Potential profitableness (unprofitableness) mentioned in the explanation of financial assets, express following conditions: option on the share foresees opportunities of this or that action by the issuer or owner of an option with the dependence of the conjuncture formed at the market.

Issue of option on the share undertakes to sell shares of particular amount to the owner of option within agreed period of time and for the agreed price. Owner of the option, in his/her turn, is eligible to buy these shares.

Herewith, according to the conformity of market price and performance (i.e. given in the option) price, action and financial outcomes of the owner of the option and the issuer, may be different; if the price of performance is less than the current market price, it is profitable to the owner of option to realize his/her right, i.e. performance of the option and purchasing shares; if conformity of prices is opposite to this, the option will not be fulfilled. Exactly first situation, i.e. is a potential opportunity for making income, being the stimuli for purchasing option (in such case, the issuer is interested in attraction of resources by means of selling the options) – here also appears potential profitableness for the owner of the option (he/she will make profit in the form of distinction between current and performance price.

And potential unprofitableness for the issuer, who directly or indirectly suffer losses for disadvantageous dynamics of prices.

As seen from the given explanations, we allocate characteristics of two kinds, allowing consideration of this or that operation having relation with the financial instruments: **first**, the operations shall be grounded on the financial assets and obligations; **second**, the operation shall have the form of agreement (contract).

Particularly, industrial reserves, material and intangible assets, future expenditures, received advance payments, etc are not met in the explanations of the financial assets. Herewith, though their owning give rise to the inflow of cash resources, but there are no future right of getting financial assets. As for the second characteristic, for example, public relation related with the taxation debt, can not be considered to be financial instrument, as such relations have no contractual nature.

### **PROCUREMENT AGREEMENT**

Above explanation of the instrument by means of the concept of agreement, may be widely formed. This is easily seen in one of the most distributed example of the agreement of sales and purchase. According to the purchase agreement one party (vendor) is responsible to transfer to the second party (vendee) the item (goods), and the Vendee is liable to accept the goods and pay particular sum of money (price) for it. According to the purchase agreement, principal obligation of the vendor is to transfer goods; herewith, every term and condition (place, time, number,

attached documents and actions, procedures of payment, outcomes of breaching or improper performance of the agreement) for such transfer may be given in the agreement in details. There are three basic versions of paying price of the goods: advance payment, payment in cash and credit purchase.

In case of advance payment, the vendor at the same time gets financial asset (namely cash resources received as advance payment) and payment obligations with the vendor and vendee, and the vendee gets financial asset in the form of accounts receivable. In such case, purchase agreement will not be considered to be the financial instrument, as it foresees goods, i.e. non-financial assets. Besides this, here are no financial obligations – here is only the obligation for distribution of goods. It is expressed only in monetary form, to include it into the system of accounting. In case of paying in cash, essentially transformation of assets in the balances of purchase and seller take place. Here are no signs of financial instruments.

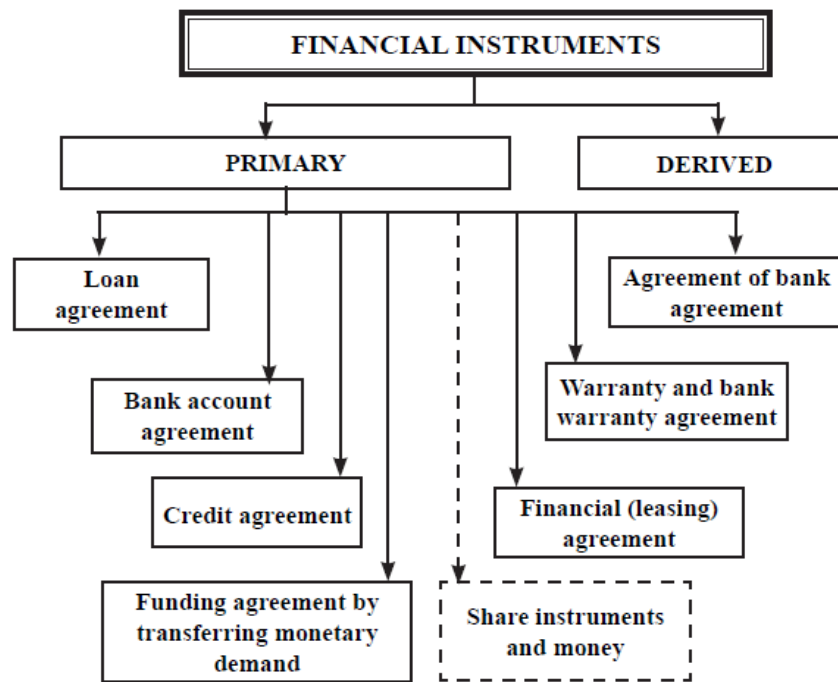
The case is more complicated in the **third** case. The good is already distributed, though in the balances of the vendee and the vendor there is an account payables (i.e. financial obligation) and accounts receivables (i.e. financial asset). In other words, from the formal position, purchase agreement in such case gets within the explanation of financial agreement – two counter agents get at the same time financial asset and financial obligation by using it. However, we cannot talk about financial instrument here as well as financial asset and obligation appeared at the final stage of realization of purchase agreement, as the result of the system of special forma and settlements.

Nothing is changed in case if we have financial assets, for example securities as goods. We don't see here appearance of financial asset with one counter agent and financial obligations with another at the same time; only banal transformation of assets in the balances of counter agents takes place.

It is noteworthy that given arguments are not absolutely indisputable and still in the classification given below we emphasize the operations related with financial assets. Based on the fact that according to the explanation essence of financial instruments are agreements, we can give following classification (Figure 3.1).

As seen from the given Scheme, financial instruments are divided into the primary and derived (sometimes called secondary i.e. derivatives) instruments. Find below their brief description.





**FIG. 3.1. FRAGMENT OF CLASSIFICATION OF FINANCIAL INSTRUMENTS.**

**PRIMARY INSTRUMENTS**

**3.2. PRIMARY FINANCIAL INSTRUMENTS**

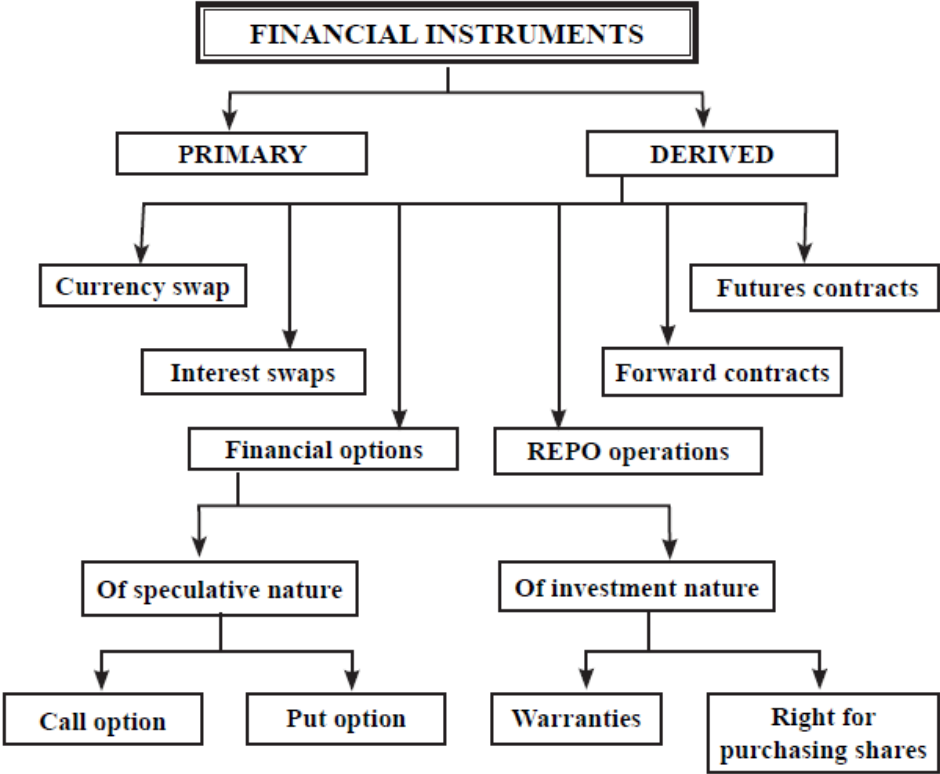
Primary is such financial instrument, which foresee clearly purchasing, selling, distribution or acceptance of financial asset, which gives rise to bilateral financial obligations. In other words, cash flows formed by means of proper performance of the agreement are preconditioned. Such assets may be cash resources, securities, account receivables, etc.

One of the possible versions of classification of primary financial instruments is given in the Figure 3.2.

**LOAN AGREEMENT**

Loan agreement, one of the parties (lender) transfers to another party (borrower) money or other item having similar markings, while the borrower undertakes to refund to the lender same amount of money (sum of loan) or other items received by him/her of the same amount, and of the same quality; the lender may be any financial or legal entity. Herewith, the agreement has written form, notwithstanding sum of the loan. Loan agreement is deemed to be concluded upon transferring of money or other items. Financial obligations of the parties are determined in the Agreement, including sanctions imposed for breaching its terms and conditions. Subject to the agreement of the parties, the lender is eligible to issue

promissory notes, confirming obligation conditioned with nothing (simple promissory note) or similar obligation of another payer stipulated in the promissory note (transferable promissory note), to repay the sum of borrowed money on the date stipulated in the promissory note.



**FIG. 3.2. FRAGMENT OF CLASSIFICATION OF FINANCIAL INSTRUMENTS.**

**DERIVED INSTRUMENTS**

Loan agreement may be concluded by means of issuing and selling bonds. They consider the bonds to be such securities, which confirm the right of their owners, to receive from the issuer of the bonds a) their nominal price or other proprietary equivalents; b) interest from the nominal fixed or other proprietary rights within specified term. Herewith, in any case, during realization of loan agreement the lender gets financial asset, as the right of requesting sum of loan together with the due interests, and the borrower gets financial obligations as the liability of transferring sums conforming to the terms and conditions for the lender.

**CREDIT AGREEMENT**

Credit agreement is the special form of loan agreement, when the bank or another credit organization is the creditor. Peculiarities of credit agreement are: a) agreement is always of written

form – otherwise it is illegal; b) only money may be subject of the agreement; c) the interest due for using such credit is deemed to be necessary element of the agreement.

### **FACTORING AGREEMENT**

According to the factoring agreement, one party (financial agent) transfers to another party (customer) or undertakes to transfer cash resources to the account of requesting sum of money of a customer to the third party (debtor). Such demand is conditioned by distribution of goods to the third party by the customer, performance of work or rendering service, while the customer undertakes obligation to transfer such monetary demand to the financial agent or he/she transfers it to him/her. Saying in other words, we mean selling of debtor liability, and three parties are participating in the transaction directly or indirectly, they are: 1) financial agent – the company purchasing account receivables; 2) customer or creditor – the company selling the debt; 3) company debtor, which is liable to cover sold right of demand. Subject of the agreement may be monetary demand, which is due (existed demand), as well as the right to accept financial resources, which will appear in the future (future demand). We meet factorings of two kinds in the global practice: conventional or open and confidential (in case of this latest, the counter agents of the customer do not know anything about transferring accounts to the financial agents).

### **AGREEMENT OF BANK ACCOUNT**

Subject to the law, with this agreement the bank undertakes to receive and accrue to the customer's account cash resources, to perform orders of transferring particular sums of money of the customer; to issue resources from the respective account or perform other operations. In the given explanations, we describe dependences of two kinds between the bank and customer: accrual of money to the account and performance of the customer's order regarding implementation of payments from the account, signing agreement about opening bank account is not necessary in documentary form. Application of the customer with the caption of the approval of the bank manager is enough (the list of documents attached to the application is added in centralized form).

### **AGREEMENT OF BANK DEPOSIT**

Subject to the Agreement of the bank deposit, one of the parties (bank) receives from the second party (depositor) or this party cash sum (deposit) and undertakes obligation to return deposit sum and repayment of interests according to the conditions and procedures of the agreement.

Such agreement is the kind of loan agreement, in which the lender is the depositor and the bank is the borrower. Herewith, for attraction of cash resources to the deposits, the bank shall satisfy following demands: to have license of central bank, many years of performing bank activities, reserve fund of the amount established by law, etc. Agreement on bank deposit is always made in writing (otherwise it will be considered to be void), and its essential condition is obligation of paying interests to the depositor by the bank. Obligation of bank deposit prohibits performance of settlement operations for the goods (service and work). In other words, after expiration of the term of agreement, legal entity is refunded the deposit by transferring money or in cases determined by law. Written confirmation of signing bank deposit agreement may be saving booklet or certificate for the individual and deposit certificates for legal entities.

### **LEASE AGREEMENT**

According to this agreement, the lessee undertakes obligation to purchase the property stipulated by the lessor from the determined seller and to transfer it to the lessor in exchange for the payment for temporary ownership and using. The agreement shall be drawn up in writing. This form of leasing agreements is characterized with:

The property to be leased is specially purchased with the order of the lessee;

The seller transfers to the lessee the object of leasing transaction (unless the agreement otherwise provides);

The lessor remains to be the object of transaction, and the risk of accidental damaging or destruction of the transferred property shall be undertaken by the lessee (unless the agreement otherwise provides);

Financial lease agreement relates minimum three persons (seller of the property, lessor and lessee). Due to this fact it is essentially combination of at least two mutual-related agreements: purchase (between lessor and seller of the property) and lease (between lessor and lessee) agreements;

The lessor has the demand of request quality and staffing of property, which is principal condition for the lease agreement.

The owner of the balance of leasing property in the native practice is determined with the agreement. Lease property is globally accepted to be included in balance. Herewith, the lessor is given financial asset in the form of long-term financial investment by means of the transaction, and the lessee is given financial obligation of lease payments. Lease agreements are practically

breached (in fact, they may be terminated, but this gives rise to large financial expenditures); due to this fact performance of the agreement is always accompanied with the cash flows, sum of which cover expenditures spent for purchasing the property by the lessor. Grounds to the lease agreement is the operation of purchasing assets of particular kind and their transfer to the customer. Notwithstanding this, the agreement is essentially credit operation; the customer purchases property at the expense of the resources of lease company. Saying in other words, this agreement can be called **financial instrument** as with the formal signs, so – essentially.

#### **WARRANTIES AND BANK GUARANTY AGREEMENT**

Every agreement named above had common condition that by means of their performance direct assets and obligations of counter agents take place. However, there are other agreements, conclusion of which do not actually give rise to immediate amendment of the content of balance articles, though including opportunities for such changes. Here we speak about warranties and agreements of bank guaranties.

With the guaranty agreement the guarantor undertakes responsibility before another party – the creditor responsibility for complete or partial performance of obligations of such person. The agreement shall be drawn up in writing (otherwise, the agreement is not correct – the guarantor is not obliged) and it may consider provision of actual or future obligations. By means of the bank warranty the bank, another credit institution or insurance organization (guarantor) give written obligation with the request of another person (principal), to pay cash amount according to the conditions given by the warranty of the creditor of the principal (beneficiary), if the beneficiary submits written demand about its repayment.

During conclusion of warranty and bank guaranty agreements amendments of the assets and obligations of the parties of agreement doesn't take place immediately, and due to this fact sums of warranties doesn't get in the system of double recording, but they are included in the balance free accounts. If this financial asset (though – to the debtor) has already been owned by the creditor, financial obligation conforming to the warranty is conditional and they are recorded outside the balance. Herewith, formally these agreements do not get in the description of financial instrument, though essentially they are instruments; truly, during non-fulfillment of obligations by the debtor, the warrantor gets financial obligation for repayment of debt, and the creditor gets – financial asset in the form of demand to the warrantor. Issued warranties and guaranties are foreseen in consideration of financial status.

## SHARE INSTRUMENTS AND MONEY

As we have already said, share instruments and money are included into the financial instruments in earlier classification. Today they belong to the financial assets. Reason for these categories is heterogeneity of understanding these categories. On the one hand, we deal with the agreements: **a) debt instrument**, for example, in case of the share, this is the agreement between holder of shares and their issuer; **b) in case of money** this is the agreement between the owner of cash signs and government. On the other hand, the case is complicated by the fact that in both cases the issuer (company or government) has no financial obligation for the purpose determined above. Formally, following relations appear between the parties of the agreement: the shareholder gets the right for the respective share in the current profit and net assets of the issuer (in case of liquidation of the company) and the owner of cash signs gets the right on the part of the public property.

### 3.3. DERIVED FINANCIAL INSTRUMENTS.

#### DEFINITION OF THE DERIVED FINANCIAL INSTRUMENTS

**Derived financial instruments are the ones foreseeing opportunity for sale and purchase of acceptance-issuance of income related with the purchasing and distribution of the market asset or the amendment of several characteristics of the asset.** Herewith, different for the primary financial instrument, it doesn't foresee preconditioned operation for the direct market asset – this operation is only possible, and it can take place in case of coinciding of particular conditions. By means of the derivatives they sell no the share itself, but the right of performing operations or making respective incomes. The scheme of one of the possible classifications of the derived financial instruments were given in the Figure 3.2.

Derived financial instruments have two principle signs of derivativeness: on the one hand, grounds to this instrument always is a particular market asset – good, share, bond, promissory note, currency stock index, etc. On the other hand, its price is more often determined on the basis of the market goods or market characteristics, and price of such derived financial instrument is characterized with the permanent variation. Due to this reason, these instruments may be independent objects of market relations, i.e. to become object of sale and purchase. Saying in other words, any derivative always has potential opportunity for attractiveness as from the issuer's, so – the market participant's position.

Many financial instruments and operations are grounded on the securities. **Security is the document of determined form and compulsory requisites and this confirms proprietary rights, which may be performed or transferred only in case of its submission.** Popular securities are: state bond, promissory note, voucher, depository and saving certificates. Bill of lading, share, privatized securities and other documents, which belong to the group of securities according to the law and respective procedures.

### 3.3.1. SPECULATION AND HEDGING

Origination of modern financial instruments (derivatives) was basically conditioned with the hedging and speculative aspirations. Let us remember that speculation is investment of resources in high-risk financial assets, when there is a high risk of loss, though, at the same time, there is interesting possibility of making surplus income. As a rule, operations of speculative nature are of short-term nature, and they reduce risks of possible losses by means of hedging. In fact, there are no risk-free operations in business, this may be proven by simple *example: the creditor issued loan to the borrower with mortgage of own house. At one glance, this operation seems to be risk-free, as in case of refusal or insolvency of the debtor, the debt will be repaid by means of the court and selling the house of the debtor. Actually, the risk is maintained as in case of the accident or fire the borrower may lose his/her property and become insolvent.*

This point of view is more justified in relation with the operations of speculative nature. Herewith, it is natural to form the necessity of processing versions of marketing conducts and methods of conduct, to foresee the risk, In principle, any scheme of managing finances allowing exclusion or minimization of the risk, is called Hedging.<sup>34</sup>

From the stricter point of view, **hedging is the operation of sale and purchase with the special financial instruments, by means of which they provide total or partial compensation of hedging for the losses inflicted by means of changing the price of the object (asset, obligation, transaction), or cash flows equated to it.** Alongside with the development of financial instruments it becomes clear that they may be used successfully not only for the maturity markets, but also at the capital markets and current activities.

Purpose of hedged operations is to transfer risk of changing prices from one person to another. There are different reasons explaining participation of each party in such operations.

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<sup>34</sup> It shall be noted that hedging is not the only way of avoiding risk. We will discuss kinds of risks, methods of assessment and prevention rules in more details separately (**the author's note**).

We have much frequent cases of the hedger's endurance for changing prices for basic asset. Second speculation waits for making income from the predicted change of prices. The most popular methods of hedging are: insurance, forward and future agreements, options, percentage and debtor swap, etc. There are insurances of two kinds: obligatory and compulsory. The first one is foreseen by law and expenditures on them are included in the self-cost of the products. Another type of insurance is of voluntary nature, and necessity and purposefulness of its using is determined with the risk quality, which is associated with the given operation.

As we have said above, risk is foreseen in financial operations in the norm of profit: the higher is the risk level, Very often the norm of profit is determined with help of the expert. For each particular case, several formalized algorithms may be used. Namely, in case of issuing loan with interest, insurance policy for the issued loan may be purchased, and the interest for using the loan may be determined in the way of providing warranted income in any case (notwithstanding the debtor's solvency or insolvency).

### **3.3.2. FORWARD AND FUTURES-TRADING AGREEMENTS**

Being relatively distributed methods of hedging, forwards and futures allow securing several assets (wheat, metal, etc.) from drastic change of prices, as they allow being purchasing for the agreed price. They are securities and they are being circulated at the stock exchange.

#### **THE ACT OF FORWARD AGREEMENT**

Forward agreement, as relatively distributed type – futures, is the agreement about sale and purchase of financial instrument with the condition of distribution and settlement in the future. The Contract is limited with the amount and quality of goods. Subject to the Agreement, the seller is liable to supply particular amount of goods or financial instrument to the particular place and time; after distribution of goods, the seller is liable to pay the price determined on the time of signing the agreement. Some agreement are securities which may be sold several times at the stock exchange within the particular period of time (until their performance). There are agreements according to which obligation may be performed not by direct distribution of goods or financial instrument, but through futures or monetary markets, by means of receiving or paying distinction of prices. In other words, owner of the forward or future agreements are eligible to a) purchase or sell market asset through terms and conditions given in the Agreement or b) make income by means of changing prices on market assets.



In order to guarantee performance of the agreement, it is necessary to guarantee liquid securities with cash money or its equivalent. The sum needed for transactions with futures, as a rule makes 8-15% of total price of goods, which is foreseen with the Agreement. These resources are guaranteed provision of obligations and they will be returned after implementation of the agreement or closing position. Thus, subject of trade in the agreements of such kind is price, and the terms “sale” or “purchase” are conditional and they mean only occupation of the position of seller or purchaser by undertaking respective obligations. Before the term of agreement implementation, its any participant is eligible to sign an agreement by taking reverse obligations, i.e. to buy or sell these agreements of same amount within same period of time. Undertaking terms and conditions of two opposing contracts, will provide counter payment and thus release the given participant from obligations.

### **WHAT IS THE ROLE OF CLEARING?**

Functioning of future market and its financial reliability is achieved through clearing; within these bounds participants of the transaction are registered, and monitoring of the accounts of the participants is provided, as well as payment of warranted resources, and settlement of profit and loss after participation in the transaction. Each transaction is registered by the clearing (settlement) chamber, which is the third participant of the transaction. Herewith, the purchaser and seller are free from mutual obligations. However, each of them becomes obliged by the clearing chamber. The Chamber plays the role of guarantor for those who have not provided liquidation of obligations for the date of performance. Thus, legal grounds to the operations related with the Agreements are the agreements connecting participants of clearing chamber and stock exchange with each other. It's financial ground is cash resources or their equivalents brought in the form of mortgage.

### **WHAT ARE FUTURES?**

**Futures is one of the form of forward agreement.** This kind of securities is distributed at the stock exchange, and information about them is published in special media. See in the Table 3.1 publication on future prices on the wheat.

The data given in the Table means (according to the first column).

**1<sup>st</sup> cell.** Prices in the first minutes 15.09.2011.

**2<sup>nd</sup> cell.** Maximum price fixed on 15.09.2011.

**3<sup>rd</sup> cell.** Minimal price fixed on 19.09.2009.

**4<sup>th</sup> cell.** Prices in the last minutes 15.09.2011

5<sup>th</sup> cell. How much the prices were changed upon closing of the stock exchange on the current day (i.e. closing price was 419.25 cents on 14.09.2005).

6<sup>th</sup> cell. Maximum price fixed in the given month of entire time of existence of the agreements.

7<sup>th</sup> cell. Minimum price, fixed in the given month of entire time of existence of the agreements.

8<sup>th</sup> cell. Number of agreements brought for trading.

Futures particularly are development of ideas of forward agreements. According to the kinds of market assets, the futures are divided into financial (basic asset – interest rate, currency, obligation, share, stock index) and commodity (basic asset – wheat, gold, oil, etc.) futures.

Table 3.1

**DATA ON FUTURE CONTRACTS ON WHEAT**

(Thursday, September 15, 2011)

(in the centers on 1 bushel)

Distribution term	Opening price	Maximum price	Minimum price	Closing price	Change of price a day	Total		
						Maximum price	Minimum price	Number of agreements
09.2009	411.0	416.50	407.00	407.0	-6.25	421.00	272	423
10.2009	427.0	432.25	422.00	423.25	-5.50	432.25	289	47151
03.2011	430.5	436.00	426.50	427.00	-4.75	436.00	323	12823

**PECULIARITIES OF FUTURES**

Compared with the forward agreements, the futures have several peculiarities (distinguishing signs):

**Forward and future agreements** are transactions firm by their nature, i.e. each of them are to be performed, but on the time of their signing, the purposes of the parties may be different. **Forward agreements** are more often signed for the purpose of real selling or purchase of the basic asset and it protects the supplier and purchaser from possible change of price. Though the Parties may subjectively and differently evaluate dynamics of prices, but they, in the first place, are connected

with the desire of having predictable situation. The forward is more of hedging nature, **the future seems to be speculative, as it is often important to sell or purchase basic asset, but making profit from changing prices.**

Forward agreements are of specific nature, while futures are standardized. Saying in other words, any forward agreement is concluded in accordance with specific requirements of particular customers. That is why forward agreements are mostly objects of non-exchange transactions, and they provide sale and purchase of futures at the futures exchanges.

There are no firm guarantees for compulsory performance of forward agreements. In case of essential change of prices, supplier of price may refuse distribution even in case of existence of the danger for charging large penalty sanctions. Herewith, these agreements are mostly based on the relation of counter agents, as well as their professional honesty and solvency.

Forward agreement is “bound” to the particular term, and the future one – to the month of performance. This means that supplying commodity or financial instrument may be provided by the supplier in accordance with his/her discretion, on any day of the month stipulated in the agreement.

Due to the fact that future agreements and amount of participation in the operations is ordinarily large, particular sellers and purchasers, as a rule, are not bound to each other. This means that when one supplier is ready to perform the agreement, and notifies clearing (stock-exchange) chamber about it (which is managing performance of futures, this chamber randomly selects one of the purchasers waiting for performance of the agreement and informs him/her about expected distribution of goods during nearest days.

Different from the forward counter agents, which are ordinarily sold at non-exchange markets, futures are in free circulation at the future exchanges, i.e. there is permanent liquid market of these securities. Due to this fact, in case of need the seller always can regulate obligations of distribution of goods or financial instruments by means of redemption of futures. Functioning and reliability of future market is provided by clearing system, within the bounds of which participants of transaction are recorded, alongside with the monitoring of conditions of their accounts and payment of guaranty fees by them, and calculation of the size of profit and loss made from participation in the transaction. Each transaction is registered by the clearing (settlement) chamber, which becomes third party of the transaction. Thus, the seller and purchaser are released directly from the obligations to each other and each of them becomes responsible to

the clearing chamber. The chamber plays the role of guarantor, who could not liquidate their obligations by the time of their performance. Thus, legal grounds to performance of operations on the agreements are made by the agreements connecting clearing chamber and stock-exchange; their financial grounds are cash resources paid by the participants in the form of advance payment or their equivalents.

Main distinguishing sign of futures is that change of prices of goods and financial instruments envisaged in the agreement is provided on daily basis, during entire period existed before the moment of their performance. This means that cash flows are permanently circulated between sellers, purchasers and clearing chamber. Main purpose of these mutual repayment is to avoid the temptation for violation of the agreement by particular reason by some counter agent. Trading with futures is quite risky activity, due to this fact, they are participated by the partners. Who had worked with each other for long period of time and trust each other. Future agreement are mostly distributed in the transactions with products, metal, oil products and financial instruments.

Let us discuss simple example based on the data of the Table 3.1.

*For example. The seller and the purchaser concluded transaction on 15.09.2005. According to the closing prices, clearing chamber declared about distribution of goods on 19.09.2005, price of which would be the price of closing the day. Let us assume that closing price fluctuated in the following way (on bushel):*

*Thursday – 15.09.2005 – 4.07.*

*Friday – 16.09.2005 – 4.04.*

*Monday – 19.09.2005 – 4.14.*

*Actions of the purchaser were following per days:*

*15.09.2005 – purchasing future agreement for the price – bushel 4.07 US Dollar.*

*16.09.2005 – payment into the clearing chamber, which is based on calculations – 0.03 US Dollars in bushel.*

*17.09.2005 – receiving money from the clearing chamber, which is based on the calculations – 0.10 US Dollars to bushel.*

*Day – payment for supplying wheat is based on the calculations 4.14 US Dollars on bushel and distribution for accepting goods.*

*Action of the seller (supplier) per days:*

*19.09.2005 – selling future agreement for the price – bushel 4.07 US Dollars.*

*16.09.2005 – accepting money from clearing chamber with calculations - 0.03 US Dollars  
n bushel.*

*17.09.2005 – payment to the clearing chamber, based on the calculations – 0.10 US Dollars  
n bushel.*

*19.09.2005 – accepting money from the purchaser, based on the calculations 4.14 US Dollars in  
bushel and supplying goods.*

*Every payment shall be fulfilled during one working day. Of course, notwithstanding great  
amount of cash flows, consequential payment is provided for the price stipulated in the future  
agreement, which:*

*Seller – 0.03 + 0.10 – 4.14 – -4.07*

*Purchaser - +0.03 – 0.14 + 4.14 + 4.7*

As we have already said, hedging with futures is of special importance to the company, which provides large circulations of monetary and commodity resources; it is necessary for them not only maximally possible profit, but also stability and faith, i.e. it is necessary to fix acceptable price in the future, to ensure them from possible disadvantageous change of prices. Hedging selling of future contracts is used by potential sellers of future real goods (the seller, who shall insure price on the goods to be sold, required amount of agreements shall be sold at the future market); potential purchasers are interested in hedging purchasing of contracts.

As for speculations at the future market, its essence is in the need of the participants of transaction to make profit by means of fluctuation of prices. By purchasing agreements, speculators do not assume to purchase or realize the goods at all. Their purpose is to follow conjuncture of market, to learn movement of prices and make profit by means of repeated selling of the agreement.

#### **EXAMPLES OF FUTURES MARKET**

Future market was formed in the post soviet states in October 1992 at the Moscow Commodity Market. Rates were made in small speculations, and futures agreements play the role of financial instruments on US Dollars. In the middle period of 1994, they started transaction with futures at numbers of other exchanges as well: at central stock exchange of Moscow, Moscow Interbank Currency Exchange, etc. At the Central Stock Exchange of Moscow trading is provided with currency futures (agreements in US Dollars and index of the rate of US Dollars) and financial futures (agreements per interest rates, gold certificates and shares of gold certificates).

Futures agreement in US Dollars may give important income in the form of different interest rates per currency resources. According to the applicable exchange agreement, incomes of futures of US Dollars may be several times more than the income, which may be made from the currency deposit. The operation exists in the following: a) futures agreement on US Dollars will be purchased with distribution after particular period of time; b) the currency taken at hand is sold, and obtained resources will be placed with more profitable conditions; c) resources distributed are converted into the currency on the maturity date. Experience shows that the income made from this operation may quite big.

Only settlement companies are eligible to participate in futures transactions, which are members of the exchange chamber. Other individuals and legal entities are eligible to participate in the transaction in the form of their customers. For example, in order to turn the company into the settlement one at Tokyo Central Stock Exchange, it is necessary to purchase shares of the said stock exchange, as well as those of the exchange chamber and make initial warranty contributions. To attract customers, representatives of the stock exchange use numbers of innovations and benefits. For example, the said stock exchange foresees the opportunity for make nominal guaranty fee with bank deposit and not in cash.

### **3.3.3. OPTIONS**

Options are one of the most distributed instruments of market economy. They make continuance of futures in particular way. Though, different from futures and forward agreements, option doesn't foresee compulsory sale and purchase of market assets, which can inflict greatly one of the parties directly or indirectly under undesirable conditions (wrong predictions, changing common conjuncture, etc.). Let us remember that in terms of operations on futures, distribution (purchasing) of basic assets was not considered; changing of its price is reflected at the cash resources connecting the purchaser. Due to this fact, losses (incomes) made from the operations performed on these instruments may be, in fact, notably large. Different situation is with the operations on options, allowing reduction of the size of possible losses.

#### **DEFINITION OF OPTIONS**

Option is the agreement, which foresees sale or purchase of the preliminarily agreed assets with the price fixed at the agreed moment.

From the most general point of view, option (right for choosing) – is the agreement concluded between the two parties, one of which subscribes for and sells the option, while another purchases it together with the following rights during the term agreed with the terms of option:

a) To implement the Agreement, i.e. to purchase particular amount of basic assets with fixed price from the person subscribing for the option (option for purchasing), or selling it (option for selling);

b) To refuse implementation of the agreement;

c) Before expiration of the deadline for implementation of the agreement, to sell this agreement to another person.

Subject to the option, the purchase of options is called **option buyer or owner**, and the person who undertakes respective obligations is called **seller of the option (emitter)**. The option giving purchase rite is called **call-option** or buyer's option; the option giving selling right is called **put-option** i.e. seller's option. They call the price paid to the seller, i.e. subscriber of the option to the buyer of the option – option price. This sum is not refundable, notwithstanding if the purchaser uses purchased right or not. The price of the basic asset envisaged in the option agreement, with which its owner is able to purchase (sell the asset), is called **exercise or strike price**. The asset the option is based on is called **basic asset**. This may be any asset or financial instrument. In the most cases, options are standardized per their characterizers; for example, basic assets are mostly sold in lots. Purchasing of the assets, may be usually provided in the form of the lot (package) of 100 shares.

Essential conditions of option are: a) asset identification, which may be purchased (or sold); b) amount of purchased (selling) shares; c) price, on the basis of which the transaction shall be provided (performance price); d) deadline for selling (purchasing).

For market asset they may take any good or financial instrument. Due to this fact, there are several kinds of option, according to the dependence to the base; they are corporate securities, exchange indexes, state debtor obligations, exchange indexes for the goods or futures agreements.

It is remarkable that subject to the peculiarities of option, with the operation the purchaser buys not the financial instruments (shares or bonds) or goods themselves , but only their selling (purchasing) right.

*Example, option for purchasing 100 share of the company Omega will be call option on 100 shares of the Company. The option on selling 100 shares will be put option of the same option.*

#### CLASSIFICATION OF OPTIONS

There also is another kind of option classification. Namely, subject to the performance of basic asset distribution, they divide options in two groups: having physical distribution and cash settlement. In the first case the holder of the option is eligible to receive basic assets (in case of call options) or sell them (in case of put-option) physically; in the second case we mean receiving of the payments, which has the form of distinction caused between the price of market asset and performance price. In case of call option, its owner will use the right of receiving distinction, if price of the basic asset becomes more than the exercise price; while with put option on the contrary – when ongoing price is less than the exercise price.

From the point of exercise price, if the person issuing option holds the number of basic assets agreed in it, the option is called covered, and if the option has no such provision – uncovered. It is more risky to subscribe uncovered options. Avoidance of risk may be provided by means of simultaneous selling and purchase of call and put options.

#### WHAT THE OPTION STRATEGY EXISTS IN?

It is noteworthy that option agreements obviously are of speculative nature and they have no direct relation with the activities of the firm, which are directed to the growth of the source of financing. Herewith, the income made from the operations performed on such instruments is made by the brokerage companies performing operations on the securities. There is a common strategy of the sellers and purchasers, where each of them tries to make profit from possible change of the rate price of shares; the person, whose predictions are more accurate will make profit (income). Herewith:

Owners of call option and emitters of the put option work on rising prices (in other words, they think that market price of the asset will increase in the future);

Owners of put option and issuers of call option hope for decreasing prices in the future.

Let us consider such logics of option agreements.

*For example: the company Alfa purchased call option from the company Omega with the exercise price of 100 shares  $P_e = \text{GEL } 50$ . Price of shares at the moment of subscribing option equals to  $\text{GEL } 50$ . Agreement price was  $\text{GEL } 4$  per share. It is clear that to avoid loss it was necessary for the*



purchaser during the period of the Agreement, to increase price of shares to minimum GEL 4 (GEL 400 = 100). In case of increasing the price up to GEL 55, purchaser's income makes  $(55-50) 100 - 400 = \text{GEL } 100$ .

If rate price makes the magnitude during given interval (50-54), purchasing option will cause loss to the company Alfa. In such case, the most optimal decision is purchasing of shares, to reduce loss. For example, if rate price is GEL 52.5, the loss will be:

$$400 - (52.5 - 50) 100 = \text{GEL } 150$$

If rate price is GEL 50, the company Alfa will not implement the agreement, i.e. it will not buy shares, and its loss GEL 400 will be the sum to be paid for the option.

Please see the payment schedule in the Figure 3.3.

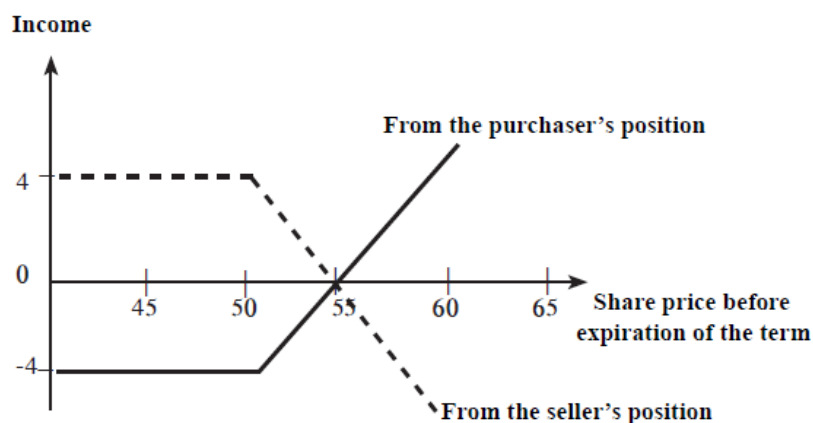


FIG. 3.3. PAYMENT SCHEDULE FOR CALL OPTIONS

Given Schedule makes us come to conclusion about income and loss of the purchasers and sellers of the options, as well as about versions of the purchaser's actions.

*From the purchaser's position:*

Required trend for the purchaser is the growth of price of basic asset  $P_m$ , which will give rise to unlimited growth of such potential incomes.

Loss of the purchaser is limited below GEL 4, with the less degree on the share, compared with his/her potential income. It is determined with the reduction of the rate price.

The option has following actions:

If the option is not fulfilled, and there is maximal loss and it equals GEL 4 (for single share).

If the option is fulfilled, and the holder of the option suffers loss, size of which is lower the closer its rate price is with the exercise price.

If the option is fulfilled, holder of the option makes income from the operations, size of which is in positive correlation with the rate price of the basic asset.

**From the seller's positions:**

Potential income of the seller is reduced with the sum of GEL 4 on the share and they will be fixed in case if the price of the basic asset at the moment of expiration of the option is not more than GEL 50;

Is the price is increased up to GEL 54, the seller suffers loss, size of which is directly proportional to the growth of price. Herewith, size of the loss is not theoretically limited (of the operation is not hedged).

Action of the seller is of compulsory nature and is it totally determined with the purchaser's action, i.e. different from the purchaser, seller's role is passive after selling the option.

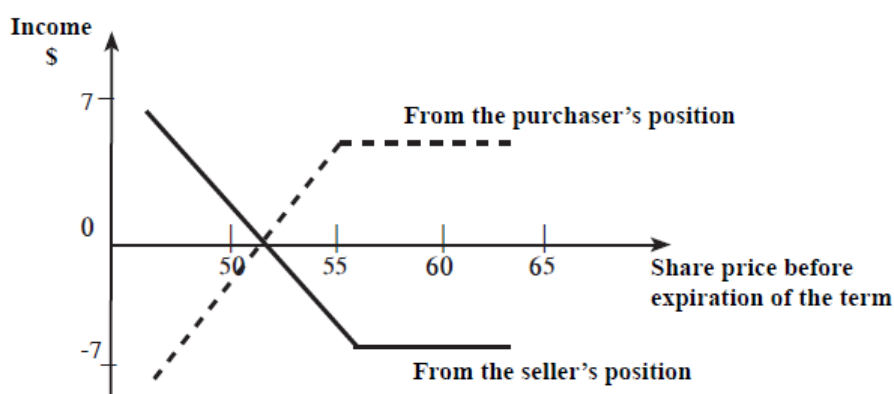
Example, the investor purchased put option on 100 shares from the Company, with the exercise price – USD 60. Term of the option is 3 months. Agreement price is USD 7 on share, price of shares at the moment of issuing option is USD 62.

After buying the agreement , the investor is oriented towards decreasing price of shares in the future, if at the moment of expiration of the debt equals to USD 50. the option will be used, and income of the investor will be:

$$(60-50).100 - 7.100 = \text{USD } 300$$

In order to prevent loss of the investor, price of shares shall not be more than USD 53 upon expiration of the option term.

Changing incomes and expenditures of the purchaser and seller of the option may be represented graphically in the following form (Figure 3.4).



**FIG. 3.4. PAYMENT SCHEDULE FOR CALL OPTIONS**

***Thus, action of the holder of put option is as follows:***

*If  $P_m > 60$ , option is not used. Herewith, the loss equals to USD 7 (per single share).*

*If  $53 < P_m < 60$ , the option will be fulfilled. Herewith, holder of the option will receive income from the option, size of which will be direct proportional to the reduction of the rate price.*

Given Chart shows that there is no principle distinction between two types of options. In both cases potential incomes of the purchaser may be much more, while its potential expenditures are limited and they are not more than its actual size, consciously paid by the investor at the moment of purchasing the option. These expenditures, in their essence, are payments for the risks, which is followed by the expectation of the investor regarding changes in prices of basic asset. Every distinction per options is determined only with the changing of price on the basic asset. In case of call option, investor is waiting for their growth, while in case of put option – their reduction.

Given examples show that from the positions of possible incomes, owners of the options are divided into three groups; they are those who made profit, those who are left without profit and those who lost. Similarly, each of the three possible situations is characterized with the mutual dependence of price exercise price and current price of the basic asset. Namely, for call options this relation is as follows:

$P_m > P_e$  – this means that call option is profitable (synonym – “in-the-money”), i.e. it will be fulfilled and make profit for its (option) holder;

$P_m = P_e$  – in such case call option is without profit (synonym – “at-the-money”);

$P_m < P_e$  – in this case call option is unprofitable (synonym – “out-of-the-money”); i.e. fulfillment of the option will bring loss to its holder.

Similar situation may be easily determined in case of put option.

It shall be noted that given names are not compulsory to be considered with direct meanings, as with the strict description, here expenditures should be considered, made by the holder of the option in terms of its purchasing.

As stipulated in the discussions and examples, the option related with the option is risky, by means of creation of the portfolio of optional contrasts; it becomes possible to reduce essentially risk of the losses. Let us assume that the investor is waiting for the prices of the company Alfa will be quite unstable in the following months. At the same time, the investor can not determine in what way the prices are to be changed – reduced or increased. Due to this fact, it manages so called constructed combination, the essence of which is represented in the numerical example.

*Example, let us assume that it is possible to purchase call and put options of the company Alfa for one and the same price –  $P_e = \text{USD } 50$  for one and the same expiration date; price of each option is one and the same and it makes  $\text{USD } 4$ . It shall be also noted that quoted meaning of the basic price in course of the performance of the option equals to  $\text{USD } 12$  ( $50-2 \cdot 4$ ) and  $\text{USD } 58$  ( $50+2 \cdot 4$ ). It shall be considered that in course of moving to the basic price, in any case of the investor's loss (income), these figures are replaced with the income (loss). Let us discuss possible situations in terms of expiration of the options, in case of such combination:*

*1) Price of the share was reduced to  $\text{USD } 40$ . In such case, fulfillment of call option may not be profitable; on the contrary, performance of the put option will bring income with the sum of construction of combinations (shares):*

$$50 - 40 - 8 = \text{USD } 2$$

*2) Price of shares was reduced to  $\text{USD } 42$ . Created situation is similar to the previous one. Fulfillment of put option is profitable, though made income is enough only for compensation of the costs made by on the construction of the combinations.*

$$50 - 42 - 8 = 0$$

*3) Price of shares was reduced to  $\text{USD } 45$ . In such case, fulfillment of put option will make income, which will not be enough for repayment of costs made for construction of combination:*

$$50 - 45 - 8 = \text{USD } -3$$

*4) Price of share conforms to its exercise price. In such case, no option will make income in case of using; i.e. the investor suffers loss, which equals to the costs made on the construction of combinations. This is the maximal figure of loss, which may be made by the investor, notwithstanding the size of changing prices on the basic assets.*

*5) Price of the share was  $\text{USD } 54$ . In such case, using of put option is not profitable. On the contrary, call option may make profit, which will partially reimburse expenditures made on construction of combinations.*

$$54 - 50 - 8 = \text{USD } -4$$

*6) Price of the share was  $\text{USD } 58$ . The situation is similar with 2 situations; difference is that fulfillment of call option will make income, which will cover every cost made on the construction of combinations.*

$$58 - 50 - 8 = \text{USD } 0$$

*7) Price of the share was USD 60. The situation is similar to the situation 1 with the difference that using call option will not only make income, to repay costs on construction of combinations, and bring profit to the investor.*

$$60 - 50 - 8 = \text{USD } 2$$

*8) The more visible deviation is between price of the share (at the moment of repayment of option) and exercise price (Situation 1 and 7), the more will be income of the holder of the option.*

*This latest is the most important as if the expectations of the investors are justified, i.e. price of share is significantly changed, he/she will make income independently where the prices are changed.*

With the discussed combination, which is known with the name Straddle, of course, is not final. Famous combinations, There are combinations, which are based on the call and put options, with different prices of performance, with combination with the market assets, etc. Respective examples may be found in the translated literature, as well as in the monographs of native specialists. As for the example itself, we have introduced it, because we think that by means of the options the investor and speculators are able to solve the objectives of hedging and generation of incomes.

Option is the market instrument, and its price is formed by means of action of the basic mechanism. Moreover the logic of its formation may be described as follows:

The option having free interval of small period is the value in case if its performance is possible any time within the frames of such interval and make income. Size of this income equals to the current price of the basic asset ( $P_m$ ) and distinction between exercise prices. **This distinction is called theoretical or internal price of the option ( $V_t$ ).** Market price of the option ( $P_o$ ) is usually more than its inner price several times, with particular size, which is called **time value of options ( $P_r$ ).** The essence of forming time value of option is evident: the option relates with the future, i.e. expectation, for maintenance of the trend of reduction or increasing the prices of basic shares in the future. Time value is the opportunity for making profit under the conditions of further change of prices. It shall be noted, that in the western and national literatures they often use the term "Premium", which considers price of the option, or its time value (See Burenin, 1996 pg. 120. Brigham, Hanenskiy, Vol. I; pg. 144). Second version is more substantiated, which is discussed in the fundamental works of U. Sharp and Alexander "the Investments". The term Premium is considered in this regard in this part of the book.

Let us discuss why the premium and the desire of the investor to pay more than internal price of the option are formed. The case of confirmation of his/her expectations, profitability of the operation may be more than profitability of own basic asset.

Actually, let us assume that the price of call option, which was purchased for USD 5, equals USD 80, which conforms to the market price of the base asset. Let us assume that at the moment of fulfillment of the option, price of the market share was increased for one and a half, i.e. USD 120. In such case the owner of the option will make income in the amount of USD 35 (40-5); and price of the operation amounts 700%  $35/5 \times 100$ , if the investor of interim options intends operation of the basic asset itself (purchasing further selling of share), in such case profitability of operation would be only 50%  $40/80 \times 100$ . Exactly such opportunity of making surplus profitability makes grounds to pay the premium, as exceeding its inner price. The fact of popularity of the operations related with the option among speculators and the reason for formation of the market of these financial instruments shall be identified.

Thus, every indicator given above is connected with each other with the following dependences:

$$P_o = V_t + P_r = |P_m - P_e| + P_r$$

**Notice:**

*In the formula we used sign of module (absolute value) in order to distribute it upon call-options, as well as upon put-options.*

*For call-options: if  $P_m < P_e$ , then  $V_t = 0$ .*

*For put-options: if  $P_m < P_e$ , then  $V_t = 0$ .*

*Each value of the given formula are equal, as the price of the option in general and it may vary which takes place in the first place in relation with the shares. It is characteristic to the shares of large possibilities of price variation.*

**GENERAL TRENDS OF THE OPTIONS**

It is not difficult to form several general trends in the dynamics of the explained index, namely:

More continues the term of the option is, the higher their price and premium is, as the size of expected change of the price of basic asset is more indefinite.

Options of unstable shares is much expensive, than those of stable shares, as the lower change of the expected prices is, the less is the possibility of making income and the lower is the price of option.

Following is characteristic to the call option: the higher is the current market price in relation with the exercise price, the higher is the option price and the lower is the value of the premium. In other words, together with the growth of deviation between  $P_m$  and  $P_e$ , share of the premium is reduced in price; i.e. price of the option gets closer to its internal price. This may be easily explained: under the conditions of effective market, prices can not be unlimited increased, and this reduces probability and size of further growth.

Reverse situation is characteristic to the put options: the lower is the price of share asset and more bended to the exercise price, the less is the share of premium in the price of the option.

For presentation, we may show in the Chart different changes in parameters and the way of changing price of call-options in case of exercise price USD 50 (Table 3.2 and Figure 3.5).

Table 3.2

VARIATION OF THE PRINCIPLE VALUE CHARACTERISTICS

Current price of basic asset $P_m$	Exercise price $P_e$	Inner price of the option $V_1$	Market price of the option $P_0$	Temporary price of the option (premium) $V_1$
45	50	0	6	6
50	50	0	6	6
55	50	5	8	3
60	50	10	12	2
65	50	15	16	1

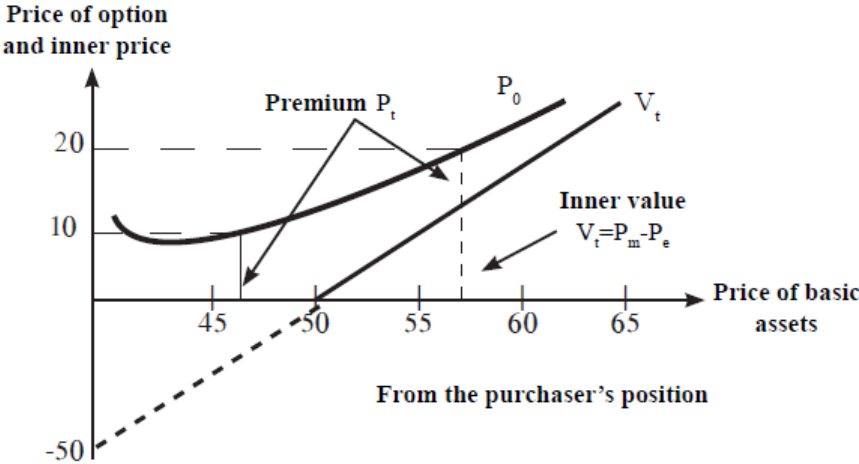


FIG. 3.5. CHART OF CHANGING VALUE INDEX OF CALL OPTIONS

You can see from the Chart that as current market price is usually lower than the exercise price at the moment of issuing call option, inner price of option equals 0, and its current market price conforms to the premium with its size (it may be considered to be one of the relatively grounded explanation of the reasons of authority, which is related with the terms Premium and Option Price). If needed the reader may build similar chart for such options.

To guarantee the principles of calculating basic price of options, within the framework of the theory of finances of price formation of the options, where well known Black-Scholes Model (its name comes from the surnames of its creators) occupies central place, is based on the idea of hedging through building of risk free portfolio, which includes several combinations of the option and basic assets. You can be introduced with more detailed description in the monographs of western specialist<sup>35</sup>.

Interest towards the options from the side of the financial management is determined with particular circumstances. Namely, by using idea of options in terms of emission of securities, as well as opportunities for playing at the forward market.

Optional trade is relatively new kind of operations. Optional exchange trading was opened in the USA in April 1973 at Chicago Board Options Exchange, CBOE. Later such transactions were provided by other largest stock exchanges. Today optional agreements are taken on more than 500 shares in the USA.

Together with call and put options, which have short-term speculative nature, other optional agreements of speculative natures are also known in the exchange practice, namely, the right and version of preferential purchasing is also known in the exchange practice. They are of great importance in making investment decisions.

The right of preferential purchasing of the company (option on share) is a specific financial instrument, involvement of which was initially conditioned by the natural desire of shareholders, to avoid possible loss of the control quality and reduction of the income share, due to appearance of new shareholders in terms of additional emissions. In these securities we stipulate the amount of shares (or such part of shares), which may be purchased with the fixed price (setting signature). Such operations are of special importance, namely, in case of open transformation of the closed joint stock company. Opportunity to grant primary right of purchasing shares with voting price and the securities by the acting shareholders, shares of which are converted into the shares with

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<sup>35</sup> **Brigham U., Gapenski L.**, 2001. Financial Management – M.: Ekonomicheskaja Shkola, Vol.: 1; pg. 148-152.



voting right, and their placement with open signature is foreseen by law. The rights for purchasing shares (as well as securities) for good prices are circulated independently at the market. At the time of their issuance, the company determines date of registration – every holder of share registered on the same day receives the documents “purchase right”, which may be fulfilled by them in accordance with their discretion, i.e. they can purchase additional shares, or sell or reject them. Financial instruments “purchase right” are in free circulation at the market. Herewith, their market price may be significantly different from the theoretical price. In the first place, this is related with the expectations of the investors in relation with the shares of the given company. In case if the price of shares may be increased, this increased market price for purchasing price. Importance of this financial instrument for the issue is that the company activates purchasing of his/her shares. As for the potential investors, they may make particular income in case of rising price of the company’s shares.

#### **ESSENCE AND KINDS OF WARRANTY**

Warranty means guarantying particular phenomenon, for example sale and purchase of goods. Warranty in financial management is the security, allowing sale or purchase of the fixed sum of financial instruments during particular period of time. Purchasing warranty is expression of precautions, if the investor is not completely sure in the quality of securities and if he/she does not want to risk with money.

There are different versions. In every typical case, holder of the warranty gets the opportunity for purchasing particular number of shares for the agreed price. There are term-free versions, allowing the right of purchasing particular financial instrument any time. The warranty does not give right on the interests of dividends. It has no voting right, term of repayment or price. It may be issued together with other financial instruments, attractiveness of which is wanted to be increased in this way, or starts circulation separately. In any case, after particular time it starts circulation independently. Warranties, as a rule are issued by large companies and quite seldom, different from the purchase right, which are issues by the large companies and different from the rights of purchasing, which are issued for relatively shorter period of time (several month), validity term of the warranty may be several years. Besides this, the price of exercise purchase right of this financial instrument determined at the moment of emission, is ordinarily less than the rate price of the share, while the fulfillment price stipulated in the warranty is higher than rate price in 10-20%.

Warranties are usually issued together with the bond-secured loan of the company. This provides: a) attractiveness of the bond-secured loan, i.e. success of its placement; b) increasing share capital in case of fulfillment of the warranties. After the warranty is removed from this financial instrument, together with (for example, with the bond) it was emitted, it starts independent circulation at the securities market. In this case, the operations performed on them may be give rise to the profit or loss.

## **SWAPS**

**The Swap (exchange) is the agreement between on exchanging obligations or assets between two subjects for the purpose of improvement of their structures, and reduction of expenditures on risks and services.** There are different swaps. The most distributed between them is interest and currency swaps.

The essence of the operation, may be easily understood at the example of the interest swaps. The enterprise, which attracted loan resources, shall pay interests on it. Crediting may be provided with different schemes, for example, the credit may be issued or fixed with floating rate – LIBOR<sup>36</sup> or the rate “bound” to it. Besides this terms and conditions of credit, agreement may be different, namely, in accordance with the different solvencies of the customers.

Swap market started development from 1980. This was proceeded with the period of using parallel credits, when two parties were being agreed on exchanging principle sums and interests accrued to them. This is the purpose they invented interest operation called swap. Its essence is to accrue to each other distinction of interest rate of the agreed sum, which is called principle sum. This sum is not being transferred from one owner to another, but this is only the base for calculation of interests. They mostly charge and pay interests once in six months, though it is possible to have other versions, and other different methods may be also used.

## **CURRENCY SWAP**

**Currency swap** is the agreement on changing nominal and fixed interest expressed in one currency with another nominal and fixed interest; herewith, real exchange of nominal may not take place. These operations are of special importance, while the company masters new foreign markets and it has reduced opportunities for foreign credits.

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<sup>36</sup> LIBOR (London Inter-Bank Offered Rate) interest rate set on short term credits, used by banks at interbank deposit market of London. This rate is the most important orienteer of the interest rate at the international market of loan capitals.

In such case, it tries to find foreign partner of similar problems and signs agreement on currency swap with it.

### **3.3.4. REPO-OPERATIONS**

#### **(REPURCHASE AGREEMENT, REPO)**

##### **WHAT REPO OPERATION IS?**

It is agreement on borrowing securities with cash warranty or borrowing resources for purchasing securities. It is sometimes called agreement of repurchasing securities. This agreement foresees two contradictory obligations of its participants – obligation of selling and obligation of purchasing. Direct REPO Operation foresees the fact that one party sells to another package of securities and he/she is liable to repurchase it with preliminarily agreed price. Price of repurchasing is more than the first one. Distinction in prices, reflecting operation of profitability, is expressed in interests and it is called **REPO-rate**. Purpose of direct REPO-operation is attractiveness of the needed financial resources. Reverse (REPO) operation foresees purchasing of package with the right of its repurchasing; purpose of such operation is placement of temporarily released financial resources.

Economical essence of the operation is evident: one party received monetary resources rapidly required for him/her, and the second fills temporary deficit of securities and at the same time he/she receives interests on the lent monetary resources. REPO-operations are mostly performed on state securities and belong to the short-term operations – from several days to several months. 24-hour transactions are mostly distributed in the global practice. Trilateral arrangement have become the most popular recently, when there is a mediator between seller (borrower) and purchaser (creditor), whose obligations are described in the Agreement (as a rule, this is a large bank), participants of the agreement in such case open accounts of their securities and cash resources in the subsidiary bank. Trilateral arrangement is considered to be more reliable than the ordinary ones. REPO-Agreement may be considered to be the credit issued for advance payment.

### **3.4. THE ROLE OF FINANCIAL INSTRUMENTS**

#### **IN EVALUATION OF THE INVESTMENT**

##### **ATTRACTIVENESS OF A FIRM**

Together with development of the exchange and maturity markets, financial instruments play more and more noticeable role in the investment activity considered in the wider point of view. This is conditioned with the situation that financial instruments and financial assets belonging to

it, as well as obligations are not only in clear relation with the actual and expected cash resources, but they are also used in establishment and distribution of the property right. Besides this, there is another aspect of performing operations on the financial assets, obligations and instruments – their influence upon investment attractiveness of the company and assessment of purposefulness and perspectives of cooperation with it. This aspect became more actual during last years. Alongside with widening of circle of shareholders,<sup>37</sup> kinds of assets and instruments were also increased, together with the volume and complex of operations fulfilled on them, rising share of financial assets and obligations in the balances of the companies.

As we have said above, any operation performed on the financial instrument – emission, sale and purchase and exchange – necessarily changes content and structure of the departments of accounting balances of its participants. Thus, influence of these operations is expressed in different aspects about financial condition of the Company. Financial assets and instruments, in the one hand, are objects of investments and speculation, and on the other hand, any financial instrument is such an asset, which occupies very important place in the balance of the company. Besides this, some financial instruments; for example, option, cash resources, their equivalents and other assets include potential of strong outflow, which may be realized during particular market conjuncture and to give loss as a minimum, which sometimes may be of extremely great amount (as Russian financial pyramids as of the end of 20<sup>th</sup> century).

#### **SHOWING FINANCIAL ASSETS IN BALANCE**

Any financial asset in the balance may mean, on the one hand, current (regular) and capitalized source of income (for example, shares of external emitter, which is in ownership of the company and given in the asset of the balance, may bring incomes of the dividend type), and, on the other hand, to make potential loss (for example, in case of simultaneous fall of securities of external emitter, when current price goes below self price on which these securities were purchased on)<sup>38</sup>.

As for the financial obligations, for example bonded loan or loan capital of bank credit type gives rise to the growth of financial risk of the company and under particular conditions it may worsen its condition at the capital market, and complicate relation with counter agents.

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<sup>37</sup> Accelerated dynamic specially characterizes USA. For example, if there were 4 million shareholders in the Country, in 1962 this size became more than 17 million; currently more than 50% of Americans are holders of shares, mostly by means of share or pension funds.

<sup>38</sup> As an example, we may name the company the largest energetically trader of obligation, price of shares fell for more than 80% in October-November of 2007. This bankrupted the company, the counter agent and investor suffered loss.

Data about financial assets, instruments and obligations are given in the balance of the company; due to this it is not accidental that during last years they have active discussions on transparency of public accounts, investments, and its accessibility to the creditors and counter agents. Transparency means, in the first place, reliable and trustful representation of every asset and obligation of the company in reporting and, in the second place, existence of data in the reporting (analytical decrypting, including notices and explanations), which form objective opinion on the financial conditions of the company. The concept of reliability and honesty, in their turn, mean correct assessment of every point of reporting. Publicity of reporting means its accessibility to every interested person. Besides this, it is possible to bring national specificity in description of the concept. Publicity of the accounting reports include: 1. transfer of reporting to the territorial bodies of statistics; 2. its publication in the magazines and newspapers, which are accessible to the user of reporting, or distributions of brochures and booklets including these reports among them.

## **ACCOUNTING**

Accounting includes diverse resources of the company, as we; as indexes about capital and obligations, though in particular cases, the financial assets and obligations carry primary importance, to make conclusion about financial condition of the company. This has multiple reasons, but main thing is volatility and variability of cost assessment of such articles. No other asset has such features. Cost assessment of any material asset may be amended, but not dramatically. Another case is financial assets and obligations. Situation may be changed rapidly with their assessment; and situation is complicated with the cascade effect. Besides this, in the formation of such trends the factors of subjectivism and psychology are represented essentially.

Necessity of arranging situation related with the principles and technique of transferring data in public accounting, is considered by the accounting and financial representatives for long period of time. Herewith, it is not accidental that IFRS (International Financial Reporting Standards) got great recognition in every field of finances, which are dedicated to their representation in the assessment and reporting of financial instruments. It is assessment to be the most critical between multiple problems and methods of their payment, which are touching upon identification of financial instruments, assets and obligations, as well as their assessment and reporting. We mean opportunities, purposefulness and legitimacy of making choice between self-cost and so called fair price.

## BASIC DESCRIPTIONS

In the first place, we shall determine basic descriptions. Self-cost is cost assessment of expenditures and repayments of the resources, which are used or attracted by the enterprise for production of the evaluated one. Fair price is characteristic of the object, which determines its relative importance's in potential or actual exchange operations, where its comparative meaning is determined participant of the transaction, under the conditions of making decisions and their accountability. It is numerically expressed with the minimal sum of cash resources, which are enough for purchasing of asset or fulfillment of obligations, in terms of concluding voluntary agreement between the foreseen parties, who have real desire to enter the transaction, also are independent from each other. Essential condition of the transaction are: a) independence of the parties; b) awareness of parties; c) effortlessness of transaction; d) availability and publicity of the information, on the basis of which the transaction is concluded.

Which method of assessment shall be used by us during conclusion of reports. The accountants, traditionally, prefer self-price, as the most objective and verified method of assessment. Participants of the market on the contrary, are mostly oriented towards legal values, on the basis of which assessment is provided from the position of future, i.e. position of incomes, which may be received with the help of the asset to be evaluated.

The algorithms of calculating self-price are well processed. As for the fair price, situation is much difficult here. Notwithstanding this, there are well known recommendations for the assets of separate kind. Namely, assessment of financial assets and obligations is recommended to be provided with the market price; in terms of absence of active market we shall use the service of professional evaluation. Today this is the most popular method of approach, as it provides the most reliable information about ongoing financial methods of approach of the company and gives objective conclusion about its investment attractiveness and (or) purposefulness of business agreements with him/her.

## CHAPTER 4. THE ESSENCE OF THE INVESTMENT MARKET AND THE MECHANISM OF ITS FUNCTIONING

### 4.1. INVESTMENTS PROCESS AND THE MECHANISM OF INVESTMENT MARKET

Investment process is the movement of investments of different form and level. Implementation of the investment process in the economy of any type considers existence of numbers of conditions principle of which are: resource potential necessary for functioning of investment domain; existence of such economical subjects, which are able to provide required scales of investment process; the mechanism of transforming investment resources into the objects of investment activities.

Investment process in the market industry is implemented by means of market mechanism if the investment market.

#### INVESTMENT MARKET: GENERAL PROVISIONS

**Investment market is a complex and dynamic economical phenomenon, which is characterized with such principle elements as: investment demand and distribution, competition, price, investment infrastructure, etc.**

Terms and conditions of implementing investment process in the market economy get specific forms, which reflect interconnection of the subject of investments in the system of market relations, they are:

Existence of the important investment capital having such structure diversified in accordance with the forms of property, which are characterized with the diversity of the private investment capital over the state capital;

Diversity of the subjects of investment activity with the spectra of organization of ownership and institutional organization, allocation of the functions of governmental and private investors in the investment process; existence of branched network of financial intermediaries having the ability of realization of the investment demand and distribution;

Existence of the developed multi-segment market of the investment activity, which has the form of investment commodity;

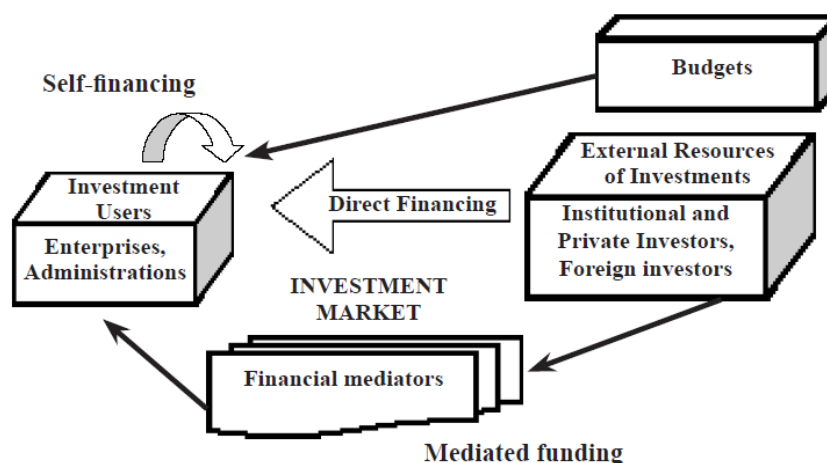
Distribution of the investment capital, by means of investment market at the objects of investment, in accordance with the economical criteria of assessment of the investment attractiveness.

## ABOUT THE TERM OF INVESTMENT MARKET

We meet with the different methods of approach to the understanding of investment market in economical publications. In our economical literature, where during last years, the term of investment market has been being widely developed, being mostly discussed to be the market of investment activities. Moreover, some authors identify the concept of Investments with Capital Investments, and call investment commodity to be only particular kind of the objects of investments (mostly capital, construction material and construction-mortgaging works). Others discuss investment market more widely – to be the market of the object of every form of investment. Foreign economists, as a rule, call investment market to be exchange market, as investments in securities are the most prevailing forms.

In the most general form, investment market may be considered to be the form of interrelation of the subjects of investment activities, which make personification of investment request and investment distribution. It is characterized with the particular correlation of demand, distribution, level price, competition and the volumes of realization.

By means of the investment market turnover of investments is provided in the market economy, as well as transformation of investment resource (investment demand) into the investments, which consider future growth of capital price (realized investment demand and distribution). Movement of investments is provided with the scheme given in the Figure 4.1.



**FIG. 4.1. MARKET AND NON-MARKET COMPONENTS OF INVESTMENT PROCESS**

## THE CONCEPT OF INVESTMENT MARKET

Investment market, as it's called sometimes – capital market, is extremely complex and controversial formation, and a complex system of economical relations, where demand and



distribution is provided on the investment resources, where sale and purchase of investment commodity is performed.

In the western literature, investment market is called, on the one hand, the investors, and, on the other hand, the system of organization of trade with the assets (mostly financial assets) between final recipients of investors and investments. The market unites markets of loan capital, exchange markets, and the market of real asset (for example, precious metals and stones, antiques, real estate), which are divided in accordance with the principle and organization of duration of investments. They often use the term Capital market, for the synonym of the term of Equity Market, which, in the first place, includes share market.

There also is canonical representation about investment market, as part of financial market, where capital market is divided on the basis of duration of existence of financial instruments of capital market. In such case, the market of long-term credits and other debtor instruments get into the category of capital market, and short-term securities get into the monetary market. At the markets developed during recent decades, new market instruments appear at the developed markets: leasing, strategic partnership and alliances. Consequently, this classification is not exhaustive today.

They consider capital in modern economical theory to be the resource created for the purpose of production of economical wealth of more quantity. Consequently, this wide understanding of capital includes physical and human capitals. With such understanding, capital market, i.e. investment market is every market, except those of consumer goods of short-term use.

#### **WHERE CAPITAL TRADING IS PROVIDED?**

To our mind, investment market is the mechanism of trading with capital (investments), consequently, it is formed by the demand of principle participants of market and distribution, as well as the methods of regulation of activities based on the agreement of interests of the subjects of market, which are expressed with the system of formal and informal norms and rules. Investment market is formed, but not limited, in the form of subsystem, which includes elements and structures of credit and exchange market.

The capital considered for the factor of production in some cases depend on the types of economical organization of the company in general cases and is turned into the means of production in material form – cars, devises and other real assets, i.e. the kind of physical capital. Though in the industry of market type the possibility of transformation of right on the good

appears to be the characteristic of the capital, as commodity, which is provided separated from the material form.

They determine acceptance of the investment decisions into the economy of Soviet type with the requirements of production. Consequently, decisions about investments (in the first place, in the form of capital investments) were verified with the necessity of manufacturing particular production. In the first place, such material factors of productions, which were distributed between consumers in the form of fund and limits, were restricted. In such case, criteria of making investment decisions are maximum of production in terms of the minimum of resources, herewith, having importance, which was subject to financial evaluation of investments.

### **CRITERIA OF SELECTING INVESTMENTS**

Principally different criteria of selecting investment decisions are working in the market economy – maximization of the flows of cash resources, which will become outcome of investments. Inconformity of the periods of implementing expenditures and taking outcomes is arranged though discounting cash resources. Main obstacle is not the size of investments resource, but cost of investment resources, for which discount rate or alternate cost of capital is the key index. Existence of alternate cost of the capital depends on the existence of developed capital market, as in case of its absence, any evaluation is of the nature of hypothesis.

From the position of implementing investment processes in the economy of transitive type, to our mind, main problems are related with the absence of the mechanisms of agreeing industrial and financial aspects of the investment process. Carriers of the industrial aspects among them are the enterprises, which form demand on the investments, and financial aspects determine conduct of the participants involved in the accumulation and distribution of financial institutions, distributors of investment resource and these resources. Conduct of the participants of industrial process, in its turn, is greatly determined with the history of their existence (origination) and the experience received during functioning under instable conditions.<sup>39</sup> Under the conditions of transitive economy, the mechanisms of conforming purposes, interests and respective decisions are formed and it greatly depends on the state resources and the channels of their distribution.

Herewith, **we consider investment market to be the systems of organization of relations between principle distributors and consumers of capital (investments), which are realized under the**

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<sup>39</sup> This opinion responds to the distributed assumption about the fact that different outcomes of transformations, which took place in the countries of east and central Europe and former Soviet Union, together with other factors, are related with the duration of existence of centralized economy.

conditions of transferring from the mechanism of centralized administrative distribution of resources into the new mechanisms; they are characterized with the development of competitive environment and independent (relatively free) selection of the purposes and models of the conduct of economical subjects. Schematic representation of the investment market is given in the Figure 4.1.

#### FOR DETERMINATION OF BASIC STRUCTURE OF THE INVESTMENT MARKET

We'd like to discuss one condition. Some scientists consider financial market of the region to be the market structure of developing reproduction processes and pay much less attention to the second side of the capital market – stock market. Subject to the given considerations, we have somehow different position.

It shall be noted that distribution of the exchange and credit markets according to the relations of property and debt, becomes much more conditional by means of numbers of processes: securitization of credit (i.e, loading credit in the form of security), extending spectra of securities, which conform the elements of relations of ownership and obligations, as well as, formation of new forms of funding of the investments. Creation of these forms, to our mind, support opportunity of different distribution of the ownership right and the risk related with it<sup>40</sup> between borrower and investors. Different conformity of this or that characteristic gives rise to the different hybrid forms part of which is already realized and another part is, in fact, possible to be.

Determination of the market structure of the investment markets according to its composition and fields and directions of activities is necessary, but insufficient condition for the research of the process of their formation.

At the background of two judgment polar by appearance: “among markets existed in the economy, investment markets are the most complex and the less understandable”<sup>41</sup> and “building of capital markets is provided much easier than creation of any other market”<sup>42</sup>, common opinion is generated: it is relatively easier to create formal organizational

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<sup>40</sup> They widely use classification of property right, offered by Honoree and within the bounds of which following kinds are allocated: 1) ownership; 2) using; 3) disposal; 4) inheritance; 5) having right on ownership of capital; 6) the right of making income; 7) time of using (without term or limited); 8) security right; 9) protection from negative outcomes of using the item.

<sup>41</sup> Securities Markets in OECD Countries. Organization and regulation. OECD Documents, 1995.

<sup>42</sup> Stieglitz J.E., 1993. Financial Systems for Eastern Europe's Emerging Democracies. San Francisco, California: An International Center for Economic Crouch Publication.

structure of the investment market and it is difficult to achieve (seek for) effective functioning of this market.

Structural diversity of performing separate functions of the participants of the markets and the institutions, as well as centralization and decentralization of their performance, and the level of developing functions, form national and regional peculiarities of investment market.

Among multiple new elements and processes, which determine configuration of the developing investment markets, are of the great importance:

Creation of the corporate and properties of other kinds by means of implementing privatization processes;

Transformation of the system of management of economy through sharp reduction of the field of centralized management;

Formation of legislative context;

Demonopolization and development of competition;

Appearance of commercial unions, including financial-economical groups;

Development of market infrastructure.

Specificity of the problem is also considered with the fact that transitive conditions are characterized with instability, high level of fluctuations, and strong influence of the factors of uneconomical nature. As investment market is at the initial stage of development, the perspectives of realizing potential into the real sector of investments are greatly determined by the adequacy of the regulating influences (in the first place – at the national level), which foresees national peculiarities, together with the accumulated experience of the world.

## **INVESTMENT RESOURCES**

Investment resources are required to be considered not in statistics, but in the dynamics. They are characterized with number of peculiarities. They move from cash into the productive form, from productive form – to the commodity and finally, they return to the cash form. Such turnover is organic part to the turnover of cash capital and this is logic, as reproduction of the capital during market industry begins with the activation of financial investments, which is the transferred form of the cash capital. It is cash capital, the circulation starts and completes from.

Circulation of investment resources in general form, may be represented in the following formula:

$$\begin{array}{c}
 \text{F}_B \\
 \uparrow \\
 \text{U}_g - \text{U}_T - \text{P}_U - \text{T}_1 - \text{D}_1 \quad \begin{array}{c} \text{F}_n \\ \text{m}_1 \end{array} \quad \text{U}_g^1, \quad (4.1)
 \end{array}$$

Where  $U_g$  is financial (cash) investments;

$U_T$  – investment commodity; production investments in the form of the production capital;

$T_U$  – production process;

$T_1$  – Good as production product, which is sold at the market;

$D_1$  – money received by means of production, as cash income;

$F_B$  – reimbursement fund;

$F_n$  – consumption fund;

$m_1$  – profit, which is directed to the accumulation fund of the capital;

$U_g^1$  – financial investments, as outcome of reproduction of the capital.

Recovery of main capital takes place in the process of investment circulation. Investment good enter production. Production process is begun; new consumer prices are created and capital price is increased. This latest is increased in the form of income or social effect. Herewith, on the one hand, realization of the purpose of investment activities takes place and on the other hand, material and economical conditions are created, together with the source for starting new circulation. Obtained cash income is distributed as follows: its one part is used for consumption (consumption fund), on the other hand – for reimbursement of the spent production means (reimbursement fund); this latest is accumulated for recovery of the consumed production in the form of the source for investments directed for the recovery of the production capital, and principle and circulation capital. Third part of cash income is the profit, which is intended for investment of principle and turnover capital in the active enterprises, and investment of new construction.

Thus, as at the preparatory stage, so at the final stage of circulation of investment resources, principle function is performed by he investment market.

In the economical literature there is no process of formation and functioning of the investment market to be researched, which are given decisive role under the modern conditions in the formation, mobilization, production and utilization of the investment potential.

## **PRINCIPLE PURPOSE OF FUNCTIONING**

### **OF THE INVESTMENT MARKET**

Principle purpose of functioning of the investment market is mobilization-organization of the investment potential, and financial, material and intellectual provision of the investment activities.

Investment market participated actively at the stage of formation of the financial investments, where purchasing of the investment goods of different kinds takes place: a) in material and tangible form – buildings and constructions, transport, machineries, devises, raw material, products of the scientific-technological progress (the project, recommendation, new technologies, etc) and b) in cash form (deposits, participatory interest, securities, etc.).

Structure of the investment demand is as follows:

a) Investments directed for recovery of the spent capital, source of which are depreciation fund and turnover resources;

b) Net investments;

c) Reinvestments (accumulated dividends, incomes made from investments in the securities, etc.)

Total volume of real investment process is determined with the unified value of reimbursement of principle and turnover capital and accumulation fund.

Investment distribution includes new and reconstruction objects of investors, principle capital of the construction and operating enterprises, working capital, securities, property, principle non-production capital, etc. at the investment market, where investment distribution is formed, merchants sell securities and supply investment goods to the customers.

### **PRICES ON COMMODITY AT THE INVESTMENT MARKET**

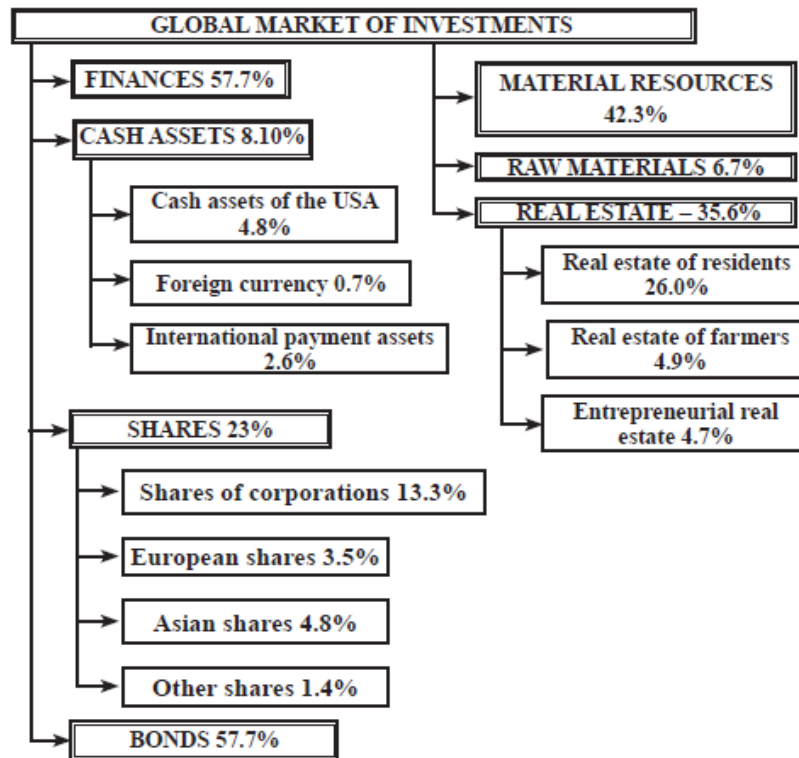
Prices on commodity is formed at the investment market on the basis of the expected future income (profit), which is more than the existed income at the particular moment. Making current income may be provided if the financial resources are invested in the banks, securities, or liquid shares, where much higher and reliable interests are provided on the deposits, than expected level of income made from the investments (especially under the conditions of the inflation).

Investment market provides equivalent relations in the investment complex, determined in practice by the unified fields created for general purpose and development of principle capital of the national industry. Though, in case of wider method of approach to the investments and investment process it is necessary to include in it every field, which

provide material-tangible production and reproduction of principle capital of the fields of service domain.

### STRUCTURAL ELEMENTS OF THE INVESTMENT MARKET

Investment market is the complex system composed of the different structural elements, between which versatile relation is provided. The Scheme below gives clear picture about structure of the global market of investments (Figure 4.2.).



*FIG. 4.2. STRUCTURE OF GLOBAL MARKET OF INVESTMENTS (MODERN STRUCTURE OF THE OBJECTS OF INVESTMENT OF CAPITAL)<sup>43</sup>*

As it is seen from the Scheme. Investment objects are still divided into the financial and material (real) assets. Each of them has quite diversified structure.

**Financial assets** include financial and taxation obligations of each kind, which are created by principle economical agents during their activities. This is cash money, deposits existed at the current accounts, short-term debt obligations, for example, shares and other financial documents, which prove ownership right on the capital or movement of financial resources on conclusion of transaction.

<sup>43</sup> Milovidov V.D. 1996. Mutual Investment Fund. M.: "INFRA-M". pg. 15.

**Material assets** include movable and immovable property, land plot, buildings, pressure meals, goods of long-term utilization, material values or inventories of short terms for the rendered service, etc.

Modern structure of the investments, on the one hand, reflects important majority of financial assets over material assets (relatively 57.7% and 42.3%), and on the other hand, in the structure of financial assets more and more shares are occupied by securities, short-term liabilities and accounts of investment nature.

Correlation of financial and material assets of the investment market may be expressed with the ratio of financial interdependence. Idea of involving such ration belongs to the American economist R. Goldsmith, who is the author of multiple works written about financial systems of the structure of national wealth and developed countries. Method of ratio calculation was processed by this scientist at the end of 50s and beginning of the 60s. This ratio is calculated in the form of correlation of common financial assets excluding net foreign assets of the country from the obtained value of material assets. Net foreign assets show correlation of foreign debt of the given country and its residents with the debt, which are owned by other countries and its residents to this country. Citizens, companies and other legal entities of the country are eligible to have bank accounts abroad, issue credits to the citizens of foreign country and have property abroad. Besides this, they may appear themselves in debt to the citizens of foreign countries. If the value of foreign property and financial wealth of the residents of the country are more than the debt to the foreign citizens, net foreign assets will be positive size and, on the contrary<sup>44</sup>.

#### **WHY IT IS NECESSARY TO ALLOCATE**

#### **INTELLECTUAL CAPITAL MARKET**

Subject to the nature of the investments, two principle kinds of the investment market – financial and material, i.e. real investment market under the modern conditions may be added with the market of intellectual investment. This latest is functioning by means of sale and purchase of licenses, engineering and construction service, know-how, scientific processing, projects and others.

As in market economy, so at the stage of transferring on it, alternate versions of using resources, including investment resources. The principle of interchanging touches upon investments implemented in material-tangible for, as well as in the human capital. This is argued in multiple

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<sup>44</sup> **Milovidov V.D.** 1996. Mutual Investment Fund. M.: “INFRA-M”. pg. 15.



economical works<sup>45</sup>. K. Saks and F. Lauren speak about importance of investments implemented in the human capital. They note that investments in the human capital are of huge importance for the market economy<sup>46</sup>. Today implementation of investments into the human capital today is based on the theory of intellectual capital<sup>47</sup>. Authors of this theory consider intellectual capital to be complex category. It is wider than human capital, as information in it is considered to be the independent industrial resources<sup>48</sup>. Investments in intellectual capital are different from those implemented in the human capital. It also includes the elements of structural capital, which consider investments implemented in devices, computers, programs, patents and trademarks. On the basis of the theory of intellectual capital the concept was created about social partnership. This concept is based on the investments placed into the social capital. The theory of **social capital** considers development of relations of mutual assistance and reliability and readiness for participation in separate groups or unions. More educated and qualified workers have potentially more opportunities for formation of social capital and economical macro system of the company. At the basis of investments provided in the social capital subjective leaders of investment context are formed, which influence significantly upon development of intellectual investment market.

#### **PECULIARITIES OF INTELLECTUAL INVESTMENT MARKET**

Intellectual investment market has following peculiarities:

**First**, intellectual investment market is integral part of the service market. It provides realization of specific goods between manufacturers and the customers through direct contracts. Herewith, trade mediation is not excluded, but there is principle distinction between intermediaries and consumer goods at the intellectual investment market. Analyze of different studies shows that under the transitive period, increasing of the share of intermediary structures takes place in the section of consumer goods of the massive request. The mediator is not required to have special knowledge; primary information enough. Of course, mediation at the intellectual investment market requires high qualified level of the specialists of the company. The mediators themselves uniting manufacturer-consumers are not much. Herewith, intermediary service at the intellectual

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<sup>45</sup> **Diatlov S.**, 1994. Elements of the Theory of Human Capital. M. SPB, pg. 160; **Fleksner K.**, 1994. Informed Society Economy with Human Face. M., "Mezhdunarodniye Otnosheniya".

<sup>46</sup> **Saks J, Lauren F.**, 1996. Macro Economy. Global Method of Approach. M., Delo, pg. 132.

<sup>47</sup> **Goilo V.**, 1998. Intellectual Capital. "MEiMO", No. 11, pg. 68-77; **Inozemtsev V.V.**, 1998. In Search of Wealth of the Society. "MEiMO", No. 3, pg. 151-153 and others.

<sup>48</sup> **Inozemtsev V.V.**, 1998. In Search of Wealth of the Society. "MEiMO", No. 3, pg. 151-153.

investment market under equal conditions are different from the similar service of the commodity market of massive demand in quality and effectiveness (at the expense of reduction of expenditures of the interested parties);

**Second**, intellectual investment market influences greatly upon markets of capital movement and workforce;

**Third**, intellectual investments are protected from foreign competition by the government; as well as with the export and import of the final outcome of using intellectual investments. Functioning of the intellectual investment market may not be provided without protection of the right on the objects of the intellectual property;

**Fourth**, no additional investments are needed for organization of domestic market and entering international intellectual investment market;

**Fifth**, formation of market prices are specific on the outcomes of using intellectual investments.

#### **WHAT IS THE PRICE OF INTELLECTUAL PRODUCTS?**

Prices on the intellectual investment products have no direct relation with the labor spent on it. Price on the product of intellectual investments is determined with the items issued by it during using in the production process. Herewith, price of the products of intellectual investments are determined to be monetary expression of the effect obtained though using of this product.

Market price on the intellectual investment products are formed as contractual price, by means of using two prices (of the seller and the purchaser). The purchaser may refer to the fact that the profit made by using intellectual investment product, as a minimum, requiring reimbursement of the costs wasted for creation of this product by the seller and those of the purchaser for the realization. The seller does not often sell products of intellectual investments, but he/she transfers the right for its using. Herewith, contractual price on such product practically is close to the price of the purchaser.

#### **PRICE OF THE KINDS OF INTELLECTUAL INVESTMENTS**

Realization of intellectual investments may be implemented as follows:

By issuing the right for using licenses, know-how, trademarks, etc;

Selling and transferring know-how, technological experience, etc. Agreements on this act of sale and purchase from the license agreement are different in the fact that the owner of know-how doesn't refuse its selling, but refuses its patenting;

By rendering engineering service;

By transferring technologies, investment cooperation, within the frameworks of which sale and purchase is provided, together with the distribution of consultations, preparation of specialists, transferring drawings and other ways of technological exchange.

## **ENGINEERING**

One of the principle forms of realization ant the intellectual investment market is engineering. It foresees rendering different engineer-consultation services on the commercial basis. They separate engineering services in two groups: 1) service related with preparation of the manufacturing process; 2) service related with provisions of normal process of manufacturing and realization. The first group includes: a) pre-design service (social-economical study, topographic mapping and planning locations; soil study, mining, technical and economical justification of the project, etc.); b) designing service (preparing general plan and recommendations, preliminary evaluation of the price of the project and costs wasted on exploitation; preparing technical specialists, etc.); c) post-designing service (preparing contract documentation, organization of auction, assessment of offers, concluding agreement, management of construction, conclusion and issuing certificate about completion of work, making technical conclusions about construction, etc.); d) special service (researching the issues related with utilization of wastes, various legal procedures, etc.). The second group includes: service related with the management and organization of the manufacturing process, service related with the test of the object, consultations in the financial issues, service related with realization of products (study of the market conjuncture, organization of advertisement), service related with involvement of the system of information provision, etc. Under the conditions of high-qualified personnel, engineering consultations may intellectually provide investment process, support rising of effectiveness of companies and accelerate turnover of the investment resources.

## **PORTFOLIO INVESTMENT MARKET**

Portfolio investment market is integral part of financial investment. With the help of creation of shareholders' companies and financial institutional investors, their activities at the market of financial investment greatly support accumulation of free cash resources in the country, regions; as well as attraction of foreign investors, accelerated turnover of financial investments, effective insurance from financial-investment risks, etc.

## **CIRCULATION OF INVESTMENTS**

For determination of motivation of investment and levers of governmental influence we

consider it to be purposeful to discuss peculiarities of investment circulation in the process of turnover of material (principle and turnover) and financial capital.

Circulation of investments in the process of investment activities is provided in the following principle directions:

- Investments in material assets (provision of principle and turnover capital);
- Investments in the financial assets;
- Investments in the intellectual values.

Let us consider circulation of investments in the process of reproduction of material assets (principle and turnover capital). Its each element may be divided into the movable and immovable properties. To the elements of movable physical capital belong devises, mechanisms, and turnover capital; and real estate includes elements of passive part of the principle capital (building, arming, and industrial infrastructure).

Reproduction of the movable physical capital is provided in the industry, and that of the real estate – in the construction. Investment activities may be provided by transferring to the market of real estate, devises and other elements of physical capital, or, in case of absence of the required goods, by their production (construction).

Investment activity may be implemented at the expense of different resources: own, borrowed, attracted resources, and budgetary assignations. Structure of the resources depends on the organization-legal form of the active or newly-created enterprise. Investments may be eliminated as in monetary, – material-tangible form, so – with the property right, intellectual potential. Based on the above, circulation of investments in the reproduction of physical capital may be represented as follows:

$$(M, T, L_p) - FP(ok, obk, RS) \dots (S) \dots P \dots T - \begin{matrix} m^i - F_n \\ \downarrow \\ M - F_{pt} \\ \downarrow \\ F_v - A_k \end{matrix}, \quad (4.2)$$

Where (M, T, L<sub>p</sub>) is investments in the form of monetary, commodity, property and intellectual values;

- FP (ok, obk, RS) – factors of production (principle capital, turnover capital, workforce);
- S – construction stage of investment circulation;
- P – production sage of investment circulation;
- T – commodity stage of investment circulation;

M – monetary stage of investment circulation;

$F_{Pt}$  – consumption fund;

$F_v$  – placement fund;

$A_k$  – depreciation capital;

$m^1$  – net income in the form of profit;

$F_n$  – accumulation fund, which is used for new investment.

Economical essence of the given range of transformation exists in the following: investments in different forms (cash, production, commodity) are placed into the objects of investments demand for the entrepreneurial activities. After this, the process of transforming of investments into the industrial factors takes place. Thus materialization of investments is provided, which exists in the form of raising price of capital property of the investors.

Investment circulation was completed with the transformation into the new capital values in the Soviet economical literature. They artificially separated the stage of forming new capital values and the stage of their functioning, determining real level of profitableness of these values, and finally the period of self-compensation.

As purpose of investments is making income, investment turnover necessarily includes the period of exploitation of capital value before the moment of the moment of financial resources, by means of which investments in production of capital are reimbursed.

In such case manufactured products of the form of investment commodity, are realized at the different investment markets (real estate, devises, materials and other markets).

#### **DISTINCTION BETWEEN INVESTMENTS AND INVESTMENT GOODS**

There is the question: what is the distinction between investments and investment goods, as they conform to each other in material-tenable form, and opportunities of making income. To our mind, principle distinction is between the quality of “universality” of investments and investment goods. In the future, any investment good to be realized at the market becomes the factor of production in the particular material-tangible or monetary form. Transformation of material-tangible transformation of the capital doesn't mean reproduction. It may be depreciated morally and physically, as for the investments, being, in the first place, movable form of monetary capital – may make permanent and continuous income. To our mind, this is the distinction between investments and investment goods.

Investments into the financial assets is provided in relation with the norms of their profitability. The income is divided into the dividends (kind of entrepreneurial income) and interest according to the different financial assets. This is determined with the kind of capital represented by them – entrepreneurial or loan.

The process of investment into the financial assets may be represented as follows:

$$(M, T, L_p) - FA - FP \dots (S) \dots P \dots \begin{array}{|l} dvd - m^1 - F_n \\ T^1 - M^1 \\ pr - F_v - A_k \end{array}, \quad (4.3)$$

Where FA – is cash expression of investments placed into the financial assets (shares, bonds, deposits and other financial assets);

Dvd – income from financial assets in the form of dividends;

Pr – income from financial assets in the form of interest.

Herewith, entire system of investment market forms unified investment-market domain. Market of financial investment in this space is filled with real and intellectual investment market.

Creation of the terms and conditions of formation and functioning of the investment market provides realization and improvement of the investment potential.

## 4.2. THE CONCEPT OF INVESTMENT MARKET AND CHARACTERISTIC OF ITS KINDS

### DIFFERENT ASPECTS OF THE CONCEPTS OF INVESTMENT MARKET

Investment activities is related integrally with the functioning of investment market, as well as development of its kinds and segments and status of its conjuncture. However, the term “Investment Market” has been being used long by the economists, but there is no uniform description of this concept.

Investment market in the foreign practice is often identified with the securities market (equity market), which is used for the principle instrument of investments of capital by the individual and institutional investors. Nominal direction of investment activities of post-social countries is real investment in the form of capital investment; consequently, most of the economists call the market of capital goods (construction material, industrial and technical devises, etc). To our mind, both

methods of approach to the investment market are too narrow and do not include entire totality of investment objects (instruments) being in free circulation (sold and purchased) under the market economy.

#### **PRINCIPLE PROVISIONS OF THE CONCEPT OF INVESTMENT MARKET**

In terms of description of the concept of investment market, we consider it to be necessary to be based on the following principle provisions:

The concept of investment market shall include circulation of real, financial and intellectual investment objects (instruments).

The objects (instruments) of the circulation of investment market shall be the commodity and institutes of all kinds, which provide spectra of the investments of the enterprise (and other investors) with the diverse form.

The object of turnover at the investment market together with the investment good and instruments shall be investment service, rendered to the investors in the process of their real and financial investments.

Based on the given provisions, the concept of the investment market may be formulated as follows: **investment market is the market, where objects of sale and purchase are diverse investment goods and intents, as well as investment service, which provides the process of real, intellectual and financial investment.**

Investment market is extremely complex system, in which diverse goods and instruments providing investment demands of the investors are circulating. This market is served by the special investment institutions and have quite branched and diverse investment infrastructure.

#### **PRINCIPLE FUNCTIONS OF INVESTMENT MARKET**

The level of development of capital markets may be evaluated from the different positions. We consider following to be one of the most important functional method of approach – the way of principle functioning of this market, as well as their distribution between the participants in the total economical system (and what is the social expenditures of such distribution).

Herewith, principle moment is to research the context of the functions realized by the investment market is the principle moment as well as the methods of their structural organization.

Investment market plays great role in the economical system of the country based on the market principles and they are determined with the following functions:

## THE FIRST FUNCTION

**The first, transfer of resources (savings)** from those, who own them to those, who are in need of them – recipients of the investments. According to Stiglitz, this process has never been fluent<sup>49</sup>.

Under the developed market economy, this function is the principle function of capital market and it is realized through development of the institutions, which accumulate saving and transfer them to the final borrowers – enterprises and the governments. Principle channels of transferring resources are given in the Figure below.

Ordinarily, they emphasize mediated (indirect) financing and, consequently, the role of financial mediators at the capital market, though essential part of direct funding (in the first place – of corporate sector of economy), are realized on the basis of using mechanisms of the capital market. Generally, developed markets, in the first place, are characterized with indirect funding.

The level of development of the mechanisms of indirect funding may be characterized to be the share of funding in the entire sum of investments received by the real sector, as well as the amount of specialized institutions implementing these functions.

The largest participants of the investment markets in the developed market economy are commercial banks, financial-credit institutions, pension funds, insurance companies, investment banks and other intermediaries.

## THE SECOND FUNCTION

**Union of capitals.** Many projects require more capital, which may be issued by one or more investors. If under the conditions of centralized system, there were opportunities of uniting resources into one centre, under the developed market environment this function is performed by multiple investment intermediaries. They are competitors in relation with the limited investment resources. Competitive environment, in its turn, gives opportunities of satisfaction of the diverse investment purposes, which are differentiated according to the terms and sized of desired incomes, risk and investments.

In the economies of transitive type, the institutes of centralized accumulation of the investment resources are maintained for long period of time, which exist together with the elements of new relations. They are maintained by changing direct recovery of resources, as well as through centralized rate pricing on the production of numbers of fields.

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<sup>49</sup> **Stiglitz J.E.**, 1993. Financial Systems for Eastern Europe's Emerging Democracies. San Francisco, California: An International Centre for Economic Growth Publication, pg. 81.



### THE THIRD FUNCTION

**Selection of projects.** According to the figurative saying of B.I. Aliokhin, “Capital is mobile, soft and random, due to which, it is too demanding and selective”.<sup>50</sup> Number of those who wish to use resources is always more than available resources. It was existed demand on the market mechanism of selection of projects and investment evaluation that turned into the catalyst of creating modern theory of finances<sup>51</sup>.

### THE FOURTH FUNCTION

**Monitoring of performing agreements.** Confirmation of using resources correctly, i.e. their usage in accordance with the investment purpose, as well as forcing performance of mutual-obligations for the participants of the investment processes. This function is realized in the developed market system, in the first place, at the expense of multiple alternatives of implementing investments and existence of the liquid markets, which are supported by formal and informal institutions.

### THE FIFTH FUNCTION

**Transferring, distribution and uniting risks.** Diversity of institutes of investments and instruments create principle base to the diversification of investments, as well as their guarantying and risk insurance. The system of regulation and self-regulation at the developed market create norms and rules, determining distribution of risk between participants effectively.

### THE SIXTH FUNCTION

**Active mobilization of temporarily released capital from different resources,** i.e. free capital existed in the form of population, enterprises, governmental authorities, monetary and other investment resources, which are not wasted on current consuming, separate participants of the investment market are included in the investment process of the country for the purpose of its effective usage in the future.

### THE SEVENTH FUNCTION

**Effective distribution of accumulated free capital among multiple final consumers.** The mechanism of functioning of investment market provides elimination of the volume and structure of demands on the investment goods and instruments in the section of the consumers, which are temporarily in need of attraction of capital from external resources.

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<sup>50</sup> **Inozemtsev V.V.**, 1998. In Search of Wealth of the Society. “MEiMO”, No. 3, pg. 151-153.

<sup>51</sup> Among laureates of Nobel Premium in the field of economy are **V. Sharp** (1990 – The Model of Assessment of Capital Assets), **Miller** (1990 – Bit Made in the Theory of Corporate Finances), **R. Merton, M. Sholtz** (1997 – the Method of Assessment of Derived Securities together with **F. Black**).

## THE EIGHTH FUNCTION

**Determining the most effective lines of using capital in the field of investments.** The mechanism of the investment market satisfies important volumes and wide circle of investment demands of the industrial subjects. By means of the system of pricing on separate investment goods and instruments it identifies the most effective fields and directions of the investment flows from the position of provision of high level of profitableness of capital used for this purpose.

## THE NINETH FUNCTION

**Formation of such market price on the separate investment goods, instruments and services,** which give reflective expression of conformity between demand and distribution objectively. Market mechanism of pricing is opposite to the state pricing, though in particular, it gets under the influence of state regulation. This market mechanism allows opportunity foreseen with current conformity of demand and distribution of the diverse investment goods and services, forming respective level of prices, as well as opportunity of maximal satisfaction of economical interests of sellers and purchasers.

## THE TENTH FUNCTION

**Implementing qualified mediation between sellers and purchasers of the investment goods and services.** Special investment institutes are written in the system of investment market, which complete such function. Such investment intermediaries know well condition of current investment conjuncture, terms of transactions and they can arrange acceleration of finances and commodity flows within shortest terms between sellers and purchasers and provide minimization of public expenditures related with it.

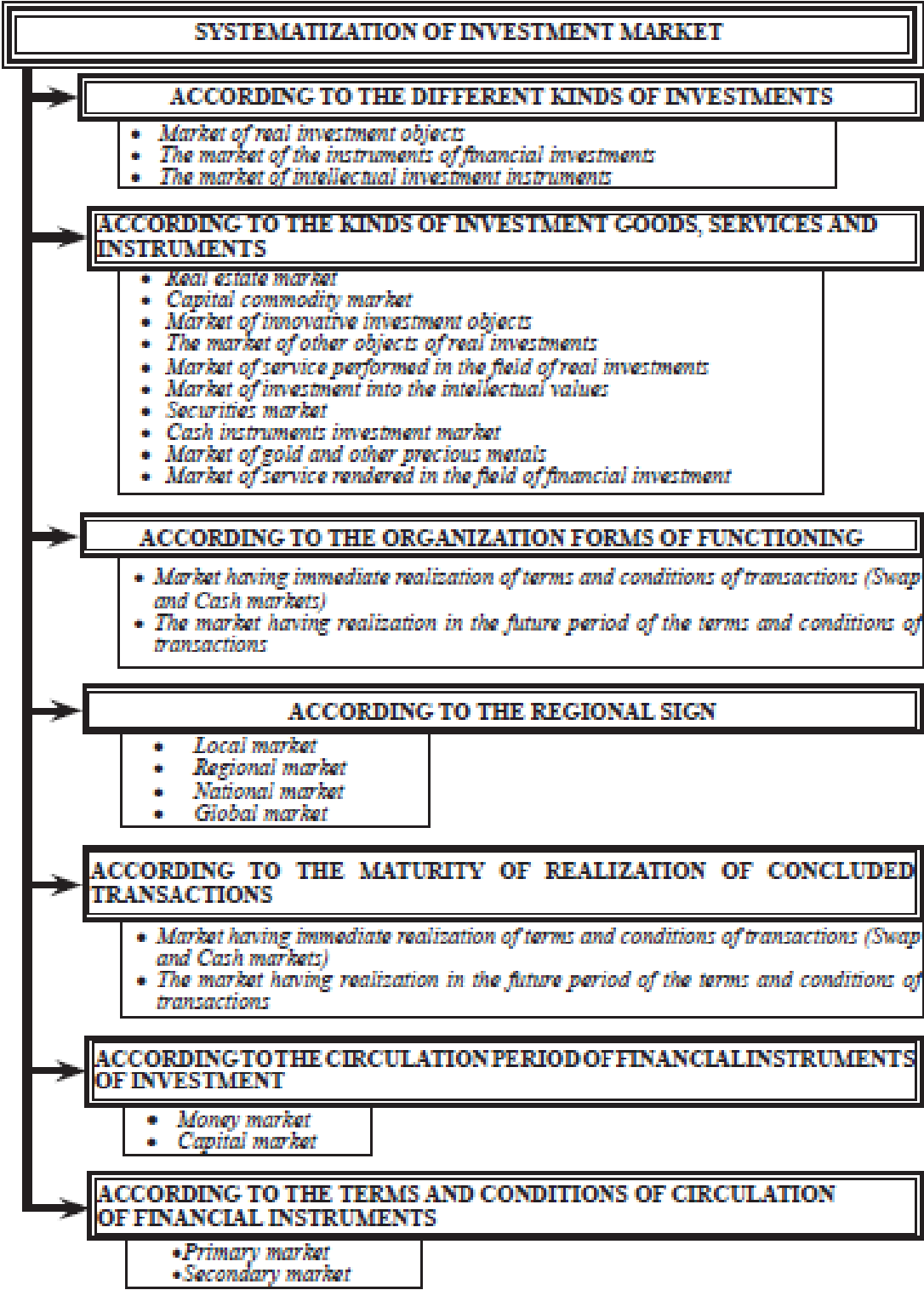
## THE ELEVENTH FUNCTION

**Creation of the terms and conditions of minimization of the investment and commercial risks.** Investment market has processed own mechanism of insuring price risks (and respective system of the investment instruments); under the conditions of developing conjuncture of financial and commodity markets and instability of economical development of the country, it reduces investment and commercial risks of selling and purchasing financial assets and real commodities to the minimum.

## THE TWELFTH FUNCTION

**Acceleration of capital turnover supporting activation of economical processes.** Investment market provides mobilization, distribution and effective utilization of free capital, and satisfaction

of demands of separate industrial subjects on it within shortest period of time. Thus, it supports acceleration of circulation of the used capital, each cycle of which generates additional investment incomes and growth of national income of the entire country (Figure 4.3).



**FIG. 4.3. SYSTEMATIZATION OF INVESTMENT MARKET ACCORDING TO THE PRINCIPLE SIGNS**

## SYSTEMIZATION OF INVESTMENTS ACCORDING TO THE OBJECTS

**I. They allocate investment market of three principle kinds according to the objects of provision of investments of different kind:**

Market of real investment objects. It is characteristic to the market of investments, sale and purchase object of which is any good and service providing the process of real investments of separate industrial subjects. **According to the volume of operations, market of real investments is main market at the modern stage of development of our country.**

Market of financial investment instruments. It is characterizing to the investment market, sale and purchase object of which is all kinds of investment instrument and services providing process of financial investments of different industrial subjects. According to the rates of development, this market is the most dynamic, though, at the moment the volume of investment operations on it is relatively fewer.

The market of intellectual investment instruments. Subject to the nature of investments, two principle kinds of investment market – financial and material (real) investment markets, under modern conditions, may be added with the market of intellectual investment. This latest operates in the form of selling and purchasing of licenses, engineer-consulting services, know-how, scientific processing, projects, etc.

## ACCORDING TO THE KINDS OF INSTRUMENTS AND SERVICES OF GOODS

**II. According to the kinds of circulating investment goods, instruments and services, they allocate investment markets of following kinds:**

**Market of real estate.** Market of this kind includes enterprises, as total property complex, objects of privatization, which are entirely sold at the auction, competitions or which are totally purchased by the labor groups, industrial objects, offices of uncompleted constructions, apartments existed for the employees of enterprises, land plots, etc.

**Market of capital commodities.** In the modern investment practice, market of such kind include industrial-technical purposes (cars, mechanisms, industrial devises), communication and means of communication, computer devises, as well as turnover of goods of wide nomenclature. **Market of the objects of innovative investment.** Objects of sale and purchase at this markets are the patents of inventions and discoveries, licenses of the rights of their using, know-how, trademarks, brands and

other rights. This market allows enterprises, formation of the required immaterial assets in the process of investment activities.

**Market of other objects of real investments.** Subject of turnover at this market is every remaining commodity existed in the groups discussed above, which are used in the process of implementing real investments in the non-turnover and turnover operation assets of the enterprise.

**Service market implemented in the field of real investments.** Object of circulation at this market is such service as: preparation of real investment projects – business plans (or rendering consultations per separate departments of certification of consulting); projection of the processes of separate objects and technologies. Implementation of construction-installation works, etc.

**Securities market (or capital market).** It characterizes the market at which object of sale and purchase is multiple securities emitted by enterprises, financial institutions and governments (capital instruments). Securities markets at the countries of developed market economy, is the largest market of investments with the volume of concluded transactions and diversity of financial instruments being in circulation. Functioning of securities market regulates and makes economical process more effective and, in the first place, the process of investment of temporarily released financial resources. The mechanism of functioning of this market allows provision of investment operations the most rapidly and with the fairest prices compared with the investment markets of other kind. **At this market, financial engineering (purposeful process of creating new instrument and new schemes of performing investment operation) is the easiest to provide.**

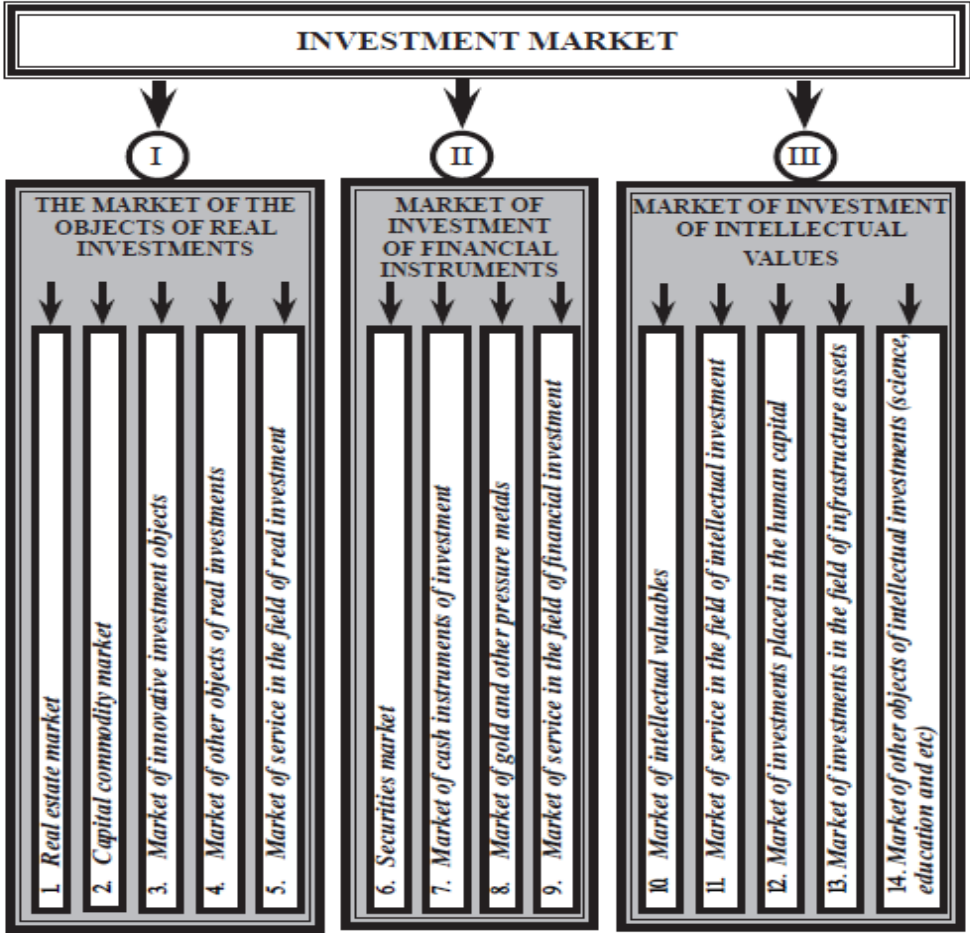
**The market of cash instruments of investment.** This market, in the first place, is represented in such instruments of investment, as cash deposits – mature and demanded. Besides this, inflation processes identified clearly in our country, turned firm currency of free conversion (purchasing of foreign currency for provision of noncommercial operations at the currency market) of numbers of countries into the objects of investment at this market.

**Gold (and other precious metals – silver and platinum) market.** It is characteristic to the market, at which object of sale or purchase is precious metals, in the first place – gold. Operations of implementing speculative, investment transactions of providing reservations of these assets of international settlement are implemented at this market. Same market satisfies demands existed on industrial-housing consuming and private hoarding. Such multi-functionality of gold market is related with the fact that gold is not only widely recognized investment asset and

the most secure means of reserving free cash resources, but it is valuable material good for numbers of industrial enterprises.

**The market of service rendered in the field of financial investment.** Objects of circulation at this market, in the first place, are intermediary service and service of registration and storage of securities, and information and other services.

Common structure of investment market its separate sections are given in the Figure 4.4.



**FIG. 4.4. INVESTMENT MARKET AND ITS COMPONENTS**

**ACCORDING TO THE ORGANIZATION FORMS OF FUNCTIONING**

III. According to the organization forms of functioning, they allocate investment markets of following kind:

**Organization (exchanging) market.** This market is represented in the system of commodity and debt exchanges system. At the organized market of investments high concentration of demands and high concentration of distribution; to be one of the most objective systems determined at the separate capital commodity, financial instruments and investment service, monitoring of financial

opportunities of issuers of securities of principle kind are provided; trade procedure is of open kind; performance of transactions conducted are warranted. Though, exchanging market has separate weak sides as well – investment goods and financial instruments realized at it are of limited nature; this market is more strictly regulated by government, reducing flexibility; every normative-legislative act of its functioning increases expenditures of implementation of operations of sale and purchase; it is practically impossible to keep large-scaled transactions implemented by the separate traders at the stock-exchange in secret.

**Unorganized (over-the-counter or “street”) market.** This is such market of investments, at which transactions of sale and purchase of investment goods, financial instruments and services are not registered at the stock-exchange. This market is characterized with higher investment risk level (as multiple financial instrument and services quoted on it do not undergo inspection at the stock-exchange or are rejected in the process of listing); lower level of legal protection of purchasers; its less information, etc. Herewith, this market provides wider nomenclature turnover of investment goods, financial instruments and services, satisfying demands of separate investments on the investment objects and financial instruments of higher risk level and, consequently, of higher income; it provides secret of implementing separate transactions wider; large part of operations on the investment goods and securities are implemented in the regime of inorganic market of investments, as well as principle volume services in the field of real investments.

#### **ACCORDING TO THE REGIONAL SIGNS**

##### **IV. According to the regional signs they allocate following markets of investments:**

Local investment market. It is mostly represented with the local sellers of real investment goods, operations of unorganized traders of securities of their counter agents, and transactions provided in the field of service related with real investments.

Regional market of investments. Such market operates in the scale of the province (republic) and together with the local inorganic markets includes regional goods, exchanging and debt marketing systems,

National market of investments. It includes entire system of investment markets of the country, including its kinds and organization form.

Global investment market. This market is the part of global market system, in which national markets of investments of open economical countries are integrated.

Volume of operations performed at the global financial market is characterized with the process of its globalization, which provides availability of performing operations of the markets of other countries by the sellers and purchasers of the investment goods and instruments.

#### **ACCORDING TO THE MATURITY OF REALIZATION OF CONCLUDED TRANSACTIONS**

**V. They allocate following markets according to the maturity of realization of transactions concluded at the investment market:**

Market of immediate realization of the terms and conditions of transactions (SPOT or CASH markets). It is characterizing to such market of the investment goods and investment instruments, transactions of which are implemented within shortest period of time.

The market having realization in the future period of the transaction conditions (futures, offshore, etc.) is the subject of turnover at this market, as a rule, exchanging, debit and commodity derivatives (derived securities).

Distribution and organization recording of such markets of investments in the countries of the developed market economy, took place recently. Due to small volume of operations on the derivatives, these markets in our country are not separated organizationally.

#### **ACCORDING TO THE TURNOVER PERIOD**

**VI. They allocate following kinds of investment market according to the period of circulation of financial instruments of investments:**

**Money market.** It characterizes the market, on which they sell and purchase market financial instruments and services having the term of circulation up to one year. Functioning of this short-term sector of the investment market allows enterprises make decision on the problems of filling insufficiency of cash assets, as well as those of effective using of free balance. Financial assets being circulated at the money market are the most liquid; they are characterized with the smallest level of investment market, and the system of formation of prices on them is relatively simple. These features provide simpler and more effective process of formation and management of the portfolio of short term financial instruments for the enterprise.

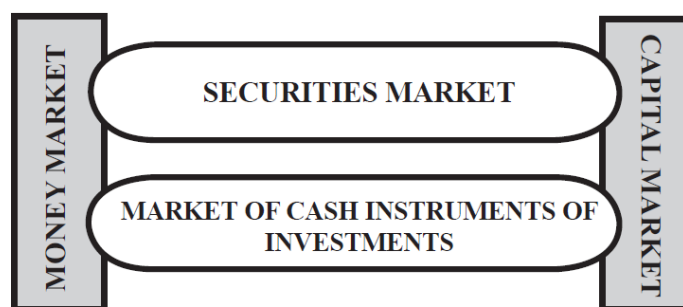
**Capital market.** It characterizes the market, at which they purchase and sell market financial instruments and services having more than one year of circulation term. Functioning of the capital market allows enterprises arrange problems of realization of formation of investment resources of the real investment projects, as well as effective financial investments (implementation of long-term financial investments). Financial assets circulated at the capital market, as a rule, are less



liquid; they are characterized with the highest level of investment risk and, consequently, higher level of profitableness.

It is noteworthy that this traditional separation into the money and capital markets or under the conditions of modern functioning of the markets has conditional nature. This conditionality is determined with the investment technologies of modern market and conditions of issuing multiple financial instruments foresees relatively simpler and more rapid method of transformation of the short term financial assets into the long-term assets and on the contrary.

In terms of characteristic of separate kinds of investments, it is noteworthy that they are in close relation with each other and operate in common market domain. For example, every market, which serves circulation of different exchanging and monetary instruments of investment, at the same time, are components of money market as well as that of the capitals (Figure 4.5).



*FIG. 4.5. THE SYSTEM OF INTERRELATION OF PRINCIPLE MARKETS OF FINANCIAL INSTRUMENTS OF INVESTMENTS*

#### ACCORDING TO THE CONDITIONS OF CIRCULATION

VII. According to the terms and conditions of circulation of financial instruments (we mean only exchanging instruments), they distinguish markets of following kinds:

**Primary market.** It characterizes securities market, at which primary placement of their emission takes place. Such placement, as a rule, is organized by the underwriter (investment dealer); he independently or separately purchases entire (or principle) volume of the issued shares, bonds, etc.

**Secondary market.** It characterizes the market at which securities earlier sold at the primary market are permanently circulated. Secondary exchanging market includes primary part of exchanging and over-the-counter circulation of securities. Primary market of securities can not

operate effectively in case of non-development of the secondary exchanging market, which provides permanent liquidity and distribution of the investment risks. One of the principle functions of the secondary market is determining real market price of securities (course price), which shows entire existed information about financial condition their issuers and terms of condition of their emission.

**“Tertiary” market** is called<sup>52</sup> over-the-counter trading with the securities, which are quoted at the stock exchanges of New York, America and others. It exists for serving needs of such large institutional investments, as: sharing and pension funds, companies of life insurance, etc. and supports essential reduction of their expenditures in terms of providing large operations on the securities. At the “Tertiary” market transactions are usually concluded by the companies and dealers, which are the member of the stock exchange. For meeting large sellers and purchasers, over-the-counter market dealers take commission fees for lower rate, than it is accepted at the stock exchange. Herewith, institutional investors are eligible to save important sums for the commission fees, though, at the same time, and their influence is minimal on the formation of the rate of this market. Importance of the “Tertiary” market has fallen several times since 1975 they involved contractual commission fee for brokers to the stock exchanges.

**“Quaternary” market** is called the transactions, which are directly concluded between large institutional investors and sellers. Different from the Tertiary market, dealer is not participating in the transactions of the Quaternary market, though in terms of searching for the respective seller and purchaser, the institutional investor is able to use service of intermediary companies for the purpose of simplification of transaction<sup>53</sup>.

#### **SEGMENTATION OF INVESTMENT MARKET**

Brought systematization of investment market may essentially be deepened at the expense of respective segmentation of each of them. Segmentation of investment market is the purposeful process of division of in kinds into such individual segments, which are different from the investment goods, instruments and services being in circulation. For example, within the bounds of the market of real estate, they allocate the segment of separate fields of property complexes and in the section of the field of activities, segment of offices, segment of the objects of incomplete construction, etc. Bond market, equity market, derivative market, etc. are allocated

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<sup>52</sup> Girman L, Jonk M. 2007. Elements of Investments. Translated into Georgian by L. Qoqiauri. Tb.: TSU (Second edition). pg. 52.

<sup>53</sup> Same, pg. 52.

within the bounds of exchanging market. Each this segment may be divided in narrower micro-segments – State Bond Market, venture enterprise equity market, option market, futures market, etc.

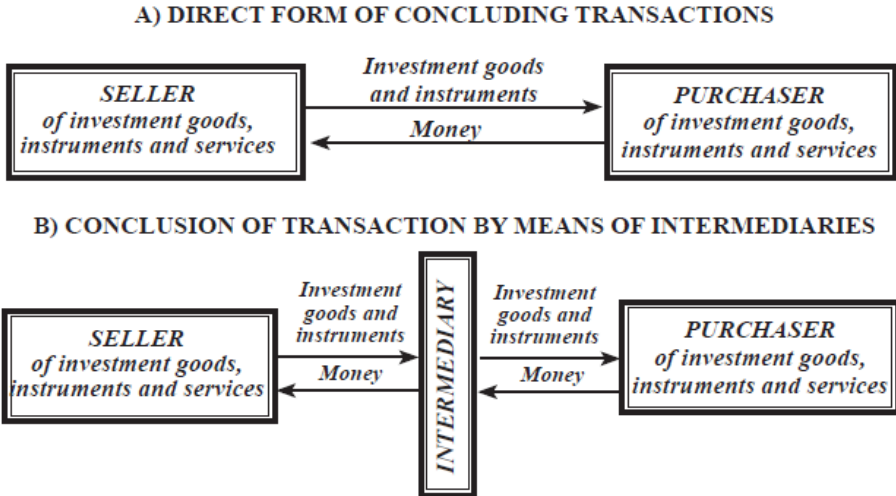
The process of developing investment market is characterized with the continuous transfer of investment resources from the markets and segments of one kind to another. As an example to this transfer we may bring the process of securitizing expressed during last years, which is characterized with the transfer of operations from the credit market to the securities market (in the first place – to the market of obligations), which provides reduction of expenditures of attracting loan investment resources.

Existence of the system of widely branched diversified kinds and segments of investment market creates required preconditions to the preparation and realization of the alternate management decisions in the process of investment management.

**4.3. PARTICIPANTS OF THE INSTRUMENT MARKET  
AND THEIR FUNCTIONS**

**DIRECT AND INTERMEDIARY TRANSACTIONS**

Functions of different participation at the investment market are determined by the purposes of their activities and quality of their participation in conclusion of separate transactions. Composition of the principle participants of the investment market is differenced depending on the forms of implementing transactions, which are divided into the direct and intermediary transactions (Figure 4.6).

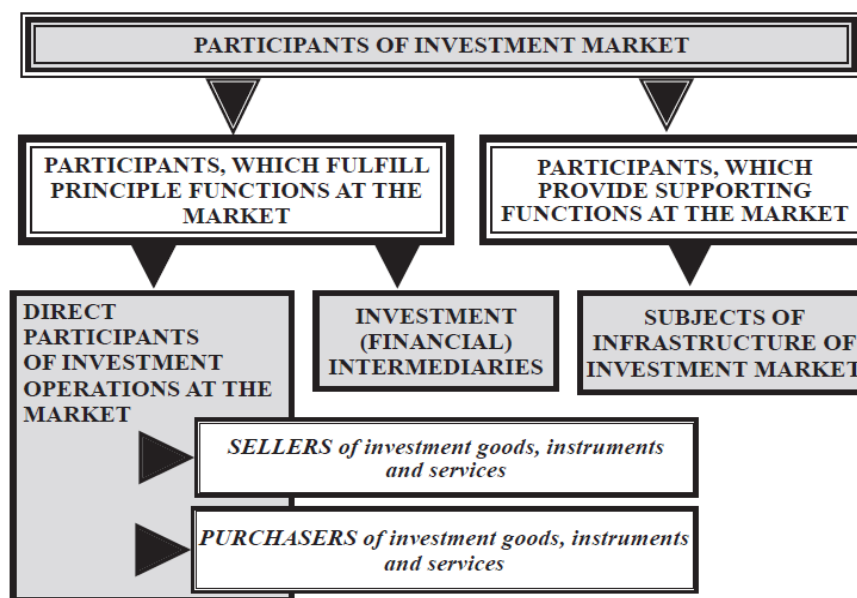


**FIG. 4.6. PRINCIPLE FORMS OF CONCLUDING TRANSACTIONS  
AT THE INVESTMENT MARKET**

With dependence on the principle forms of concluding transactions at the investment market, they divide its principle participants into two groups:

1) Sellers and purchasers of investment goods, instructions and services; 2) investment (financial) intermediaries. Except participants, which participate directly in implementation of transactions, participants of the investment market also are multiple participants, which fulfill supporting functions (the functions of service of principle participants of investment market; functions of service of separate operations at the investment market, etc).

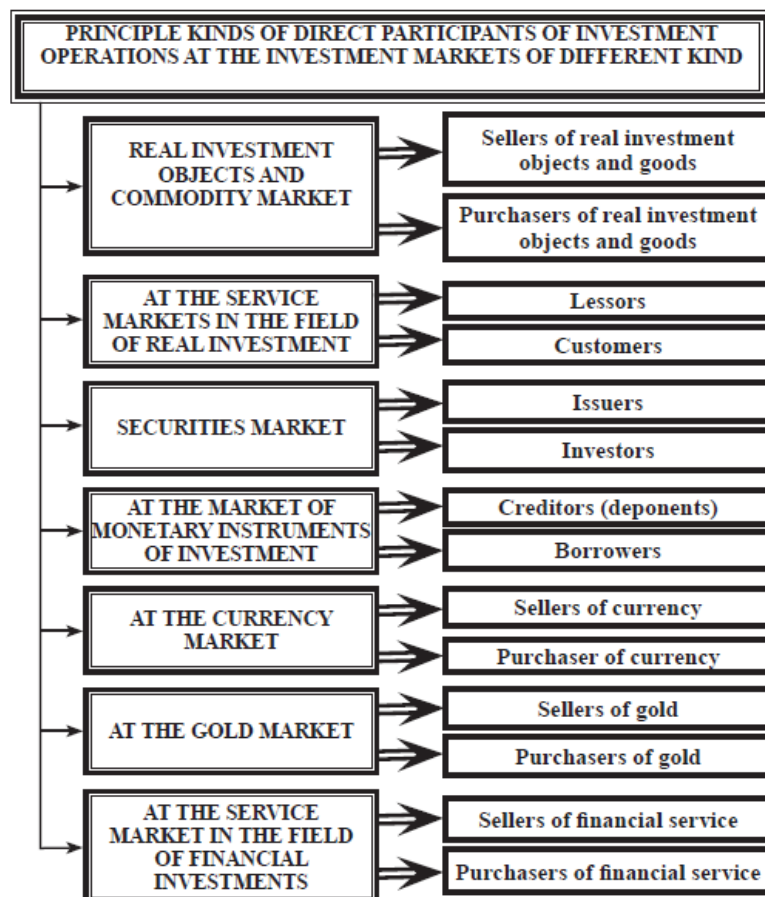
According to the above information, participants of the investment market provide classification of participants of the investment market is provided in the following form (Figure 4.7).



**FIG. 4.7. COMPOSITION OF PRINCIPLE GROUPS OF PARTICIPANTS OF INVESTMENT MARKET**

Let us discuss these participants in the section of principle groups.

I. Sellers and purchasers of investment goods, instruments and services, make group of direct participants of the investment market, which mostly perform principle functions in fulfillment of the financial operations at them. Principle composition of this group of the participants of investment market is significantly determined with the nature of the investment goods (instruments, services) being in circulation at the market. Principle kinds of direct participants (sellers and purchasers) of this or that market of investments are represented in the Figure 4.8.



**FIG. 4.8. PRINCIPLE KINDS OF DIRECT PARTICIPATION OF INVESTMENT OPERATIONS AT DIFFERENT INVESTMENT MARKETS**

### **PARTICIPANTS OF REAL INVESTMENT MARKET**

1. Participants of principle kind of investment operations at the real investment objects and commodity market:

Sellers of real investment objects and goods. These may be authorized governmental organs (auctions of privatization enterprise, in the section of selling competition or labor staff), entrepreneurial of nongovernmental enterprises or enterprises and private persons (selling investment goods).

Purchasers of real investment objects and goods. These are holding and other companies, labor groups and private persons (searching for the investment objects having the form of total property complexes, purchase investment objects with the rule of fee purchasing or privatization), enterprises and other investors (which provide using of real investment goods in the investment process).

2. Principle direct participants of the investment operations at the service market performed in the field of real investment:

**Sharecroppers.** Such sellers of service provide the process of real investment and they own consulting companies (they provide processing of business plans of real investment projects), specialized projection companies and institutions (providing projection of the objects of industrial and social purposes), construction firms and companies (providing performance of construction-installation works, in accordance with the real investment project).

**Orderers.** These are the enterprises and other investors, which are engaged in the investment activity and require respective service of external contractors.

### **PARTICIPANTS OF SECURITIES MARKET**

#### **3. Principle direct participants of the investment operations of securities market are:**

- **Issuers.** They characterize subjects of the investment market, which attract required investment resources at the expenses of emission of securities. Issuers at the investment market play the role of sellers of securities and they undertake obligation of fulfillment of every request subject to the terms and conditions of issuance. The government (executive bodies of governmental and local self-governing bodies) is the issue of securities, as well as multiple legal entities created in the form of joint stock company. Besides this, at the national market of investments the securities issued by non-resident may circulate at the national market.

- **Investors.** These are subjects of investment market, which invest their cash resources into the securities for the purpose of making income. This income is formed by the course price of interests, dividends and securities by the investors.

### **PARTICIPANTS OF THE MARKET OF CASH INSTRUMENTS**

#### **4. Main direct participants of the investment operations at the market of investment cash instruments are:**

- **Creditors (deponents).** These subjects of investment market issue loans with particular interest for temporary use. Principle function of creditors is selling assets, to satisfy different demands of borrowers for financial resources. Creditors at the market, usually are state and commercial banks, which provide credit operations of volumetric and wide spectra; non-banking credit-financial institutions (enterprises). The creditor-enterprises invest their free cash resources into the respective instruments, which make investment incomes in the form of loan interest.

- Borrowers. These are subjects of financial market, which receive loans from creditors with particular warranties of returning these loans and pay particular cost in the form of interest. Principle borrower of cash asset at the financial market is commercial banks and enterprises (for the purpose of filling turnover resources and formation of investment resources, to satisfy demands on the required cash resources).

#### **PARTICIPANTS OF CURRENCY MARKET**

##### **5. Principle participants of investment operations at the currency market are:**

- Sellers of currency. Basic sellers of currency: state (selling part of currency reserves at the market by means of the authorized bodies); commercial banks (having license of implementing debtor operations); enterprises participating in the foreign economical activity (selling currency profit made from the exported products); individuals (selling belonging currency by means of the networks of currency exchange units).

- Sellers of currency. Basic purchasers of currency are same subjects, selling currency. They collect currency for investment purposes.

#### **DIRECT PARTICIPANTS OF GOLD MARKET**

##### **6. Principle direct participants of investment operations at gold (and other precious metals) are:**

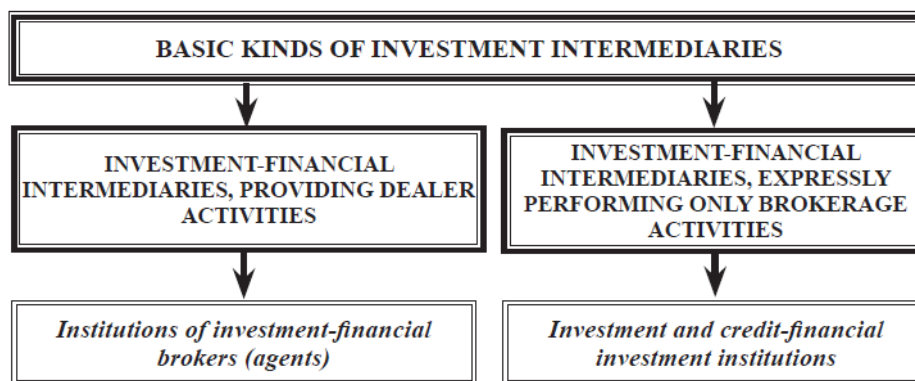
- Sellers of gold (or other precious metals). They are: state (selling part of own gold reserves); commercial market (selling part of their gold deposits); legal entities and individuals (for the necessity of reinvestment of resources invested earlier in these assets (hoarding resources).

- Purchasers of gold (and other precious metals). Basic purchasers of these metals are same subjects and they are looking for it for the investment purpose.

**7. Principle participants at the market of services rendered in the field of financial investments** also are their sellers and purchasers (basic purchasers are enterprises of real sector of economy, providing financial investments).

#### **INVESTMENT INTERMEDIARIES**

**II. Investment intermediaries** make the large group of basic participants of the investment market, providing intermediary connection between purchasers and sellers of investment goods, instruments and services. Particular part of investment intermediaries are able to play the role of seller or purchaser at the investment market. Intermediaries of principle kind are given in the Figure 4.9.



***FIG. 4.9. BASIC KINDS OF INVESTMENT INTERMEDIARIES PROVIDING ACTIVITIES AT THE INVESTMENT MARKET***

Investment-financial intermediaries working for the broker are professionals of the investment market, activities of which are to be licensed. Principle function of such intermediaries is providing assistance of the sellers and purchasers of investment goods, instruments and services in implementing transactions at the investment market. Intermediary broker participates in conclusion of transactions as principal (on the basis of obtained agreement-assignment), or as commissioner (on the basis of the commission agreement). In the first case, the broker-intermediary acts only with the assignment of the customer and on his/her expense (i.e. party of the transaction is the customer himself/herself, who assumes responsibility for its performance); in the second case, the broker-intermediary acts on his/her own behalf, but at the customer's expense (i.e. the broker is the party to the transaction, who is responsible for its performance and reimburses financial costs from the customer's resources).

This group of investment-financial intermediaries consists of the numerous institutions of commodity and financial brokers providing their activities at the investment (as organized (exchanging) so – non-organized (over-the-counter) market. Subject to the legislation, broker's role may be played by the legal entities (brokerage firms and offices), so – individuals. Following are allocated from the composition of the entire institution: commodity brokers, financial brokers, currency brokers, etc. Each of them provides activities only at the market of respective kind of investment.

Ground to the incomes of financial brokers is commission fees from the sums of transactions concluded by them

Investment-financial intermediaries working for the dealers are professional participants of investment market. Basic function of such intermediaries is sale and purchase of investment goods



and instruments on their own behalf and expense. They make profit from the distinction between prices. At the expense of implementing speculative dealers' operations, they achieve insurance of price risk at the investment market.

Subject to the applicable norms, the dealer shall announce publicly sale (purchase) prices of particular investment activities and instruments and request conclusion of transactions with the said prices (the volume of transactions are determined as well). At the investment market, dealer's activities are implemented only by legal entity passing licensing. In the process of licensing, particular demands are set to the minimal size of capital, conduct attestation to some specialists, etc. Investment-financial intermediaries working for dealers, in case of existence of respective licenses, except brokerage activities, may be issuers, institutional investors, etc.

### **FINANCIAL-CREDIT INTERMEDIARIES**

This group of investment-financial intermediaries is represented by investment and credit-financial institutions, among which following are the basic:

Commercial banks;

Investment companies (enterprises trading with securities, which can attract resources by means of issuance and placement of own securities for implementing joint investments except performance of intermediary operations at the exchanging market);

Investment funds (legal entities created in the form of joint stock company, accumulating small individual investment resources. There are following investment funds: open, which are created for indefinite period and provide purchasing of own securities within the terms determined with the investment declaration and the closed ones, which are created for particular period of time and providing settlement of own securities after completion of the term of activities);

Investment dealers, i.e. underwriters (special banking institutions or companies, providing primary selling of the shares and bonds by means of their realization in short lots on participation of the secondary exchanging market);

Trust companies or investment managers (investment-financial intermediaries, providing management of securities or cash resources. They have received them from the third parties, for the purpose of investment into the securities);

Financial-industrial groups or financial holdings (parent companies, owning investment insurance companies, credit-financial institutions and other enterprises in the form of subsidiaries. Parent company of the group, usually, owns control block of shares of the subsidiaries);

Investment-financial house or investment-financial supermarket (investment institution, being engaged in the intermediary activities at the investment market and renders complex investment service to the customers);

Insurance companies;

Pension funds;

Other investment and credit-financial institutions.

The government has strengthened monitoring of the activities of investment-financial intermediaries, for the purpose of preventing of possible unfair actions to their customers.

### **SUBJECTS OF INFRASTRUCTURE**

III. The participants performing supporting functions are represented by multiple subjects of its infrastructure at the investment market. Following main institutions are allocated among them:

**Commodity exchange.** This is participant of the market of real capital commodity, providing acts of their wholesale trading;

**Stock exchange.** This is participant of securities market, organizing their sale and purchase and supporting conclusion of transactions by principle participants of this market;

**Currency fund.** Performs same functions, as stock exchange, though it participates and is the participant of the currency market;

**Securities depository.** This is legal entity rendering service of storing securities to the principle participants of the exchanging market, independently from the form of issuance of securities and provides depositing recording of transferring ownership right to them independently from the form of issuing these securities. Relations between depository and deponent of securities are regulated by the respective legal norms and depository terms and conditions. For activities of securities depository, state licensing is compulsory.

**Registrar of securities (or owner of their register).** This is legal entity, accumulating, recording, processing, keeping and transfers data about register of the owners of securities of issuers. This listing includes every registered owner stipulating amount of securities, their nominal prices and categories. The issuer is liable to use service of the registrar if amount of the owners is more than 500 (also in other cases regulating legal norms). Except owners of securities, their nominal owners-brokers and dealers may also be listed in the register.

**Reporting-clearing centers.** Services of these institutions include accumulation, verification and correction of information about transactions concluded on these securities, as well as

implementing their distribution and settlements. Such centers, as a rule, are established under the stock exchanges and commodity exchanges and they play important role with derivatives-futures, etc. – in organization of trading.

**Information-consulting centers.** These centers serve principle participants of individual and institutional markets of investments. Such centers include qualified marketers, lawyers, financial experts, investment consultants and other specialists of operations implemented at the investment market. The system of such centers was widely developed in the countries of market economy (such service is mostly rendered by the investment, financial intermediaries).

**Other institutions of infrastructure of investment market.**

#### 4.4. CHARACTERISTIC OF BASIC FINANCIAL INSTRUMENTS OF THE INSTRUMENTS MARKETS

Different from real investments related with turnover of property complexes, capital goods and immaterial innovation assets having particular functional purpose, financial investment is related with the multiple instruments, offering wide alternative of choice to achieve set objectives. For this purpose, it is necessary to have knowledge about investment attractiveness of financial instruments.

Financial instruments are diverse financial documents of cash value, having monetary price and with their help operations are performed at the investment market.

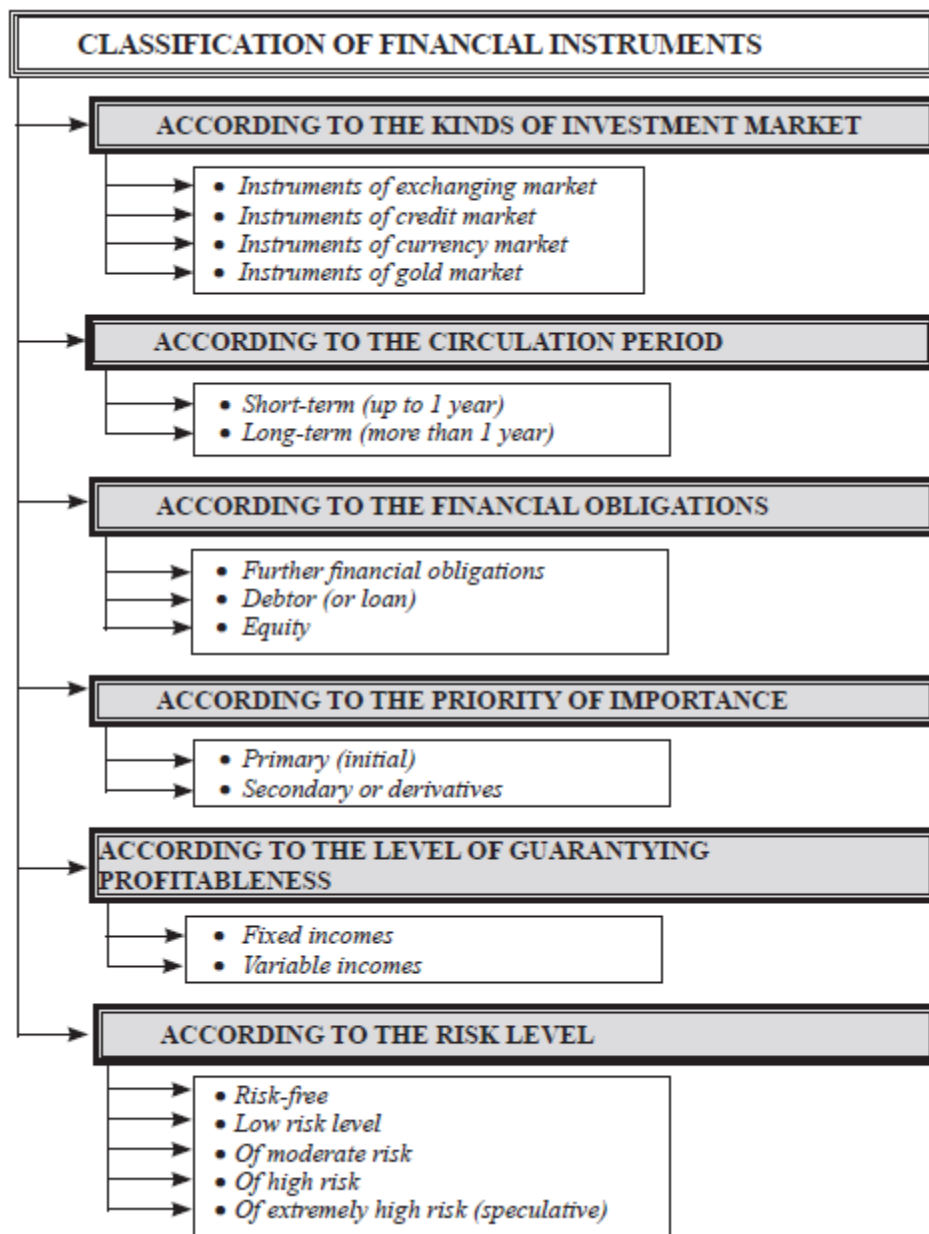
##### CLASSIFICATION OF FINANCIAL INSTRUMENTS

Financial instruments being in circulation at the investment market, rendering services to the different kinds and segments of operations of the market, distinguish with great diversity at the modern stage. Their classification according to the principle signs are given in the Figure 4.10.

##### ACCORDING TO THE KINDS OF INVESTMENT MARKET

As we have said in the Chapter one, **1. they distinguish following instruments serving it according to the kinds of investment markets:**

Instruments of exchanging market. It includes various securities circulating at the market (composition of securities, according to their kinds, emission and peculiarities of circulation are determined with the respective normative and legislative acts).



**FIG. 4.10. CLASSIFICATION OF FINANCIAL INSTRUMENTS OF INVESTMENT MARKET  
ACCORDING TO THE PRINCIPLE SIGNS**

Instruments of credit market. Money and settlement documents being circulating at the money market belong to them;

Instruments of currency market. They include foreign currency, settlement currency documents, as well as securities of separate kind serving the market.

Market of gold (silver, platinum). They include the said precious metals, which are purchased for the purpose of formation and hoarding of financial resources, as well as reporting documents and securities serving the market.

## ACCORDING TO THE CIRCULATION KIND

**2. According to the circulation kind** they allocate financial instruments of following kind:

a) Short-term financial instruments (for the period of circulation up to one year).

Financial instruments of such kind are the most diversified and are intended for serving operations at the money market.

b) Long-term financial instruments (for the period of more than one year). Financial instruments of such kind include so-called “unlimited financial instruments”, deadline of circulation of which is not determined (for example, shares). Financial instruments of this kind serve for the operations provided at the market.

## ACCORDING TO THE FINANCIAL OBLIGATIONS

**3. According to the financial obligations**, financial instruments are divided into the following kinds:

a) The instruments, which are not followed by financial obligations. They, as a rule, are the subject to implementation of the investment operation and do not include additional obligations of the seller in terms of their transferring to the purchaser (for example, currency valuables, gold, etc.).

b) Debit financial instruments. These instruments are characterized with credit relations between seller and purchaser. They oblige debtor to cover nominal price within determined terms and pay additional fee in the form of interest (if it is not included in the covered nominal price of the debit financial instrument). Sample of the instrument of debt financial instruments are bonds, promissory notes, cheque, etc.

c) Equity financial instruments. Such financial instruments confirm right of their owner on the share in the authorized fund of the issuer and making respective income (in the dividend, interest or other form). Equity financial instruments, as a rule, are securities of respective kind (shares, investment certificates, etc.).

## ACCORDING TO THE PRIORITIES

**4. According to the priority meaning** they distinguish financial instruments of following kinds:

a) Primary financial instruments (financial instruments of the first line). Such financial instruments (as a rule - securities) are characterized with their issuance by the first issuer and confirm direct ownership rights or credit relations (shares, bonds, cheque, promissory notes, etc.).

b) Secondary financial instruments, i.e. derivatives (financial instruments of second line) are only securities, confirming right or obligations of their owners, with the preliminarily determined conditions to purchase or sell circulated primary securities, currency, goods or intangible assets. Such financial instruments are used for provision of speculative financial operations and insurance of price risk (“hedging”). By depending on the composition of primary financial instruments or the assets, in relation to which they are circulating, they divide derivatives into exchanging, currency, commodity and other instruments. Basic kinds of derivatives are options, swaps, futures and forward agreements.

#### **ACCORDING TO THE INCOME LEVEL**

**5. According to the guaranties of income level** they divide financial instruments into following kinds:

a) Financial instruments with fixed incomes. They characterizes financial instruments, having profitableness of guarantied level in terms of the covering (or in the period of circulation), independently from conjuncture fluctuation of the loan interest (norm of profit on the capital) during repayment (or in the period of circulation) of the loan interest at the financial market (norm of capital profit).

b) Unspecified financial instruments. They characterize financial instruments, the level of profitableness of which may vary depending of the financial status of issuer (simple shares, investment certificates) or changes of conjunctures of investment market (debt financial instruments, floating interest rate, “in relation” with the determined rate of profit, by “binding” to the “firm” foreign currency rate).

#### **ACCORDING TO THE RISK LEVEL**

**6. According to the risk level, they allocate financial instruments of following kind:**

a) Risk free financial instruments. They, usually, include short-term state securities, short term deposit certificates of the most reliable banks, “firm” foreign currency, gold and other precious metals, purchased for short period of time. The term “risk-free” is particularly conditional, as each financial instrument named here is attached with potential investment risk: they are used only for formation of the starting poring in terms of measurement of the risk level on other financial instruments.

b) Financial instruments of low risk levels. As a rule, they include group of short term debit financial instruments serving money market, where performance of obligations is warranties with

firm financial condition of the borrower and reliable reputation (they are characterized with the term “borrower of the first class”).

c) Financial instruments of moderate risk level. Risk level of financial instruments of this group conforms to the average level of market.

d) Financial instruments having high-risk level, their risk level are essentially more than medium level of market.

e) Financial instruments of extremely high level (“speculative” instruments). Such financial instruments are of the highest risk level and they are usually used to provide the most risky speculative operations at the investment market. Such high-risk financial instruments are shares of venture (risky) enterprise; bonds of high level of interest, which are issued by the enterprise of crisis financial status; option and futures agreements, etc.

Given classification reflects separation of financial instruments according to the most essential general signs. Each considered group of financial instruments, in its turn, is classified according to the separate specific signs, reflecting peculiarities of their issuance, circulations and coverage.

Let us discuss composition and nature of financial instruments, serving operations at different investment markets in more details.

## **INSTRUMENTS OF SECURITIES**

### **Basic financial instruments of securities<sup>54</sup>:**

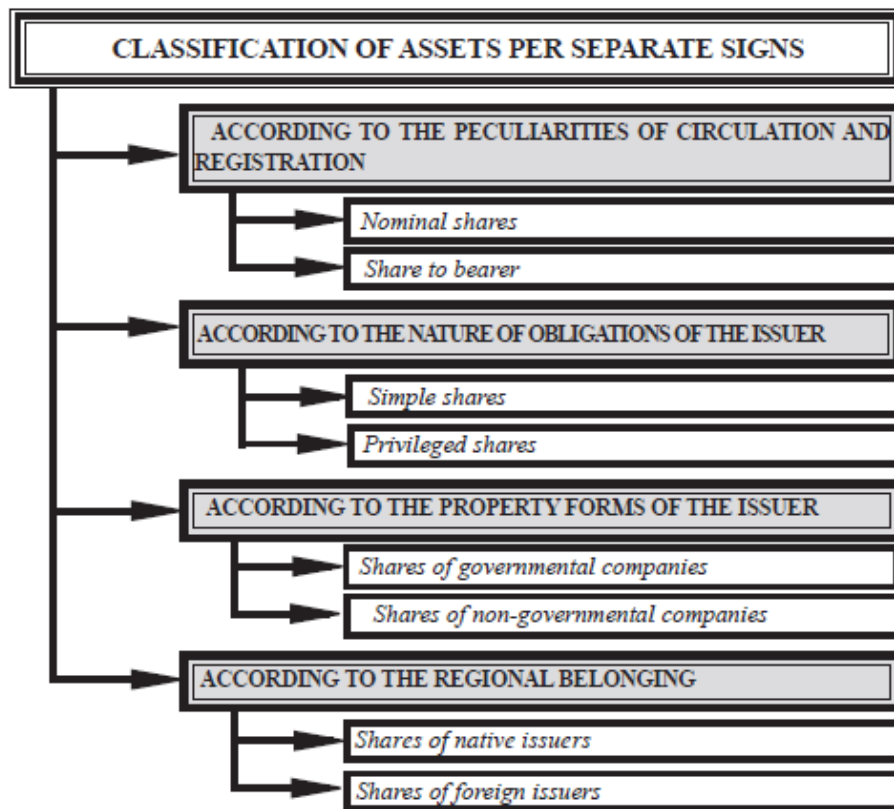
**a) Shares.** This security confirms participation of its owner in formation of the nominal fund of the joint stock company, allowing it receive respective share of dividend form. Classification of shares circulated at our exchanging market is provided by numbers of signs (Figure 4.11.).

At the modern stage of developing exchanging market, shares are the most distributed securities, though, according to this data, they are essentially exchanging market of the countries of the developed market economy. As for the volume of the investment operations provided on the shares, it is relatively lower for low liquidity and profitableness of the most kinds of securities.

**b) Bonds.** This security confirms payment of cash resources by its owner and obligations of the issuer to reimburse nominal price of the security within determined term by paying fixed interest (if not otherwise determined with the terms of issuance).

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<sup>54</sup> Securities market is studied in more details in the following chapters (author’s remark).



**FIG. 4.11. CLASSIFICATION OF SHARES CIRCULATING AT THE STOCK EXCHANGE  
ACCORDING TO THE BASIC SIGNS**

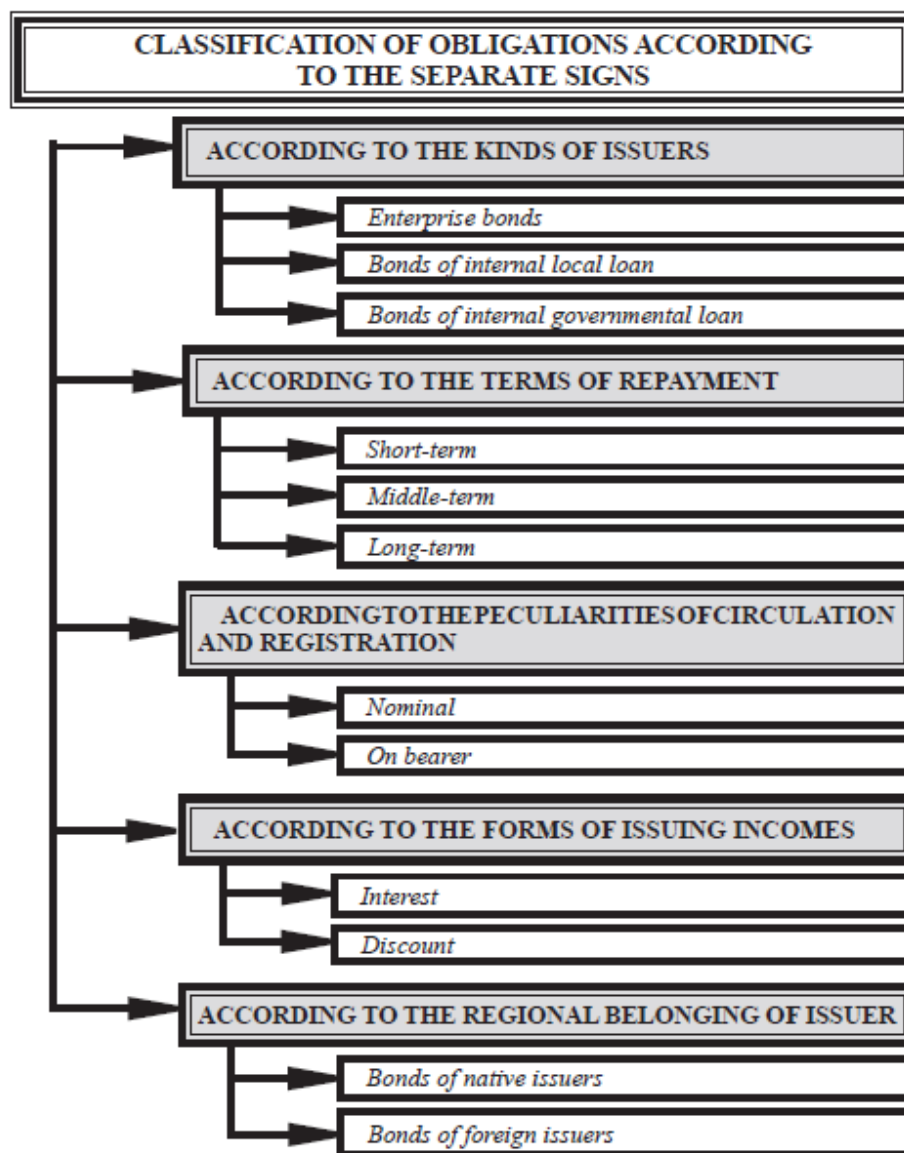
The bonds circulating at the exchanging market are grouped according to the following signs (Figure 4.12.).

At the modern stage of developing exchanging market of the country, number of bonds circulating on it is relatively lower (compared with the amount of diversity of shares circulating at the similar index of the exchanging market of the country of the developed market economy), according to the volume of operations they occupy primary place (in the first case – at the expense of concluded transactions on the governmental bonds).

**c) Saving (deposit) certificates.** This is written certificate of the bank (or other certificate of credit-financial institution of their issuance) about depositing cash resources, which confirm the right of their owner after expiration of the term on the deposit right of their owner and acceptance of interest on it.

Saving (deposit) certificates, which circulate at our exchanging market, are grouped with the following signs (Figure 4.13).





*FIG. 4.12. CLASSIFICATION OF BONDS CIRCULATING AT THE EXCHANGING MARKET ACCORDING TO DIFFERENT SIGNS*

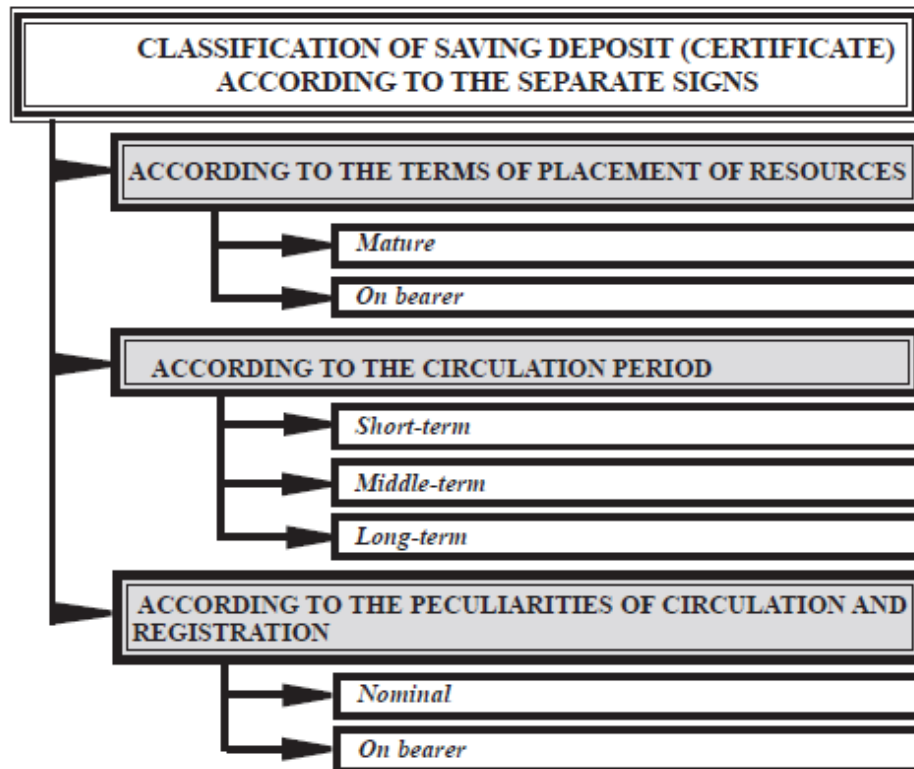
d) **Derivatives.** This is relatively new group of securities of our exchanging market. Among which the option agreements; futures agreements; forward agreements; Swap agreements and others are main.

e) **Other financial instruments of exchanging market.** They own investment certificates, privatization securities, treasury obligations, etc.

#### INSTRUMENTS OF GOLD MARKET

Principle financial instruments of gold market are:

a) Gold, as financial asset, making principle object of financial operations at the market;



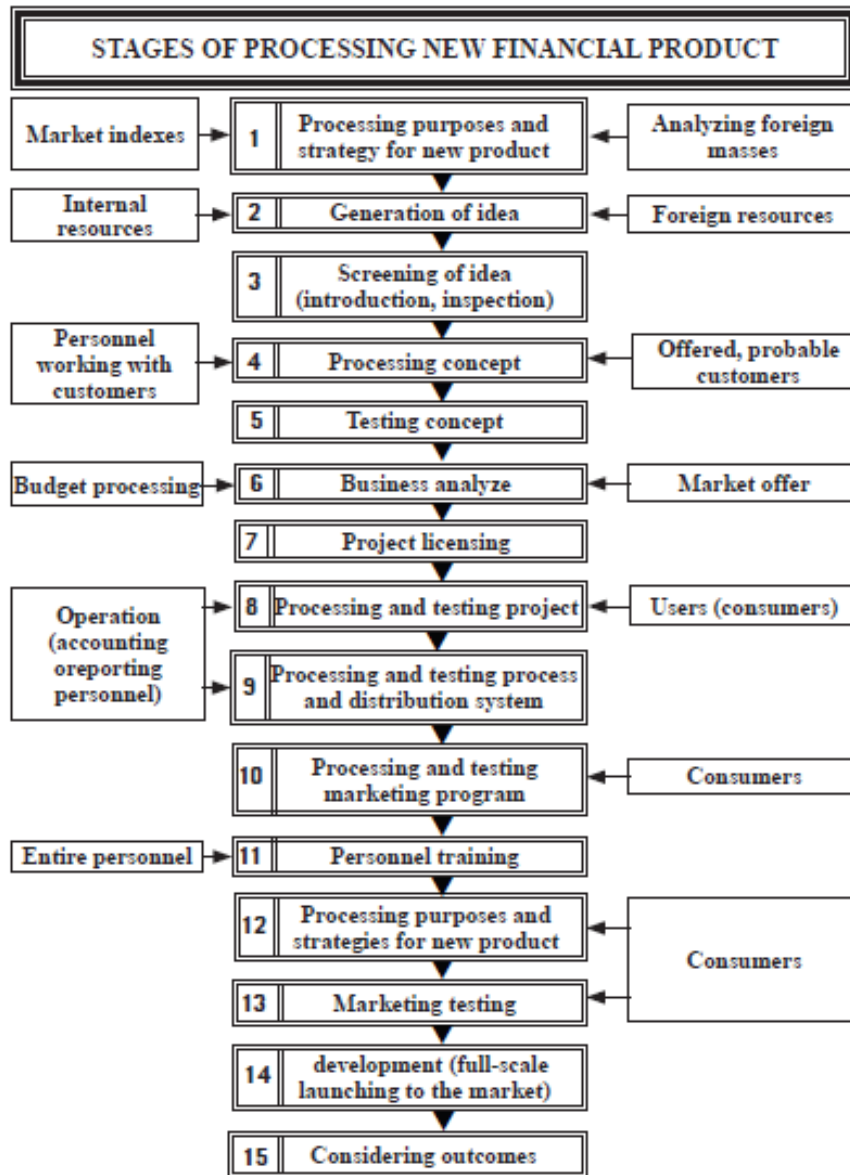
**FIG. 4.13. CLASSIFICATION OF SAVING (DEPOSIT) CERTIFICATES CIRCULATING AT THE EXCHANGING MARKET ACCORDING TO THE SEPARATE SIGNS**

b) System of multiple derivatives, used in terms of implementing transactions at the precious metals exchange (options, futures, etc.).

Discussed system of principle financial instruments of the investment market is in permanent dynamics, giving rise to the amendment of legislative norms of state regulation of separate markets, using experience of the countries of developed market economy, investment innovations and other factors.

Financial instruments of investment market discussed above, even in the countries of the developed market economy, have been developed during last three decades of the twelfth century. Processing-involvement and studying of the financial technologies (together referred to as financial products) is provided by new and modern direction of financial management – Financial Engineering.

American specialists in the field of financial engineering – Jean Marshal and Vikul Bansali developed typical normative model of new financial product; it underwent respective empirical inspection. Schematically this model is given in the Figure 4.14.



***FIG. 4.14. TYPICAL NORMATIVE MODEL OF PROCESSING FINANCIAL PRODUCT OFFERED  
BY J. MARSHAL AND V. BANSALI***

Using modern foreign experience will support conditional adaptation of functioning of the investment market of our country of multiple financial instruments existed in the economies of the developed countries.

## CHAPTER 5. THE MECHANISM OF PRICING AND OPERATION KINDS AT THE INVESTMENT MARKET

### 5.1. ROLE OF PRICES ON THE BALANCE OF INVESTMENT MARKET AND THE MECHANISMS OF THEIR

Functioning of investment market is subject to the operation of particular economical mechanism based on the interrelation of its elements. Principle of the elements is demand, distribution and price, determining status and development of the entire investment market, as well as its separate kinds.

Purpose of the mechanism of functioning of the investment market is provision of its balance, which is achieved by means of interrelation of separate elements. Under the conditions of market economy, balance is mostly achieved through self-regulation of the investment market and, particularly, its state regulation. However, in actual practice, absolute balance of the investment market, i.e. complete balance of its separate elements, takes place too seldom and lasts for very short period of time.

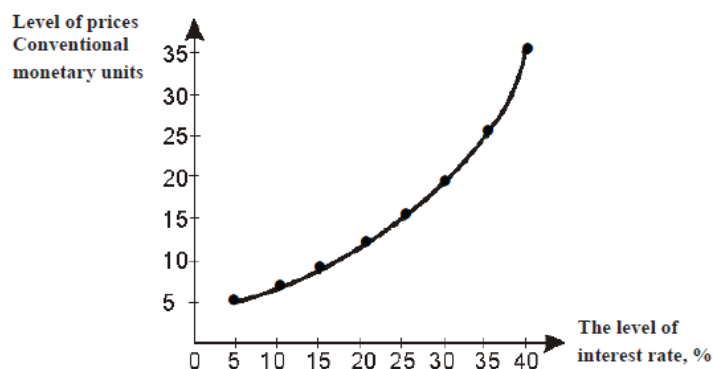
#### GENERAL PRINCIPLES OF FUNCTIONING OF THE INVESTMENT MARKET

Every market of investments is characterized with own peculiarities of formation of the mechanisms of achieving interrelation of separate elements of the market of securities market; though mechanisms of functioning of these markets are based on the principle grounds of general nature. Consequently, in the first place, we consider general principles of formation of the mechanisms of functioning of the investment market in total. These principle provisions may be brought to the following basic issues:

**1. In the system of principle elements of the investment market main role is played by prices on separate investment goods, instruments and services.** This element reflects balance of demand and distribution at the market, balance of its status and the level of satisfying economical interests of its participants. Prior role of price in the system of investment market, providing its balance, determines special role of pricing in the mechanism of its functioning.

**2. Prices at the investment market are determined, in the first place, by the level of profitability of investment goods and financial instruments, which are based on the average level of the interest rate (or average norm of profitability on the invested capital).** This interest level is not only the

criteria of selecting alternate lines of implementing investment operations, but it determines the volume of the said operations or business activity of separate entrepreneurial at the investment market. Correlation between the prices existed at the investment market and level of the interest rate is illustrated in the Scheme given in the Figure 5.1 below.



***FIG. 5.1. THE NATURE OF CORRELATION BETWEEN INTEREST RATE AND THE LEVEL OF PRICES ON FINANCIAL INSTRUMENTS***

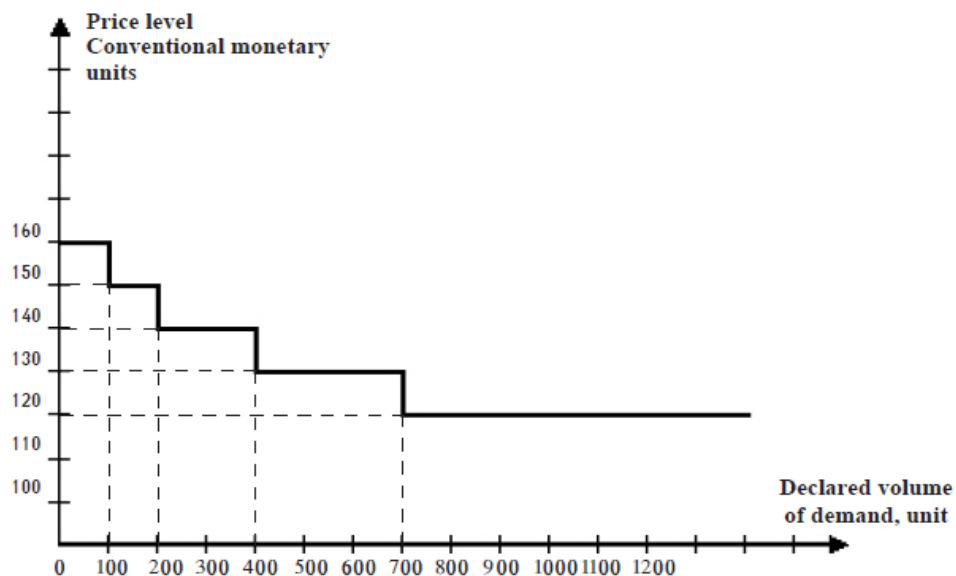
3. Peculiarity of pricing at the investment market is the essential influence of speculative capital on the process. This gives rise not only actual demand on the separate investment goods and financial instruments (from the side of the industrial subjects), but also speculative demands, which is not related with the real demands of economical development. High level of speculative component of the investment market, which is special characterizing figure of the financial segment of the Market, is an ordinary phenomenon. This level is permanently being raised alongside with the growth of the volume of capital accumulated by the enterprises and individuals. With the influence of the speculative capital, the level of prices existed at the investment market, significantly depends not only the real demand, but also on the expected changes of the level, which is being tried to be influenced by the participates of the Market, subject to their speculative interests (“Playing on rising-decreasing” market prices of the financial instruments of financial investments of separate investment goods or investments).

4. Prices existed at the investment market are very dynamic and suffer influence of multiple objective factors at macro and micro levels. Such high level of price dynamics characterizes investment market different from the markets of consumer good and service, where factors of pricing are of more stable nature.

5. **Important role of information about price level of separate investment goods and instruments in management of the investment activities of the enterprise, as well as management of economical process of development of the entire country determines not only operability of their establishment, but also – non-repayment.** Information about status of prices at the main market of investments is entered from regional and national, as well as global markets and it influences essentially upon management of current investment processes at various levels. Professional participants of investment market, implementing speculative operations on it, in case of existence of modern electronic means of communication receive information about level of prices on separate financial instruments in fact, any time.

6. **Public establishment of prices on the principal investment goods and instruments in the process of their exchange quoting in provided in terms of dependence on the conformity of demand and distribution on them.** Exchanging quotation of the prices is provided on the basis of application received by brokers from the customers on sale and purchase of separate investment goods and financial instruments.

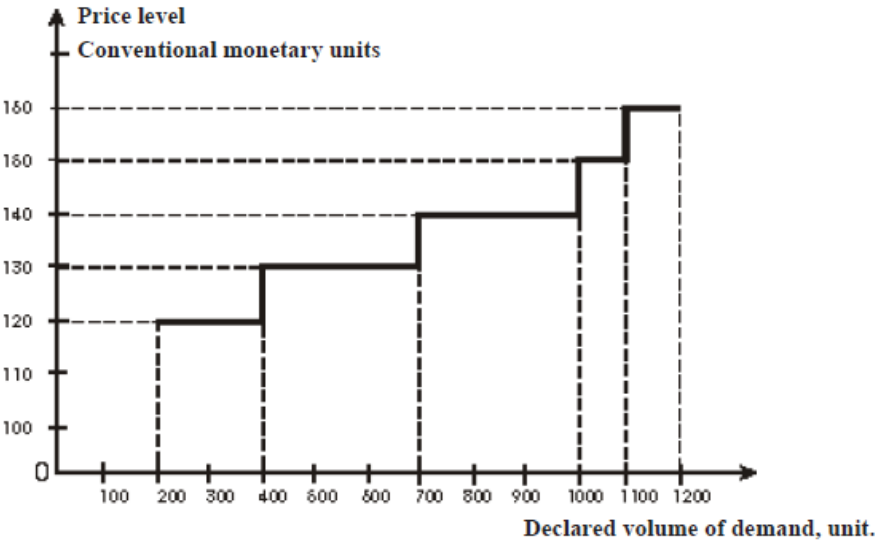
Applications brought from the customers on purchasing investment goods and instruments form the volume of demand on them, according to the particular levels of prices at the stock exchange (called prices of demand). Principle scheme of exchanging demand according to the volume and level of prices is given in the Figure 5.2 below.



**FIG. 5.2. SCHEDULE OF FORMATION OF EXCHANGING DEMAND ON THE SEPARATE FINANCIAL INSTRUMENTS, IN CASE OF DIFFERENT PRICES ON THEM**

Data of the Figure shows the volume of transactions on the particular instruments which are intended to be concluded by the purchasers at the stock exchange, if price level conforms to their expectations (or it becomes lower than the level declared by them). For example, 100 units of respective financial instrument may be sold for 160 common units (CU); another 100 units for 150 CU; additional 200 units –for 140 CU; and other 300 units – for 130 CU and additional 400 units – for 120 CU.

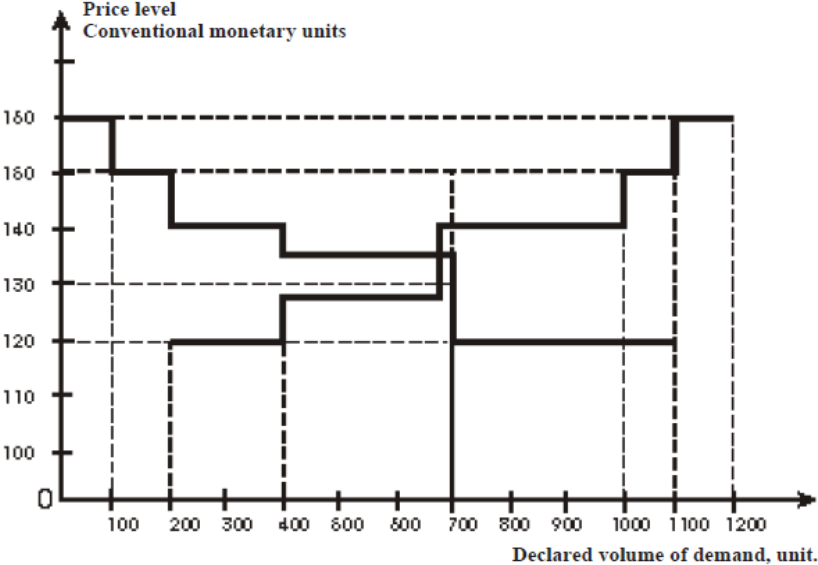
Applications made by the customers on selling investment goods and instruments, consequently, form the volume of their distribution to the stock-exchange with particular level of prices (this is called delivery prices). Principle scheme of forming exchange delivery according to the volume and price level is given in the Figure 5.3 below.



***FIG. 5.3. SCHEDULE OF FORMING THE VOLUME OF EXCHANGING DELIVERY ON THE SEPARATE FINANCIAL INSTRUMENTS, IN CASE OF DIFFERENT LEVEL OF PRICES ON THEM***

Schedule of the Figure shows the volume of transactions on the particular instruments which are intended to be concluded by the sellers at the stock exchange, if price level conforms to their expectations (or appear to be more than that declared by them). For example, 100 units of respective financial instrument may be sold for 160 common units (CU); another 100 units for 150 CU; additional 200 units –for 140 CU; and other 300 units – for 130 CU and finally, the volume delivered for 120 CU makes 200 units. Herewith, total volume of exchanging delivery will reach 1000 CU at the following trading.

On the basis of applications made by the customers on sale and purchase of particular investment goods and instruments price level is created at the stock-exchange, which give rise to the balance of the declared demand and delivery. This formation is illustrated with the schedule in the Figure 5.4 below.



***5.4. SCHEDULE OF FORMATION OF AVERAGE EXCHANGE PRICES ON THE SEPARATE FINANCIAL INSTRUMENTS, BALANCING THE LEVELS OF DELIVERY AND DEMAND ON THEM***

Based on the data given in the Figure we may see that the level of the balanced exchanging price on the considered monetary instruments is 13 common unit; the volume of its realization for this price will be 800 units with the seller’s offer, as for that of the purchasers it will be 700. Consequently, the volume of exchanging transactions with such balance prices will make 700 CU.

Balance price in the practice of exchanging trading may be paid from its reporting level, which is given in the schedule. This is provided with urgent demand or delivery, and, relatively, lowering prices by the purchaser or seller in terms of trading.

7. One of the peculiarities of formation of prices at the investment market is dependence of prices formed at the national market on the level of prices existed at the global market. This peculiarity is the most characterizing to the exchanging market and securities and gold markets. Alongside to the integration to the global investment market this attitude will be strengthened and bring positive and negative outcomes to the economical development of the country.



**8. Great influence of the dynamic of prices of the investment market on the current economical processes of the country is determined by the active forms of governmental regulation of the prices through respective mechanisms.** These mechanisms are establishment of the level of profit, formation of reserves of commercial banks, regulation of cash turnover through its emission, regulation of emission and profitableness of state securities (in the first place - bonds), etc. The mechanism of such regulation is implemented in every country of the developed market economy.

**9. Objectiveness of pricing at the investment market determines not only foreseeing all necessary factors at their level in the process of pricing, but awareness of the market participants about principle factors from them.** Such information provision of the participants of the investment market is characterized with the term of the Effective Market. They consider such investment market to be effective, at which the level of prices of separate investment good, instruments and services respond rapidly on the external information and this information is available for every participants of the market.

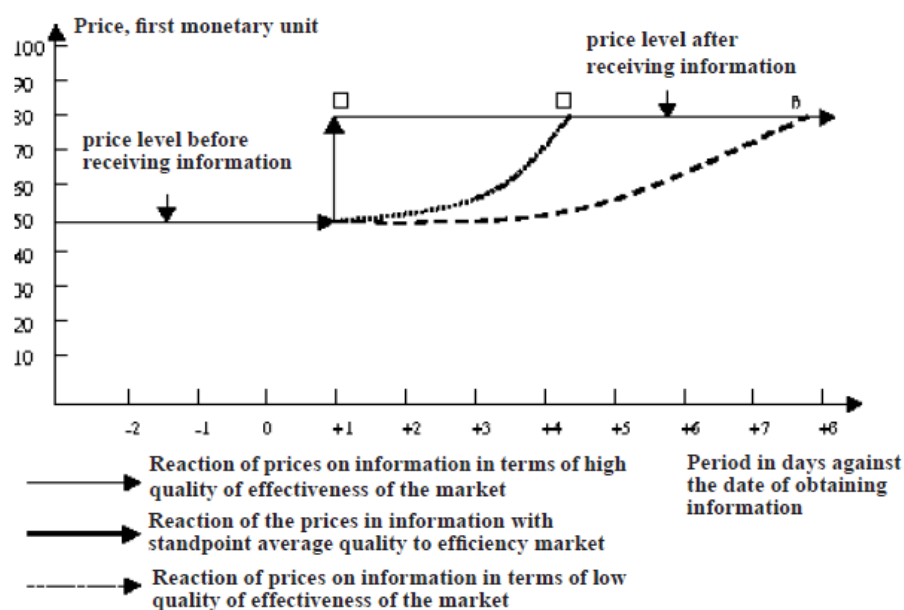
#### **THREE LEVELS OF EFFECTIVENESS OF THE INVESTMENT MARKET**

**Subject to the4 concept of effectiveness of the market (which is the most important theoretical provision of the mechanism of its functioning), they allocated three level of effectiveness.**

**The first level** – low level of effectiveness is characteristic to the condition, when prices of investment good, instruments and services is mostly based on their dynamics during previous period.

**The second level** – strong level of effectiveness of the market reflects the situation, when the process of pricing is based not only on the widely available, but also unpublished information and outcomes of their grounded analyze. In such case, level of prices on separate investment good, instruments and services will always be expression of the respective level of profitableness. In other words, Strong level of effectiveness of the market mostly characterizes such status of pricing on the investment goods, instructions and services, which reflect entire information about them.

Influence of the level of effectiveness of the investment market on the nature of pricing on financial instruments is schematically given in the Figure 5.5 below.



**FIG. 5.5 INFLUENCE OF THE LEVEL OF EFFECTIVENESS OF THE INVESTMENT MARKET ON THE NATURE OF PRICING ON FINANCIAL INSTRUMENTS**

As you can see from the Figure, entering of positive information to the market of effectiveness of high quality influenced upon financial instruments immediately; said reaction at the market of effectiveness of medium quality was continued for 4 days, and at the market of effectiveness of low quality, relatively – 8 days.

Discussed principle provisions characterize entire market of investment and the mechanism of functioning of its separate kinds. Herewith, the mechanism of functioning of markets of separate kind of investments has specific peculiarities, which are conditioned with formation of particular level of the price (market price) of the circulated investment goods and instruments; the methods of quotation (formation) of prices by the participants of the market, etc.

**PRINCIPLE PECULIARITIES OF FUNCTIONING OF THE INVESTMENT MARKET**

Consideration of principle peculiarities of functioning of the investment market of every kind is very interesting in this regard.

1. **Peculiarities of the mechanisms of functioning of the market of real investment objects (every kind)** is that it is in the closest relation with the index of macro economical development of the country and it is directly related with the cycling of this development. In the functioning of this market special roles are played by the rates of growth of national income and proportions of its

distribution (namely, limited inclination to the saving), preference of liquidity and inclination to the investment, fluctuation of the interest rate existed at the financial market, inflation level, rates of technological progress and other factors determining the dynamics of formation of investment resources. This, on the one hand; as for another, these factors determine the dynamics of the volume of derived and real investments. We have already discussed the nature of influence of these factors upon the mechanism of functioning of the market of real investment objects in details above.

## **PECULIARITIES OF THE MECHANISM OF FUNCTIONING OF THE SECURITIES MARKET**

**2. Peculiarities of the mechanism of functioning of the securities market** is that demand is formed by the investor here, as for the distribution – it is formed by the issuers of different exchanging instruments. Consequently, price level at this market is considered to be quoted market price of securities of separate kinds.

Investor's demand is based on the need of making income from the capital invested for purchasing securities (in the form of interests and dividends, as well as in the form of increasing market value). The income level shall not be less than the level of the norm of profit on the capital, during risk-free investments. Any other form of investment choice, according to the concept of market effectiveness, shall bring unified level of income in terms of similar risk level. Consequently, higher norm of profitableness against risk level of the particular exchanging instrument, forms higher volume of demand on it and on the contrary.

Distribution of issuers, as a rule, is based on the demands providing development (operation activity) of real production with financial (investment) resources, volume of which may not be formed at the expense of own resources. Herewith, emission of securities for the industrial subjects (or country) is one of the alternate forms of attracting financial resources from the external sources. If price of attracting credit resources will be less than attraction of resources to the securities market, emission may not take place (under other equal conditions).

## **FACTORS INFLUENCING UPON PRICE OF DEMAND AND DISTRIBUTION PRICE AT THE SECURITIES MARKET**

Herewith, **demand price and distribution price at the securities market are determined by the different economical interests of investors and issuers and, consequently, different specific factors, which foresee terms and conditions of formation of these interests.** Real process of transactions at the securities market and, relatively, the process of real pricing, is provided only in case, if

economical interests of investors and issuers coincide. Herewith, the process of pricing, which takes place at the Market, is influenced by the speculative capital in particular extent.

Among the factors, forming volume and relatively influencing upon price of the demand at the securities market, following are principle:

**Proportions of distribution of current incomes of the investors of customers and accumulation**, determining the volume of financial potential of securities in performance of transactions on them;

**The level of profitableness of securities and its conformity to the risk level** (each surplus of the first index on another gives rise to the growth of the volume of investment demand);

**The level of liquidity of separate securities**. It is determined by the general activity of exchanging market (under the influence of macro economical factors), as well as investment features of particular exchanging instruments;

**The dynamics of the level of profit of central bank**. It influences essentially upon level of profitableness and, relatively, the volume of demand on the debt securities;

**Forecasted rate of inflation**. It plays the role of “inflation clearing” of the level of probable investment income, through inclusion set for risk.

#### **THE FACTORS INFLUENCING UPON DISTRIBUTION PRICES**

Among the factors, forming volume of distribution and, relatively, influencing upon the price of delivery existed at the securities market, following are principle:

**Status of the economy and investment context in the country**, determining the volume of investment demand of the industrial subjects and the amount of financial resources of their satisfaction at the expense of issuing securities;

**The price of attracting financial resources from other alternate external resources;**

**Availability of credit resources totally and namely for the industrial subjects;**

**The level of expenditures on the issuance of securities of particular kind.**

Taking into account the factors forming real demand and distribution of securities, as well as the factors of speculative pricing, particular prices are formed on the separate exchanging instruments at the exchanges and over-the-counter markets.

#### **PECULIARITIES OF THE MECHANISM OF FUNCTIONING OF CREDIT MARKET**

**3. Peculiarities of the mechanisms of functioning of credit market**, at which demands of enterprises on monetary instruments of investment are identified and their circulation is

provided, in the first place is that it is based on the specific basic elements of the market – existed demand on the credit resources and their distribution. However, main peculiarity of this market is that here interest rate paid for the credit exists in the form of the price. Different from the prices of real goods, this interest rate is formed not from the price, but on the basis of the price to be used.

**At the credit market** depending on the forms of circulation of monetary assets, rate on the credit may have different kind – credit interest, depository interest, inter-bank interest, profit interest, etc, notwithstanding their level, these kinds of interests to be paid to the creditor maintain their essence and they are identified to be the price of monetary asset of credit resources. And still, in the composition of these kinds of prices on credit resources profit rate of the central bank plays primary role, dynamic of which determine movement of other components of prices on the monetary assets to be sold.

**Profit rate of central bank is the index to be regulated by the government; this regulation is implemented according to the macro economical factors subject to the financial policy.** As for the mechanism of market self-regulation of the interest level paid on the credit, it is built on the basis of other factors, main of which are:

Interest level of the profit determined by the central bank, it is minimal normative index of forming price level on credit resources in term of their selling:

**Forecasting rate of inflation.** Based on this factor, possible loss of real income of seller of the credit resources are compensated in the form of the level of inflation premium;

**The level of credit risk.** It characterizes the risk of non-return (or overdue return) of credit and respective interest by the borrower. The level of credit risk, in its turn, is determined by multiple factors, among which the most important role is played by creditability and solvency of the borrower, his/her business reputation and the form of credit provision. Reimbursement of credit risk is usually provided in the form of the level of premium determined for the risk;

**Credit liquidity level.** It is characterizes with the term of issuing credit and it is reimbursed in the form of respective level of liquidity of the established premium;

**Margin level.** This is distinction between the levels of the prices of sale and purchase of credit resources determined by bank and other credit-financial institutions. Purpose of the Margin is repayment of operation expenditures, payment of taxes and formation of profit.

Based on the listed principle factors, price of distributing cash resources at the credit market is formed by its seller differentially for each particular credit. This takes place in accordance with the following model:

$$IL_c = AR + IP + PR + PL + S \quad (5.1)$$

$IL_c$  is the level of interest set on the credit;

AR – actual rate level of the profit of central bank of the country;

IP – inflation premium level, which usually equals to the forecast rate;

PR – premium level set for the risk calculated on the basis of credit risk level for the particular borrower;

PL – premium level set for liquidity, which is calculated with the term of issuing credit, based on the evaluation of its future price;

S – Margin level, determined by the particular financial credit institution, based on the particular conditions of implementing its credit activities.

In the process of pricing at the credit market following factors may also be foreseen, determining price level of the cash assets to be sold.

Based on the formation of the interest level on credit the level of market prices of cash instruments of investment (depository interest, namely, profit norm on the depository interest, namely of the investor's deposit) is formed.

#### **PECULIARITIES OF THE MECHANISM OF FUNCTIONING OF FOREIGN EXCHANGE MARKET**

**4. Peculiarities of the mechanism of functioning of foreign exchange market** exists in the fact that price of main object of selling on it is played by the currency rate (when sale and purchase of foreign currency is provided with national currency) or cross-rate (when one foreign currency is sold-purchased with another foreign currency).

Currency rate is the price of monetary unit of any country, expressed with case unit of the given country for the particular date. Usually, it shows how many units of national currency is needed for purchasing one unit of foreign currency. Exchange rate is, as a rule, represented with two indexes – currency purchase price and currency selling price. Distinction between these two rates is formed with margin (premium) of dealers or operators exchanging currency.

Cross rate is characteristic to the conformity of two currencies, which comes with correlation of their rates against third currency.

If the level of expressed currency rate of national currency particularly depends on the volume of demand and distribution of currency at the national foreign exchange market, these indexes do not influence upon cross-rates of foreign currency.

#### **PRINCIPLE FACTORS OPERATING AT THE LEVEL OF FOREIGN CURRENCY RATE**

Following principle factors are operating at the level of foreign currency rate (expressed in national currency):

**Conformity of purchasing ability of national and foreign currencies**, which is characterized with the term “Parity of Currency Purchase Ability”;

**Status of tax balance of the comparable countries**, which is characterized with the conformity of the volume of export and import among them;

**Forms and volumes of state “currency interventions”**, showing the methods of state regulation of currency rates;

**“Escape of capital” from the country**, characterizing its transfer to the countries of more advantageous investment environment, taxation, expropriation risk, etc in the important amount for the purpose of their prevention. Main purpose of Escape of capital is more advantageous and guaranteed conditions of its placement in the selected country;

**High rates of inflation**, determining necessity of purchasing currency assets for the purpose of preventing loss of real price of the expressed capital of national currency;

**Expected devaluation of national monetary unit.**

Quotation of currencies is provided by means of determining currency rates (national monetary units) and cross-rates at the monetary exchange, as well as through operation the procedure of “fixing” at the particular trading, which is implemented on the basis of inter-conformity of demands and delivery of currencies of different kind.

#### **PECULIARITIES OF THE MECHANISM OF FUNCTIONING OF GOLD MARKET (AND OTHER PRECIOUS METALS)**

**5. Peculiarities of the mechanism of functioning of gold market (and other precious metals)** exists in the fact that nature of pricing on it gives wider explanation of specificity of the mechanism of formation pricing and quotation at the commodity market.

Price of one oz. of gold shows the volume of demand on it, which is formed not only with the demands of actual providers, but also with those conditioned with the investment purposes. Besides this, the price includes the volume of delivering gold in different periods of time.

The mechanism of quotation of exchanging prices on gold and other precious metals have standard nature explained above.

Knowledge of the mechanism of functioning of separate market of investment allows the enterprise to implement operations related with attraction of the investment resources from foreign resources, selection of real investment project, formation of portfolio of financial investments and other aspects of investment activities more effectively.

## 5.2. KINDS OF ENTERPRISE TRANSACTIONS AT THE INVESTMENT MARKET

The enterprise provides transactions and operations of different kind with the participants of investment market of financial relations. This transaction and operations may be performed by the enterprise as at the organized, so unorganized investment market.

Transactions performed by the enterprise at the investment market is its mutually agreed action with other interested industrial subjects, which are oriented towards establishment of their rights and obligations, termination or amendment related with the investment instruments, which are circulated in the different segments of this market.

### CLASSIFICATION OF TRANSACTIONS OF ENTERPRISES

Transactions, implemented by the enterprise at the regulated and unregulated investment market distinguish in great diversity and are classified in accordance with the following principle signs (Figure 5.6.):

**I. According to the period of realization of the terms of agreement they allocate cash and term transactions**, implemented with the investment instruments.

Cash transactions or Spot Transactions means that the payment of the purchased investment instruments and their transfer to the purchaser by the seller is implemented independently, or it is performed within minimal technically possible terms.

General period of performing cash transactions, according to the dependence of the investment instruments and their kinds, is determined with the following formula:

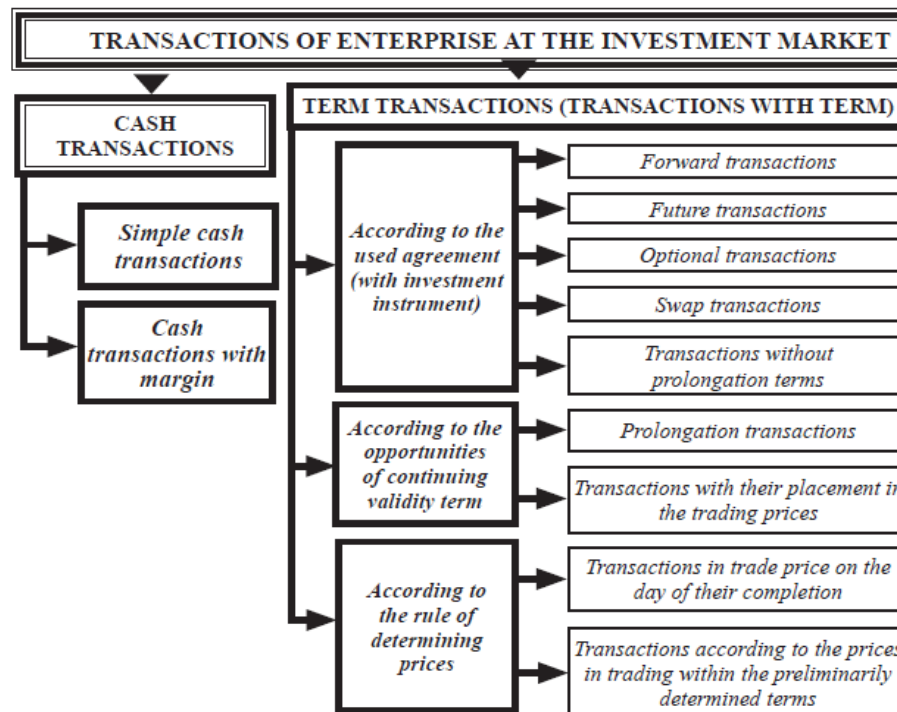
$$P_{ca} = T + n, \quad (5.2)$$



Where  $P_{ca}$  is general period of using cash transaction according to the investment project.

$T$  – the day of transactions between partners.

$n$  – the terms of certified performance of performance of transactions.



**FIG. 5.6. CLASSIFICATION OF TRANSACTIONS OF ENTERPRISES AT THE REGULATED AND UNREGULATED INVESTMENT MARKETS**

Cash transactions are concluded according to the investment instruments as at the regulated investment market (exchanging and foreign exchange market), as well as at unregulated markets.

According to the terms of preliminarily reimbursement, guaranteeing performance of the transaction by the purchaser, they distinguish simple cash transactions and cash transaction with margin.

Simple cash transaction doesn't require advance payment (margin) in terms of its conclusion.

Cash transaction with margin is concluded by the enterprise, as a rule, in the form of brokerage agreement under the conditions of the regulated investment market and in case of necessity it is confirmed with the respective advance payment (size of margin is determined according to the exchange procedures or brokerage offices of the trade investment instruments and is fluctuated ordinarily within the framework of 35-50%).

Term transactions (or transactions with term) mean that transfer and payment of the purchased investment instruments, or only calculations according to the transactions (if investment instrument is not subject to transferring) is provided during particular future period of time. Term transactions according to the investment instruments are characterized with small amount of its kinds and low variety.

**II. According to the kind of used agreement (according to the investment instrument) term transactions are divided into forward, futures, optional and swap transactions.**

### **FORWARD TRANSACTION**

**1. Forward transaction** characterizes obligation of its parties to sell (purchase) particular kind of basic investment asset (shares, bonds, foreign currencies, etc.) during determined future period of time in the preliminarily determined prices. Instrument of implementing of this kind of term transaction is forward agreement, in which following conditions are determined:

Kind and amount of the realized basic investment asset;

Particular term of future period, in which transfer and payment of the investment asset takes place;

The kind of prices of realization of the investment asset, according to which settlement will be provided (this kind of prices is fixed in the moment of concluding agreements).

Each listing and other conditions of forward agreement are of individual nature, i.e. it is determined according to the particular agreement of the parties. Advance payments in the moment of concluding agreements are not implemented on the purchased (sold) basic investment assets.

Forward transactions are implemented according to the investment assets mostly at the unregulated financial market and due to this fact; it distinguishes in the high risk of their non-fulfillment, due to unfair conduct of the partner. Refusing performance of terms and conditions of forward transactions by one of the partners for non-advantageous essential changes in the conjuncture of investment market (amendment of the price level at the particular investment instrument, due to which payment of sanctions may appear more advantageous, than performance in terms of performance of the agreement).

Enterprises at the investment markets can conclude forward transactions of following kinds with their counteragents:

Forward transaction on purchasing basic investment asset;

Forward transaction on selling basic investment asset;

Forward transaction on changing basic investment asset.

Forward rate on trade market investment assets are usually more than spot rate.

## **FUTURE TRANSACTION**

**2. Future transaction** is characterized with the obligation of its parties to purchase or sell particular amount of the investment assets in the fixed price during future period, in accordance with the standardized terms and conditions of its implementation. The role of counteragent of the enterprise in the future transaction may be fulfilled only the stock exchange – as well as its accounting or clearing chamber. Consequently, future transactions are implemented by the enterprises only through the brokerage office of the at the investment markets – which are participants of respective stock exchanges.

Instrument of implementing future transactions is future agreement, which is one of the kinds of derived securities (derivative). Following principle conditions of future transaction are standardized in it:

Kind of basic investment asset, according to which given future agreement is concluded. Such basic financial assets in the modern practice may be relatively liquid kinds of securities, which are circulated at the given exchange, namely, separate kinds of credit financial instruments, gold and other precious metals. Particular kinds of foreign currency;

Amount of basic investment asset (its standard lot);

Fixed price of basic investment asset, in terms of concluding agreement;

Fixed term of completing validity of the agreement and complete settlement according to it (usually, future agreements are completed within specialized terms, determined by the exchanges);

The system of penalty sanctions for violation of the terms and conditions of the agreement by the parties.

Under the conditions of such standard parameters, subject of the future transaction according to the exchanging agreement of the given kind is distinction between price of the starting and completion periods. In other words, peculiarity of future transaction (different from the forward one), subject to such transaction is not entire price of the basic investment asset, but only distinction between its current price during particular period of time and fixed price of future agreement in terms of its conclusion (this distinction is called “basic”).

In order to provide obligations foreseen with future agreement, counter agents of the stock exchange, participants of future transactions are liable to enter particular cash money into the centre of settlement of their clearing settlement, which is called deposit margin. They distinguish Primary Margin, which is paid in terms of concluding future transaction (signing future agreement) and Supporting Margin - this is minimal level of cash deposit sum, which it can not go below in terms of transaction of future agreement. Normative size of primary and supporting margins is determined by the exchanges (normative value of the margins may be increased in terms of relatively risky investment assets or high fluctuation period of the investment market conjuncture). Similarly, for provision of their obligations at the exchanges, from the point of performing their obligations at the similar exchanges, counter agents create special insurance fund from the point of performing conditions of the future agreements.

### **PECULIARITIES OF FUTURE TRANSACTION**

**Peculiarity distinguishing future transaction** is that financial outcomes (profit and loss) is reflected in the clearing account of the customer in terms of changing basis according to the future agreement at the end of the day in terms of trading at the reporting chamber. For the purpose of avoiding large risks, provoked with high positive or negative size, many exchanges are based on the restriction of the rates of future agreements during single trading. Enterprises participating at the investment markets are able to implement transactions of following kinds;

**Future Agreement on purchasing market investment asset.** This transaction determines for the participant “opening of long position”. Profit from such transaction will be made by the holder of the future agreement provided that the price of the respective market investment asset will make warranted loss in the future, to the participants of future agreements of the given kind;

**Future transaction on selling market investment asset.** This transaction is determined for its participant as “opening short positions”. Profit from such transaction will be made by the participant of the future agreement only in case, if the price of the respective basic financial asset will have the trend of reduction in the future period. Consequently, Growth of the prices on the basic financial asset during future period will give rise to the generation of loss for the participant of the future transaction of given kind;

**Offset future transaction.** This transaction is determined to its participant as Closed Position, according to the “long” and “short” positions opened earlier. As for the future transaction, directed towards opening of the long or short positions, in fact, is never completed with distribution of the

real basic investment assets, its termination may be provided only with conclusion of the turned transaction through the similar future agreements (i.e. seller of the future agreement in terms of conclusion of transaction shall react on the similar quantity of the basic investment instrument of purchasing the agreement and the purchased, relatively, selling of such agreement). Offset transaction may be implemented not only after expiration of the term of operation of the future agreement, but also at any stage of its performance.

### **OPTIONAL TRANSACTION**

**3. Option transaction (“transaction with premium”)** characterizes obligation of one side – to authorize another purchase or sell respective investment asset with the respective price given during determined period, or at the end of the period. Optional transactions may be implemented at the regulated and non-regulated investment markets. In the first case, the transactions are regulated with settlement (clearing) payments of the exchange, and in the second case – by the brokerage offices.

The instrument of implementing optional transaction is optional agreement, which is the derived security (derivative). Principle conditions of option transaction is standardized in it, as in future agreement – its object, option price, date of repayment, etc. Distinguishing feature of the optional agreement is the premium paid by the purchaser in case of the possible nonperformance of the agreement terms and conditions.

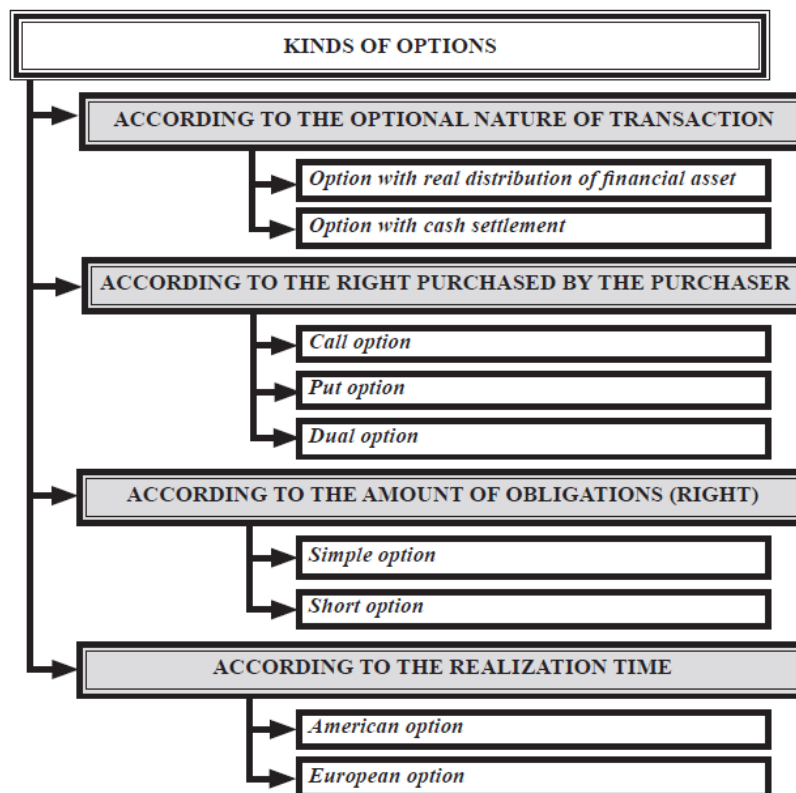
The objects of option transactions may be basic and other kinds of derived securities (future options, swap options), credit financial instruments (interest options), foreign currency (currency options), gold and other precious metals.

Implementation of option transactions in the system of investment market is near to the similar future transactions. They are paying margin; offset (reversal) transactions are foreseen for closing the position, etc. Different from the future transactions, in case of option transaction they do not consider everyday settlements and accrual of the sum of profit or loss according to the everyday trading to the Parties.

### **CLASSIFICATION OF OPTIONAL AGREEMENTS**

According to the peculiarities of the contractual conditions the options, circulated at the investment market, are classified with the following principle signs (Figure 5.7).

According to the purposeful nature, they distinguish the options with the real distribution of investment asset and options with cash settlements.



***FIG. 5.7. PRINCIPLE KINDS OF OPTION AGREEMENTS CIRCULATED AT THE INNOVATIVE MARKET***

The option provides the right of the owner to conclude option transaction with physical purchasing or selling with real distribution of the investment asset, for the price determined with the amount of the respective basic asset.

Option with cash settlement provides the right of its owner to conclude option transaction determined with the distinction between the cash form of basic asset and obligations of the prices of basic assets.

According to the purchased right of the purchaser they allocate Call option, Put option and dual options.

The Call option authorizes its holder (purchaser) with the right to purchase basic investment asset for the price foreseen with the agreement. Such selling of the investment asset of Call option contractual obligation for the seller<sup>55</sup>.

Put Option authorizes its holder (purchaser) to purchase within determined period of time particular amount of the basic investment asset foreseen according to the agreement. For the sellers of Put option such purchasing of financial asset is the contractual obligation.

<sup>55</sup> Economical essence of the options was considered in the Chapter Three. **The author's remark**

Dual option authorizes its holder (purchaser) with the right to sell or purchase basic investment asset of the amount foreseen with the agreements for the preliminarily determined price during determined period of time. Selection of right by the purchaser for the seller to select contractual obligation of the purchaser of the dual option.

**According to the size of the obligation, they allocate simple and short option.** Simple option authorizes its purchaser (holder) the right to request from the seller of the option implementation of its obligations in the amount to overcome basic investment assets of the agreed amount.

Short option authorizes its holder (purchaser) to receive particular additional premium, paid by the seller of the option and request performance of obligations imposed on them in the amount, which is more than the size of basic investment assets foreseen by the Agreement. This size may be 2, 3, 4 or more times more its initially determined size, but it shall be placed within the frameworks foreseen with the optional agreements.

**According to the realization time, they distinguish options of American and European kind.**

American option characterizes option agreement, which may be realized by its holder (purchaser), any time until expiration of the validity term. European option characterizes optional agreement, which may be realized by its holder (purchaser) only on the preliminarily determined day (date of performing option).

Being the participant of optional investment market, enterprise can implement transactions of following principle kinds:

**Optional transaction on purchasing Call optional agreements.** Such transaction is characterized as opening of Call of long position by the purchaser (long "Call"). Profit may be accepted from such transaction in case of the trend of increasing prices on the respective basic investment asset during particular period of time. If opposing trend is characterizing to the dynamics of prices, the purchaser may use with his/her right on performance of transaction in the form of refusal (its maximal risk in such case is limited with the size of the premium, which is paid by the seller of the optional agreement);

**Optional transaction with the optional agreement Put.** Such transaction is also characterized as opening of the long position by the purchaser (in such case – long Put). Profit from such transaction may be accepted by the purchaser only under the conditions of the trend of price reduction, subject to the conditions of the basic investment asset during particular period

(under the conditions of increasing of this price, the purchaser may use the right of refusing performance of the transaction);

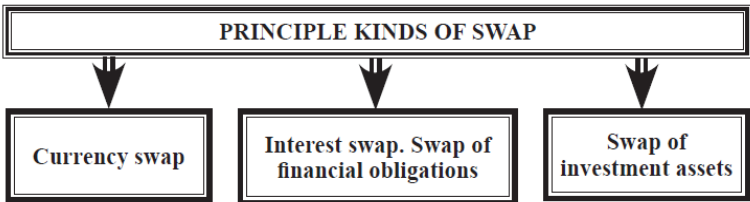
**Optional transaction on selling Call option agreement.** Such transaction is also characterized with the selling of the short Call option position by the purchaser (short Call). The Profit according to the transaction of the seller may be accepted under the conditions of the trend of reducing prices according to the respective basic investment asset during particular period of time. Taking into account the right of refusal of the purchaser of the option before performer of the transaction, this profit is usually limited with the size of premium;

**Optional transaction on selling optional Put agreement.** Such transaction is characterized to be opening of the short put option by the seller (short Put). Profit according to such transaction (amount of premium) will bring to the seller profit only in case of the trend f price growth on the respective basic investment asset.

**4. Swap transaction** characterizes the agreement between two or more participants of the investment market under the conditions of mutual advantageous conditions of future payments of different kind. Such transactions are implemented only in the system of unregulated investment market. Distinguishing sign of these transactions is their implementation during long period of time. They are implemented during the period of several months or ten or more years. Swap transactions are implemented as between two industrial subjects, so with mediation of commercial banks.

Instruments of implementing Swap transactions is Swap agreement (or simple Swap). It is concluded by the participants of Swap transactions in accordance with the recommendations of international and national standards. Principle parameters of this agreement is determined in the form of Swap, reflecting subject of the transaction.

Following principle kinds of Swap gained relative distribution of in the modern practice (Figure 5.8).



**FIG. 5.8. PRINCIPLE KINDS OF SWAP, REFLECTING SWAP TRANSACTION**



Debt swap characterizes exchanging of future payments between participants of the transaction in future currency. Within the framework of the debt swap the enterprise may implement following principle kinds of swap transactions:

Purchasing of foreign currency under the Swap conditions, with simultaneous conclusion of agreement on the selling, with the forward condition after the particular period of time;

Selling foreign currency with Swap conditions with simultaneous conclusion of agreement on its purchasing after particular period with the forward condition;

Exchanging one foreign currency on another in current period, by concluding simultaneous agreement on future period for the reverse exchange,

Interest Swap/or the Swap of financial obligations characterizes exchanging of future payments between participants of transaction, related with the attraction and service of credits, issuance and service of bonds, etc. Effectiveness of such exchange is determined according to the participants of the transaction, due to the diversity of the level of creditability (their credit rating), they form financial obligations under the conditions of different level of interests at their investment markets (attraction of the borrowed resources of different prices). Exchanging the kinds of payment according to the service of the debt allows making economical profit under particular conditions by both partners in the conditions of the Swap transaction.

Within the framework of the interest swap (financial obligation Swap), the enterprise may implement following principle kinds of Swap transaction:

Exchanging obligations by paying interests with the fixed rate on the obligations with the floating rate of the payment;

Exchanging obligations by paying interests with floating interest rate on the obligations with the fixed rates of interest payment;

Exchanging obligations with paying interest according to the floating interest rate of one kind on the obligations according to other kinds of floating interest rate in terms of payment.

Interest Swap may serve financial obligations of the enterprise, as in national, so – foreign currency.

### **SWAP OF INVESTMENT ASSETS**

**Swap of investment assets** characterize payments of future performances between the participants of transactions from the assets held by them (investments, securities, deposits, etc.). Different from the interest swap, allowing participants of transaction reduce cost of the attracted

borrowed capital, Swap of the investment asset allows increasing of the profitability of the investments without respective increasing of their risk. Effectiveness of such exchanging for each participant of the transaction is also determined with the relative priorities of each of him or her at the different investment market.

Within the frameworks of the swap of the investment assets of the enterprise, this latest is eligible to implement following principle kinds of swap transactions:

Exchanging incomes from investments with the fixed interest rates on their incomes with the floating interest rate;

Exchanging incomes received from the investments with the floating interest rate, with the floating interest rate on their incomes;

According to the floating interest rate of one kind of exchanging incomes made from the investments on the incomes with the floating interest rate of the second kind;

Exchanging incomes received from investments into one currency, into another from their incomes.

Swap of the investment assets may serve future incomes of the enterprise from the investments, according to the national and different kinds of foreign currencies.

#### **PROLONGED TRANSACTIONS AND THOSE**

#### **WITHOUT THE RIGHT OF PROLONGATION**

**III. According to the opportunities of extending the term of transaction, they are divided into two kinds: those, having prolongation right and prolonged ones.**

The transaction without the prolongation right foresees its completion within particular term as one of the compulsory condition.

Prolongation transaction characterizes term transactions, one of the conditions of which is the opportunity for its prolongation. Such opportunity usually allows future and swap transactions.

Demand on the prolongation of the exchanging agreement according to the future transaction, is mostly determined with the forecasting expectation of the participant of the transaction, in relation with the dynamics of the prices on the basic investment asset, which have not been considered upon expiration of the term of the agreement, but he/she hopes for their realization in the close future.

There are two kinds of the prolonged future transactions: report and deport.

**Report** characterizes prolongation of the future transactions, which are oriented towards increasing of the prices on the basic investment assets and making income in the form of the distinction, between the rates of its future selling and current purchase rate.

**Deport** characterizes prolongation of the future transaction with the orientation of decreasing the prices on the basic investment asset and making incomes in the form of distinction between the current rate of its purchasing and future rate of its selling.

**IV. According to the rule of fixing prices, they allocate transactions with the trading prices (quotations) on the day of its conclusion, transaction according to the trade prices on the day of its completion; transactions according to their trade prices per preliminarily agreed date.**

Except listed principle signs, transactions of the enterprise at the investment markets may be classified with the relatively less essential signs: place of transaction, kind of lease, special conditions, etc.

### **5.3. CHARACTERISTICS OF BASIC OPERATIONS OF AN ENTERPRISE AT THE INVESTMENT MARKET**

Conclusion of transaction of this or that kind is subject to the implementation of particular purposes of operations, which are provided by enterprises at the investment market.

Under the operations implemented at the investment market by the enterprises, they consider realization of separate managerial decisions, which are related with the formation and utilization of innovation resources in the system of different kinds of this market, providing conclusion of necessary transactions between partners, according to the investment relations.

In modern practice of the innovative management they allocate following principle groups of operations implemented at the investment markets in different kinds (Table 5.1.):

**I. Operations related with attractiveness of own investment resources from the external sources.** One of the principle kind of operation of this group is emission and placement of own shares by the enterprise, which is implemented at the initial markets of securities.

Emission of the shares is the set of procedures regulated by law, which are related with the issuance of corporate securities of this kind. They distinguish primary and additional emission of shares. Primary emission of shares is related with the creation of joint stock company and primary formation of its share capital. Additional issuance of shares may be provided only in case that the shares issued earlier by the company are completely reimbursed according to their nominal price.

Table 5.1

**PRINCIPLE GROUPS OF OPERATIONS IMPLEMENTED BY THE ENTERPRISES  
AT THE INVESTMENT MARKETS OF DIFFERENT KINDS**

Principle groups of operations of enterprises	Kinds of the investment markets				
	Credit	Securities	Currency	Insurance	Gold or precious metals of other kind
1. Operations related with attraction of own investment resources from external source		X			
2. Operations related with attractiveness of the borrowed investment resources from the external sources	X	X	X		
3. Operations, related with the selling of the investment assets in the process of their exchange or disinvestment of capital	X	X			
4. Operations of capital investment	X	X	X		
5. Operations of insurance of investment risks	X	X	X	X	X
6. Speculative operations	X	X	X	X	X
7. Arbitration operations	X	X	X	X	X
8. Other kinds of operations	X	X	X	X	X

Special norms thoroughly and consistently regulate the procedure of making decision on issuance of shares. The procedures of their state registration, as well as demands on conclusion of the prospect of emission, the rule of their placement and, namely, primary emission

of shares are determined in accordance with the Articles of Incorporation of the Company upon its establishment.

Placement of shares by the issuer is provided in favor of other persons only after registration of their issuance through open or close signature. Open signature on shares is provided by the joint stock companies of open type after public announcement by the joint stock company. Closed signature considers placement of shares between preliminarily determined investors without advance announcement by the mass media.

### **UNDERWRITERS**

The Issuers are mostly supported by underwriters in implementation of the issuance of shares and their placement. Service rendered by underwriters include following: consulting of issuers regarding the size of emission, determining time of implementing issuance, assistance in placement of shares among investors, etc.

Underwriting may take place through purchasing of shares entirely or their part (in such case, the underwriter undertakes the risk related with realization of shares at the primary market) or through active intermediation between the issuer and investors (with the principle “huge afford”), in case if he purchases particular part of shares issued without obligations. In the first case, income of underwriter is formed with the distinction between price of placement of the shares and that of their selling (it is called underwriting spread or discount); and in the second case – preliminarily agreed price for rendering service. One of the modern forms of underwriting is purchasing option on signature from the issuer by underwriter (in case of complications related with realization of the issued shares, the underwriter is eligible to use his right and reject the transaction).

Under the conditions of issuance of great number of shares, for the purpose of distribution of the risk of complete purchasing and placement underwriting syndicate may be created. Selling of shares by underwriters is provided through ordinary share trading mechanism. Amount of attracting own investment resources from the external resources in the process of considered operation, consists of the sum of realization of the issued shares according to their nominal price and in the form of distinction from the sum of issued income, the price of their selling by underwriters and nominal price, excluding the expenditures related with emission and placement.

**II. Operations related with the attraction of the borrowed investment resources from external sources. These operations may be implemented by enterprise at the credit market, securities market and currency market.**

## **ATTRACTION OF BANK CREDIT**

### **IN NATIONAL CURRENCY**

Basic kind of operations implemented by the enterprise is attraction of bank credits in national currency, as of the short-term, so – long term ones. Cost of attracting such credit greatly depends on the level of creditability of enterprise (credit rating), kind of credit, nature of its provision and some other conditions. Besides this, part of the enterprise operation at the credit market is related with the attraction of the borrowed cash resources, characterized with the receiving of credits and loans from non-banking financial institutions. And finally, one of the kinds of the financial credit attracted by enterprise is financial leasing (in modern description, financial leasing forms special segment at the credit market in which credit is represented in the form of fixed asset).

## **ISSUANCE AND PLACEMENT**

### **OF OWN BONDS**

Principle kind of operations performed by the enterprise in the form of formation of borrowed investment resources at the securities market is issuance and placement of own obligations by the enterprise. In the process of issuance of bonds the size of issuing given securities shall be determined, as well as its kind and nominal, forms of payment and amount of interests, terms and conditions of their repayment, which are reflected in the published memorandum. The bonds may be issued by the joint stock companies, with and without warranty with real estate. Placement of bonds and terms and conditions of underwriting in terms of selling the bonds at the primary market of securities is, in fact, similar to the operations related with the shares implemented by the enterprise. Basic kinds of the considered operation, which is implemented by the enterprise at the currency market, is attraction of credits and loans in foreign currency. Such credits may be accepted by the enterprise from commercial banks, non-banking financial institutions and leasing companies (in the form of financial leasing), which are participants of the foreign exchange market.

## **REINVESTMENT OF CAPITAL**

**III. Operations related with selling of investment assets in the process of their exchanging,** i.e. disinvestment of capital. This group of operations may be implemented by the enterprise at the securities market, foreign exchange market, gold market or that of other precious metals. Basic kind of the considered operations implemented by enterprise at the securities market is selling of separate assets (shares, bonds) of the portfolio of financial investments by the enterprise.

This operation may be provided with reduction of profitability of separate assets of the portfolio, changing of the conjuncture of the market or negative outcomes of industrial activities of the issuers, also necessity of rising solvency level of the enterprise through converting part of the portfolio of securities into the cash form. Such operations are, as a rule, conditioned with the Swap transactions.

Relatively distributed kind of the said operations is compulsory selling of currency profit from export made by the enterprise at the foreign exchange market. Selling foreign currency in terms of such operations is ordinarily concluded in the form of swap transaction (though separate forecasted currency incomes may be sold by concluding forced transactions). Respective shares of the enterprise may be sold at the gold market and those of other precious metals, which have been created earlier for the purpose of hoarding, in relation with the time factor of the demand of cash resources of the enterprise, which is necessary for provision of its solvency or financing of the investment projects. Such purchasing may be concluded in the swap or forward transactions.

#### **OPERATIONS OF CAPITAL INVESTMENTS**

**IV. This group of operations plays great role in providing growth of basic price of the enterprise. Range of these operations of the enterprise is quite wide at the investment market.** Operations of the enterprise are provided according to the financial investments at the credit market, securities market and currency market.

Basic kind of investment operations at the credit market is deposits in national currency. They may be short-term, as well as long-term. Profitability of such investment operations is determined with the size of the deposit interest rate, periodicity of paying interests and numbers of other conditions.

More spread kind of operations, provided by enterprise at the securities market, is investment of capital into the exchanging instruments of different kind (shares, bonds, etc.). In such investment process, the enterprise forms securities according to the criteria of profitability, risk and liquidity of the portfolio. Profitability of such investment operations are determined, on the one hand, with the growth of price of the securities of separate kinds and, on the other hand, by receiving dividend and sum of interest.

Basic kind of the investment operations of the enterprise at the currency market is deposit in foreign currency. Mechanism of implementing such operations is similar to their implementation at the credit market.

## OPERATIONS OF INSURANCE

### OF INVESTMENT RISKS

**V. Opportunity for conducting such operations is owned by the enterprise at the investment market of any kind, without exception.** Basic operations of the group given at this market are diversification of the investment instruments, hedging of the rating risks, as well as direct insurance of property (assets) and responsibilities.

Diversification of the investment instruments makes it possible to reduce essentially non-systemic (specific) risk level, generated ineffective activities of the issuer enterprises and financial institutions.

Diversification process considers widening of the number of investment instruments in the composition of deposit, investment, currency and other portfolios. Opportunities of diversification are determined with the number of kinds of the investment instruments (investment service and products), which are actively circulated at the investment market of different quality.

Rate hedging of risks is based on using of the industrial financial instruments – futures, options, swaps and forward transactions. Hedging (insurance) of the rate risks is directed towards prevention of the outcomes of loss of the enterprise from disadvantageous influence of the price changes upon separate investment assets, interest rates, exchange rates, etc. Providing operations of insurance of price (rate) risks, the enterprise is the Hedger at the market.

Hedging of the risk by using futures is relatively more difficult. Such operation requires realization of three kinds of exchange operations:

Purchasing (selling) investment asset with distribution in the future period (transaction “forward”);

Selling (and, relatively, purchasing) future agreements on the investment assets of the same (similar) amount;

Liquidity of positions according to the future agreements through conclusion of the offset transactions.

First two kinds of exchange transactions are implemented at the initial stage of the operation of insuring price risk, and the third kind – at the completion stage. The type of hedging operation is based on the fact if its participant suffers financial loss from changing exchanging prices, as the seller of the real investment assets, he will get same profit as the purchaser of the future agreements, according to the assets of same amount and on the contrary.



In this regard, they distinguish two kinds of the price risk at the equity (foreign exchange) market – **hedging of purchases and hedging of selling**. **Hedging of purchases** foresees exchanging operations, in the process of which seller of the real investment assets, concluding transaction on their selling, at the same time provide purchasing of the future agreements on the similar amount of the assets. **Hedging of selling** is characterized with the opposite direction of the operation – purchasing of real investment assets and respective selling of the future agreements.

Similar mechanism of hedging is characteristic for using swap transactions.

As for the option transactions, insurance of price risk here is limited with the size of the inclined (accepted) option premium.

Direct insurance of property (assets) and responsibility is provided in the system of insurance market. It is implemented by the specialized and unique insurance companies.

### **SPECULATIVE OPERATIONS**

**VI. Such operations are directed towards making of income at the expense of changing prices on the separate investment asset, credit market, interest rates, and foreign currency rates on the given period of time.** Time range, during which, speculative operations may be provided, is quite wide. It may be several hours during single session on the stock exchange, up to several months and even several years.

The most complex out of the operations implemented at the investment market are speculative operations. They require deep knowledge of the mechanism of investment market, as well as the ability of its forecasting, owning the technique of implementing exchanging transactions of separate financial instruments, etc. This operations may bring relatively important profit at the investment market, though, in case of their failing they may give rise to the important financial loss. Due to the complexity of this operation, as well as the fact that there is great demand on professionalism of their provision, enterprises of the real sector of economy play the role of speculates at the investment market very seldom, which, of course, doesn't exclude opportunities for their implementation, under the conditions of the high professional investment managers and particular amount of the "risky capital" at the enterprise.

The instruments of implementing speculative operations may be in fact all kinds of term transaction at the investment market – forward, futures, option, or swap. This is related with the fact that these kinds of transaction reflect outcomes of forecasting changes of prices at the different investment assets. Consequently, speculative operations may be implemented at every kind of the

investment market. Herewith, speculate participants of the operations may play on the increasing of prices (playing the roles of “bulls”), as well as decreasing prices (playing the role of “bears”).

Speculative operations of the participants of the investment market under the conditions of market economy play numbers of positive functions. They support:

Improvement of forecasting of the methodological apparatus of the conjuncture of investment market, as well as attraction of wide information for such forecasting from different sources;

Balancing stabilization of prices at the investment markets, preventing their certified fluctuations with the influence of the subjective factors;

Distribution of the investment resources per time;

Implementation of hedging mechanism, provided that the risk of hedging is undertaken by the speculates.

Herewith, we may assume following – profit made from implementation of the speculate operations at the investment market is particular payment paid in respond to the investment risks, which is related with the change of prices (interests, rates) in time.

## **EXCHANGE OPERATIONS**

**VII. Operations of this group is directed towards making profit in the form of distinction on prices at the different markets per separate investment instrument.** With its economical essence, they are also operations of speculative kind. However, different from the operations discussed above, they are not based on the forecasted dynamics of changing of prices, but in the first place, their statistics. The mechanism of implementing arbitration operations exists in the opening of positions at two or more markets, where different prices are fixed on the investment instruments of one kind.

Relatively simply and distributed form of arbitration operation is so-called special arbitrage, in the process of which they use distinction between prices on the investment instruments of one and the same kind at the separate regional markets. As arbitration transactions (on purchasing financial assets at the “cheap” market and their selling at the “expensive” market) are implemented within the shortest period of time (in fact, at the same time), the arbiters are eligible and able to use borrowed capital for this purpose for short period of time (i.e. to minimize expenditures related with its utilization), and at the same time, reduce essentially the risk related with provision of operations (the level of this risk is insignificant compared with the risk related with provision of speculative operations).

Herewith, profit of the arbitrages may be made under the condition that the distinction between

prices in relation with conclusion of the arbitration operations gives expenditures, which are related with the attraction and utilization of the capital, as well as transactional costs in relation with the arbitration transactions.

Together with the distributed arbitrage, this group of operations at the investment market also includes “temporary arbitration”, the arbitration with the combined financial instruments and its other kinds.

#### **OTHER KINDS OF OPERATIONS**

**VIII. Such operations are those conditioned with the transactions of enterprises at the financial markets. They include:**

Restructuring investment assets;

Restructuring financial obligations;

Reorganization of enterprises (confluence, unification, generalization) and many others;

Basic operations of the enterprise at the investment market show that they make one of the most important lines of activities of the investment managers in direction to the provision of increasing its market price.

## **CHAPTER 6. THE MECHANISM OF REALIZATION OF INVESTMENT ACTIVITIES IN MARKET-ORIENTED ECONOMY**

### **6.1. INVESTMENT MARKET, AS THE MEANS FOR REALIZING INVESTMENT ACTIVITIES**

Realization of investment activities in the economy of any type requires existence of numbers of conditions, principle of which are: resource potential sufficient of functioning of the investment field; existence of the economical objects having ability of providing investment activities of required scales; the mechanism of transforming investment resources into the objects of investment activities.

Under the conditions of market-oriented economy, investment activities are realized through the mechanisms of investment market. It is the form of relation between separate objects of the investment activities, which make economical decisions independently.

Investment market is a complex and dynamic economical phenomenon, basic elements characterizing status of which are investment demand and distribution, competition and price.

#### **CONDITIONS OF IMPLEMENTING INVESTMENT ACTIVITIES**

Conditions of implementing investment activities in market-oriented economy gets specific forms, showing peculiarities of interrelation of the investment subjects in the system of market relations and they are represented as:

Existence of the investment capital, having diversified structure with the property forms. This structure is characterized with the abundance of private investment capital, compared with the state capital;

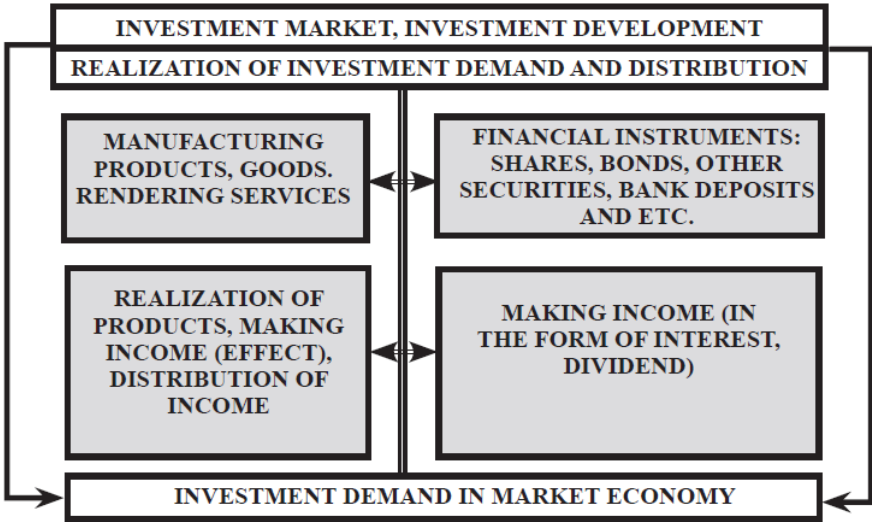
Diversity of the subjects of investment activities from the aspect of property relations and institutional organization, distribution of the functions of governmental and private investors in the investment process, existence of the branched network of financial mediation having the ability of investment demand and distribution;

Existence of the developed multi-segmented market of the objects of investment activities, which have the form of investment goods;

Distribution of investment capital according to the investment objects, which take place in accordance with the economical criteria of evaluation of investment attractiveness through the mechanism of investment market.

In the process of establishing market relations in the economy of Georgia, market elements are established in the investment domain as well. In terms of evaluation of the status and perspectives of functioning of investment domain and its integral part – investment market, it is purposeful in out country to analyze main condition of implementing investment activities and essential trends of developing it in the market industry. This requires learning of the global experience of fundamental characteristics of the investment process in the market-oriented economy and functioning of modern models of the investment market.

To our mind, **investment market shall be considered as the form of interaction of the subjects of investment activities, which provide personification of the investment demands and distribution. It is characterized with the particular equality of the volumes of demands, distribution, price level, competition and realization.** Investment circulation is provided in market-oriented economy through investment market, as well as transformation of investment resources (investment demand) into the investments, determining future growth of capital price (realized investment demand and distribution). In such case, movement of investments is provided in the following scheme (Figure 6.1).



*FIG. 6.1. INVESTMENT MOVEMENT IN MARKET ECONOMY*

They distinguish potential and real investment demand. Potential investment demand shows the size of income accumulated by economical subjects provided to the investment and making potential investment capital. Real investment demand characterizes real demand of the industrial subjects on investments and making investment resources, which are directly intended for investments. These are planned investments, i.e. those intended preliminarily for placement.

Investment distribution is the totality of investment objects of each form: newly created and reconstructed fixed funds, turnover resources, securities, scientific-technical products, property and intellectual rights, etc. Objects of investment activities are demands on the investment capital. Investment capital and objects of investment activities, which exist in the form of the investment goods, realize investment demand and distribution and they are located at different, contradictory poles. Depending on the nominal position of analyzing, **investment market may be considered in two aspects: as investment, capital market placed by the investors, so the market of investment goods, which are the objects of investment placement.** This method of approach is conditioned with the dual nature considered above, which, on the one hand, are resources (investment capital), and on the other hand, they are investments (investment good), reflecting expression of the said specificities of investments under the market conditions.

#### **MOVEMENT OF INVESTMENTS AT THE MARKET**

Investment movement is implemented at the market of investment capital. It is characterized with the distribution of investment capital from the side of investors playing the role of sellers and demand on the investments from the side of the subjects of investment activities. Investment capital includes the elements of capital valuables, which may have material and monetary form. Notwithstanding diversity of investment forms, each of them is the outcome of accumulation of capital. Exchange of investments takes place at the market of investment capital in accordance with the expected future profit related with them, which shall be more than existed income.

Market of investment capital considers exchanging objects of the investment activities. Investment demand on the market is divulged by the investors playing the role of purchasers of the investment goods, and investment distribution is provided by the producers of investment good or other participants of investment activities, which are the sellers of the objects of investments for the investor.

#### **PECULIARITIES OF INVESTMENT OBJECTS**

Objects of investments are goods of special kind, which are represented in the form of elements of capital property. Different from the consuming goods, they are used for the purpose of making income (effect) in perspective. Similar to the investments, they may exist in material form (elements of physical capital), monetary form (money, purposeful cash deposits, shares, securities), herewith, material-cash forms (principle and turnover capital, scientific-technical product, etc.). Their generalizing characteristic is the ability of making income.

Investments and investment goods of particular kinds cannot be circulated at the investment market due to their engagement into the industrial field. At the market of the countries of developed market economy, they are usually replaced with debtor obligations or certificates about investment of capital, giving the right of appropriation of incomes (with debtor and share securities). These financial instruments, which are originated on the basis of real capital and are its representatives, obtain independent meaning in terms of circulation at the investment markets, own forms and regulations of own forms and functioning.

Herewith, they allocate two principle forms of functioning of investment market: primary – in the form of circulation of real capital and secondary – in the form of circulation of financial assets of outflow of real capital. Alongside with the growth of the role of scientific-technical progress in the public reproduction innovative segment of the investment market was formed, which are related with the investments placed in the real immaterial assets of particular kind – into the scientific-technical products and intellectual potential.

Diversity of investments and investment goods conditions complex structure of investment market, classification of which may be provided through different criteria. Generalizing feature of their classification is allocation of principle objects of investments. Consequently, investment market may be considered to be the totality of the markets of real, financial and intellectual investment objects. The market of **real investment** objects, in its turn, includes the market of real and personal property, the market of the objects of **financial investment** – stock exchange, money market, etc. and the market of the objects of **intellectual investment** – human recourses.

Functioning of investment market is very complex economical phenomenon, as it is formed with the influence of multiple factors of different natures and directions. Final determining main factor of the general status of condition and scales of the investment market is formation of total investment demands and distribution.

## THEORIES OF INVESTMENT MARKET

In terms of analyzing problems of investments, western economical theories<sup>56</sup> are based on the model of perfect competition market, which is internally characterized with investment demand and variability and discreteness of distribution. It is noteworthy that different lines of economical opinion determine insignificantly the nature of cause and effect connections in the studied

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<sup>56</sup> **Firer S, Williams M.**, 2005. Intellectual Capital and Traditional Measures of Corporate Performance; **Amire E, Lev B, Sougiannis T.** What Value Analysts? <http://papers.ssrn.com/sol3>; **Zambon S.**, 2003. Accounting, Financial Analysis and Audit in the Intangible Economy. PRISM; Final Report. 31 March, etc.

economical processes. If initial paragraph of Keynes's theory is variability of investment demand, neoclassic concept and the theory of distribution economy give decisive role to the distribution, including distribution of investment resources, but notwithstanding the said distinctions, existing in the methods of approach towards research objects and, of course, formulation of principle market relations and dependences, in any case, are represented as fundamental condition of functioning of market, giving opportunity for its balancing and regulation, considering ability of demand and distribution to react on the variable market conditions and its dynamism.

## **6.2. INVESTMENT DEMAND AND DISTRIBUTION**

Dynamism of demand and distribution is considered to be principle regulation under the condition of independent competition. Under the real economical reality, opportunity for realization of the said regularity depends on the nature of market monopolization. Under the conditions of restricting competition, when market elements have essentially lost flexibility, it is represented in the form of the trend.

Analyze of the discussed regularity considers identification of action of the factors conditioning the mechanisms forming and changing balance at the investment market, as well as the factors of changing investment demand and distribution.

### **THE FACTORS OF INVESTMENT DEMAND**

According to the outcomes of extended theoretical and practical studies carried out in the western countries, investment demand is characterized with frequent variability and it is formed by the complex of factors, among which macro- and micro-economical factors may be allocated conditionally.

Important macroeconomic index influencing upon investment demand is the volume of derived national product. Its increasing, under equal conditions, gives rise to the growth of the investment demand and vice versa. Changes of saving incomes and cash incomes of people are working in the same direction. Herewith, not absolute sizes of the indexes are of decisive importance, but their correlative values: correlation between accumulation and utilization within the frameworks of the used national products, and distribution and utilization of the received income.

### **VARIABILITY OF THE NORM OF SAVING AND INVESTMENTS**

Variation of the norm of saving, in its turn, influences essentially upon changes provided in the structure of the public product. In terms of reduction of the saving norm, growth of consuming



and reduction of investment level takes place. This violates balance in the economy. Alongside with the reduction of saving, they also limit the volume of production, investment and consuming. Balance is recovered at the level of other technological level.

Increasing the norm of saving conditions other scenario of economical development, which is characterized with impairment of the level of consuming and increasing of the level of investment. After particular period of time, increasing investments provides accumulation of capital in the production. The level of accumulation and investment is being increased until achievement of optimal equality from the point of economical sustainability. In such time, higher level of consuming is provided through growth of saving.

Experience of the developed countries shows that they had reached high level of average incomes per person, where they directed important share of income created in the society during implementation of structural transformation and their turning into investments. There is quite close positive relation between share of final product used for investments and the level of average income per person.

Distribution of incomes of population on saving and consuming influences similarly on the investment dynamics. Famous provision of J.M. Keynes about growth of saving together with the growth of made income, could not be confirmed with the statistic studies carried out in the said domain. In terms of distribution of income on consuming and saving, conclusions about small amount of absolute value are given in the works of J. Duisenberg and F. Modigliani. Growth of investments is achieved through increasing of the share of saving in the incomes. Herewith, the role of savings, as investment resources depends on the influence of such factors, as “increasing preference of cash money on development of they system of institutional saving (insurance, social insurance), principle part of which doesn’t get under the management of the enterprises interested in the capital, increasing importance of the state, controlling part of the credit”. Influence of these factors having great importance of modern conditions of our economy will be discussed in more details in the following chapters.

#### **FACTORS INFLUENCING UPON INVESTMENT DEMAND**

Expected rate of inflation influences significantly upon investment demand. From the most generalized point of view, acceleration of the inflation rate devaluates incomes, which are expected to be received from investments. Besides this, inflation affects the volume of investments in particular directions, namely: through interruption of forces provoking economical

growth in long-term aspect, also restriction of the processes of accumulation and extension of production, devaluation of industrial funds of every functional form, inflation taxation of profit, outflow of cash resources to the circulation from production domain, scaling of real incomes and saving, and reducing capacity of internal market, etc. Herewith, increasing inflation rates and inflation expectation prevents activation of investment activity, and running out the investment extension.

Formation of investment demand under the conditions of market economy is related with the functioning of financial market, supporting movement of investment capital and incomes made from the invested assets.

Through accumulation of saving of separate investments, financial-credit system forms principle capital of investment demand. On this time, banks, which are able to use not only the saving, but also circulated cash resources and emission play important role. Conjuncture of exchanging and credit market determines terms and conditions of investments and influence upon the structure of volume of investments. Through incomes made with investments, which are transformed into the dividends and interests at the financial market, reproduction of potential investment demand takes place, which may be realized through reinvestment.

### **INTEREST RATE AND INVESTMENTS**

Investment dynamic is essentially influenced by governmental interest and taxation policies. Regulation of interest and tax rate appears to be the lever of influence of government upon investment demand. Reduction of profit under equal conditions gives rise to the growth of the share of accumulations of enterprises, which are used for investments.

Loan interest rate determines price of loan resources for investors. Increasing interest rate strengthens motivation of savings and at the same time limits and makes investments unprofitable. In terms of reduction of the loan interest rate, investment appears to be more profitable, due to which reduction of the loan interest rate gives rise to the growth of investments and vice versa. However, reduction of interest rate, as the factor of activation of investments, has its objective limits, as in case of such reduction economical agents prefer saving of money in more liquid cash form (J.M. Keynes's Liquidity Theory)<sup>57</sup> to them, and thus outflow of resources to the field of speculations of securities are extended. In this regard, the problem determining optimal level of interest rate under the given conditions is originated, as excessive growth or reduction of interest

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<sup>57</sup> **Keynes J.M.** General Employment Theory and Money. Pg. 288-300.

rate brings losses to the investment activities. Therefore, influence of interest rate upon investment demand is generally homogenous<sup>58</sup>.

### **NORM OF PROFIT AND INVESTMENTS**

Determining influence of interest rate upon investment demand will not be complete without its comparison with the norm of expected profit. Herewith, it is noteworthy that in terms of making investment decisions real level (and not nominal) of the interest rate plays essential role, as factor of inflation distorts true orienteer and gives rise to unexpected outcomes. In terms of comparing loan interest with the expected norm of profit, incorrect outcomes may be made.

It is noteworthy that profit plays double role in the investment activities. On the one hand, it may be considered to be the source of investments and, on the other hand, for the purpose of investments. Modern studies, which are related with solving of complex tasks of mathematical formalization of the level and dynamics of investment demand, confirm existence of particular relation between profit and investments. For example, according to the outcomes of analyzes carried out by the board of economical consultations under the Office of US President, the most important macro-economical factors influencing investment dynamics are:

Net profit and depreciation charges calculated in relation with GDP;

Norm of profit in relation with depreciation assets (to be calculated by correlation of gross profit with the depreciation charges and foreseeing changing of prices and paid loan interest with the size of depreciated assets with current recovery prices);

Norm of profit calculated on the share capital (to be calculated with correlation of net profit with the current prices with the recoverable residual value of the fixed capital);

Market price of the issued shares in relation with the recoverable price (to be calculated with correlation of net share capital with the residual value of shares with the current prices).

### **INVESTMENT FUNCTIONS AND PROFIT**

Depending on the tasks of analyses, foreign researchers received particular investment functions, where one of the leading parameters of investment changes is net profit, the dynamics of profit norm or the size of expected profit. Investment functions in the most general form may be represented as follows”

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<sup>58</sup> Outcomes of number of empirical studies shows that dependence of the dynamic of investments upon amendment of interest norms is not of sharply expressed nature (see, for example, The Brookline Quarterly Econometric Model of the United States. Chicago, 1995).

$$I_t = F(I^{t-1} P^{t-1} K^{t-1}) \quad (6.1.)$$

$$I_t = F[I^{t-1} K^{t-1} (P^t - N^t + D^t)/I^t] \quad (6.2.)$$

$$I_e = F(V^e - V^{e-1}) + I_e^e \quad (6.3.)$$

Where,  $I_t$  are net investments;

$P^{t-1}$  – the volume of net profit, with time period  $t$ ;

$O^t$  – volume of net profit;

$K^{t+1}$  – accumulated fixed capital at the end of  $t$ -period;

$N^t$  – taxes paid to the government and transfers with current prices;

$D^t$  – volume of depreciated charges;

$I^t$  – index of prices on the investment goods;

$V^t$  – exchanging quotation index of share rates;

$I_t$  – investments to be filled, recovered on the charged fixed capital;

$I^{t-1}$  – net investments in  $t-1$  period;

$V^{t-1}$  – index of exchanging quotation in  $t-1$  period.

(6.1) and (6.2) investment functions characterize relation of net investments with the volume of investments of previous period, on the size of principle capital and net profit. Depending on the purposes of studies, it is possible to fill them and entering such indexes into such parameters, such as interest rate existed on the long-term loans of banks.

In the investment functions (6.1) and (6.2), special place is occupied by the parameter of fixed capital accumulated in the economy, which are included into the investment equation of negative feedback. It shows the processes of accumulation and excess accumulation of capital during economical cycle and their relation with the dynamics of the norm of profit. This mechanism is approximately expressed in the following: growth of the norm of profit activates investment demand and increasing of net investments, accelerating growth of the fixed capital. Growth of the fixed capital, begins influence upon decreasing of the norm of profit after particular period of time, which, in its turn, limits investments and thus slows increasing rates of the fixed capital. Reduction of the fixed capital in the economy forms precondition to the cycled growth of the norm of profit, thus giving rise to the development of the following cycle. Thus, the mechanism of investment into the capital provided generation of the cycle of conjuncture and it becomes one of the mechanisms of positive feedback in the market economy.

In vestment function (6.3) reflects the model of investments, which is originated from the size of the expected profit. In the future, they use index of exchanging quotation of the rates of shares of companies for the measurer of expected profit. It is current evaluation of the future flows of the incomes of respective company on the basis of exchanging index of securities. Complexity of conclusion of the aggregated index of exchanging quotation of the private company shares, conditions quite narrow field of using given investment function at the level of separate companies.

The expected norm of profit belongs to the factors influencing upon investment demand at the microeconomic level. It shall include the costs and expectations of performing investments, as well as changes taking place in the technologies, etc.

The norm of the expected net profit is of special importance in the system of microeconomic factors. This is conditioned by the factor that it is profit to motivate implementation of investments. Investors provide investments only when expecting that income received from investments will overcome expenditures. Herewith, the higher is the norm of the expected net profit, the more is the investment demand. At the same time, investment will be effective only in case if the norm of the expected net profit is more than real interest rate. Otherwise, attraction of loan resources loses its economical sense.

Comparing of the norm of the expected net profit to the loan interest rate is provided by the enterprises in terms of using own resources. According to V. Repke, they invest profit in own company if the level of profit received from investments appears to be higher than interest rate. Otherwise they will be placed at the capital market.<sup>59</sup>

Herewith, **interest rate is the criteria of effectiveness of investments**. Effectiveness of investment project may not go below loan interest rate. Interest rates, which are grounds to evaluation of the objects of capital investment, perform another important function. I. Fisher characterized interest, as means for “actualization” of all remaining incomes, to be the method of evaluation in terms of each income.<sup>60</sup>

## **OTHER FACTORS INFLUENCING UPON**

### **INVESTMENT DEMAND**

Cost of implementing investment demand is another factor influencing it. This factor is foreseen in terms of calculating the norm of the expected net income from each investment project. Growth

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<sup>59</sup> Bussey L.E., 1978. The Economic Analysis of Industrial Projects. Englewood cliffs. N.Y. Prentice – hall. pg. 3.

<sup>60</sup> Fisher I., 1976. Purchasable Force of Money. M., pg. 42.

of expenditures reduce norm of the expected net income and vice-versa. Herewith, as important part of investments are of long-term nature, they also take into account time factor. In total, the more are the costs spent on implementation of investments and term of their redemption, the less is the level of investment demand.

Expectation of entrepreneurs, which are based on the prognosis of future demand, and volume and profitableness of sales also influence upon the volume of investments. Profit made from investment depends on increasing of the said indexes. Consequently, growth of optimistic expectation gives rise to increasing of the investment demand.

The biggest profit follows investments implemented in the innovative products, providing reduction of expenditures of production, improvement of production quality and increasing of the norm of the expected net profit. Due to this fact, changes provided in technology make the factor motivating investment demand.

Herewith, **investment demand is formed by the influence of the factors of different kind and direction determining its flexibility and dynamism.**

Formation of the investment distribution has numbers of peculiarities. On the one hand, as distribution of goods, it is conditioned by such fixed factors, as price and, also non pricing determinants: expenditures, improvement of technologies, tax policy, expectations, level of competition, etc. On the other hand, investment distribution is considered to be goods-specific distribution, as ability of making income of investment goods, as investment good is distinguished with the ability of making income. This considers qualitative peculiarities of such factor, as the price of investment good formed with dependence on the level of profitableness.

#### **NORM OF PROFITABLENESS AND INVESTMENTS**

Norm of profitableness makes foundation to the prices of financial instruments, supporting movement of real capital. Market price of financial asset shows quality of attractiveness of investments into the investment good.

Interest rate on the deposits of the bank system influences essentially upon investment distribution, size of which determines flow of saving of family economies. Thus, development of exchanging market and loan capital market is important condition for stimulation of the investment distribution.

As in case of particular composition of the investment distribution, investment demand is more oriented upon profitable assets, hence it follows that the volume and structure of

investment distribution influence upon volume and structure of investment distribution. With this aspect, investment distribution is principle factor determining scales of functioning of the investment market, as it gives rise to the change of existed demand on the investment good. The mechanism of feedback is not expressed. It is expressed only under the conditions of the particular independent market.

Achievement of balancing investment demand and distribution may be provided only with the general scales of the investment market. Their equalization in the market system is provided through determining balance prices. Action of the mechanism of balanced prices is not characteristic only to the particular market. This mechanism requires changing of prices on the investment goods and capital, based on the balancing demand and distribution until establishment of dynamic balance at the investment market, i.e. until achievement of balance prices on investment capital and investment goods and synchronization of decisions about sale and purchase.

#### **THE MECHANISM OF BALANCE PRICES**

Activation of the mechanism of balance prices at the investment market reflects specificity of investment market. As we have noted above, this is the ability of making income by investment goods. With less expenditure, aspiration for making more income with less expenditure is based on making decisions about investments by economical subjects. In case of particular structure of investment distribution, investors will prefer investment goods, providing maximal norm of net profit on the invested capital under the conditions of minimal risk of investments. High market price on the investment goods, which is conditioned by its profitableness, in these objects of investment, is the impulse of guiding important mass of the investment capital into these objects of investment. Transfer of the investment capital, in its turn, extends investment demand more than the distribution of given goods, which, under other equal conditions give rise to the effect of rising of prices and the effect of increasing distribution. In terms of increasing distribution of the given investment foods, market mechanism will give rise to the reduction of their prices. That is why outflow to more profitable fields of the investment activities will take place. Finally, considered process will be completed by establishment of dynamic balance at the investment market.

Herewith, under the conditions of net competitive market balance means that subject to the comparison of the expected level of loan interest rate and marginal effectiveness of capital, made decisions about investments condition optimal distribution of planned investments in accordance with the perspectives of growth of profitableness.

Herewith, understood balance is ideal economical system characterized with the proportionality of investment resources and totality of their using, as well as optimal realization of economical interests of the subjects of investment activities.

### **STRUCTURE AND REALITY OF INVESTMENT MARKET**

Structure of investment market in reality is far from ideal model. Existence of net competition limits the dynamism of investment demand and distribution, which is expressed only in the form of trend, limiting opportunities for their balancing and, relatively, determining prices on the level of balance. Potential participants of investment activities have no similar access to the investment market. They have different opportunities to receive investment goods with the market prices. Large oligopolistic investors are under more advantageous conditions, than those, competing with each other. This happens because large investors control distribution and manipulate with prices, and thus they can recharge the customer with their costs. Besides this, they have high rating and with the help of it, they use resources of financial market more advantageous conditions, which may have expected net profit.

Thus, in real economical practice, investment market cannot play ideally the function of optimal distribution of investments. However, this doesn't exclude the need of abstract modeling of economical processes, as we can identify essential relation and regulations, determine conditions of balance of the elements, making totality of economical phenomenon in accordance with the totality of the law of free competition.

Balance at the investment market appears to be partially macroeconomic balance, though it also is essential condition of more general economical balance. For example, in the famous model of J. Hicks "IS-LM" (Investments-Saving-Liquidation-Money)<sup>61</sup>, balance established at the investment market also means balance of commodity market, for which the model received the name double balance model (Figure 6.2).

#### **J. HICKS'S IS-LM MODEL**

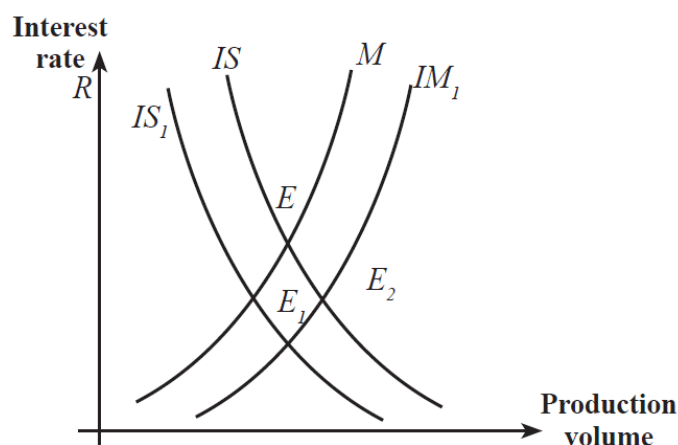
IS-LM Model reflects essential connections formed between investment and money markets. This relation, to our mind, is the most important peculiarity of the investment market.

It is based on the general parameters of investment and money market for the principle macroeconomic characteristic of the said markets. This is interest rate and the volume of social production.

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<sup>61</sup> **Hicks J.R.**, 1937. Mr. Keynes and The Classics: A Suggested Interpretation. *Econometrics* 5.





**FIG. 6.2. MOVEMENT OF INVESTMENTS IN MARKET ECONOMY**

Balance at the investment market is established in terms of equality of investments and savings. As we have said above, investment volume is determined by multiple factors, but in terms of researching economical relations to be researched is determined not by the totality of variable, but functional union of several of them.

Out of the abundance of macroeconomic factors influencing upon investments, they use Q (the volume of public production) and r (interest rate) for endogenous variable. Other factors are considered to be exogenous variable. In such case, investment formula is as follows:

$$I = I + I(Q, r) \text{ i.e. } I = I + I(Q) + I(r) \quad (6.4)$$

Where I is the part of investments determined with exogenous variables.

IS curve expresses the volume of national production and such combination of the interest rate, during which investments equal to the savings.

Balance at the money market considers equation of money supply (Ms) and existed money demand (Md). This latest is formed by the demand existed on money from the side of transactions. It is directly depended on the volume of national production (Q) and existed demand on money from the side of assets, which is negatively related to the rate of loan interest. Consequently, conditions of balance at the money market consider following:

$$Ms = Md + Md(Q) + Md(r) \quad (6.5)$$

Where Md is added for considering influence on Md.

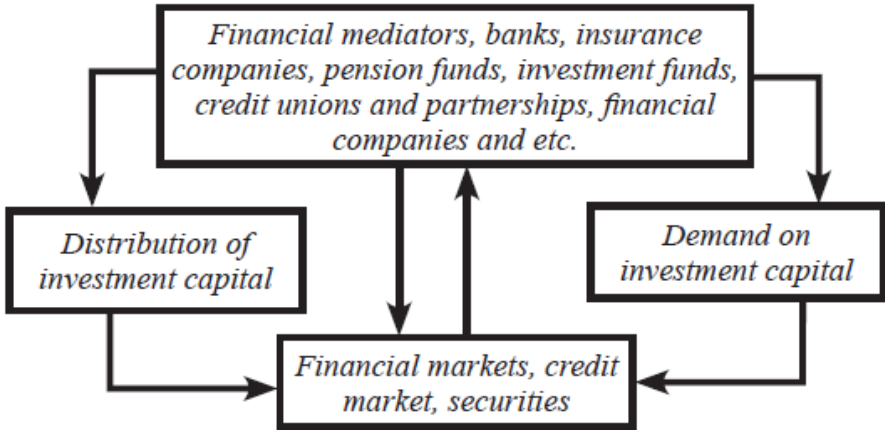
LM curve shows equality between  $Q$  and  $r$ , during which balance is established at the money market. Conformity of IS and LM curves expresses conditions of double balance of markets, showing optimal status of investment and financial conjuncture.

In terms of changing endogenous changes, IS-LM system is activated; interchange of curves will give rise to the formation of new conditions of balance. Due to this fact, with the help of the given model we can analyze influence of inclusion of some market factors and government, which is discussed below.

**FINANCIAL MEDIATORS AND CAPITAL MARKET**

Interrelation of transformation of conjuncture of investments and financial market determines essential role of the latest in functioning of investment market. In the first place, it is reflected with the fact that demand of enterprises and companies on the financial resources of fixed and turnover capital is eliminated in the form of demands on the financial resources to be purchased by him/her. It is the form of family economies and saving of companies, which are accumulated in the establishments of banking systems and represented in particular percentage.

It is also followed by following peculiarities of investment market. This is existence of developed network of financial mediators for its effective functioning, providing connection between sellers and purchasers of investment capital. Financial mediators accumulate saving of family economies and separate saving of companies into the important mass of investment capital, placement of which is provided between customers of investments (Figure 6.3).



**FIG. 6.3 FINANCIAL MEDIATORS AT THE INVESTMENT CAPITAL MARKET**

Essential investment potential is concentrated in the institutions of banking system, having special opportunities of using traditional cash resources and credit emission different from

other multiple intermediary institutions. Placement of capital mobilized by financial mediators may be provided in the form of loans, issuance of shares, purchasing bonds and purchasing other securities, etc.

### **CONFORMITY OF DIVIDEND AND INTEREST AND INVESTMENT DEMAND**

Income made from different financial assets is divided into the dividends and interests. This depends on the form of capital represented by them – entrepreneurial or loan. In general, they reflect the norm of profitableness of the derived capital valuables. Conformity of dividend and interest shows the structure of investment demand, and its distribution between companies and banking system. This conformity at the financial market has the form of market price (rate) of financial instruments.

By supporting movement of capital valuables, financial instrument accelerate reaction of prices on changes of the norm of profitableness and thus providing its rapid growth. Their market value size through dynamism of investment activities appears to be peculiar indicator of business conjuncture. Herewith, the mechanism of balance prices at financial market takes more rapid form of elimination.

Essential peculiarity of investment market is the role, playing by interest rate. As we have showed above, size of interest rate conditions, in the first place, size of saving of family economies attracted by credit system and, secondly, the norm of profitableness of investment. By means of interest rate, they evaluate even own potential resources of companies: if expected outcome is higher than interest rate, they are directed to the investments; otherwise they are placed at the financial market – by means of purchasing deposits, securities and other kind at the financial market.

Subject to the said above, investment market may operate effectively only under the conditions of sustainable and reliable banking system of the developed financial market. In such case important conditions of interrelation of investment and financial market are market formation of interest rate, equal conditions of investment from the regional and sectoral points of view, attractiveness of long-term investment and adjustable level of inflation.

Market mechanism cannot provide conditions giving rise to the need of governmental measures upon market stimulus. Governmental regulation shall conform to the economical regularity based on which market mechanism reacts on the change of the above conditions, foreseeing prognosis

of diversified outcomes of the complex of influences, forming conditions of realization of potential abilities of market mechanism through antimonopoly activities.

### 6.3. INFRASTRUCTURE OF THE INVESTMENT PROCESS

Subject to the objective regularity of market, investment foresees functioning of the developed financial market. Interrelation of investment and financial market in market economy is important condition of macroeconomic balance. Financial market provides accumulation of temporary free cash resources of one group of subjects and their effective usage by others, uninterrupted formation of financial resources, their most effective investment and purposeful utilization.

#### THE CONCEPT, KINDS AND ROLE OF FINANCIAL MEDIATION IN THE INVESTMENT PROCESS

Subject to the provision of the theory of financial mediation, principle owners of investment resources are the citizens, and main users are – enterprises and organizations<sup>62</sup>.

In terms of analyzing investment importance of saving of people allocation of regulated and unregulated forms of saving. They call savings **regulated**, which are implemented in banks and securities in the form of deposits. Saving of such kind are cash resources, accumulated by different institutions of securities market and are relatively easily transferred into the investments. **Unregulated** saving existed in cash form, remaining with the population. Saving of this form is potential investment resource.

Households are not only suppliers of cash resources at the financial market. Sources of investment capital may be own resources of financial-credit institutions, temporarily released cash resources of enterprises and organizations, resources of state and foreign investors, etc.

Realization of investment demand and distribution is provided by financial mediators, having wide opportunities for satisfaction of investment and financial demands of economical subjects. Mobilization of investment resources and market mechanism of their effective placement of investment resources considers developed infrastructure of investment process, and existence of several institutional bodies respective to the market economy of investors.

Economy of developed countries is characterized with the diversified and complex structure of institutions, giving rise to mobilization of investment resources and their placement into the industrial activities. These institutions performing functions of financial mediators accumulate

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<sup>62</sup> We have partially discussed the said issue in the Paragraph 4.3 above.

saving of households and companies into the important masses of investment capital and later they are placed between users of investments.

**Financial institutions** in the most general form may include following types:

Commercial banks (universal and specialized);

Non-banking credit-financial institutions (financial and insurance companies, pension funds, pawnshops, credit unions and partnerships);

And investment institutions (investment companies and funds stock exchanges, financial brokers, investment consultants, etc.),

General characteristic of all groups of institutional investors is accumulation of temporarily released resources (of state, companies, or population) by them and their final investment in the economy.

At the same time, each said group has own specificity, as in implementation of usual functions, so in the mechanism of accumulation of investment resources and their placement.

## **BANKS**

Important investment potential are accumulated in the institutions of banking system, having special opportunities different from other mediators in the field of using transaction cash resources and credit emission. Accumulated temporarily released financial resources are managed by banks through the channels of credit system in the leading and the most dynamically developed sectors and fields and thus supporting structural transformation of economy. Banking system is important source of satisfying investment demand. Notwithstanding relatively high level of self-financing in the countries of developed banking system, domestic resources cannot cover general demands existed on the investments. Deficit is the most notable in terms of implementing large structural fluctuations in the economical organizations of the country, when demands on investments are sharply increased.

Grounds to the banking system is universal commercial banks, which are multifunctional institutions operating in the different sectors of the financial market. Herewith, development of specialized trend of banking service gave rise to the allocation of specialized investments banks. Peculiarity of these banks is their orientation in mobilization of long-term capital and its issuance through issuance and placement of shares, bonds and other securities, as well as through long-term crediting through service and participation of emission-establishment activities of nonfinancial companies<sup>63</sup>.

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<sup>63</sup> Institutions performing such functions in the separate countries are called trade business banks.

## KINDS OF INVESTMENT BANKS

There are investment banks of two kinds in the modern international credit system. The banks of the first kind provide only placement of securities and service related with trading, and those of second type – related with issuance of middle and long-term credits.

Investment banks of the first kind are spread in England, Australia, Canada and the USA. Investment banks of this type, as a rule, are prohibited to receive deposits from populations and companies. Their resources are formed at the expense of own emission activities (issuing securities) and attraction of other financial and credit institutions. Investment banks may fulfill functions of organizers and consultants. They manage primary and secondary circulation of securities of third persons, playing functions of guarantors of emissions, mediators and creditors; and in terms of implementing exchanging operations – as active participants of merger and takeover markets, purchasing agents of the part of securities unplaced by companies, they provide financial consultations at the securities and other aspects of activities of companies and corporations.

**Investment banks of the first kind** are operating at the non-arbitration primary market of securities and they play the function of mediator in their placement. They use for the basic methods of placement underwriting (purchasing entire emission of securities and organization of their placement at the market), direct placement (during which banks provide only consulting of sellers and purchasers of securities), public placement (when investment banks form groups of placement of securities at the market), competition trading (where investment banks are organizers of auction). In terms of implementing large emissions of securities, banks form syndicates and consortiums. Investment banks of the primary type are strong and dynamic developed financial-credit institutions.

**Investment banks of second kind** are developed in numbers of countries of Western Europe (Italy, Spain, Netherlands, Norway, Portugal, France, and Sweden) and in the developed countries. Main tasks of these banks are medium and long-term crediting of the fields and sectors of economy, realization of special purposeful projects in the field of leading technologies, as well as implementing state programs of stabilization and social-economical development of economy. They fulfill diversified operations at the market of loan capital, accumulating saving of physical and legal persons, issuing loans (middle and long-term credits) to the companies, invest in private and state securities, and rendering other financial services.

It is notable that investment banks fulfill functions characterizing investment banks of both banks, in England, Canada and the USA there are no investment banks of the second kind; In some countries (Germany, Finland, Switzerland) functions of investment banks are performed by commercial banks.

Specific investment institution is **Mortgage banks**<sup>64</sup>. They provide attraction of resources and their placement for long term with the guaranty of real estate – land and constructions. Next to the basic activities, mortgage banks may invest resources in securities, issue loans with the guaranty of securities, and perform other financial resources. Resources of mortgage market are mostly formed by the resources attracted by issuance of mortgage bonds and loan instruments. These credit obligations reliable form-interest securities, which are guaranteed with totality of mortgage credits issued by bank.

### **NON-BANKING FINANCIAL-CREDIT INSTITUTIONS**

Non-banking financial-credit institutions include pawnshops, credit partnerships, credit unions, reciprocal credit companies, insurance companies, pension funds, financial companies, etc.

**Pawnshops** are credit establishments, issuing loans with guaranty of real estates. Historically, they were originated as private enterprises of usury capital. Under modern conditions, government participate in formation and functioning of capital of pawnshops. By dependence of the quality of participants of state and private capital, they allocate pawnshops of state and communal, private and combined type in their activities. Pawnshops are specialized in issuance of consumer credit guaranteed with mortgage of movable property. Operations of storing customers' valuables and selling of mortgaged property are also performed. Operations of this group determined specificities of organizational structure of pawnshops: except branches and departments, large pawnshops may own network of storehouses and shops.

Peculiarity of credit operations provided in the pawnshops is absence of credit agreement and mortgage obligations with the customer. In terms of issuing loan with mortgage, the customer gets mortgage card, as a rule, payable to bearer, having registration number in the registration book. Requisites of the borrower and principle terms and conditions of transaction are stipulated in it. Majority of credit transactions foresees grace period, after which mortgaged property may be sold.

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<sup>64</sup> For detailed information about classification and activities of banks, see **Qoqiauri L.** Elements of Banking. Third edition. Tb.: GTU. 2012.

**Credit partnerships** are formed for rendering credit-settlement services to own members – cooperatives, lease enterprises, small and middle business enterprises, and individuals. Capital of credit partnership is formed through purchasing share and paying obligatory membership fees. Basic operations of credit partnerships are issuing loans, commission and mediatory operations.

**Credit unions** are credit cooperatives created by the groups of individuals or small credit organizations. They are of two principle types: credit unions of first type create groups of individuals united with professional or territorial signs and the second ones – compulsory unions of independent credit partnerships. Capital of credit union is formed through payment of share, periodical membership fees, and issuing loans. Credit unions perform such operations, as attraction of deposits, issuing loans to the members of union (guaranteed), cashing promissory bills, trade-mediation and commission operations, and consulting and audit services.

With the nature of activities, **reciprocal credit companies** are credit establishments similar to commercial banks, which serve middle and small businesses. Members of the companies may be individuals and legal entities, forming capital of the company at the expense of the membership fees. In terms of accepting in reciprocal credit company, acceptance committee verifies efficiency of the entity to be accepted, as well as guaranty submitted by it, its proprietary guaranties and determines maximally possible size of credit opened to it.

In terms of entering the company, its member pays particular percent of credit opened to it, in the form of share fee. It undertakes to be responsible for own debts, also operations of the company in the amount of credit opened to it. In case of leaving reciprocal credit company, its participant covers principle sum of the debt, part of the company debts and after this it is returned membership fee and the leased property.

**Insurance companies** provide realization of insurance policies and receive from the population saving in the form of regular entering, which are placed later in the state and corporate securities pledged with the residential constructions. Regular inflow of contributions, interest incomes on obligations of insurance companies and dividends on shares provides accumulation of sustainable and large financial reserves.

Organization of insurance companies may be provided in the form of joint-stock company or a company. In this latest case, holders of insurance policies also are co-owners of the company; accumulated contributions of the holder of insurance policy are considered to be his/her shares in shared company.



**Private pension funds** are legally independent companies, managed by trans-departments of insurance companies or commercial banks. Their resources are formed on the basis of regular contributions and charges, forming pension fund, also at the expense of incomes received on the securities held by funds. Pension resources are invested in the most profitable private securities, state bonds, real estate. They are the largest institutional owners. Concentration of share control in them is ordinarily more than the quality of accumulation of shares of one and the same company of investment and insurance companies. Share of investments in high-liquid assets (current deposits, treasury bills, etc.) are relatively fewer. Pension funds differ in sustainable financial status and comprehended investment strategy.

Financial companies are specialized with credit purchase of customer foods on crediting selling and issuance of customer loans. Source of resources of financial companies are own short-term obligations at the market and bank credits.

### **INVESTMENT INSTITUTIONS**

**Investment institutions** are represented with the industrial subjects (of financial terms and conditions), activities implemented at the securities market are of specific nature. It is not allowed to conform it to different activities. Particular pension – credit institutions (investment banks, investment companies and funds of the first kind) belong to the investment institutions, also, stock exchanging, investment brokers, dealers, consultants, etc.

Investment companies and funds are formulations of financial – credit institutions accumulating resources of individuals by means of emission of own securities and place them into the securities of other issuers. Their issuance is limited with the value of payment guaranteed with the portfolio of securities of the company.

**Investment companies** are unions (corporations), providing operations on securities and several functions of commercial banks. They may function in the form of financial groups, holding and financial companies. They establish investment funds in the form of joint-stock companies.

By dependence on the methods of forming resources, they distinguish investment companies (funds) of closed and open type. Number of shares of open investment companies, forming share capital, is changed in accordance with the demands on shares. The company is any time ready for selling new shares or redeem own shares from the persons wishing their selling, providing high liquidity of investments of the depositors. Shares of the companies are not

circulated at the secondary market. Size of share capital of investment companies of closed type is fixed. Rate of shares is determined by the conformity formed between demand and distribution at the secondary market.

Important priority of investment companies, attracting depositors, is wide opportunities of diversification of portfolio of securities, management of classification of exchanging shares, providing distribution of risks and rising liquidity of investment resources. Small and middle investors, which have no important released cash resources and, relatively, opportunities of diversification of portfolio of their securities, purchasing shares of investment companies and having opportunity for using more balanced set of exchanging values. Among shareholders of investment companies, during last time share of insurance companies and pension funds of institutional investors was being increased.

**Stock exchange** is special, institutionally organized market of securities. It is operating with assignment of institutional and individual investors about sale and purchase of securities by exchanging brokers; important part of offers entered in organized form, is implemented in the market economy through stock exchange.

Exchanging operations support attraction of cash resources and their distribution between separate sectors and fields of economy. Permanent and homogenous rules of concluding transactions of sale and purchase of securities are formed at the stock exchange. It is trade, professional, normative and technological “core” of securities market. Functions of securities include provision of permanence, liquidity and regulation, recording market conjuncture, and quotation of shares. Dynamic of rates of securities at the stock exchange reflects directly of effective investment of securities and appears to be the indicator of entire status of market.

**Investment dealers and brokers** are represented with professional organization, being engaged in mediation activities at the exchanging market or with separate individuals. **Investment dealer** purchases securities on his/her own name and at own expense, for the purpose of their farther placement among investors. **Investment broker** meets purchasers and sellers of securities and provides transactions of the securities for the price of commission prize.

## CREDIT AND EXCHANGING

### VERSIONS OF INVESTMENTS

Placement of investment capital mobilized by financial mediators may be provided in different forms: depending on the methods of loans, issuing shares, purchasing bonds and

other securities, etc, and transformation of saving into investments, they allocate two segments: credit market, where credit-financial institutions in transferring cash resources, and exchanging market, where distribution of investment capital, implemented by means of issuance and selling securities.

First version of investment plays notable role in the countries of developed economy, where share of credit in financing of economic expenses fluctuates from 25-30% to 50-60%, depending of conformity of financial volumes. Important share is occupied by the deposits of population in the passives of banks. For example, in Japan it reaches 79% of resources of banking system. Attractiveness of the method of issuing saving for their holders is conditioned by the fact that it provides high liquidity of investments, their reliability (the risk of non-repayment of the invested resources charged on financial-credit investments) and availability of wide masses of small depositors, covering relatively less profitableness with the investments in securities.

Using of exchanging market – of this important form of mobilization of resources in market economy – with long-term or unlimited terms (in case of issuing shares) of resources of important volume. Share of this source of investment makes 18% of total volume of capital investments of corporations of the USA.

**Model of investment may be represented as follows: mobilization of investment resources – their investment in credits, enterprise, financial, governmental and municipal bodies of securities.** It influences effectively only in terms of reproduction. In such case, distribution of resources takes place between separate sectors of economy, subject to the market criteria of attractiveness of investments, oriented towards achievement of minimal profitableness of allowed level of the risk. Besides this, between the sectors themselves the leaders are allocated, offering more perspective and qualified goods to the market. Based on this, particular conformity is maintained between different subdivisions of reproduction, reflecting priorities of economical subjects in the process of investment.

## CHAPTER 7. SECURITIES MARKET AND ITS PARTICIPANTS

### 7.1. THE ESSENCE, FUNCTIONS AND KINDS OF SECURITIES MARKET

Securities market belongs to the field of economical relations related with issuance and circulation of securities. Its role exists in accumulation of financial resources and provision of opportunities of its distribution, by means of implementing operations related with the securities by different participants of the market, i.e. movement of temporarily released cash resources takes place from the investors and emitters of securities, by means of intermediaries.

Securities market is the part of financial market and it occupies intermediate place between capital market and monetary market.

#### **TASKS OF SECURITIES MARKET**

Tasks of securities market:

Mobilization of temporarily released financial resources for implementation of commercial investments.

Creation of market infrastructure conforming to the global standards;

Emission and circulation of securities of new kind;

Improvement of market mechanism, management system and pricing;

Implementation of governmental, real control by means of exchange regulations;

Improvement of self-regulated organizations, which, in their turn regulate activities of professional participants of the market;

Processing portfolio strategies;

Reduction of investment risk;

Conducting marketing researches on the basis of which prognosis of perspective lines of developing of market is implemented.

There are more than 1000 legislative and normative documents regulating different directions of securities market and activities of its participants, principle of which in Georgia is the law about securities market adopted on December 24, 1998.

Securities market performs number of general public functions (characteristic to every financial market) and numbers of specific functions.

## GENERAL FUNCTIONS

General market functions include:

**Function of accumulation**, eliminated by creating conditions for mobilization of temporality released cash resources for their further utilization, for the interests of market participants and total national economy;

**Organization of the process of bringing financial assets to the customers (purchasers, depositors)**, implemented through creation of the network of different institutions for realization of securities (banks, stock exchanges, brokerage offices, investment funds, etc.), this process is completed by creating normal conditions through exchanging securities interesting to them into financial resources;

**Distribution function**, including operative distribution of the field and sectors of economy of cash recourses, between territories, countries, groups and layers of population, enterprises and government, etc. financing of the deficit of state budget on the inflation basis and, i.e. without issuance of additional cash resources into circulation; transferring to the saving from non-industrial to the industrial field.

**Regulating function**, considering management of the bodies of the bodies of managing trade rules, processing rules of controlling complying trade rules, and the rules of solving disputes between participants of the market.

**Stimulating function**, which means granting particular rights to the legal entities and individuals. Namely, these rights are: the right of participating in the management of enterprises (shares), the right of participating in incomes (interests from bonds, dividends from shares), opportunity for accumulation of capital or the right to become owner of the property (bonds);

**Control function**, foresees particular implementation of legislative norm, rules of trading, protection of ethic norms of participants of market;

**Price function**, considering determining the process of formation and movement of market prices (rates), through balancing demand and distribution of securities, and providing operations on them.

**Function of insurance of price and financial risks** (i.e. hedging), implemented through conclusion of future and option contracts.

**Commercial function**, supporting making of profit by participants of market through sale and purchase of securities.

**Information function**, being in the searching for information about assets of trading and participants of trading and their bringing to the economical subjects of market.

**Function of influencing upon circulation of money** means creation of conditions for regulation of the size of cash mass different payments and circulations in the process of implementing uninterrupted and continuous movement.

### **SPECIFIC FUNCTIONS**

Specific functions of securities market include following:

Using securities in privatization, anti-crisis management, restructuring of economy, stabilization of cash turnover, and anti-inflation policy;

Reporting function eliminated at the market in necessary reporting of special listings of circulating securities off any kind. It also considers registration of participants of securities market, mortgage of registered sale and purchase, trusting, conversion and fixation of exchanging operations registered with other agreements.

There are three models of securities market, depending on banking and non-banking nature of financial mediators, they are:

**Non-banking model** – in relation with the securities roles of mediators are played by non-banking companies. Such model exists in the USA and Georgia.

**Banking model** – banks play the role of mediators. This model is characteristic to Germany.

**Combined model** – roles of mediators are played by banks and non-banking companies. Such model is characteristic to Japan and Russia.

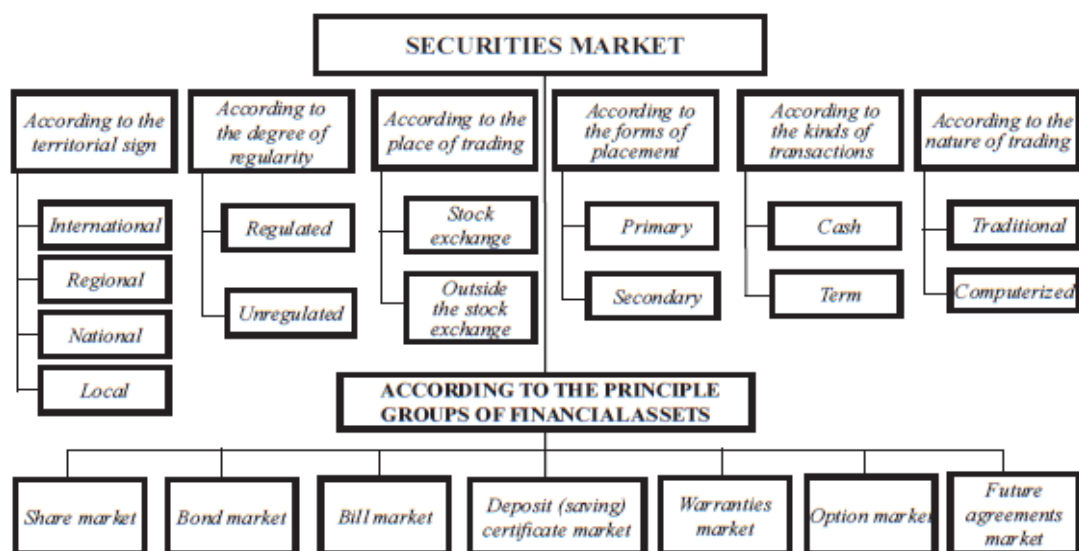
### **CLASSIFICATION OF SECURITIES MARKET**

There are different qualification signs of securities market. Let us consider the most distributed ones (Figure 7.1.).

Securities market is divided into international, regional, national and local markets **according to the territorial sign**.

According to the method of including securities into **time and circulation**, it is divided into primary and secondary securities markets.

**Primary** – is the market, which serves issuance of securities (emission) and their primary placement. Tasks of primary securities market are attracting temporarily released resources, activation of financial market, and reduction of inflation rates. Primary market of securities performs following functions:



**FIG. 7.1. CLASSIFICATION OF SECURITIES MARKET**

- Organization of issuance of securities;
- Placement of securities;
- Registration of securities;
- Maintaining balance of demand and distribution.

**Secondary – this is market, where circulation of securities is provided, as well as sale and purchase by implementing every act or performance of other forms of transferring securities from one holder to another during entire term of existence of securities.** Here in terms of sale and purchase of asset, its true rate is determined, i.e. quotation of the rate of financial asset will take place. Tasks of secondary securities market are raising financial activities of industrial subjects and individuals; development of new forms of financial practice, improvement of normative-legal base; development of market infrastructure; protection of accepted rules and standards. Functions of secondary securities market are:

- To arrange meeting of purchaser and seller (provide liquidity of securities);
- To support balance of request and distribution.

In his work, “Elements of Investments” Gitman reviews tertiary and quaternary markets.<sup>65</sup>

**They call tertiary market over-the-counter trading with securities, quotation of which takes place at the stock exchanges of New York, USA and other countries. It exists for serving needs of such**

<sup>65</sup> Gitman L. Jonks M., 2001. Elements of Investments. Translated by L. Qoqiauri. Tb.: Finances, Pg. 16-17.

**large institutional investors for services, as shared and pension funds, life insurance companies, etc. and assist them in essential reduction of saving in terms of provision of large operations on securities.** Conclusion of transactions at the tertiary market, are usually provided by companies and dealers, which are not members of stock exchanges. In meeting of large sellers and purchasers non-arbitration market dealers receive commission fees in lower rate than there at the stock exchanges. Herewith, institutional investors have opportunities for save important saving for commission fees, though, at the same time, their influence upon formation of rate on this market is minimal. Importance of the tertiary market has been fallen since 1975, when they involved at the stock exchange contractual commission fees for brokers.

**They call quaternary market the transactions, directly concluded between each other by large institutional investors and sellers.** Different from tertiary market, dealer is not participating in the operations of quaternary market. However, in terms of searching for the respective seller or purchaser, institutional investor may use service of intermediary companies for the purpose of simplifying transaction.

**According to the degree of regularity, securities market is divided into the regulated and unregulated markets.**

**Regulated market** – this is circulation of securities based on the procedures determined by law, between licensed professional mediators.

**Unregulated market** – this is circulation of securities for every participant of market, without complying with the unified rules, where procedures of concluding transactions, demands on securities, participants, etc. are not established, trading is provided willfully, with the private agreement of the seller and purchaser. There are no systems of spreading information about provided transaction.

**According to the place of trade, securities market is divided into exchanging and over-the-counter markets.**

**Exchanging market** – this is the market organized by the stock exchange (futures – with exchanging sections, currency and commodity) and brokerage and dealer's companies.

**Over-the-counter market** – this is the field of circulation of securities, which are not allowed to the quotation of stock exchange. Over-the-counter market implements circulation of securities of joint stock companies, having no sufficient amount of shares or/and incomes for being registered or register (undergo listing) their shares at any stock exchange at the stock exchange and be



allowed to the trading there. It may be regulated or unregulated. Regulated over-the-counter market is formed with exchanging markets, departments of banks, member of the stock exchange, non-member of stock exchange, or by the dealers, investment companies, investment funds, bank departments, etc.

#### **OVER-THE-COUNTER EXCHANGING MARKET**

Under modern conditions, over-the-counter exchanging market includes following segments:

The system of trading with long-term state bonds for legal entities, which are created by banks;

The system of trading with state short-term bonds;

Trade network of saving bank, according to the operations of low-nominal state bonds;

Auction network of state committee of property (centers of privatization, etc.);

Over-the-counter primary placement of the shares of newly created joint-stock companies, secondary placement of securities;

Over-the-counter secondary market of securities of commercial banks;

Pop-up over-the-counter markets, having regulated systems of trading;

Pop-up market of surrogates of securities (commercial certificates, credit options).

Over-the-counter market is able to provide direct participation of small and middle investors, in trading with securities.

**According to the transaction kinds, securities market is divided into cash and term (forward) market.**

Cash market (Spot Market) – this is the market, where transactions are rapidly concluded, during 1-2 working days, excluding day of concluding the transaction.

Term (forward, optional) is the market, where different transactions are concluded, term of performance of which is more than 2 working days.

**According to the method of trading, securities market is divided into computerized and traditional markets.**

Trading is provided at the computerized market through computer network, uniting respective exchanging mediators. Characteristic signs of this market are:

There is no physical place of meeting sellers and purchasers; there is no direct contact between them.

Full automation of trade process and its service; role of participants of market is limited only with submission of their applications on sale and purchase of securities in the trading system.

Trading is implemented at the traditional market directly at the market, between sellers and purchasers of securities.

According to the **issuers and investors** they divided securities into state market of securities, municipal market of securities, market of corporate securities, securities market issued (purchased) by individuals.

According to the citizenship of **issuers**, securities market is divided into the market of residents and the market of non-residents.

According to the particular kinds of **securities**, there are share market, bond market, bill market, etc.

According to the **risk** quality, securities market is divided into high-risk, speculative and low-risk markets.

According to the **origination of securities**, they distinguish primary and derived securities market.

Depending on **investors**, securities market is divided into the markets, oriented towards young investors, markets oriented towards pension age persons, etc.

According to the **circulation terms**, markets are divided into short-term, middle-term, long-term and timeless securities market.

Besides this, securities market is divided into the sectoral, territorial and market of other criteria.

## **OWN STRUCTURE OF SECURITIES MARKET**

Securities market has its own structure, which includes following components:

Market subjects – participants of the market;

Market objects – securities, i.e. exchanging assets;

The market itself – operations at the market;

Regulation of securities market;

Market infrastructure (legal, information, depository, reporting, clearing and registration network).

## **7.2. PARTICIPANTS OF SECURITY MARKET**

**Participants of securities market (market subjects) – are individual and legal entities, selling or purchasing securities or serving their circulation and settlement, entering into particular economical relations related with turnover of securities.**

Every participant of securities market may be conditionally divided into professionals and nonprofessionals (Figure 7.2.). Subject to the law on securities market, professional participants of securities market are legal entities, as well as the citizens (individuals) registered as entrepreneurs and providing activities of following kind: 1) Marketing private activities; 2) Dealer’s work; 3)Activities related with management of securities; 4) Reporting-clearing activities; 5) Deposit activities; 6) Activities related with keeping of the register of holders of securities; 7) Activities related with organization of trading with securities.

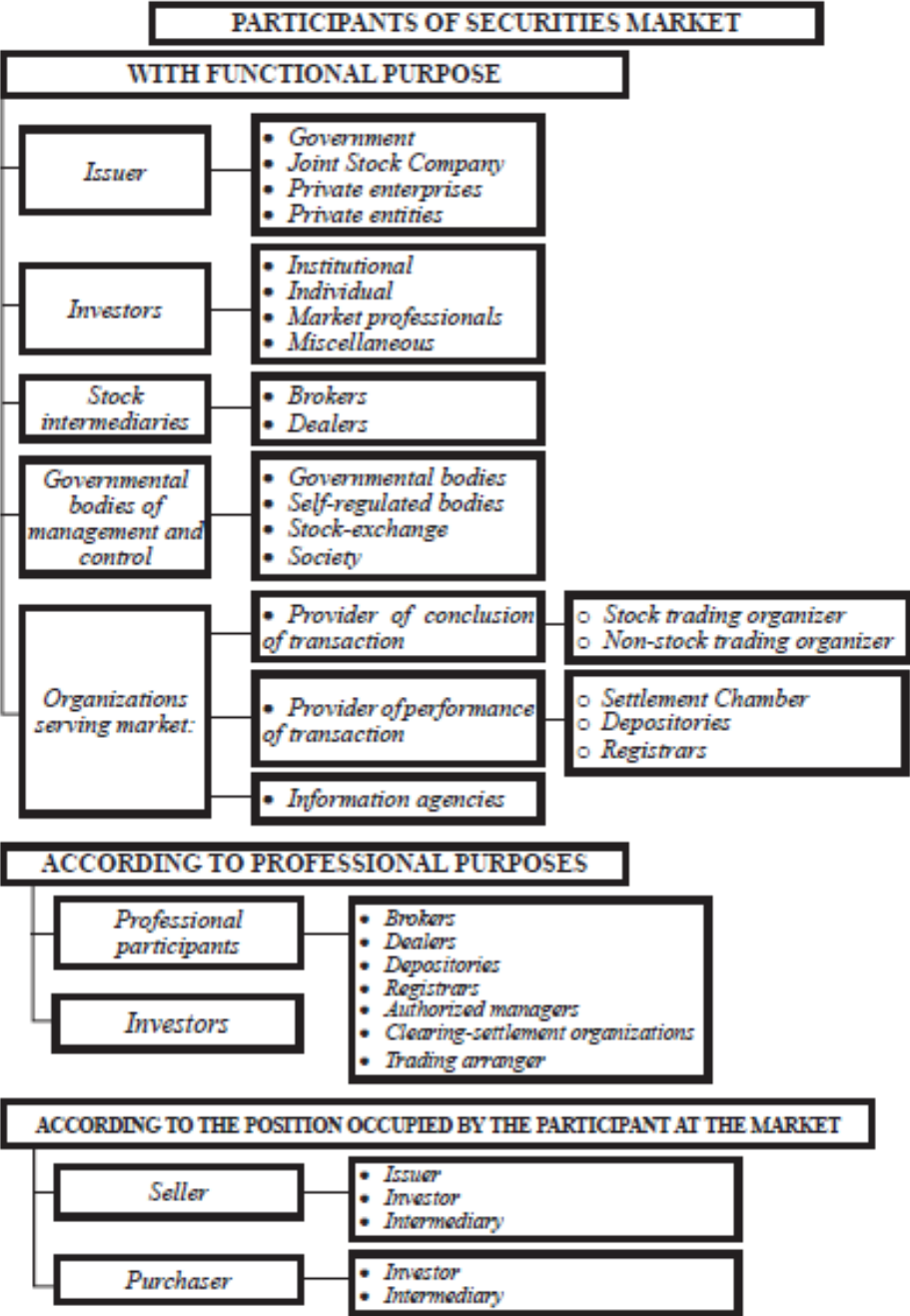


FIG. 7.2. CLASSIFICATION OF PARTICIPANTS OF SECURITIES MARKET

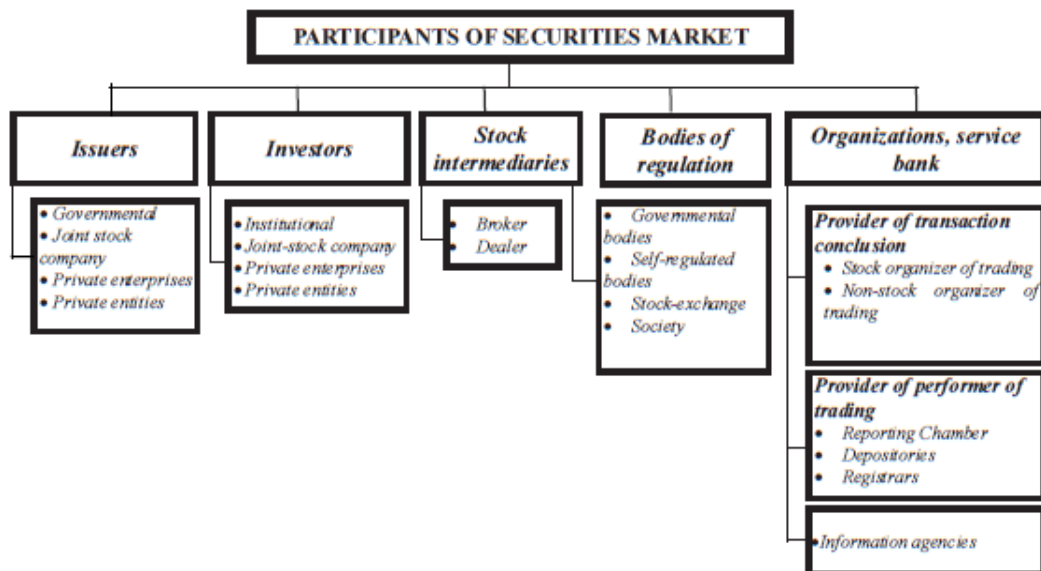
According to the position occupied by the participant of securities market at the market, they are divided into purchasers and organizations serving market processes.

V.S. Torkanovski and V.I. Kolesnikov divide participants of securities market into 4 groups<sup>66</sup>:

- 1) Main participants of securities market (government, municipalities, large national and international companies), securities of which are of high reliability, though they do not provide profitableness all the time;
- 2) Institutional investors, financial-credit institutions, providing operations on securities (banks, insurance companies, pension funds, etc.);
- 3) Individual investors – private entities, including owners of small enterprises of venture market;
- 4) Professional participants of securities market (brokers, dealers, etc.).

According to the functional purpose, each participant of securities may be divided into:

- 1) Issuers, 2) Investors; 3) Securities intermediaries; 4) Authorities of regulation and control;
- 5) Organizations serving the market (Figure 7.3.)<sup>67</sup>.



**FIG. 7.3. PARTICIPANTS OF SECURITIES MARKET (FUNCTIONAL AGENCIES)**

### ISSUERS OF SECURITIES

**Issuers of securities** - are receivers of additional sources of financing – industrial subjects and bodies of state government, issuing securities (bonds) to cover part of governmental expenditures. In the law about securities they say that **issuer is the legal entity, or body of executive government,**

<sup>66</sup> Securities, under the editorship of V.I. Kolesnikov and V.S. Torkapovski. M.: Finansi i statistika. 1999; pg. 34. In Russian.

<sup>67</sup> See Securities Market. Manual under the editorship of V.A. Galanova; A.I.B. Basova. M.: Finansi i statistika. 2001, pg. 12. In Russian.

**or the body of local self-government, responsible to the holders of securities and realization of their rights.**

The issuer is seller at the securities market, degree of which is determined with his status, industrial-financial outcomes of his activities. Issuers are:

State (central government, regional and municipal bodies of government, large national companies);

Joint stock companies (industrial sector, corporations of credit fields, large international companies, stock exchanges, financial structures);

Private enterprises (may issued only debt securities (bonds and promissory notes);

Individuals (may issue only debt signatures and cheque).

### **INVESTORS**

**Investors.** Individuals and legal entities, owning temporarily released cash resources and wishing their investment to make additional incomes. The investors purchase securities on their behalf and with own resources.

They distinguish institutional (collective) investors 0 state, corporate investors (joint stock companies), specialized institutions: specialized funds and companies (banks, insurance companies, pension funds); investment institutions (investment companies, investment funds).

Market professionals – securities intermediaries (brokers and leaders);

Individual investors – individuals, using their saving for purchasing securities;

Other investors – enterprise and companies.

**According to the investment purposes, following investment strategies are distinguished:**

**Strategic** – long-term investments; purchasing securities for the term from 1 month to 1 year, for the purpose of making profit; this latest is made from their selling at the end of investment term.

**Speculative** – intended for short term and private operations of sale and purchase of securities for the term from one day, to one month, for the purpose of making more profit from each transaction.

**For the purpose of insurance** – securities used for insurance of possible loss in business or investments at the financial markets.

Base on the above, investors may be grouped as follows:

- **Strategic investors**, oriented towards making ownership by obtaining control of joint stock company and trying to making much more profit by using the property, than income from simple holding of shares.

- **Portfolio investors**, making incomes only from the shares existed under their ownership.

According to the data of the experts of Alfa-Bank, at the end of 2007 the management controlled 31.5% of shares, 14.3% of persons close to management, 11.6% of strategic investors, 13.6% of state, and 27.7% of shares were in free circulation. Concentration of control packages in the hands of insiders gives rise to the further narrowing of instrumental base of equity market, reduces opportunities of investment, extending degree of manipulation of prices.

According to the data of the Ministry of Economical Development and Trade, 0.1% of the population is the participant of the stock exchange of Russia; 8.3% of public industry in South Korea; 2.6% - in Japan; 36.5% - Australia; and 48.2% - in the USA.<sup>68</sup>

There is no exact limit between issuers and investors in practice. Often industrial subjects or investment institutions, providing investment of securities, may be investor, i.e. may purchase securities of other issuers.

One of the principle issuers and investors of securities are banks, investment companies, etc.

## **BANKS**

**Bank is the organization created for attraction of cash resources and their investment with own name, refunding, with the condition of price and term.** Principle purpose of bank is transfer of cash resources from creditors to the borrowers and purchasers.

Banks, as subjects of securities market, are characterized with two essential features, distinguishing them from all other subjects (transferring cash resources at the markets, stock exchanging by brokerage, dealer companies, insurance companies, investment funds, etc). **On the one hand**, the banks are characterized with double exchange of debt obligations. They place own loan obligations (deposits, saving certificates, bonds, promissory notes) and in this way, invest mobilized resources into the loan obligations and securities, issued by other subjects of the market. In the structure of bank incomes, 13.2% are made by operations related with securities (this is a bit fewer than incomes made from credit operations, making 14% in total).

**On the other hand**, the banks are different from other organizations with undertaking unconditional **obligations with fixed sum of debt** to the legal entities and individuals. Thus, banks

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<sup>68</sup> **Borovkova V.F.**, 2005. Securities Market. SPB.: Piter. Pg. 19.

are different from various investment funds, distributing every risk related with changing of prices of assets and passives between their shareholders. As for the loss of bank system, related with the fall of prices of shares due to the financial crisis, made 400 million US Dollars in August-September of 2008<sup>69</sup>. This speaks of the growth of the risk of banking system and the fact that it is necessary to create the system of risk privation, related with the fall of prices on financial instruments. Grounds to this system shall be “urgent market”, which is yet in the embryonic stage in Georgia.

As we have noted above, **commercial bank is eligible to implement exchange and fiduciary operations related with securities; particularly, the bank is eligible to:**

Issue, purchase, sell, store securities;

Provide investment of resources into the securities;

Perform intermediary (agency) functions in terms of selling and purchasing securities at the expense of the customer and at the discretion of the latest on the basis of agreement or assignment of the with commission; i.e. to play the role of financial broker;

Render consulting services regarding issuance and circulation of securities;

Provide organization of issuance of securities in general; i.e. play the role of investment company;

Manage securities with the assignment of the customer (fiduciary management);

Issue warranties regarding placement of securities in favor of the third parties;

Provide investment of resources into the portfolio of shares of non-banking companies (including for the purpose of providing their monitoring, through subsidiary enterprises);

Establish non-banking investment institutions (investment funds), companies of financial brokers and investment consultants;

Establish specialized companies for recording and storing securities; also to implement settlement on the related operations;

Establish institutional investor, organization.

In terms of considering outcomes of development of securities market, we cannot avoid the issue of increasing financial sustainability of banks. During the years following default of 1998, suctioning and restructuring of insolvent banks took place. Development of law about hypothecation and adoption of law on mortgage securities gave rise to new opportunities about extension of new fields of banking activities.

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<sup>69</sup> Read more about crisis of banking system in Investment Market: Essence, Formation, Development of **L. Qoqiauri**. Tb. TSU, 2009, pg. 45-91.

Under the conditions of transition to the market economy, in post-socialistic country **general funds of banking management** were created – this is property complex transferred to the different persons united with the common property right; the property was purchased by the fiduciary management, for implementation of fiduciary management. General funds of bank management are created by the banks for particular period and they are being operated in accordance with the banking legislation. They provide fiduciary management of the customers' properties.

General fund is not legal entity: decision about its creation is made by the management of the bank or other executive bodies. At the same time, investment declaration of general fund for bank management is registered and verified, in order to create general terms and conditions and fiduciary management of property of general fund of bank management. The bank plays simultaneous roles of the maker of decision about creation of the fund and fiduciary manager. This accelerates and simplifies the process of fund creation, as the bank is not required to receive special license for management of the fund property. Activities of fiduciary management of the property are implemented on the basis of general bank license.

The bank may create and manage several funds, according to the different kinds of establishment, types of managed properties, etc. The operations and registration of property is implemented separately according to the said funds.

#### **GROUP OF COLLECTIVE INVESTORS**

Group of collective investors may be separated among participants of the securities market. Collective investors – these are the **institutions**, including large groups of investors and investing resources at the securities markets. Activities of the collective investors are implemented in two principle directions: 1) organization of issuance of securities and issuing warranties about their placement in favor of the third parties; 2) provision of operations in relation with the securities on their own behalf and own expenses, including through quotation of securities; i.e. by announcing prices of the purchaser and seller, according to which the Company undertakes obligation to purchase and sell particular securities.

Collective investor implement wide circle of operations (brokerage, dealer, trust, etc.), they provide their activities as inside, so – outside the stock exchanges, with futures agreements of transactions, promissory notes, as well as sale and purchase of shares. They are mostly limited with the operations related with shares, making 67% of operations implemented by them. According to



the bonds, circulations make 5% of general figure of operations. Circulation with other securities, including promissory notes and state securities make 28%.

Representatives of collective investors are investment funds (equity and share), nongovernmental pension funds, and insurance companies. Potential customers of each of them have own place, own technology of selling, own set of products and methods of working with the customers' resources; own infrastructure (managing company, registrar, custody, independent evaluator, etc), providing their viability.

### **PROJECT INVESTMENT FUND**

**Project investment fund (PIF)** – this is a separate property complex; its property includes the ownership transferred under the fiduciary management, provided that it will be joint to the property of other entrusted founders, also the property made in the process of such management; ownership right on share is confirmed with the securities issued by the company manager.

In other words, project investment fund is separate property complex without formation of legal entity, management of which are implemented by managing (trusting) companies for the purpose of increasing property of the funds. Property complexes are created with the deposits of investors (individuals and legal entities), also increased properties, ownership of which shall be confirmed with the security issued by the manager of the company. This security is called share. To their holders, investment shares are particular right, notwithstanding share purchased by them. Investors may not be governmental or local self-government bodies.

**Project investment funds are collective investment institutions; distinguishing with solid legislative base, strict state regulation; demands set to the securities represented in their investment portfolio are maximal from the point of reliability and high liquidity.** However, they do not have great amount of shares among institutions of collective investment.

Project investment fund is not legal entity. It is subject of the bank, providing management of its operations though managers of the company. This is also provided with special depositories, basic function of which is registration of property and protection of investment rights. **Specialized custody of the project investment fund** may be bank or other commercial bodies, having license for implementation of the activities of such kind.

Managing company of the project investment fund may be commercial organization having the right to implement activities with the license of fiduciary management of the company. It receives compensation for the expenditures made in the process of managing the fund as well as the award

foreseen with the rules of the Fund. Managing company may manage properties of one or several funds, but it shall not be the owner of the property of project investment fund and due to this fact, it is illegible to use property of the Fund for guarantying own obligations. Managing company is responsible with own property against obligations formed by loosing property of the third party. Resources of investors transferred to the managing company for disposal, are placed in more reliable and liquid instruments of securities market; the company tries to provide maximal possible profitableness.

Managing company determines rules of the Fund, providing emission of the investment shares, fiduciary management of the fund and investment of its property into the securities, real estate, bank deposits, etc. Purchasing investment share issued by the managing company, investor concludes property management agreement with it, with the validity period of maximum 15 years for open share funds and not less than 1 year for less closed investment funds.

### **INVESTMENT SHARE**

**Investment share** is the registered security, confirming the right of its holder on the part of the property of share fund. Investment share authorizes its holder to request from the managing company cash compensation on respective fiduciary management of the fund at the end of the fiduciary management agreement. Holder of share makes incomes not in the form of fixes income or dividend, but in the form of distinction between sale and purchase prices of share through increasing of the price of fund property. Managing company is liable to redeem investment share by allocation of the price of net share of the fund, with the price accepted on the existed amount of investment shares.

### **KINDS OF PROJECT INVESTMENT FUNDS**

**Depending on the terms, during which the managing company is to redeem investment share, project investment funds may be open, interval and closed. Open project investment fund** is the fund, in which managing company undertakes obligation to redeem investment shares issued by it at the request of investor, any working day, according to the project investment fund. **Interval project investment fund** is the fund, in which managing company undertakes obligation to redeem investment share issued by it at the request of investor, within the term determined by project fund, but at least once a year. Purchasing or selling share in the interval fund may be provided only in the period of opening interval. **Close share investment fund** – is the fund, in which managing company doesn't undertake obligation to redeem investment share issued by it at the request of the investor, before expiation of the term of fiduciary management. Refusing share in

the close project fund may only be provided after expiration of the validity term of the fiduciary management agreement of the fund.

Indexes of the fund operation (cost of net assets and cost of share) shall be published by the managers of project investment fund shall publish massive information means and online on daily basis in case of open project investment funds and on quarterly basis in case of close project investment fund. Managing companies will submit reports to the federal commission of securities on monthly basis and publish materials in the form of extended list of indexes on quarterly basis, including content and structure of investment portfolio, and indexes of own capital.

Managing company invests resources of depositors into the rules and prospects of emissions into the investment fund in compliance with the published declaration, content and structure of shares in the project investment funds shall conform to the requirements established by law, approved in accordance with the provision about securities. Assets of open investment funds shall be represented in the form of state and corporate securities, as well as securities of market subjects, securities of local managing bodies, securities of foreign countries, securities of foreign joint stock companies, cash resources into the national and foreign currencies, placed at bank accounts and deposits. Portfolio of project investment funds of interval and close type, except above shares, may include real estate and right on it.

## **STRUCTURE OF ASSETS OF OPEN PROJECT**

### **INVESTMENT FUND**

**Structure of assets of open project investment fund shall comply at the same time to the following requirements:**

Compared value of securities of one issuer shall not be more than 20% of total price of assets of the Fund.

State securities (single issuance) shall not be more than 35% of total price of assets of the Fund – except cases, when they are purchased by means of processing novelties.

Total assessment price of foreign securities, having no recognized quotation, shall not be more than 10% of total price of assets of the Fund.

Total assessment price of foreign securities, those of foreign joint stock companies and foreign commercial organizations shall not be more than 20% of the cost of assets of the Fund;

Cash resources places at the deposits of one bank shall not be more than 25% of the cost of the assets of the Fund.

## STRUCTURE OF THE ASSETS OF INTERVAL

### PROJECT INVESTMENT FUND

**Structure of the assets of interval project investment fund at the same time shall comply to the following requirements:**

Assessment price of securities and cash recourses at the bank deposit shall not be more than 35% of total price of assets of the Fund;

Assessment price of securities of one issuer shall not be more than 30% of total price of assets of the Fund;

Assessment price of state securities (single issue) shall not be more than 35% of total price of assets of the Fund, excluding cases when they are purchased by means of processing novelties;

Assessment price of the objects or real estate and the rights on real estate shall not be more than 5% of total price of assets of the Fund;

Without determined quotation, total assessment price of securities, objects of real estate and total assessment price of the right on securities shall not be more than 65% of the price of assets of the Fund;

Total assessment price of securities of foreign countries, securities of joint stock companies of foreign countries, total assessment price of the bonds of foreign commercial companies shall not be more than 20% of the price of assets of the Fund;

Cash resources placed on the deposit of one bank shall not be more than 25% of the price of assets of the Fund.

Project investment funds are actively operating at the securities market. For today there are multiple project investment funds operating at the global market. Their number is being increased and this is not accidental. Under modern conditions, project investment fund is the most effective service for investors, having no opportunity for free investment of their resources to the equity markets. It allows individual to make profit from investment into the financial assets, made by large investors: banks, investment companies and funds.

Positive outcomes of operation of project investment funds at the securities market may be attributed with the fact that cost of the assets of project investment funds in 2006 was more than one billion US Dollars,<sup>70</sup> though not only absolute prices but rate of growth is important; assets have been increased almost twice during last years.

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<sup>70</sup> Securities Market. Under edition of **V.I. Kolesnikova**. M. SPb. 2007. In Russian

## INCORPORATED INVESTMENT FUND

**Incorporated investment fund** – this is open joint stock company, main kind of activities of which is investment of property into securities and other objects. In other words, **incorporated investment fund** is any joint stock company of open type, main activity of which is issuance of shares for mobilization of cash resources of investors and their investment on behalf of the fund, into the securities and other bank accounts of other issuers. Incorporated investment funds are illegible to implement commercial activities of other kind. Banks and insurance companies may not be investment funds.

Different from the project investment funds, incorporated investment funds are legal entities, registered in the form of open joint stock company. Incorporated investment funds are eligible to implement their activities only on the basis of special permission – license.

### TYPES OF INVESTMENT FUNDS

Investment funds are of three types: open, close and voucher investment funds. **Open** fund provides issuance of securities with recourse. **Close** fund doesn't undertake such obligation. **Voucher fund** is specialized fund, providing operations by means of privatization vouchers. Voucher may be transferred into project investment funds, or investment funds, or to remain in the form of open joint stock company and change their name "voucher" with another name.

For example, in post-soviet domain, only in Russian Federation, out of 691 voucher investment funds, registered in the register of state property committee, 478 were transferred into the incorporated investment funds; or, for example, Lukoil, Alfa-Capital – into project investment funds; license of professional participant of securities market was received by 41 voucher investment funds. Other 434 voucher investment funds refused their names and they are simply called joint-stock companies. Under modern conditions, there is the list of 597 transformed voucher investment funds in the database of federal committee of securities.<sup>71</sup>

As we have noted above, special kind of activities of investment fund is emission of own securities (shares) and their selling to every wisher, including population and, at the same time, investment of own and attracted resources into the securities of other issuers. By purchasing shares of the fund, investors become their co-owners and share the risks related with the financial operations implemented by the fund. Successfulness of such operations will be reflected in changing of current prices of shares of the fund. Nominal price of investment fund shall be totally distributed between establishers of the fund.

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<sup>71</sup> **Borovkova V.A.** Securities market. SPb. Piter 2007, pg. 28. In Russian.

Property of incorporated investment fund is divided into the property intended for investment (investment reserves) and property, intended for provision of activities of bodies of its management and other bodies, of course, according to the regulations. Investment reserves shall be transferred to the fiduciary management of managing company.

Investment fund concludes agreement with managing company (licensed trust company) about management of the fund. Investment fund is liable to conclude custody agreement with depositors. The depositor may not be the guarantor of investment fund, creditor and manager. Depositor provides and controls operations with securities of investment fund based on the requirements of custody agreement, including restriction of exchange, purchasing securities and selling.

**Investment fund is illegible:** to purchase shares having voting right of any joint stock company, if after their purchasing more than 10% of total amount of shares having voting right of this company belongs to the affiliated group of investment fund; to manage more than 5% of its capital to purchasing securities of one issuer; or purchase more than 10% of securities of one issuer according to the nominal price. Investment fund is illegible to attract investment resources in case if total value of repayable debt is more than 10% of market price of net assets of investment fund, at the moment of signing credit agreement (term of loan shall not be more than three months without prolongation right); issue debt obligation, implement lease transactions, implement activities of representatives, intermediaries and sellers of privatization objects, purchase and own shares of investment funds. Necessary condition of activity of investment fund to employ specialist of investment consultant for working of securities.

Investors, who are not interested in analyzing of securities, having no time to create and manage own portfolios, do not wish to pay resources to the investment consultant for service, use the service of investment funds.

#### **ADVANTAGES OF INVESTMENT FUNDS**

Following are advantages of investment funds in relation with other financial institutions:

Professional management of funds – each fund tries to appoint specialist of highest qualification in the field of trading securities, effectively managing its portfolio;

**Diversification** – distribution of investments on multiple securities;

**Opportunity for investment of insignificant sums of money** – investment funds allow their depositors implement contribution of insignificant sums of money, and no minimums of investments are determined in some funds.

### **Automated reinvestment;**

**Replacing shares of one investment fund with** those of another investment fund. Such replacement is permitted, when several funds are united into common management and create so-called “family of funds”;

**High liquidity of shares**, holders of shares of open exchanges are allowed to turn them into money, when they consider it to be necessary;

**Simplicity of monitoring investment movement.**

### **NON-GOVERNMENTAL PENSION FUND**

**Non-governmental pension fund – this is a special organization-legislative form of non-commercial organization of social provision, special activity of which is non-governmental pension provision of the participants of the Fund on the basis of the agreement about non-governmental pension provision of the population.** Relation is established between depositors in favor of the participants of the Fund.

Depositor of the Fund may be legal entity or individual, transferring pension contributions in favor of the participant appointed by him/her. Participants of the fund are the citizens, who shall be given non-governmental pension on the basis of the agreement. The participant may be depositor of own profit.

Scope of activities of nongovernmental pension fund includes: accumulation of pension contributions; placement of pension reserves; processing conditions to the participants of nongovernmental pension provision, conclusion of pension agreements; keeping pension reports; concluding agreements with managing (trust) companies; implementing actual accounting; paying non-governmental pensions to the participants of the fund, in accordance with the terms and conditions of the pension agreement. Nongovernmental pension fund transfers its assets for management to the specialized trust companies.

### **PROPERTY OF THE PENSION FUND**

**Property of the pension fund includes:**

The property intended for provision of statutory activities of the fund. It is made of joint contributions of founders; purposeful contributions of depositors, placement of the part of income of the fund into the pension reserves (it is used for repayment of expenditures of the fund in accordance with the Charter of the latest), property of the fund income intended for provision of the statutory activities, charitable contributions and other legal incomes.

From pension reserves created for provision of efficiency of the fund. It is made of pension contributions, placement of pension contributions from the incomes received in the fund. Pension reserves are created in accordance to every kind of pension obligations in the amount, which is sufficient for provision of repayment of the same obligation.

Activities of nongovernmental pension fund is regulated with respective law on nongovernmental pension funds.

More wider perspectives are offered with the market through development of the pension reform: so-called “long money” of the population is brought to the market, to be accumulated within the framework of the system of accumulation of private management companies.

### **INSURANCE COMPANY**

**Insurance company (insurance society, insurer)** – is legal entity of any organization-legal form, recognized by legislation, providing insurance activities and having license for performance of the activity received in accordance with applicable legislation. The license is transferred to the insured by the Department of Monitoring Insurance Activities under the Ministry of Finance, for each kind of insurance. The field of activities of the insurance company may not be industrial, trading-intermediary and banking activities. The insurer creates insurance fund, to be formed on the basis of insurance contributions of the insured (individual and legal entity), undertaking obligation to reimburse to the insured (or other person, the agreement is signed with – receiver of profit, insured, third person) against insurance case, through payment of insurance compensation to him/her.

Insurance companies invest their resources into different financial assets. The procedures of placement of insurance reserves, differentiating possible directions of investors and restricted amount are determined by the Ministry of Finance. For the sources of repayment of insurance reserves, following kinds of assets may be used: state securities, state securities of other subjects, municipal securities with total amount of 30%; promissory notes of banks, bank deposits, including verified custody certificate – 40%; shares and bonds of enterprises – 30%; bank certificates – 5%; investment share of project investment fund, certificates of share participation into the general funds of bank management – 5%. Principles of placement of insurance reserves are diversification, repayment, profitability and liquidity.

Approximately 14 insurance companies are operating at the insurance market of our country today.



## SECURITIES INTERMEDIARIES

Following group of participants of securities market are securities intermediaries. They are traders providing interrelation between issuers and investors at the securities market. They are brokers and dealers.

### BROKERS

The broker is an important financial intermediary in distribution of cash resources at the financial market. The broker is agent of sale and purchase of registered securities of different kind, holding license on implementation of such activities. Licensing of professional participant of securities market takes place in compliance with existed legislation of securities market.

Industrial subject, brokerage office of different organization-legislative form, or the citizen – private Entrepreneur may work for the broker, without creation of legal entity.

The broker always concludes transaction with customer's account and at his/her assignment, operating at the basis of agreement or commission fee, as well as on the basis of concluding such transactions. The broker undertakes disposition of securities and sells them to the new investor or purchases securities at the assignment of the customer. Sometimes assignment agreements and commission fees are united into other kinds of agreements (credit agreement, agreement of bank account, etc), registered in the form of complex service agreement related with securities in the final form. In some cases, brokers use service of depositors, placing their assets with the responsibility of storage. Within the bounds of verification of ordinary activities of professional participant of securities market, auditor verification takes place annually.

Broker may also render consulting and information services and be engaged in dealer activities. At the assignment of customer, transactions implemented by the broker in any case are subject to the prior implementation compared with the operations of dealers.

### DEALER

**Dealer – this is industrial subject implementing financial operations on his/her behalf and with his/her account.** Dealer may be only legal entity, function of which is investment of resources into the securities, implementation of transactions in relation with securities on own behalf, including through their quotation. Such professionals of securities market, such as banks and investment companies are eligible to fill to each other brokerage and dealer activities.

### BODIES OF REGULATION AND CONTROL

In global practice, four principle forms of regulation of securities market are known:

**State regulation**, based on legislation and taxation norms;

**Exchanging regulation**, i.e. regulation in compliance of general rules of work of total and specialized stock exchange;

**Self-regulation**, implemented by means of activities of different associations of professionals at the forward market;

**Public regulation** or regulation with public opinion.

**Bodies of state regulation.** Regulation of securities market at the state level implement:

Supreme agencies of government: federal assembly, president, government;

State bodies of regulation of securities market at the level of ministries. Federal commission of securities market, Ministry of Finance, central bank, state committee of antimonopoly policy, Department of supervision of insurance activities.

### **SELF-REGULATING ORGANIZATION OF PROFESSIONAL**

### **PARTICIPANTS OF SECURITIES MARKET**

This is voluntary union of professional participants of securities market, functioning on the basis of the principles of noncommercial organization. It is created:

For the purpose of creating conditions of professional activities of participants of securities market;

For the purpose of protecting standards of professional ethic at the securities market;

For the purpose of rights of the customers of securities market,

For the purpose of further improvement and development of securities market;

For the purpose of determining rules and standards of operations to be performed on securities, providing effective operation at the securities market.

Every income of regulatory organization is used for implementation of regulatory tasks and it is not distributed between its members.

Members of this organization may be only professional participants of securities market. In order to allow it get the status of self-regulating organization, it shall be established on at least 10 professional participants of securities market. Only after this, it will be able to appeal federal commission of securities for obtaining status. The organization gains the status of self-regulated company on the basis of the permission issued by the federal commission of securities according to the Law on securities market. Such self-regulated organization in Georgia is Market Activity Development Association, operating from 2006. Its mission is promotion of trading and

improvement of investment environment. Particularly, development of stock-exchange industry, protection of interests of brokerage companies, sharing experience of population, rising qualification according to the long- and short-term training courses on international foreign exchange and equity markets, etc.

### **RIGHTS OF SELF-REGULATING ORGANIZATION**

Self-regulating organization is eligible:

To process training programs and plans, implement training of employees and staff members of the organization, providing professional activities at the securities market, according to the qualified demand of federal commission of securities,

To determine qualification of the said persons, and issue their qualification certificates.

Under modern conditions, at the securities market following are engaged in the issues of self-regulation; they are: professional association of participants of equity market; the board of the largest registrars and depositories; professional association of registrars, transfer-agents and depositories; national association of equity market; union protecting interests of shareholders of enterprises and organizations.

Today main professional association and union of financial institutions are operating at the securities market today.

Federal commission of securities established noncommercial partnership – Collective Investment Centre, expressing interests of project investment funds. Close working contacts established by the Centre with credit unions, pension funds, insurance companies, investment funds, their association and unions. It is in active relation with legislative and regulatory bodies, conducting educational works with public.

Formation of the system of self-regulation of nongovernmental pension fund, protection of interests of its members in relation with every body of the executive government: national association of nongovernmental pension funds; professional league of nongovernmental pension funds; regional development board of nongovernmental pension funds. Noncommercial partnership “interregional centre of nongovernmental pension funds” provides training of staff for nongovernmental pension funds.

### **ORGANIZATIONS SERVING MARKET**

**Organizations serving securities market** at the securities market perform such activity, which is not related with sale and purchase of securities, namely:

Organization providing conclusion of transactions – trade organizations, stock-exchanges and trading systems, forming conditions for regular trading with securities.

Organizations, providing implementation of transactions – clearing systems, registrars and depositories. With their help, repeated registration of rights on securities are provided repeatedly, as well as recording concluded transactions and settlement.

Information agencies, information-analytical systems supporting investment decisions; information agencies, rating agencies, databases, providing investors with complete and comprehensive information about economical situation in the country and budget outturn.

## **ORGANIZATIONS, PROVIDING CONCLUSION OF TRANSACTIONS**

Organizers of trading at the securities market are professional participants of market. They implement activities from the point of organization of trading, namely, supporting conclusion of transactions related with securities between participants of the market.

### **STOCK EXCHANGE**

**Organizer of trading is stock exchange.** It is organized, regularly functioning and centralized market with fixed place of trading, procedure of selecting securities and operators of the market. It has particular term regulation and standard trading procedures determining trading with securities, as well as centralized methods of registering transactions and settlement on the, the right of establishing official (stock) quotation. It implements supervision of the members of the stock exchange, rendering settlement and information service, and receiving particular warranties and commissions from transactions. Stock exchange may be non-commercial or commercial enterprise, operating with the respective license.

Peculiarity of the stock exchange is trading only between its members and not purchasers and sellers. Other participants of securities may implement operations at the stock exchange only with the mediation of the members of stock exchange. These latest may be any professional participant of securities market.

Trading at the organized at over-the-counter securities market is provided with trade system. Trade system is the totality of technical, technological and organizational resources, allowing conclusion of transactions according to the securities and compare their parameters.

Implementation of transactions is provided by clearing organizations, depositories, and registrars (composers of register).

## **CLEARING ORGANIZATIONS (CLEARING HOUSE)**

Clearing (settlement) organizations provided determination of mutual obligations (collection, collation, correction of information related with transactions on securities and preparing accounting documents), inclusion of distribution of securities and providing settlements on them. These organizations hold respective license and they operate at the securities market on the basis of respective regulation on clearing activities.

Clearing organization, usually, is formed with the same legal status, as commercial banks, but they are often created in the form of closed joint stock companies. It may serve one particular stock exchange, at the same time several of such stock exchanges or securities markets.

Clearing organization provides:

Collection of data about transactions with securities (for rating and settlement), particularly, about participants of transactions, categories of securities, place and time of implementing of transactions, and settlement according to them.

For the purpose of rating and implementation of settlement, conclusion of the size of transactions (as a rule, in the way of conforming and quotation). Size of transactions according to rating (classification of transactions concluded for the purpose of maximal reduction of the number of operations with securities) is brought to the small value of cases of securities distribution and transfer of cash resources.

## **CUSTODY**

Custody is professional participant of securities market providing activities related with storage of securities issued in the documentary and non-documentary form and recording transfer of right on them. Custody may be only industrial subject.

Functions of custody are:

To receive securities for nominal price for the purpose of storage and to implement clearing and settlement on the transactions concluded at the stock exchange;

To open, operate and close securities accounts in accordance with the rules of the stock exchange;

To support settlement of transactions with securities without physical distribution of securities certificates;

As self-regulated organization, to prepare rules for its members and perform monitoring on their implementation;

In case of violating rules of stock exchange trading, to use sanctions foreseen with regulations, rules and charter against members.

### **REGISTRAR**

Registrar (holder of register) is a legal entity, keeping register of the holders of nominal securities (no register is kept on submitter of the securities). He/she provides collection of data, their fixation, processing, storing and submission, making the system of provision of register of the securities holders. He/she is illegible to implement transactions with securities of the issuer and keeping the register of.

Functions of the registrar includes, processing personal accounts of the registered persons. Recording of securities to the emission and personal accounts of the issuer on the basis of records in the register; recording documents and their storage, recording incomes. Task of the registrar related with securities exists in providing the issuer register in timely and proper manner.

Functions of the registrar may be performed by the joint stock company itself (if number of holders of securities is not more than 100 persons), or another professional organization in the issue of keeping register (this may be a bank, specialized registrar, i.e. legal entity).

### **INFORMATION AGENCY**

Special role at the securities market is played by the information agency. Majority of the information agencies do not only provide accumulation of information, by they use different methods for obtaining them. This part of the market is divided by the foreign and native information agencies. Foreign agencies represent such well known agencies, as Reuters, Dow-Jones TV raid, Bloomberg, Tenfore. Many information agencies use online systems for transmission of information. Information agency of Georgia is Georgian Business Consulting ([www.gbc.ge](http://www.gbc.ge)).

## **7.3. LEGISLATIVE BASE REGULATING SECURITIES MARKET**

Activities of professional participants of securities market in Georgia is regulated with the following normative and legislative acts<sup>72</sup>:

Georgian law on demands to own home equities of the brokerage companies, verified by the National Commission of Securities of Georgia with the Resolution No. 1 as of November 2, 1999; registered by the Ministry of Justice of Georgia (registration No. 090.07.003.913); “Saqartvelos Sakanonmdeblo Matsne” (Legislative Herald of Georgia), No. 58(65), 1999, November 10.

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<sup>72</sup> **Jubuti M.** 2003. Securities Market of Georgia. Publishing company “Siakhle”. Tb., pg. 193-200, in Georgian.

Georgian law “on verification of the samples of forms of licensing brokerage company, broker, stock exchange, and securities registrar”, verified by the National Commission of Securities of Georgia with the Resolution No. 2 as of December 3, 1999; registered by the Ministry of Justice of Georgia (registration No. 090.0130.003.979); “Saqartvelos Sakanonmdeblo Matsne” (Legislative Herald of Georgia), No. 66, 1999, December 9.

Georgian law on “verification of the sample of the form of license of the central custody”, verified by the National Commission of Securities of Georgia with the Resolution No. 3 as of December 9, 1999; registered by the Ministry of Justice of Georgia (registration No. 090.07.003.985); “Saqartvelos Sakanonmdeblo Matsne” (Legislative Herald of Georgia), No. 68, 1999, December 17.

Georgian law “on conclusion and submission of semi-annual reports by accountable enterprise”, verified by the National Commission of Securities of Georgia with the Resolution No. 4 as of January 21, 2000; registered by the Ministry of Justice of Georgia (registration No. 090.07.004.060); “Saqartvelos Sakanonmdeblo Matsne” (Legislative Herald of Georgia), No. 8, 2000, January 8.

Georgian law “on demands of adequacy of capital for brokerage companies”, verified by the National Commission of Securities of Georgia with the Resolution No. 5 as of March 29, 2000; registered by the Ministry of Justice of Georgia (registration No. 090.07.004.174); “Saqartvelos Sakanonmdeblo Matsne” (Legislative Herald of Georgia), No. 30, 2000, April 10.

Georgian law “on records and accounting books of brokerage companies”, verified by the National Commission of Securities of Georgia with the Resolution No. 5 as of March 29, 2000; registered by the Ministry of Justice of Georgia (registration No. 090.07.004.174); “Saqartvelos Sakanonmdeblo Matsne” (Legislative Herald of Georgia), No. 30, 2000, April 10.

Georgian law “on accounts of brokerage companies and periodical financial reporting”, verified by the National Commission of Securities of Georgia with the Resolution No. 5 as of March 29, 2000; registered by the Ministry of Justice of Georgia (registration No. 090.07.004.174); “Saqartvelos Sakanonmdeblo Matsne” (Legislative Herald of Georgia), No. 30, 2000, April 10.

Georgian law “on confirmation and cancellation of the procedures of self-regulated organization”, verified by the National Commission of Securities of Georgia with the Resolution No. 6 as of August 7, 2000; registered by the Ministry of Justice of Georgia (registration No. 090.07.004.366); “Saqartvelos Sakanonmdeblo Matsne” (Legislative Herald of Georgia), No. 72 (III part), 2000, August 11.

Georgian law “on securities under beneficiary ownership of the managing body of the accountable enterprise”, verified by the National Commission of Securities of Georgia with the Resolution No. 6 as of August 7, 2000; registered by the Ministry of Justice of Georgia (registration No. 090.07.004.366); “Saqartvelos Sakanonmdeblo Matsne” (Legislative Herald of Georgia), No. 72 (III part), 2000, August 11.

Georgian law “on publicity of important purchase of securities of the accountable enterprise and its amendments”, verified by the National Commission of Securities of Georgia with the Resolution No. 9 as of March 19, 2001; registered by the Ministry of Justice of Georgia (registration No. 040.170.280.17.014.004.705); “Saqartvelos Sakanonmdeblo Matsne” (Legislative Herald of Georgia), No. 26, 2001, March 22.

Georgian law “on temporary rule of attestation of individual keeping securities register”, verified by the National Commission of Securities of Georgia with the Resolution No. 15 as of June 15, 2002; registered by the Ministry of Justice of Georgia (registration No. 040.230.000.17.004.005.374); “Saqartvelos Sakanonmdeblo Matsne” (Legislative Herald of Georgia), No. 66, 2002, June 28.

Georgian law “on keeping reports by the securities registrar and determining formations”, verified by the National Commission of Securities of Georgia with the Resolution No. 18 as of July 18, 2002; registered by the Ministry of Justice of Georgia (registration No. 040.230.000.17.014.005.425.); “Saqartvelos Sakanonmdeblo Matsne” (Legislative Herald of Georgia), No. 77, 2002, July 29.

Georgian law “on double licensing of central custody of securities”, verified by the National Commission of Securities of Georgia with the Resolution No. 18 as of July 18, 2002; registered by the Ministry of Justice of Georgia (registration No. 040.230.000.17.014.005.425.); “Saqartvelos Sakanonmdeblo Matsne” (Legislative Herald of Georgia), No. 77, 2002, July 29.

Georgian law “on requirements determined to the agreement samples to be concluded between brokerage company and customer”, verified by the National Commission of Securities of Georgia with the Resolution No. 21 as of August 2, 2002; registered by the Ministry of Justice of Georgia (registration No. 040.170.280.17.014.005.456.); “Saqartvelos Sakanonmdeblo Matsne” (Legislative Herald of Georgia), No. 83, 2002, August 15.

Georgian law “on determining reporting date for the property rights on public securities”, verified by the National Commission of Securities of Georgia with the Resolution No. 23 as of



September 19, 2002; registered by the Ministry of Justice of Georgia (registration No. 040.230.000.17.014.005.506.); “Saqartvelos Sakanonmdeblo Matsne” (Legislative Herald of Georgia), No. 98, 2002, October 1.

Georgian law “on obligations of the rights of the holders of securities of efficient enterprise and obligations of members of management body to them”, verified by the National Commission of Securities of Georgia with the Resolution No. 24 as of December 2, 2002; registered by the Ministry of Justice of Georgia (registration No. 040.230.000.17.014.005.589.); “Saqartvelos Sakanonmdeblo Matsne” (Legislative Herald of Georgia), No. 119, 2002, December 11.

Georgian law “on nominal holders of securities”, verified by the National Commission of Securities of Georgia with the Resolution No. 26as of December 2, 2002; registered by the Ministry of Justice of Georgia (registration No. 040.230.000.17.014.005.588.); “Saqartvelos Sakanonmdeblo Matsne” (Legislative Herald of Georgia), No. 119, 2002, December 11.

Georgian law “on resolution of the national commission of securities of Georgia”, verified by the National Commission of Securities of Georgia with the Resolution No. 27 as of December 18, 2002; registered by the Ministry of Justice of Georgia (registration No. 190.040.230.000.17.014.005.610); “Saqartvelos Sakanonmdeblo Matsne” (Legislative Herald of Georgia), No. 124, 2002, December 24.

Georgian law “on compulsory appointing of registrar of securities to the issuers”, verified by the National Commission of Securities of Georgia with the Resolution No. 28 as of January 28, 2003; registered by the Ministry of Justice of Georgia (registration No. 040.230.000.17.014.005.661); “Saqartvelos Sakanonmdeblo Matsne” (Legislative Herald of Georgia), No. 10, 2003, February 7.

Georgian law “on requirements for the terms of written agreement between registrar and issuer of securities”, verified by the National Commission of Securities of Georgia with the Resolution No. 29 as of February 3, 2003; registered by the Ministry of Justice of Georgia (registration No. 040.230.000.17.014.005.672); “Saqartvelos Sakanonmdeblo Matsne” (Legislative Herald of Georgia), No. 11, 2003, February 12.

Georgian Law “on the procedures of commission about registration of approved prospect of demanding, granting and issuing identification number of securities”, verified by the National Commission of Securities of Georgia with the Resolution No. 34 as of June 30, 2003; registered to the Ministry of Justice of Georgia (14.07.03 No. 040.230.000.17.014.005.945); “Saqartvelos Sakanonmdeblo Matsne” (Legislative Herald of Georgia), No. 73, 2003, July 21.

Instruction about qualification attestation of the broker at JSC Stock Exchange of Georgia, verified by the supervisory board of stock exchange of Georgia, protocol No. 1 as of March 20, 2000. [www.gse.ge](http://www.gse.ge); regulatory document;

Instruction about qualification attestation of the broker at JSC Stock Exchange of Georgia, **last amendments**, verified by the supervisory board of stock exchange of Georgia, protocol No. 4 as of December 11, 2008.

Charter of JSC Stock Exchange of Georgia, verify by the General Meeting of Stock Exchange of Georgia, Protocol No. 1; January 5, 1999.

Charter of JSC Stock Exchange of Georgia, **amendments**, verify by the Supervisory Board of Stock Exchange of Georgia, September 27, 2007.

Resolution on members of Joint Stock Company of Georgia, verified by member shareholders of Stock Exchange of Georgia, September 26, 1999; protocol No. 4.

Resolution on members of JSC Stock Exchange of Georgia, **last amendments**, at the meeting of Supervisory Board of JSC Stock Exchange of Georgia; Protocol No. 2; March 5, 2009.

Resolution on access is securities into the trade system and listing at Stock Exchange of Georgia, verified by General Meeting of Stock Exchange of Georgia, September 26, 1999; Protocol No. 4.

Resolution on access is securities into the trade system and listing at Stock Exchange of Georgia, **last amendmentsm**, verified by Supervisory Board of Stock Exchange of Georgia, December 11, 2008; Protocol No. 2

Code of Ethics of Stock Exchange of Georgia, verified by General Meeting of member-shareholders of JSC Stock Exchange of Georgia, September 26, 1999; protocol No. 4.

Code of Ethics of Stock Exchange of Georgia, **last amendments**, verified by Supervisory Board of member-shareholders of JSC Stock Exchange of Georgia, August 7, 2008; protocol No. 3.

Procedural Code of Disciplinary Violations of Stock Exchange of Georgia, verified by General Meeting of JSC Stock Exchange of Georgia, September 26, 1999, Protocol No. 4.

Procedural Code of Disciplinary Violations of Stock Exchange of Georgia, **last amendments**, verified by Supervisory Board of JSC Stock Exchange of Georgia, March 5, 2009; Protocol No. 2.

Rules of trading of Stock Exchange of Georgia, verified by the General Meeting of JSC Stock Exchange of Georgia, Protocol No. 4, September 26, 1999.

Rules of trading of Stock Exchange of Georgia, **last amendments**, verified by the Supervisory Board of JSC Stock Exchange of Georgia, February 17, 2009, Protocol No. 1.

Resolution on the procedures of obtaining, systematization and processing of information by the registrar of securities and its issuance to the Financial Monitoring Service of Georgia, Decree No. 7 of the Head of Financial Monitoring Service of Georgia, as of September 29, 2008.

Georgian Law on global competitiveness of financial sector, verified by the President of Georgia. Tbilisi, March 14, 2008; Decree No. 5906-I.

#### 7.4. PRINCIPLE KINDS OF ACTIVITIES AT THE SECURITIES MARKET

Subject to the Law on securities market, professional activities at the securities market are:

1. Brokering; 2. Dealer's activities; 3. Securities management; 4. Reporting-clearing activities; 5. Custody activities; 6. Activities related with keeping register of the holders of securities; 7. Organization of trading of securities.

##### **BROKERING**

Brokering is implementation of civil-legislative transactions on securities on behalf and in the account of the customer.

The professional participant of securities market, being engaged in the activities, is called Broker. Brokering is subject to licensing. Board of Securities issues licenses of three kinds:

License brokering on operations with securities with the resources of legal entities;

License brokering on operations with securities at the expense of individuals;

License brokering on operations related with state and municipal securities.

The broker performs his/her activities on the basis of brokerage service agreement concluded with the customer.

For investment into the securities, cash resources of the customers issued to the brokers, as well as cash resources made from the transactions shall remain in credit organization, at the separate bank account(s) opened by the broker.

##### **KINDS OF ACCOUNTS**

There are accounts of following kinds:

**Cash account** allowing customer implement operations related with securities within the bounds of resources existed at his/her account. The said circumstance conditions minimal amount of the risk related with cashing of securities.

**Marginal account** allows the customer receive credit from brokerage company for purchasing securities. Broker is eligible to lend to the customer cash resources or securities for concluding

transactions, with the condition of giving the customer guaranty for the purpose of sale and purchase of securities (marginal transactions are those implemented with the cash resources or securities lent by the broker).

Securities shall be marketable by the organizers of trading at the securities market, and to be involved in the quotation list. To provide obligations of the customer, taken securities are subject to revaluation upon issuance of loan by the broker. Size of interest on guaranty or loan is determined with the agreement on brokerage service. Size of the credit shall not be more than 50% of the transaction sum. Upon conclusion of securities sale and purchase agreement, by using the credit the securities themselves are left with the broker for guaranty, for provision of payments made by him/her; before repayment, when the customer returns sum of the loan in total amount, securities are transferred to his/her account. If cash resources or/and securities are not returned within determined term or if no interests are made within the said period, also in case, when size of guaranty is less than the sum of the loan, the broker is eligible to demand a reckoning of cash resources and securities (issued for the purpose of guaranty) not through court, i.e. to transfer securities to his/her own account or sell them for repayment of the loan.

The broker is assigned to keep records of cash resources of customers placed at the special brokerage account(s), and he/she is accountable to the customers. Agreement on brokerage service may foresee the obligation for storage of cash resources intended for investments in securities (or accepted after selling of securities). The Broker is eligible to use above resources with the terms and conditions of the Agreement until returning by the customer. Part of profit, made from using of the said resources and left under disposal of the broker, shall be transferred to the customer, according to the Agreement.

The brokers are members or representatives of the stock exchange, whose obligations include fulfillment of the customers'-investors' orders on conclusion of stock-exchange transactions, through finding counter agents. Task of the broker is protection of the interests of his/her customers in performance of every procedure related with registration and conclusion of transactions, customers' information about their transactions and operations at their accounts.

#### **AGREEMENT OF THE BROKER AND CUSTOMER**

Starting point to the relation between broker and customer is conclusion of agreement on brokerage services. After signing such agreement with the customer, the broker becomes liable to transfer so-called assignment (order) to the operations hall for conclusion of transaction.

Upon occurrence of the necessity (desire) to sell or buy securities, the customer submits application to the broker. **The Application is the document showing every condition: requisites of the customer, kinds and amount of purchased or sold securities, term for implementing the Application.** After accepting the customer's order, the broker fills special blank-order, usually including following information: name of the asset, amount of lots or securities to be sold or purchased, **stock exchange**, where assets are quoted; kind of transaction; price of the transaction to be concluded; customer's name and his/her account number, and the date of the decree; period, during which the decree remains in force.

There are different kinds of orders. According to **the price of implementing transaction**, they distinguish: market order, limited order (the order with limited terms and conditions) and stop-order.

### **MARKET ORDER**

**Market order** (the order per market) allows the broker select independently possible best price of transaction. The customer stipulates amount of securities required to him/her, together with the kind of transaction and the price is not limited, or he/she stipulates fixed amount of cash resources, within the bounds of which the broker is eligible to implement operations. Market order is in force only during the day of its issuance. The transaction shall be implemented as soon as the order reaches trading hall, for relatively advantageous current price. Before opening of the stock exchange, the broker is eligible to implement the application in total with the rate of the first quotation. As for the applications, entering the stock exchange during the sessions – for the price to be considered by taking into account market opportunities from the moment of their entering. In such case, the customer is interested in the speed of implementation of transaction and not its price. Positive side (advantage) of the market order is the warranty of its implementation. As the broker in the trading hall is liable to implement the order immediately, its disadvantage is that the price of transaction may not be advantageous and desired, especially for non-liquid markets.

### **LIMITED ORDER**

**Limited order determines** particular sale and purchase price for the broker, or more favorable price for the customer (selling not for the lower price, than... purchasing not for higher price, than...). Herewith, limited order on purchasing is implemented for stipulated or lower price. As for the limited order for selling – there shall be stipulation of higher price. Principle advantage of the limited order is that the customer determines maximal favorable price (sale or purchase) to

him/her and he/she is in no more need for having permanent contact with the broker for taking information about outcomes of transaction. Its disadvantage is in the fact that there is no warranty for rapid implementation of the customer's order, as it requires the price stipulated in the order to be approved at the market. If at the moment of accepting the order, there are no quotations at the market stipulated in it, in the book of the order limit the order enters after all other orders. After determining stipulated rate, the order will be accepted for implementation, though after all other orders entered in the book earlier.

Interim order between market and limited orders is the order "**market order, if the market reaches the price of the order**". This is the order about implementation of the transaction in the best price, when the market reaches the price stipulated by the customer. The order on purchasing, in such case includes lower price for the current stock-exchange quotation. Order on purchasing is transferred into the market order on purchase, if the price of asset is lower than the price order. Such order on selling is higher than the price of current quotation of the stock exchange. Consequently, it turns into the market order for selling when the price equals or becomes more than the order price. Implementation of the order takes place immediately or with the following quotation.

The order is of market, if the market reaches the price of the order. Such limited and market orders, **as limited order**, before determining stipulated level of prices, are not implemented; moreover, if there is no level of prices stipulated at the market, the order will not be implemented; though, different from the limited order, the said order becomes of market after determining stipulated price and it shall be implemented by not compulsory to be implemented in terms.

### **STOP-ORDER**

Stop-order (limited order) fixes and specifies the price of conclusion of the transaction. With this order the customer determines minimal level of the price acceptable to the customer in term of selling and maximal – when purchasing. There are two kinds of the stop-order, or, as it is often called, "the order with limited loss":

the order, implemented in case if the rate of shares is fallen below the price determined by the customer (stop-price). In such case, it is principle to the customer to reduce approximate accepted loss or protect part of the possible profit;

order of the person implementing short selling for the purpose of reducing loss, if the price of shares begins to grow. This is the order in market price about sale and purchase, when the market

reaches stipulated price. Different from the limited order, stop-order include higher price on current stock exchange quotation, and the stop-order on selling – price lower than the current stock exchange quotation.

Stop-order is different from the order “market, if the market reaches order price”, in relation with current market prices. Stop-order on purchasing is completed in higher prices on current market price. Stop-orders on selling on current prices in lower prices, and under the conditions of the order “market, if the market reaches order price” – this takes place vice-versa.

Besides the fact that simple stop-order may be implemented not for the price stipulated in the order, it may be implemented for any following price, in case of equality between market price and that stipulated in the order. Stipulated price is not warranted to the customer. Depending to the conduct of the market, the price may be lower or higher of the stop-price. The customer is only warranted for implementation of the order for the best price after reaching the stipulated level.

Stop-orders are often used by the specialists of technical analyzes for opening new positions, when they consider exchange quotation to enter into the stage of supporting and opposing price levels.

#### **ORDERS PER VALIDITY PERIOD**

#### **OF TRADE ASSIGNMENTS**

According to the validity period of trade assignments, there are orders of following kind, with the validation period of one day, validation period of one week, and until implementation or expiration of time (open order); the order till opening or closing.

**One-day order** – is valid during one day from its entering to the stock exchange or in the part of the trade section, which remains from the moment of accepting the broker until its completion. The orders, which are subject to implementation during a day and those without stipulation of the term of implementation, are deemed to be the one-day orders, of not otherwise stipulated by the customer.

**Open order (“before cancellation”)** – is valid until implementation or amendment by the customer, or until expiration of the agreement. Such orders are seldom used, when they determine future movement of the rate in advance. Validity period of such orders is 30, 60, 90 days. They may be extended according to the customer’s desire.

**Order “upon closure”** – enters into force any time of the day, but it is implemented in the moment of closing the stock exchange; so close to the time of closure, as possible subject to the terms and conditions of transaction.

**Order “upon opening”** – enters into force in the system of stock exchange trading from after several minutes from opening the stock exchange, until determined time. If the transaction is termed, ordinarily the application remains in force until liquidation of the transaction, if participant of the transaction doesn't reduce validity period of his/her application with earlier date.

**According to the particular ordinance** (i.e. according to special requisites) they separate following: order: “related with own choice”, “best order”; order: “to be fulfilled as possible”, “others to be changed”, and “to be implemented or amended”; order: “neither decrease, nor increase”; order: “or-or”; order: “by switching” (from the beginning... and later); order: “everything or nothing”; order: “received in any form”; order: “paying attention”.

**Order with own choice** – authorizes broker to purchase particular securities, with fixed sum, at his/her own discretion and to sell particular securities according to his/her discretion. This order is used when there are long term and reliable relations between broker and customer. The customer is based on the high qualification and impeccable reputation of the broker, as well as knowledge of conjuncture of equity market.

**Discrete order** releases broker in selection of securities. Within the framework of their amount, direction of transactions, prices of performance and selection of time. For example, the broker may be allowed to purchase securities for higher or lower price than the rate, stipulated in the order, but with the diapason determined by the customer.

**“Related (bound) order”** allows broker implement numbers of transactions in relation with sale and purchase of securities, within the bounds of stock exchange session. In particular cases, the customer determines distinction between sale and purchase rates.

**“Order “the broker to act at his/her discretion”** (or “better”) – gives the broker freedom according to time, when to buy and when to sell. The order shows desired level of rate, but the broker may wait for the implementation of the order, if he/she considers transactions may be concluded in food price. This order requires written verification from the customer; it may be issued on one day, week, month or until amendment.

**Order: “to be performed as possible, others to be cancelled”** – to be fulfilled immediately or entirely, or partially. And unfulfilled part is cancelled. The broker is liable to fulfill order



immediately after receiving for stipulated or better price. If it is impossible, he cancels the order and notifies the customer about it, stipulating final quotation. If the broker is able to implement only part of the order, he/she does this and notifies the customer about non-fulfillment of remaining part of the order. According to the situation, the broker cancels the order entirely or partially and notifies the customer about final quotation. Given order allows the customer determine time of its performance. For example: “30 minutes, to be fulfilled or cancelled”, this means that if the broker is unable to fulfill the order in 30 minutes, the order will be deemed to be cancelled.

**Order: “to be fulfilled or cancelled”** – the strictest form of above orders is the one fulfilled entirely and immediately. In other case, it is cancelled.

**Order: “to be performed immediately or cancelled”** means that the part of the order to be implemented is fulfilled immediately, and remaining is cancelled.

**Order: “not to reduce”** includes stipulation about the fact that restrictions, conditions of orders shall be performed perfectly.

**Order: “not to increase”** restricted order on purchase; stop-order on selling or stop-limited order on selling, which shall not be more than the sum of shares purchased without dividends.

**Combined order** (the order “or... or...”) includes two orders issued on particular time and depending on each other. Combined orders may be of two kinds, alternative and conditioned (“one replaces another”). Performance of one order conditions cancellation of another (alternative order); sometimes performance of one order depends on performance of another order; i.e. one is implemented from orders, if another is performed. Purchasing or selling of one asset with limited price, depends on the rate of another asset.

**Order: “switching”** means that profit made from one selling of securities, may be used for purchasing of other securities.

**Order: “initially... and later...”** means purchasing and selling of securities, which is binding to the broker. “First purchasing and than selling” of securities or first buying and than purchasing. For example, the customer may desire first to sell them, to have cash reserve for trading with securities and than perform purchasing.

**Order: “everything or nothing”** (order “only in total”) means that the broker shall purchase or sell all shares stipulated in the order, until the customer gives consent for performance of the application. The Order shall be performed in full.

**Order: “received in any form”** means consent for purchasing maximally all shares of any amount ordered by the customer.

**Order: “show attention”** gives orienteer to the broker regarding importance of implementation of transaction on every order transferred to him/her.

#### **Orders with dependence on the amount of securities**

According to the amount stipulated in the application of securities, they separate orders on purchasing units of standard and non-standard securities.

**In the order on purchasing standard unit of securities**, the size of transaction in lots is stipulated. At the stock exchange, they accepted volume of lots in the amount of 100 shares.

**In the order on purchasing non-standard securities** – there is transaction size in incomplete lots. Incomplete lot is any amount of shares, less than the transaction unit (for example, 90 shares and not 100).

**Kind of market and limited orders is staged order.** It means purchasing or selling two or more lots of one asset per stipulated price intervals. Given order appoints the broker to purchase additional amount of securities after their initial purchase or selling, but changing prices with particular size. First part of this order is limited – stop-price for the determined price, and another and others – for limited or stop-prices.

**Contingent order** foreseeing purchasing of one share at the same time and selling other shares; this order may be understood as market spread and proportion (for example, to purchase 100 unified shares and sell 200 others).

The broker shall implement customers' order in due diligence and, as a rule, in sequence of their incomes. Every decree is performed with the method determined for trading at every stock exchange within particular period of time; they consider agreement to be fulfilled by concluding agreement by transferring official notice to the client regarding conclusion of transaction. Task of the broker is to have customers, including distributors and purchasers of securities, who own temporarily free cash resources.

Each transaction is calculated by broker at the special book, from which the customer can receive extract any time.

Transactions implemented by broker at the assignment of the customer, in every case are subject to the priority performance in terms of placement of the issued securities, which is foreseen with the agreement.

The brokers may buy and sell securities with the assignment of managing companies of project investment funds, as well as those of state pension funds, mutual insurance companies, insurance companies and credit unions. As a rule, the customer reimburses to the broker against expenses related with realization of securities, advertisement expenses, saving, protection, investment analyze, post-telegraph costs, etc.

Except operations related with securities, brokers (brokerage offices) render information and consulting services. Broker may issue information about conjuncture of securities market, as well as demand and distribution of different kinds of securities; provide consulting services regarding different stock operations, and conclusion of agreements and transactions.

The broker makes principle income at the expense of commission fees, which is taken in the form of contractual interest from total sum of transaction.

### **DEALER'S ACTIVITIES**

**Dealer's activities** –implementation of transactions of sale and purchase of securities on own name and own account, with public announcement of selling (or purchasing) by announcing prices. This procedure is completed by necessary purchasing (or selling) said securities for the announced prices. Except prices, the dealer is eligible to declare other essential conditions of the agreement of sale and purchase of securities: minimal and maximal amount of purchased or purchased securities, as well as terms, in which declared prices work. When there are no other essential terms and conditions stipulated in the application, the dealer is liable to conclude agreement by considering essential conditions, offered by customer.

Dealer activities are licensed. Agency of Financial Monitoring separates following kinds of licenses:

Licensing on implementation of dealer activities on the operations related with securities of the corporation;

Licensing on implementation of dealer activities, related with non-marketing securities.

Dealer activities may be conformed to the broker activities.

The dealer has undisputed priorities compared with its customers. Due to this, the dealer is liable:

To implement transactions on sale and purchase of securities, with the assignment of the customer and the term for implementing in the first place in relation with the said (dealer) operations;

To act in compliance with the customer's interests, create best conditions to the customers in implementing transactions;

To provide the customers with entire necessary information about conditions of securities market.

### **ACTIVITIES RELATED WITH MANAGEMENT OF SECURITIES**

**Activities related with management of securities** is entrusted management of property implemented by legal entity or individual entrepreneur with own name and in exchange for particular fee, transferred in temporary ownership and owed by other person, in accordance with the interests of third parties stipulated by the said person.

This kind of activities is implemented by professional participant of securities market, which is known and called entrusted manager.

The license is not required if the entrusted management is related with implementation of rights related with securities implemented by the manager.

Entrusted management object at the securities market may be securities, cash resources intended for investment in the securities, and cash resources and securities accepted in the process of management of securities.

**Entrusted manager (trust companies)** this is commercial organization providing management of the customer's property and rendering other services, subject to the assignment of customer and interests with the right of a proxy, holding license on implementing trust management activities of the property.

In the world practice, they separate two models – English and Continental. English model means that every subject of trust – founder (owner), the person receiving profit and manager with particular size and amount own authority of the owner. In the model of continental model in terms of transferring property no changing of owner takes place, and entrusted manager, taking the property, undertakes management of obligation, subject to the interests of the founder.

Inter-relation between trust company and client begins from the moment of signing agreement of entrusted management and for particular period of time. The agreement is the ground to transferring of securities for management. In the agreement of entrusted management there is following information: content of property transferred for management; name of the person, in favor to which the management is provided, size and form of reimbursement of the manager;

term of entrusted agreement the person using the rights, related with management of securities (voting right).

In favor of the founder of trust or the person stipulated by the latest for implementation of management (receiver of profit), the entrusted manager provides balance-free reporting of customer, on which the securities and cash resources of the customer are recorded. In terms of implementing activities by the manager, this latest is liable to show that he/she acts as manager. Due to this, receiving financial assets in management, entrusted manager signs transaction on sale and purchase of securities, on his/her behalf, but with the marking “entrusted manager”.

Entrusted manager is liable to the founder of management (user of profit) and in case of occurrence of loss, he/she shall reimburse it to the founder of management, and to the user of profit in accordance with the civil law. Principle importance to the managing companies and their activities at the securities market exists in the fact that they provide:

Better outcomes of management of financial assets of customers than those made by means of own professionalism;

Relatively low expenditures on operations at the securities market, at the expense of scales of activities;

Relatively high norm of profit according to the professionalism and scales of activities;

Effectiveness of operations by means of working simultaneously at the markets of several countries<sup>73</sup>.

#### **ACTIVITIES ACCORDING TO DETERMINATION OF RECIPROCAL OBLIGATIONS**

**Activities by determining reciprocal obligations (clearing)** i.e. clearing activity – this is the activity for the purpose of determining reciprocal obligations (collecting comparing and correction of information regarding transactions related with securities and preparing accounting documents) and their inclusion per distribution of securities, as well as reporting regarding concluded transactions.

Clearing activity may be implemented in two ways: private clearing and centralized clearing. Private clearing is implemented by brokers, dealers and managers and considers recording mutual obligations without participation of the third party. For implementation of private clearing, special

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<sup>73</sup> **Balabanov I. T.**, 2000. Elements of Financial Management. Study Guide; 3<sup>rd</sup> publishing. M.: Finansi I statistika, pg. 414-424, 431-437, 449-458. Elements of insurance activities, under edition of **T.F. Fedorova**. M.: BEK, 2001.

license is not required, intermediaries act on the basis of these licenses, which are owned by them according to their principle activities.

Centralized clearing is implemented by specialized clearing organizations and it considered determination of mutual obligations with participation of more than two parties. For implementation of centralized clearing, the company is necessary to have respective specialized license.

Organizations, implementing clearing activities, ordinarily exist in the same legal form, as commercial banks, but often in the form of closed commercial banks. Clearing organization may serve one particular stock exchange or several stock exchanges and securities market at the same time.

Each clearing organization is liable to process and approve procedures of their clearing activities, to register them and, if required, to make amendments to them.

Relation between the organization and clearing participants is regulated with the agreement, where rights of clearing organizations are determined, as well as its responsibilities, the list of services to be rendered, the procedure of processing information, activities providing confidential information, as well as penalty sanctions in case of default.

Clearing organization undertakes obligation to oblige itself obligations of participants of clearing and receives the right of demanding instead of them, i.e. it becomes purchaser of securities for separate seller and separate purchaser of sellers of securities.

Conclusion of equity transactions, implemented by the members of the stock exchange on the basis of orders of their customers, being the grounds to clearing functioning, including following stages:

**1. Conformity of transaction conditions** – the essence of this type includes combination of documents represented by the parties, who conclude transaction regarding sale and purchase of securities. Combination means comparing parameters of implemented operations, according to the prices and other essential conditions. If in terms of monitoring inconformity occurs, specification and correction of transaction parameters takes place.

**2. Transaction registration** – the procedures of registering and recording equity transactions are determined by the stock exchange. In the first place, the stock exchange approves typical forms of equity agreements (usually, in the form of attachments of the trade rules). Same rules include instructions about time of assessment of these forms and the officials of the stock

exchange participating in the procedure, as well as about rules of registration. Transactions related with securities are subject to registration. Registration is provided on the basis of agreement or other document, confirming conclusion of transaction in special accounting registers. In the agreement concluded with the registration body respective notice is made about place and date of registration, which is confirmed by the registrar's signature and seal of registration body. Serial registration number is stipulated here. After registration of transaction, new holder of securities or his/her representative is liable to notify the issuer about the fact of signing the transaction and holding of securities within the terms not later than 30 days before official declaration of payment.

**3. The information about confirmation of signed transactions, about transactions concluded by the members of the stock exchange** is distributed by electronic trade system through information agencies, with which the stock exchange has concluded agreement. The members are liable to provide their customers information about transactions concluded in timely manner.

**4. Determining mutual liabilities.** The essence of this stage exists in the fact of determining number and kinds of purchased (sold securities) securities, amount of payment on securities, as well as commissions to the stock exchange, accounting chamber, brokers, etc.

**5. Implementation of diversified exams,** at this stage clearing chamber provides transactions and determines the size of demands and obligations for each participant.

**6. Distribution of securities to the sellers** and transfer of cash resources to the purchasers for implementation of transactions.

**7. Transfer of cash resources to the sellers** for distribution of securities.

**8. Preparing ordinances to be transferred to the depositories** or owners of registers about withdrawal of securities from the seller's account and their accrual to the purchaser's account.

**9. Accepting by the purchaser the extract from the register** or escrow-account, regarding securities held by him/her.

Clearing chamber, implementing settlement in accordance with the transactions on securities, is liable to form special funds to reduce the risks for default related with the transactions on securities. Resources of creating these funds may be securities and cash resources of participants of clearing. Minimal amount of funds is approved by the commission of securities on the basis of agreement with the central bank.

Clearing chamber monitors implementation of obligations according to the concluded transactions, managing systemic risks arising in the process of implementation of obligations per transactions (distribution of securities and transfer of cash resources). Clearing activities may not be conformed to the professional activities of other kind at the securities market, except activities of trade organizer or depositor.

### **CUSTODY BUSINESS**

Custody business – this is the service on storing certificates of securities, registration of securities and transfer of rights on them, which are issued in the documentary and non-documental forms.

Implementation of depository activities may be performed only by legal entities on the basis of license, which are the members of self-regulating organization of the professional participants of securities market. Professional participant of securities market being engaged in the custody business at the securities market, is called depositor. The depositor is liable to approve custody activities implemented by him/her, making integral part for conclusion of depository agreement. Function of the depositor may be performed by commercial banks and specialized depositories, to which is the infrastructure of securities market, to which custody business is of special importance.

Custody business is regulated with the law on securities market, and implemented on the basis of activities at the securities market and procedures of licensing. Depository is special self-regulating organization, which is the infrastructure of securities market, being obliged to support normal functioning of market and its liquidity.

The person, using service of the depository in direction of storing, accounting and transferring rights on securities, are called **deponents**. Agreement between the deponent and depositor regulating their relations in the field of custody business is called depository agreement (the agreement on escrow agreement), which shall be concluded in writing. There shall be information about subject of the agreement, its validity term, the procedures of transferring information to the depository by the deponent regarding disposition of securities deposited into the depository, amount and procedure of reimbursement of service of depository and the form and periodicity of reporting to the deponent by the depository, obligations of depositors, etc in the Agreement. To every deponent, the depository opens safekeeping account, on which securities of the deponent are registered and their movement are monitored.



Depository agreement doesn't foresee transfer of the ownership right on the securities of deponent on the depository. The depositor is illegible to manage securities of deponent, to manage them or implement any business related with securities on behalf of the deponent, except actions implemented assignment of deponents, which are considered with the agreement. The depository carries civil-legal obligation on maintenance of the certificates of securities, as well as implementation of their obligations on recording rights on securities, correctness and perfectness of records on securities, in order to transfer it to the account of the deponent.

#### **OBLIGATIONS OF DEPOSITOR**

Obligations of depositor includes:

Storage of certificates on securities, if securities are issued in the form of documents. Storage of securities in the depository may be provided in two forms: collective and generalized.

Registration of the facts of pledging securities of deponent (lease, resource provision, etc.)

Separate from safekeeping account of the deponent, by showing date and specifications of operation.

Transferring entire information regarding securities to the deponent, obtained by the depository from the issuer or keepers of register of holders of securities from the issuers.

Verification of certificates of securities from the point of reliability and authenticity.

Collection and verification of securities.

Implementation of the role of mediator between issuer and investor.

The depositor is eligible to be registered in the system of keeping register of holders of securities in or in accordance with the depository agreement in the form of the nominal holder of other depositories. He/she is also eligible to invite them for implementation of obligations on the basis of agreement with other depositories from the point of keeping register of the rights of deponents (i.e. to become deponents of other depositories or to receive other depositories for the deponent). If this is not directly prohibited, with depository agreement, if the deponent of one bailor is the depository, depository agreement between them shall foresee the procedure of receipt, subject to the legislation; as well as the information about holding securities, which are registered with bailor-deponents, as well as his/her bailor-deponent.

The bailor undertakes obligation on performance of his/her liabilities, including completeness and reliability of records in the safekeeping account, as well as maintenance of certificates of securities deposited to them.

Custody business may be conformed to the professional activities of other kinds at the securities market; namely clearing activities and that of organization of trading of securities. Such organizations are called settlement depository organizations, or depository-clearing companies. Existence of the bailor serving one stock exchange, makes it possible to accelerate transactions.

Under modern conditions, bailor's institute is quite strongly developed. Role of the bailor is increased by forming new project funds. Their activities are specially regulated.

#### **ACTIVITIES ACCORDING TO KEEPING REGISTER OF THE HOLDERS OF SECURITIES**

This is collection of data, their fixation, processing, storing and submission, making the system of keeping register of holders of securities. The Register is kept only with the nominated securities for the purpose of identification of the holders of securities. The system of keeping register on securities of ordinary type is not applied.

The persons engaged in these activities are called holders of the register (registrars). Function of registrar may be performed by the joint stock company (issuer) or another company (if the number of holders of securities is more than 500 persons, 100 shareholders in Georgia), professional in the issue of keeping register (this may be bank, specialized registrar i.e. legal entity). There is demand in legislation for the number of customers: it shall not be less than 25 for more than 500 per each issuer. The registrar may keep register of holders of securities with unlimited number of issuers.

If needed (i.e. number of holders of securities is more than 500) – the issuer concludes agreement with the registrar about keeping register of the holders of securities. The agreement about keeping register is concluded only with one legal entity.

Keeping register of holders of securities is the totality of data, fixed by using electronic database. It provides identification of holders of securities fixed in the register and registration of their rights in relation with the securities, which are registered on their names and making it possible to collect and send information about the stipulated persons and conclude the register of securities.

The system of keeping register makes totality of internal accounting documents, namely: personal accounts of holders of securities, personal accounts of lease holders; registering securities given in the balance of the joint stock company and regarding repurchasing, purchasing and covering operations on securities; issuing certificates of securities and the book of repayment; recoding documents, making grounds to the changes to be included in the register;

registration of questions of registered entities and answering them, registering incomes accrued on securities (dividends).

On each holder of securities personal account is opened in the register, stipulating detailed information about holder, namely: name, home (post, legal address), passport data for individuals; bank requisites for legal entities; number and kinds of securities and their data, help keeper of register to determine holder of securities and inform him/her in timely manner with the date of conducting general meeting of shareholders, accruing dividends, etc; on the basis of data existed on personal account, and demand of the registrar customer to issue the extract about status of its account.

Task of the registrar is opportune and unmistakable provision of the register of holders of securities to the issue; the Register is the list of every registered person of the amount, nominal price and categories of securities held by them. Together with the principle functions, is also performs **additional functions**, namely:

He/she is responsible for issuing certificates of securities and their monitoring;

Signing blocking of securities, related with the pledge, lease and other operations;

Playing the role of the agent of issuer (if the role of registrar is played by the bank), etc.

The registrar **is eligible** to delegate part of his/her functions (collecting information, included in keeping the system of register) with other registrar, but transfer of functions do not release the registrar from the responsibility to the issuer. It is prohibited to conform activities for keeping register with other activities.

Its customers reimburse every service rendered by the keeper of register. Size of legislations is limited. Commission of securities provides control on the activities of registrars through analyzing their quarterly reporting.

#### **ACTIVITIES IN DIRECTION TO TRADING AT SECURITIES MARKET**

This is the service, supporting conclusion of civil-legislative transaction between participants of securities market. For the purpose of transparency and liquidity of turnover of securities, and their sale and purchase is provided in organized manner on the basis of different rules and provisions. Purpose of organization activities is:

Creation viable trade mechanism throughout the country and providing their functioning;

Protection of the interests of investor;

Distribution of exact information to the issuers regarding turnover of own securities;

Protection of the principle of publicity in favor of the society and development free competition in the country.

For the purpose of organization of securities turnover, there is self-regulated organization “stock exchange”, which is considered to be secondary market of securities. Stock exchange is liable:

To hold determined own capital;

To provide organization of public trading of securities, in accordance of equity procedures;

To accumulate information about sale and purchase of securities;

To distribute public information about marketplace trading of securities;

To process rules and principles of marketplace trading;

To provide implementation and protection of procedures and principles processed by it;

To keep register of authorized persons of its members;

To be subject to external audit once a year.

### **STOCK EXCHANGE**

**Stock exchange** is an organized, regularly functioning, centralized market, with the selection procedures of fixed trade place, securities and market operators, responding to the particular demands. It is characterized with the term regulation and standard trade procedures of securities market, registration of transactions and centralization of settlement according to them, by determining official (stock exchange) quotation. Stock exchange is non-commercial enterprise, working on the basis of license. The procedure of issuing this license is determined with the provision about licensing marketplace trading. Herewith, stock exchange shall be based, managed and cancelled in the way foreseen with Georgian Law on entrepreneurs.

Stock exchange provides monitoring of members of stock exchange, rendering reporting and information service, giving particular warranties and receiving commissions from transactions, making his/her source of income.

Stock exchange provides organization of trading only between members of the stock exchange. Other participants of securities market may implement operations at the stock exchange only with mediation of the members of stock exchange. Member of this latest may be any professional participant of securities market, officially purchasing place at the stock exchange.

The procedures of becoming member of stock exchange, leaving it, being excluded from membership are determined independently by the stock exchange itself, on the basis of number of

their members. Following are prohibited: unequal conditions of the members, temporary membership, leasing places at stock exchange or their leasing to the persons, who are not the members of stock exchange.

Stock exchange concludes independently inclusion of securities into the list, which are allowed to circulation at the given stock exchange. Allowing securities of issuer on trading of stock exchange by means of their inclusion into the quotation document and the control and conformity of financial status and its conformity to the requirement of stock exchange are called **Listing**. Each stock exchange approves provision of securities in the listing and delisting.

Stock exchange shall provide publicity of provided trading, distributing information about rules of organization of trading with securities, the list and quotation of securities, which are allowing to turnover at the stock exchange, and outcomes of trading sessions. The stock exchange, as self-regulated organization, shall provide its expenditures with own incomes, which are created with the following activities:

- Membership fees, paid by the members of stock exchange in terms of purchasing place;

- Commission fees, paid by the members of the stock exchange from the incomes made through trading;

- Listing fees, paid by issues in terms of listing and after that they are periodically to pay respective membership fee for the granted category;

- Income made from investments, etc.

The stock exchange is liable to pay taxes foreseen with the tax code to the state budget. After repayment of taxes and other obligations, remaining profit moves to full disposal of the stock exchange and it is not subject to the distribution of kinds of dividends.

Expenditures of the bureau (which, in its turn, is divided into operation and non-operational expenditures) include:

- Salary expenses;

- Lease;

- Communication expenses;

- Depreciation and tax expenses;

- Telephone service costs;

- Costs of investments, etc.

Only organizer of trading at securities market, which doesn't conform trade organization activities with other kinds of activities may be recognized to be the stock exchange.

### **TRADING SYSTEM**

**Trading system** is totality of technical, technological and organization resources, allowing conclusion of transactions on securities and to conform their parameters.

Trade system is the totality of trading rules and technical and software devices, providing conclusion of transactions on securities and storing, processing and opening of information, which is necessary for implementation of the said transaction.

Principle task of trading system is provision of reliable implementation of transactions, maximal automation of trading process, protection of customer's interest, keeping information confidential, by using the mechanisms of preliminary depositing of securities and cash resources, creation of comfortable conditions for intermediaries of marketplace trading, for the purpose of effective implementation of trading. Trading system of the Bureau includes server center with administrator, information agency, distant terminals and operation halls.

In the trade system of stock exchange terminals of brokerage, companies are included, with the help of which the brokers implement trading with securities.

They allow members of stock exchange into the trade system after payment of every fee and payment determined by the stock exchange itself.

They allow to the trading system securities of issuers, having prospect of emission on issuance of the said securities. Rate of securities undergoing listing securities in the trade system is much higher than the rate of those, which do not undergo listing (growth of the rate is conditioned at the expenses of passing listing).

Trade system of stock exchange is being improved day by day at the expense of development of technological innovations and technology of trading at the stock exchange becomes simpler with protection of rules. Computer system is a unique means for functioning of trading system of the stock exchange.

It is absolutely unexpected to develop trading of securities by means of internet network, as FOREX, i.e. international monetary exchange, supporting liquidity of different countries.

Development of trade technologies in relation with securities and providing respective settlement assist development of exchange and over-the-counter markets, using of internet trader creates opportunities to both markets.

## CHAPTER 8. SECURITIES AND THEIR KINDS

### 8.1. THE ESSENCE AND KINDS OF SECURITIES

Another component of Securities Market is **Market object** – different kinds of securities.

Securities are monetary documents confirming own rights on capital or relation of the document with the person issuing such document (issuer).

Security is the form of existence of capital, which are different from their commodity, industrial and/or monetary forms. It may be issued as capital, circulating at the market as commodity and making profit.

#### **FUNCTIONS OF SECURITIES**

Securities, market objects, perform numbers of functions; they are:

Mobilization of cash savings of people and temporarily free cash resources of organization for funding budgetary expenses;

Regulating cash turnover;

Being the source of investments for creation of new enterprises and development of already existed ones;

Acting as the credit-settlement instrument;

Distributing cash resources between fields and sectors of economy, between territories and countries, between groups and layers of population, and between population and government;

Acting as document confirming investment of resources;

Granting right on capital;

Granting additional right (except right on capital), such as: the right of participation in management (if security is ordinary share), the right on respective information;

Providing making income on capital or returning the capital itself.

The concept of securities is multifaceted concept. It may be considered from economical and legal points of view. In the law on securities, there is legal explanation of security, as document, confirming protection of determined form of material right and compulsory requisites, which may be implemented or transferred only upon its submission.

**As legal category**, securities determine following rights: the right of holding securities; confirming material and compulsory rights; right of management, and confirming transferring or acceptance of property.

## SECURITY AS ECONOMICAL CATEGORY

As any **economical category**, securities have following characteristics: interim, spatial, and marketing. Interim characteristics include the term and origin of existing securities; spatial characteristics include form of existence, national affiliation, and territorial affiliation. Market characteristics include form of ownership, form of issuance, form of ownership and kind of issuer, the form of resource investment, turnover degree and risk level of investment, the form of paying income, etc.

Herewith, securities have numbers of features – it may be exchanged into money in different ways (sale and purchase, covering, returning to the issuer, repeated concession, etc); it may be uses in terms of settlement, being subject of pledge; it may be stored during multiple years or to be permanent, it may be inherited, etc.

Economical relations expressed in securities are very complex; they are permanently developed and exchanges. This is how difference of securities is explained. This supports formation of securities of new kind.

Securities include: state bond, corporate bond, cheque, promissory note, deposit and saving certificate, consignment, share, saving book to bearer, privatization securities, other documents belonging to securities according to the laws of securities. Some securities (options, versions, housing certificates, investment shares, etc) enter into circulation with other legislative and regulatory acts.

## CRITERIA OF CLASSIFICATION OF SECURITIES

Diversity of securities determines abundance of criteria of its classification (Figure 8.1.).

1) **In global practice, securities** are divided into two large class according to their origination: real securities and derived securities.

**Real** – are securities based on the material right on particular asset (commodity, money, capital, property, resources, etc.). Real securities may be divided into primary and secondary securities. Primary securities are based on the shares, which do not include the securities themselves (shares, bonds, promissory notes, security sheet, etc.), secondary securities are the ones issued on the basis of primary securities.

**Derived securities** are forms (obligations) without document related with changing of prices of basic assets; i.e. the share being ground to the given security. These are securities on particular security: commodity price (corn, meat, oil, etc); credit market price (interest rate); currency market



prices (currency rates), prices on real securities (indexes of shares, bonds), etc. Derived securities include future contracts and freely circulating options.

CLASSIFICATION MARKS	TUPES OF SECURUTUES
<b>TIME FEATURES</b>	
Origin	Real Produced
Times of existence	Fixed-term Termless
<b>SPATIAL CHARACTERISTICS:</b>	
Form of existence	Documentary (paper) Without document (without a document)
National origin	Patriotic Foreing
Territorial proferty	Country, region, city
<b>MARKET CHARACTERISTICS:</b>	
The tupe of asset, which is based on securities	Monetary, commodity, uniform assets of the firm
Rule of ownership	Nominative, order, bearer
Release Firm	Emission, non-emission (individual)
The Issuer	State, non-state
Character of circulation	Circulations - market, non-market, limited opportunities for
Economic essence (the form of the right)	Share, bond, bill, depozit (saving) certificates, bill of lading, warrant, option, etc.
Risk level	risky, small risky, without risk
Income existence	Profitable, without profit
Income form	Percentage, discounted
Form of deposit fuds	Debenture, equity
Release goal	Commercial, boutse
Exchange opportunity	Convertible, non-convertible
Form of deposit fuds	Debenture, ownef equity
Form of use	Investment Non-investment

*Fig. 8.1. CLASSIFICATION OF SECURITIES*

**2. According to the form of issuance** (emission) securities may be divided into emission and non-emission securities. Emission securities are shares, bonds, and non-emission ones are promissory note, cheque, and option.

According to the Law on securities market, emission securities are the any security, including the document-free, which is characterized with following signs:

It strengthens totality of material and non-material rights, which is subject to verification, concession and unconditional implementation in accordance with the active procedure;

Placement with emission;

It is of equal volume and terms of realization of rights inside one emission according to the time of securities.

**Non-emission** (individual) security – this is the security, issued in units or small sessions.

**3. According to the rule of ownership** (depending on the realization of rights, which are improved with securities) the securities are divided into the nominal, order and bearer's securities.

**Nominal security** is the one including information about its holder. Name of the holder is fixed on its blank or in the register of holders, which may be derived in the ordinary documentary or electronic form. Transfer of rights on such securities and implementation of rights strengthened by them requires necessary identification of holder and keeping register of the holders of nominal securities.

**Order security** is the one, right of which may belong to the person stipulated in it, implementing these rights himself/herself or appointing another person with his/her order; the right on order security is transferred on such security (cheque, promissory note, consignment) by means of respective transfer caption – endorsement.

**Bearer security**– this is the security, on which there is no name of its holder. Transfer of right on it and implementation of strengthening of right with it does not require identification of its holder. Strengthened right with such security belongs to the person, representing it. No register of holders is kept with the bearer security.

**4. According to the form of emission**, securities exist in documented (in the form of separate documents) and document-free (cash free, records on accounts) forms.

Documented form of emission securities is the form during which the holder is determined with the respective procedure in terms of submission of the registered securities or in case of its depositing, on the basis of records at safekeeping account. **Document-free form** of emission

securities is the form existed in the form of records, on personal accounts with the keeper of register, or with the depository at safekeeping accounts. The record includes all necessary requisites of securities (issuer, sum, holder, interest). In terms of selling or purchasing securities, their alienation, or transferring they move with making records to the personal accounts of holders and to the safekeeping account of the depositor.

**5) According to the term of existence** securities are divided into the interim or term-free securities.

**Interim** – are the securities, having term defined of existence. There are short-term (up to one year); middle-term (1-5 years) and long-term (5-30 years). Interim securities include bonds, promissory notes and derived financial instruments. **Term-free** securities are permanently existed securities. They are restricted only with the term of the issuer's existence. Clear example to this is share.

**6) According to the purpose of issuance**, securities are divided into commercial and equity securities.

Commercial securities are those, serving turnover process and particular property transactions (bills, cheque, security documents, warehouse receipts, and consignments). Equity securities are those, which are the instruments of forming monetary funds (shares, investment shares).

**7) According to the form of investment of the holder's resources** securities are divided into loan and share securities.

**Loan** securities are those foreseeing returning of the sum of debt within term defined and payment of particular interest (bonds, promissory notes).

**Share** securities are those improving holder's right on the share of the enterprise property, in case of liquidation of the latest, it allows its holder to receive part of profit, information and participation in the management of the enterprise (shares, share certificates).

**8) According to the national affiliation**, securities may be native and foreign.

**9) According to the forms of ownership and kinds of issuers**, securities are divided into **public, municipal and non-public securities**.

**Public securities** include loan obligations issued by government, issued by it to cover deficit of state budget or provision of state programs. With the said securities, the government provides recovering of access securities from turnover field.

**Municipal securities** include loan obligations issued by local self-government bodies, provided with municipal property, or reduction of local taxes, or by cancelling tax of particular kind, depending on the amount of purchased securities. Non-public securities are represented in the form of corporate (issued by the industrial subjects) and private financial instruments (issued by individuals).

10) **According to the nature of turnover**, they distinguish following securities: market (freely circulating at the secondary market), **non-market** (only at the initial market), securities and the securities **with limited opportunities of turnover** (securities of joint stock companies of closed type). Market securities are divided into those allowed to the stock quotations and those – which are not allowed to the quotation.

11) **According to the risk level**, securities are divided into risk-free and wildcat securities. Wildcat securities in their turn are divided into high-risk, middle-risk and low-risk securities. The higher is profitableness, the higher is the risk and the lower income on securities are, the lower is the risk.

12) **According to existence of income** securities are divided into **profitable** (high profitable, average return and low profitable) and **profit-free securities**.

13) **According to the forms of incomes** they separate interest (coupon) fixed or floating rates, interest (coupon-free), discount, indexed, profitable, and premium securities. Securities may have fixed and variable incomes.

#### **INCOME MADE WITH HOLDING OF SECURITIES**

There are following rules of making income according to the securities:

**Income from management of securities** – this is the income made by selling securities for market price, which is more than nominal or initial purchasing price.

**Income made with holding securities** may be made in following ways:

fixed interest rate – income unchanged according to the level. Due to inflation and variable market conjuncture, during times unchanged income loses its attractiveness according to the levels.

Staged interest rate. Using of the staged interest rate exists in determining particular date after expiration of which, holder of the security may repay it, or leave it until coming of the following date. During every following period, interest rate is increased.

Floating rate of interest income. Floating rate of interest income is changed on regular basis (once in a quarter, once in six months), according to the dynamics of accounting rate of central bank or according to the level of profitableness of public securities, placed through auction selling.

Income by means of indexation of the nominal price and interest rate of securities. Nominal or interest rate of securities is indexed on the basis of inflation index (with consumer price index).

Income in terms of purchasing securities at the expense of discount. realization of debt obligations (bonds, certificates, etc.), with discount in relation with their nominal price.

Income in the form of profit on the loan considers calculation of profitable loans.

Dividend income on share formed at the expense of joint stock companies or other issuers of shares.

**14. According o the preterm repayment** they distinguish not requested securities, which may not be requested and recovered by the issuer before term; requested securities, which may be paid by the issuer upon occurrence of the term of repayment. Procedure of requesting shall be foreseen in the prospect of emission.

**15. According to the opportunities of exchanging** securities may be **converted and non-converted**. Converted securities are those replaced with the securities of the same issuer under the particular conditions.

**16. According to the type of using** securities are investment (capital) and non-investment.

**Investment** securities are the objects of capital investment (shares, bonds, future contracts, etc.).

**Non-investment** securities serve cash settlement at commodity and other markets (bills, cheque and consignments).

**17. According to the rights expressed on securities**, securities are divided into the ones, improving the right on participating in the joint-stock company (shares, certificates on shares); securities (bonds, promissory notes, cheque, bank certificates). Commodity securities improving material rights, namely:

1. Property right (property certificate, property sheet, purchase deed)
2. Right of security on commodity (security deed, security certificate);
3. Both together (warranty, consignment).

**18. According to the economical essence**, securities are divided into shares, bonds, promissory notes, cheque, deposits, saving certificates, consignments, options, warranties, housing certificates, investment share, etc.

Securities may be classified according to other parameters. For this purpose of classification shall be always considered.

## 8.2. OPERATIONS ON SECURITIES

At the securities market operations of different kinds are implemented only in relation with the securities themselves.

The operations on securities (equity operations) – are the actions with securities, or achievement of purposes set in relation with securities.

At the securities market, every operation may be divided into three groups:

**Emission operations** – these are operations, the essence of which exists in provision of financial resources of economical subjects' activities; i.e. it considers formation and growth of own capital, in circulation of borrowed capital or attraction of resources;

**Investment operations** – these are operations purpose of which is investment of own or attractive financial resources by the subjects of operations on own behalf into the equity assets;

**Clearing operations** (mediation) provision of obligation of the operation subject to the customer in relation with the securities or obligations related with the customer related with securities.

### CLASSIFICATION OF OPERATIONS ON SECURITIES

Classification of every operation related with securities may be represented as:

**Cash operations**, main purpose of which is making profit from implemented transactions of in the form of incomes directly from particular securities (for example: dividends from shares, interests from bonds, etc.);

**Urgent and gambling operations**, main purpose of which is making profit not directly from securities, but from changing their rate value after following selling.

Principle operations at securities market are:

Emission of securities – sequence actions of the issues prescribed by law for placement of emission securities;

Placement of securities by issuers – alienation of securities to their initial holders through conclusion of public-legislative transactions.

Sale and purchase of securities – conclusion of public-legislative transactions, accompanied with transaction of property rights of securities from one holder to another;

Registration and repeated registration of holders of securities – registration of holders of securities, monitoring changing of the composition of holders of securities;

Conversion – operations from the point of exchanging securities, directed towards accepting other rights and opportunities;

Trust – fiduciary management of securities, directed towards increasing of capital by selection of more effective versions of using securities;

Clearing – performing distribution of securities and settlement of obligations with them;

Security – protection from embezzlement and losses of other kind;

Insurance – provision of additional stability and relatively attraction of additional potential investors;

Nonrefundable distribution (gifting, inheritance) – realization of the right of inheritance, implementation of gifting’

Security – distribution of provision of security in exchange for credit;

Marketing – learning particular segment of securities market, evaluation of potential investors, diagnostics of exchange operations, risk assessment, and processing the strategy of promotion of securities market;

Split or separation – increasing number of securities;

Consolidation (uniting) – reducing the number of securities;

Accounting and audit;

Accrual of dividends and their payment in accordance with shares and paying interests in accordance with bonds;

Pricing – the process of setting pricing, taking into account valid legislative norms and determined practice of existed economical terms and conditions;

Formation and management of securities portfolio;

Assessment of investment risk;

Investment projection – processing financial policy, prognosis;

Consulting – this is professional assistance in the form of consulting and recommendation from the side of high-qualified specialists, prognosis and solving practical problems at the securities market, etc.

Relatively important operations provided at the securities market are **emission and turnover of securities. Let us discuss them in more details.**

### 8.3. RULES OF EMISSION OF SECURITIES

Issuance and turnover of securities are regulated by law on securities market and other normative acts.

As we have noted, emission of securities is the consequence of actions of the issuer, which is prescribed by law and foresees attraction of additional capital by means of securities.

**BASIC PURPOSES OF EMISSION ARE:**

Creation of the joint stock company (formation of own capital);

Attraction of borrowed capital by means of issuing debt securities;

Management of capital by means of additional issuance of securities (increasing own capital of issuer, reduction of the share of borrowed capital in entire capital);

Implementation of investment projects of the issuer, filling its turnover resources;

Financing investments in the industrial activities;

Financing absorption (industrial subjects)'

Changing structure of share capital (distribution of shares, in the first place those with voting right, among groups of shareholders) or overcoming negative trends in these changes.

Covering accounts receivable by means of transferring securities issued for creditors;

Restructuring debt of the organization according to the tax payments.

**The procedure of issuing securities includes following stages:**

Making by issuer the decision regarding placement of securities;

Approval of decisions regarding issuance (additional issuance) of securities;

State registration of issuing (additional issuance) securities;

Preparation of securities' certificates (for documentary forms of the issuance);

Placement of securities;

State registration of account regarding outcomes of issuance.

**FORMS OF ISSUING SECURITIES**

**Issuance of securities is implemented in two forms:**

In the form of closed (private) placement for the limited circle of investors, i.e. registration of issuance, but without public statement about it;

In the form of open (public) placement, for unlimited potential circle of investors.

Public placement of securities – this is the offer on behalf of the issuer; by direct or indirect selling of securities to at least 100 persons or preliminarily unspecified amount of persons.

Distinction between open and closed selling is obligatory registration of the emission prospect, opening information in the prospect of emission and in the report of outcomes of issuance. By means of which, emission of securities in terms of public placement, is filled with the following stages:



Preparation of the prospect of issuance of securities;

Registration of emission prospect;

Opening entire information, included in the prospect of emission;

Opening entire information, included in the report about outcomes of emission.

The form of placement of securities is determined in the laws of different countries – on securities market and any issuer is liable to use the said law. Initial placement of securities in Georgia takes place in the public form, which is foreseen by Law.

### **STAGES OF PROCEDURES OF EMISSION**

Let us discuss the procedure of emission in stages. We will discuss separate stages of emission of securities in more details.

**The first stage** foresees making by the issuer the decision about placement of emission securities.

Decision about issuance of securities – is given in the document, including following data:

Complete name of the issuer, his location and posting address;

The date of making decision on placement of emission securities;

Name of the authorized body of the issuer, making decision on placement of emission securities;

The date of approving the decision on issuance (additional issuance) of the emission securities;

Name of the authorized body of issuer, approving decision on issuance (additional issuance) of emission securities;

Kind, category (type) of emission securities;

The right of the holder, secured with the emission securities;

Terms and conditions of placement of emission securities;

Stipulation of the amount of the emission of securities in the given issuance (additional issuance);

Stipulation of general amount of earlier placed emission securities in the given emission (in case of placement of additional issuance of emission securities);

Stipulation about kind of emission security (nominal or/and to bearer)'

Nominal price of emission securities, in the cases, if existence of the nominal price is foreseen with law;

Signature of persons, implementing the function of executive body of issuer and the seal of issuer;

Other notices, foreseen with laws on securities.

Decision about issuance (additional issuance) of emission securities in documentary form, shall be attached with the description or sample of certificate.

**Second stage.** Approval of decision about issuance (additional issuance) of securities. Decision on issuance (additional issuance) of emission securities is approved by the board of directors or other bodies, having respective authority and subject to registration in separate protocol.

The Document is submitted in three copies to the state body of registration of securities. One copy is left at the registration body. Another one is transferred to the registrar and the third one shall be kept with the issuer.

**Third stage** – this is preparation of the prospect of issuing securities. State registration of issuance (repeated issuance) of emission securities is provided together with the prospect of emission in the following cases: if number of founders is more than 500 persons or nominal price of emission among founders is more than 50000.

Distribution of shares between shareholders;

Conversion of shares;

Open signature;

Set signature, if number of shareholders is more than 500 persons.

#### **PROSPECT OF SECURITIES**

The prospect of securities shall include:

#### **1) BRIEF DETAILS ABOUT PERSONS INCLUDED IN THE MANAGEMENT BODY OF THE ISSUER**

Details of the issuer's bank account, auditor, evaluator and financial consultant, as well as other persons, signing the prospect. Brief data includes:

Stipulation about persons including management body of the issuer;

Notices about bank accounts, auditor's (auditors') of issuer, included in the annual accounting reports during last three fiscal year or for each completed financial year, if the issuer provides industrial activities within less than three years;

Notices about evaluation of issuer and the consultant.

#### **2) BRIEF NOTICES ABOUT AMOUNT, TERMS , METHOD OF PLACEMENT AND TERMS AND CONDITIONS OF EMISSION SECURITIES**

They include:

Kind, category (type) and form of placement of emission securities;

Nominal price of every kind of placed emission securities, category (type), series (existence of nominal price is foreseen by law);

Estimated volume of issuance of emission securities in cash expression and the amount, which is foreseen for placement;

The price of placement emission securities (the procedures of determining prices);

Procedures and terms of placing emission securities;

The procedures and conditions of placed emission securities;

The procedures and conditions of signing agreements in the process of placing emission securities;

The circle of potential users of placed emission securities;

The procedures of placing emission securities and opening information of its outcomes.

### **3) PRINCIPLE INFORMATION ABOUT FINANCIAL-ECONOMICAL STATUS OF ISSUER AND RISK FACTORS.**

This section includes information about financial-economical status of issuer, during last five completed financial year, or for each completed financial year, if the issuer implements industrial activities during the period less than five years, also about last completed accounting period.

It includes following notices:

About financial-economical indexes of the issuer's activities;

About market capitalization of issuer and its obligations;

About emission purposes and directions of using resources obtained placement of emission securities;

About risks, taking place in relation with purchasing securities.

### **4) DETAILED INFORMATION ABOUT ISSUER. IT INCLUDES:**

Information about creation of issuer and the history of development;

Information about principle industrial activities of issuer;

Information about plans of future activities of the issuer;

Information about participation of the issuer in industrial, banking and financial groups, holdings, concerns and associations, also in the subsidiaries of issuers and independent industrial companies;

Information about composition, structure and value of fixed assets of the issuer, including the plan of purchasing, changing and failure of fixed assets, as well as every fact of loading fixed assets of the issuer;

## **5) THE DETAILS ABOUT FINANCIAL-INDUSTRIAL ACTIVITIES**

They include: notices about financial-industrial activities of issuer during last five completed financial year or every completed financial year, if the issuer provides its industrial activities within the period less than five years. As well as stipulation of the reasons and factors giving rise to such changes according to the managing bodies of the issuer, including:

About outcomes of financial-industrial activities of the issuer, about factors influencing upon changes of the size of profit received by the issuer from selling goods, products, works and service. As well as the notices about profit (loss) made from principle activity, including influence of inflation, as well as changing exchange rate of foreign currencies, decisions of state bodies, and about economical, financial, political and other factors.

About liquidity of issuer, size, structure and sufficiency of capital and operating assets of the issuer;

About policy and expenditures of issuer in the field of scientific-technical development, licenses and patents, from the point of new processing and researches;

Analyze of the trends of development in the field of principle activities of the issuer.

## **6) BRIEF NOTICES ABOUT EMPLOYEES OF THE ISSUER.**

**Brief data about the persons included in the composition of the management bodies of the issuer, in the bodies of monitoring of financial-industrial activities and employees, workers of the issuer:**

Information about the persons included in the composition of managing bodies of the issuer, including: members of the board of directors, (Board of Surveyor), members of collegiate executive bodies; information about the person, performing the function of unilateral executor of the managing body of the issuer (including information about manager of the company); information about the persons implementing the function of the inspector of the issuer or member of revision commission, as well as the notices about all kinds of relation between any person stipulated above;

The notices about sizes of expenditures on prizing, benefits or compensation according to every body of management of the issuer (excluding individuals, performing the role of unilateral executive body) and the monitoring body of its financial-industrial activities, which is paid by the issuer according to the last completed financial year, also the notices about existed agreements, on current financial year related with such payments;

Notices about structure and compensation of the managing bodies of the issuer and monitoring bodies of its industrial-financial activities;

Notices about structure and compensation of managing bodies of the issuer and monitoring bodies of its industrial-financial activities;

Notices about amount of the employees (workers) of the issuer and generalized indexes about their education, also about changing amount of workers in case, if such changing is essential to the issuer;

Notices about any obligation of the issuer against the employees, touching upon their participation in the authorized capital of the issuer (pension fund) (purchasing shares of the issuer), including every agreement, which foresees issuance of the options of the issuer or transfer to the employees;

Participation of the workers of the managing body of the issuer in the authorized capital (project fund), also participation of its subsidiary and depending companies in the said capital. The share of ordinary shares belonging to such persons in the capital of the issuer, its subsidiary and depending companies, as well as the notices about the issuer, its subsidiary companies and options.

#### **NOTICES ABOUT PARTICIPANTS (SHAREHOLDERS) OF THE ISSUER AND TRANSACTIONS IMPLEMENTED BY THE ISSUER, WHICH THERE WAS THE INTEREST IN.**

They include:

Notices about general amount of participants (shareholders) of the issuer;

Notices about the participants (shareholder) of the issuer, holding at least 5% in the authorized capital (project fund) and at least 5% of its ordinary shares. Also notices about size of the shares of the participants (shareholders) in the authorized capital and project fund, also share of ordinary shares held by them;

Notices about participants (shareholders) of the issuer holding at least 5% of authorized capital (project fund) and at least 5% of ordinary shares of the participants (shareholders), holding at least 20% of the authorized capital (project fund) and at least 20% of ordinary shares; including by stipulation of their share in the authorized capital (project fund), as well as ordinary shares held by them in the total amount of shares;

Notices about the share of participation of governmental or municipal formations in the authorized capital (project fund) of the issuer. Existence of special rights (gold shares);

Notices about reduction of participation in the authorized capital (project fund) of the issuer;

Notices about changes in the compositions of participants (shareholders) of the issuer about size and content of share holding at least 5% authorized capital (project fund) and at least 5% of ordinary shares of the issuer, during last five completed financial year or at the end of each completed financial year, if the issuer provides its industrial activities for less than 5 years;

Notices about transactions implemented by issuer, which was the subject of interest during last five completed years or for each completed financial years, if the issuer implements his industrial activities within the period less than five years; also during the period before approval of the prospect of securities;

Notices about size of accounts receivable during last five completed financial year or on each financial year if the issuer implements his activities during the period less than five years. Herewith, with separation according to the debtors, whose debts make at least 1% of accounts receivables. Herewith, data about accounts receivable to the announced persons.

#### **ACCOUNTING REPORTING AND OTHER FINANCIAL INFORMATION OF THE ISSUER.**

It includes:

Annual accounting reporting of the issuer during last three completed years or for each completed financial year, if the issuer implements his industrial activities during the period less than three years, which shall be accompanied with the auditor's (auditors') statement about said accounting report;

Quarter accounting reports of the issuer for the last completed reporting quarter;

Summarizing accounting reports of the issuer during last three completed financial years or each completed financial year;

The notices about general amount of export, also in the total amount of sales about share of export;

Notices about essential changes, which takes place in the composition of the issuer's property after date of completion of the last completed financial year;

Notices about participation in the judiciary processes of the issuer, in case, if such participation is essentially reflected on the financial-industrial activities of the issuer.

#### **ACCURATE NOTICES ABOUT PROCEDURES AND CONDITIONS OF PLACEMENT OF EMISSION SECURITIES.**

They include following notices:

About existence of the placed emission securities, price of placement (the procedure of their determining), priority or other rights on purchasing placed securities, any restrictions on purchasing and circulation of the placed emission securities;

About the dynamic of changes prices of the emission securities of the issuer, if such securities were allowed to the circulation, by the organizers of trading at the securities market, including the stock-exchange;

About the persons, rendering service to the organization of placement of emissions securities;

About potential purchaser of emission securities;

About organizers of trading at securities market, including stock-exchange, at which placement or turnover of emission securities is assumed;

About expenditures related with the emission of securities;

About procedures and methods of returning resources, to be issued for reimbursement of emission securities in case when issuance (additional issuance) of securities is considered to be cancelled, as well as in other cases, foreseen by legislation.

#### **ADDITIONAL NOTICES ABOUT ISSUERS AND EMISSION SECURITIES ISSUED BY THEM.**

They include:

Notices about sizes and structure of authorized capital (project fund) of issuer and its changes, according to the last five completed financial years or every completed financial year, if the issuer implements its activities during the period less than five years, with the decision of the bodies authorized for management of the issuer, making grounds to such changes;

Notices according to every category (type) of the shares of the issuer, stipulating the right represented with the shares of their holders, nominal price of each share, amount of shares in circulation, amount of additional shares in the process of placement, amount of declared shares, amount of shares existed at the issuer's balance, amount of additional shares, which may be placed by means of conversion of emission securities;

Notices about previous issuance of emission securities of the issuer, excluding shares of the issuer;

Notices about structure of management bodies of issuer and their competences, as well as about structure of monitoring the bodies of financial-industrial activities and their competences;

Notices about procedures of convening and conducting meeting of supreme management bodies of issuers;

Notices about existed transactions, concluded by the issuer during last five completed financial years or each completed financial year, if the issuer implements his industrial activities during the period less than five years. Size of obligations, making balance price of the issuer's assets at least 10% according to the data of accounting reports for the last completed financial year;

Notices about legislative acts, regulating the issues of export and import of capital, which may influence upon dividends, interests and other payments with non-residents;

Description of the rule of taxation of incomes, made in accordance with the placed emission securities or/and those, to be placed;

Notices about declared (accrued) and paid dividends, according to the issuer's shares, as well as obligations incomes of the issuer according to the last five completed financial year or each completed financial year, if the issuer performs his industrial activities during the period less than five years, including the method of payment of dividends and other incomes;

Notices about the persons submitting provision in case of issuing bonds by the issuer, as well as about terms and conditions of provision of implementing obligations according to the bonds of the issuer;

Notices about credit rating of issuer, as well as notices about amendments regarding last five completed years or every completed financial year, if the issuer implements industrial activities during the period less than five year;

Notices about commercial organizations in which the issuer holds at least 5% of the authorized capital (project fund) or at least 5% of ordinary shares;

Notices about formation and using reserve fund, as well as other funds of the issuer during last completed financial years, or regarding every completed financial years, if the issuer implements industrial activities during the period less than five years;

Notices about organizations implementing registration of rights on emission securities of the issuer;

Other notices foreseen by law on securities or other laws.

Prospect of securities of joint stock company is approved by the board of director (board of supervisors) or by the body, implementing functions of the board of directors (board of supervisors) of this industrial company according to the legislation.



## STATE REGISTRATION OF THE PROSPECT OF ISSUANCE OF SECURITIES

**Fourth stage** – State registration of issuance of emission securities and emission prospect. State registration of issuance (additional issuance) of emission securities – this is granting state registration number to the securities. It is implemented by the executive government, securities market, or other registration body, according to the determined legislation and on the basis of application of the issuer (in Georgia – Financial Supervision Agency).

For registration of issuing securities, the issuer submits following documents to the registration body:

Application on registration;

Decision on issuance of securities;

Final prospect of emission (if required);

Copies of founding documents (emission of shares for creation of joint-stock company);

Documents, certifying permission of the authorized body of executive government on implementation of issuance of emission securities (if necessity of such permission is determined with the legislation of the country);

Agreement concluded with future investor regarding purchasing 25% of securities.

In terms of registration of every additional issuance of emission securities, it is given individual state registration number, which includes the individual state registration number granted to the issuance of emission securities and individual number of additional issuance of securities. After reporting outcomes of additional issuance of emission securities, after three months from the moment of state registration, individual number (code) of additional issuance is cancelled (annulled).

## PREPARING CERTIFICATES OF SECURITIES

**Fifth stage** – this is preparation of certificates of securities. For the documentary forms of issuance it is necessary to prepare certificates (blanks) of securities, implemented in accordance with the Instruction of the Ministry of Finance “on preparation of blanks of securities”. In the international practice they use the blank having six degrees of security: implementation of the frame of the blank in complex graph, covered micro text, background grid, fluorescent lighting of sockets, images of complex geometric figures in the form of the mark of year, luminescent lighting in central stripes under ultraviolet rays. The Blank shall include necessary

requisites of securities and respond to the technological demand. Preparing securities requires large expenses; due to this, for the purpose of reduction these expenses, it is permitted to issue certificates and not securities.

#### **OPENING INFORMATION GIVEN IN THE PROSPECT OF ISSUANCE**

**Sixth stage** – opening information given in the issuance prospect. In case of issuance, requiring registration prospect of issuance, the issuer is liable to provide availability of information existed in the prospect of securities for the purpose of accepting information to any person interested in such information.

In case of open signature, the issuer is liable to publish application on issuance (additional securities) of securities about state registration; herewith the procedures of availability of information to any interested person shall be stipulated as well, which is included in the securities process. The application shall be placed into the mass media printing body with edition of at least 10 thousand copies.

In the published application there shall be following information about securities:

Notices about issuer: size of authorized capital, nominal size of securities, amount of balance profit per year, particularly the year preceding emission, and terms and conditions of placement of securities;

Detained description of the blank of securities: size, color, text, decoration design, and anti-fraud tools.

In case of covered signature, in the prospect accompanying registration of securities, the issuer is liable to publish application about state registration of issuance (additional issuance) of emission securities; herewith to stipulate the procedures of availability of information for the potential holders of emission securities, which are included into the prospect of securities. Application shall be published in printing body of mass media, with edition of at least thousand copies.

#### **PLACEMENT OF SECURITIES**

**Seventh stage** – placement of securities. Placement of emission securities is placement of emission securities by issuer by means of concluding civil-legislative transaction with the initial holders.

The issuer is eligible to provide additional issuance of securities in accordance with the legislation in force, but for most of them this procedure is quite difficult. Due to this, many issuers

use the service of professional participants of securities market, undertaking obligations to redeem with his expenses: 1) entire issue of securities for the fixed price for the purpose of further selling to the external investors; 2) securities distributed between external investors within terms defined. The mediators may also undertake obligation about selling securities on undistributed part of issuing in the name of the issuer, without undertaking any obligation.

There are following procedures of placing securities:

Transferring packages of privileged shares with the term of non-recoverability through conclusion nominal list of holders for the labor groups;

Signing securities, which, as noted above, may be open and covered. Open (public) placement is implemented upon unlimited circle of investors, between closed – preliminarily known investors;

Auction – purchasing securities by individuals and legal entities, at open trading, when purchasers do not require implementation of any condition. Auction may be concluded in the form of tender of open trading;

Commercial competition, different from auction, requires from the purchaser fulfillment of particular condition. For example, maintenance of profile of enterprise, maintenance of working places; funding objects of social domain, necessary amount of investments;

Investment trading – selling packages shares of state and municipal enterprises, when purchasers require implementation of investment programs.

Issuer is liable to complete placement of issued emission securities not later than in one year from state registration.

The issuer is able to place smaller amount of emission securities than stipulated in the decision about issuance (additional issuance) of emission securities, actual amount of placed securities are stipulated in the report about issuance, which is represented in registration. Share of unplaced securities in total amount of securities, stipulated in the decision about issuance, according to which the emission is considered to be concluded, determined by the executive government, per securities market.

## **REGISTRATION OF REPORT ABOUT ISSUANCE OF EMISSION SECURITIES**

**Eighth stage** – not later than in 30 days from completion of placement of securities the issuer is liable to submit report about outcomes of issuing emission securities to the registration body.

Report about outcomes of issuance (additional issuance) of emission securities shall include following information.

Date of starting and completion of placing securities;

Actual price of placing securities (within the bounds of given issuance according to the kinds of securities);

Amount of placed securities;

Total amount of incomes per securities, including:

Amount of cash resources in Georgian Lari, which is included for reimbursement of placed securities;

Amount of foreign currency, included on reimbursement of placed securities, at the moment of submitting with national currency determined by expressed national bank;

Total amount of incomes placed according to securities in Georgian Lari and foreign currencies.

In the report about issuance (additional issuance) of emission securities for shares there shall be additional stipulation about list of holders, owning the package of emission securities, size of which is determined by the executive government per securities market. At the same time, they submit to the registration body application about issuance (additional issuance) of emission securities about its registration and the documents, certifying complying with the requirements by the issuer, determined by law. This legislation determines the procedures and conditions of placing securities, the report about outcomes of issuing securities, opening information and other requirements, protection of which is necessary in terms of placing securities. Exhausted list of such documents is determined with normative statutory acts of the executive government.

Registration body discusses report about issuance (additional issuance) of securities within the period of two weeks and in case of absence of errors, provides its registration.

The procedure of issuing state and municipal securities, terms and conditions of their placement and their turnover is regulated with respective legislation.

The procedure of issuing securities is quite difficult for corporations of Georgia and it has negative sides. Main of them is related with large expenditures related with the transfer to the securities market. This is also operations and additional expenses related with the securities to be paid, which are related with service of financial consultants and opening respective information of issuers.

Institute of financial consultants is involved by the federal commission of securities subject to the law on securities of the market, as if for the generous purpose, to increase transparency of issuer. Actually, this gave rise to the monopolization of market by separate professional participant and it gave sharp growth to expenses of corporations for moving to the market. Unfortunately, same may be said about the system of opening information, approved by federal commission of securities. On the one hand, this system widened opportunities of investors for receiving reliable and correct information, and, on the other hand, this gave rise to the growth of these expenditures. Advantageous completion of emission procedure means entering securities to the securities market for their further circulation.

#### 8.4. TURNOVER OF SECURITIES

**Turnover of securities** is conclusion of civil-legislative transactions, with the help of which they change property right on securities. Transfer of property right on securities and realization of the rights granted with securities are determined in accordance with the Article 6 of the Law on securities (in Georgia).

Important moment in turnover of securities is fixation of transfer of rights on emission securities from its one holder to another. The method of transfer of rights to the securities by means of concluding civil-legislative transactions of securities depends on the procedure of holding securities (registered or bearer) and for of existence (documentary or non-documentary).

The right of holders of documentary form of issuing emission securities is confirmed with certificates (if the certificates are with the holders) or certificates and records in the depositories of safekeeping account (if the certificates are issued for storing to the depositories).

The right of holders is confirmed in terms of non-documentary form of issuing emission securities in the system of keeping register – with records on the personal accounts of the holder of register, and in terms of recording rights on securities in depositories – with records about depositories on safekeeping accounts.

The right is transferred to the bearer's documentary securities in case, if:

His/her certificate is kept with the holder – in terms of transferring such certificate to the purchaser;

In terms of storing or recording certificate in depository, by submitting record of securities to the safekeeping account;

The right on nominal document-free securities is transferred to the purchaser in case of foreseeing its right in security;

In the system of keeping register – from the moment of making record about its entering to the personal account of the purchaser;

With the depository – from the moment of making record of entering to the safekeeping account of the purchaser.

The right strengthened with emission securities, moving to its purchaser from the moment of transferring right on such security.

Issuance and turnover of securities is implemented under strict control by the government. The Ministry of Finance keeps unified state register of securities, regularly publishing the lists about newly registered securities. State regulation is implemented for the purpose of identifying activities of issuers, as well as to the market professional participants of securities and their standards. For the purpose of prohibitions and prevention of illegal activities at the securities market, for the purpose of making particular bit in the state budget of the country.

## **8.5. CHARACTERISTIC OF SEPARATE KINDS SECURITIES. POPULAR SECURITIES**

Let us discuss securities used most widely in the economy in more details.

### **8.5.1. SHARE**

**The share – this is emission security improving the right of its holder (shareholder) to receive part of profit of joint stock company in the form of dividends, participate in the joint stock company and in management of the share of its property.** The right of issuing shares is held only by the joint stock companies. Income of the share, formed at the expense of profit of joint stock company (or other issuer), issuing shares, is the dividend.

The description shows that the share gives:

**The voting right.** In exchange for the invested capital, the shareholder is eligible to participate in the management of the joint stock company through meeting of the shareholders. Besides this, the shareholder may be selected in the management body of the joint-stock company, to be included into the Board of Directors, but using voting right only by the holder of ordinary share;

**Right on income.** I.e. making part of net profit in proportion to its share in the form of dividend in the authorized capital, the size of dividend is not permanent; it depends on the size of profit of

joint stock company, if ordinarily, the share is held by the investor and with the decision of the board of directors to pay dividends, the holder of privileged share accepts fixed dividend systematically, if share is not of noncumulative type;

**The right on increasing capital**, related with the growth of prices on shares at the market;

**The right on additional benefits**, granted by joint stock companies to their shareholders in the form of discounts in terms of purchasing products of joint stock companies, or in terms of using service (preferential prices about living in the hotel, favorable travel, etc);

**Pre-emption right over newly issued shares** (the investor of the first priority uses preemption right, i.e. those who concluded agreement on purchasing 25% of shares to be issued in terms of concluding emission prospect);

**The right on the part of property of joint stock company**, remaining after settlement with every creditor after liquidation. This right is used only by the holder of privileged share.

#### **FEATURES CHARACTERIZING TO THE SHARE**

Share, as securities, has several features characterizing only to it. They are:

The share – is the title of ownership, i.e. holder of share is the owner of the joint stock company;

The share has no term of circulation, i.e. it is perpetual limited with the term of existence of the joint stock company;

The shares may be separated and consolidated. In terms of separation, amount of shares is increased (one share is transferred into several), their nominal price is reduced and initial size of the authorized capital remains unchanged. In terms of consolidation, number of shares is reduced, their nominal price is increased and the size of authorized capital is not changed;

The share is characterized with the limited responsibility, as the shareholder is not responsible for the obligations of the joint stock company itself;

The shares are characterized with inseparability, i.e. joint ownership of shares is not related with the separation of shares between the holders. They together play the role of single person;

Holders of shares are eligible to take their share from the total capital of the joint stock company, to sell or alienate shares in accordance with legislation;

The practice of attracting financial resources developed in the joint stock company different kinds of shares satisfying different requests of investors. The shares are different from each other with dependence on the issuer, the method of registering rights of the shareholder, investment quality, etc. (Figure 8.2).

Signs of classification	Kinds of shares
According to the realization of the shareholder's right	Ordinary Privileged
According to distribution	Shares of labor groups Shares of enterprises Shares of joint stock company
According to the stage of putting into circulation and its repayment (reimbursement)	Announced public, closed (by law) Placed Reimbursed
According to the form of issuance	Documentary (blank) materialized without documents (without blank) non-materialized
According to the investment quality	High quality Middle quality Low quality
According to the issuer	Corporate Stock-exchange Banking
According to the convertibility	Convertible (circulated) Nonconvertible (non-circulated)
According to the opportunity for trading on the stock-exchange	Registered (quoted) Non-registered
According to the quality of circulation	Ventured Freely available
According to the public control	Gold share

***FIG. 8.2. CLASSIFICATION OF SHARES***

According to the subjects receiving the shares, they distinguish the shares of labor groups, enterprise shares, and shares of joint stock companies.

**1. KINDS OF SHARES ACCORDING TO THE METHODS OF REALIZATION OF THE SHAREHOLDER'S RIGHTS.**

According to the method of realization of the shareholder's right, shares of joint stock company may be ordinary and privileged. Ordinary shares give the right of participation in the management of the company (1 share – 1 vote in terms of making decision at the shareholders' meeting).



**Share of ordinary shares**, at hands of one holder, allowing him/her perform actual control over the joint stock company, are called majority interest of the joint stock company. Theoretical package shall make 50% of total amount of the total issued shares plus 1 share. Practically – dividends on these shares are paid after paying dividends on the privileged shares; though before global financial crisis ordinarily in the developed countries they issued more dividends on ordinary shares, than on the privileged shares.

**Privileged shares** doesn't allow their holder voting right at the shareholders' meeting (exception is the issue of reorganization of joint stock company and liquidation). Though, they make fixed incomes, size of which is determined and approved in terms of issuing shares. Priority of these shares, compared with the ordinary shares, are eliminated in terms of distribution of profit and liquidation of the company. When profit is not enough for paying dividends on privileged shares, it is covered from the reserve fund of the company, and if the resources are not enough for paying dividend on ordinary shares, they are not paid in the form of converted shares i.e. in the form of shares, which may be exchanged on the ordinary share of the same issuer, as required.

According to the nature of paying dividends, there are different kinds of privileged shares:

With fixed income;

Variable income;

Participation in profit above determined dividends;

Warranties;

Cumulative (the dividend unpaid for these shares is accumulated and paid in the future);

Noncumulative.

According to the procedures of holding, securities may be nominal and bearer. Subject to the Georgian Laws on securities market and the Law on joint stock companies, the shares may be nominal and bearer. **Nominal share** is the security, name of the holder of which is stipulated on its blank or in the holders' register. It may be transferred to another person by means of cession, provided by means of the notarial registration or brokerage control by banks. In the certificate of the **bearer's** share, there is no fixed name of the shareholder and its realization and registration is much simplified, than of the nominal share.

## 2. ACCORDING TO DISTRIBUTION OF SHARES

Shares of the labor groups are distributed only among the workers of the given enterprise. Shares of the enterprise are also distributed between other legal entities allowing their holder

participate in the management of the enterprise and being only the facility for mobilization of additional financial resources. Shares of joint stock company are distributed between former shareholders, i.e. between employees of the given company.

### 3. SHARES ACCORDING TO THE STAGES OF THEIR PUTTING INTO CIRCULATION

According to the stages of putting into emission and their payment, they distinguish following kinds of shares: authorized, placed and reimbursed. **Authorized shares** are limited amount of respective type of shares, which may be issued by enterprises additionally with already placed shares. Amount of declared shares is not related with the size of authorized capital and it may be more or less than its size. This amount is fixed in the charter of the joint stock company or accepted with the decision of the General Meeting of Shareholders with the majority of votes. **Placement of shares** or **outstanding shares** are those purchased by shareholder. **Reimbursed shares** are the ones according to which their holder provides payment of 100% and resources are transferred to the account of the joint stock company. Not every placed share is redeemed; as payment of shares may be foreseen by postponement, at least 50% of the shares of company, distributed from its establishment, shall be paid within the period of three months from state registration of the company, and remaining part – within the period of one year from the registration.

According to the forms of issuance, shares may be **documentary** (blank, in the form of separate documents) and **non-documentary** (nonblank or existed, i.e. existed in the form of records with the keepers of registers on personal accounts or depositing on safekeeping accounts). The issuer makes decision about form of issuance. Under modern conditions, shares of documentary form is issued more seldom; in the most cases, this form is changed with recording respective data into the computer memory, and the shareholders are given certificates of shares. Share certificate is the document issued by the issuer, confirming the fact of holding by the particular person, according to the shares of particular amount of the given joint stock company (the certificate confirms totality of rights, according to the amount of shares stipulated in the Certificate). Holder of shares is eligible to request from the issuer performance of his obligations on the basis of such certificate. Transfer of certificate from one person to another means conclusion of transaction, and transfer of ownership right on share is implemented only with the determined procedures, in case of registration of operation.

According to the opportunities of conversion, shares may be convertible and nonconvertible. **Convertible** shares are changed with respective proportion on other securities. The conversion may be provided in the following way:

Other securities;

Shares of high nominal price to those of low nominal price and on the contrary, shares of large rights – on those with small rights;

From shares to shares in case of consolidation and their separation.

Exchange rate is determined at the moment of issuing such shares. **Nonconvertible** shares have no such right. For example, the Law on Joint Stock Companies and, relatively, conversion of the privileged shares on the ordinary shares and privileged shares of other type are allowed only in case if prescribed by the Charter of the company or in terms of its reorganization. It is prohibited to convert ordinary shares into the privileged ones, bonds and other securities.

**According to the opportunities for circulation at the stock exchange, they separate registered and nonregistered shares. Registered shares** are those quoted at the stock exchange. **Nonregistered** shares, which are not allowed to the circulation at the stock exchange, Every share participating in the trade of the stock exchange undergoes the procedure of allowing to the trade – so-called listing procedure, purpose of which is inclusion of shares into the listing of quotation of the stock exchange.

In terms of privatization, state enterprises are eligible to issue so called Gold Shares, allowing their holders Veto right within the period of three years after purchasing, in case of making decision by the shareholders' meeting. This happens in case of:

Amendment of the charter of joint stock company;

Its reorganization or liquidation;

Its participation in other enterprises;

Leasing or renting, or other procedures of selling or alienation of property.

Shares may be in free circulation or restricted. Restricted shares are those, which may be alienated only in case of approval of the issuer.

## **SHARES FROM THE POINT**

### **OF INVESTMENT ATTRACTIVENESS**

**From the point of investment attractiveness they distinguish** shares of following kinds:

**Cycled shares** – these are the shares rate of which is increased in terms of rise of economy and fallen – in case of fall of economy;

**Shares of growth** – these are the shares rate of which have the trend to the general growth;

**Soft spot** – these are the shares, rate of which has the trend of growth;

**Speculative shares** – these are the shares of company, which there are no information about. Due to this they create risk to the investors.

In order to create general opinion on investment attractiveness of shares, we shall know following data;

The term of redemption of shares, to be measured and determined as relation between current price on shares and net profit on single share;

Conformity of current price of share with its balance price. If such index is too large, this means access price of rate of shares at the market. This ratio value at the 1.25-1.3 level is the limit above which speculative growth of prices on shares begins;

Size of profit per single share is determined by separation of profit declared by the enterprise into the total amount of shares;

Rate price – the value showing the distinction between current price of share (price, according to which it may be purchased at the market) and its nominal price.

For analyzing demand and distribution on shares they use the index – absolute size of spread and the rendit. **Spread** – is the distinction between nominal price of distribution and maximal price of demand. They consider securities, to which conformity of spread with the maximal price of demand is the smallest (from 0 to 3%) to be the most marketable; **Rendit** – is relative value of profitableness of securities. Rendit of share is calculated as percent relation between paid dividend and market rate of share. The higher is the amount of rendit, the more profitable is the share.

The shares are the kinds of the most distributed securities. Great number of shareholders in the country support formation of wide circle of the holders of production facilities. By means of the shares they implement transfer of the ownership itself, as well as control on it. At the same time, concentration of capital takes place.

### 8.5.2. BOND

**The bond is the emission security, strengthening the right of its holder to receive from the issuer of bond nominal price or other material equivalent within the term defined.** The bond also grants to its holder the right to accept fixed interest from its (the bond's) nominal price or other property right. Income from the bond is the interest i.e. discount.

The bond is issued for particular term, for the purpose of attracting additional financial resources. Different from shares, the bond doesn't give the right of participation in the

management of the company from its holder, but it has particular priorities: the bond is the security, which:

- Expresses debtor, credit relation with the bond holder and issuer;

- Making warranted income;

- Free circulation at the stock-exchange until its final repayment by the issuer and it has own rate;

- Holding liquidity, reliability, profitability and other investment properties;

- Having priority compared with the shares, from the point of making income, payment of incomes on the bond is provided in the first place, compared with the payment of dividends on shares.

- Allowing the holder to satisfy in the first place his demands compared with the shareholders, in terms of liquidation of enterprise.

- Investment of resources into the state obligations allowing particular tax benefits.

**BONDS ACCORDING TO THE QUALIFICATION SIGNS**

The issuers issue bonds of different type and kind, notwithstanding the qualification sign making grounds to the grouping, we may separate several kinds of bonds (Figure 8.3).

<b>Classification signs</b>	<b>Bond signs</b>
Rule of ownership	Nominal Bearer
Rule of warranty	Covered Uncovered
Convertible privilege	Convertible Inconvertible
Issuer	Corporation bonds State bonds
Purpose of issue	Funding new investment projects; Funding debt of issuers; Funding nonindustrial activities
Circulation term	Bond with term defined of coverage Without fixed term of coverage
Form of issuance	Existed Not existed
The form of paying income	Interest fee (discount) With interest (variable and fixed rate) Bonds of profitable loans

**FIG. 8.3. CLASSIFICATION OF BONDS**

**According to the realization of rights of the holder of bond, it may be nominal and bearer.** In case of **nominal** bond, the name of holder of the bond is recorded in the text of the bond and the book of registration, kept by the issuer. In case of the **bearer** bond, right of the holder is confirmed in terms of simple submission of the bond.

**According to the rule of provision, bonds are covered and uncovered.** **Covered** bonds are issued under the security of particular property (land plot, securities, belonging to the issuer). **Uncovered** bonds – these are credit obligation, which is not warranted with security.

**According to the conversed privileges, they separate convertible and nonconvertible bonds.** **Convertible** bonds authorize the holder exchange it into the ordinary share of same issuer. **Unconvertible bonds** do not grant such right. **According to the kinds of profitableness, they distinguish bonds with interest, interest free and those with zero voucher** (bonds of profitable loan). **Interest-free** (discount) bonds are sold with discount for the price lower than nominal price. The income on the bonds **with interest** (voucher) is paid with reimbursement of vouchers on the bonds. The voucher is the part of bond certificate, granting holder the right of receiving interest in terms of separation from the certificate. Size of interest and the term of its payment is stipulated in the voucher. Due to this, the voucher is the principle characterizing option of the bond. Paid interest may be fixed and floating. Income from the bond of profitable loan is represented in the form of goods or service, under the security of which, they were issued.

**According to the validity term, bonds may be with the term defined of payment and without fixed term of repayment.** The bonds with the term defined of payment are separated into short term (validity term up to 1 year), middle-term (up to 5 years) and long-term (from 5 up to 30 years). The bonds without fixed term of payment are divided into refundable (the bonds issued by the issuer before completion of the term, for material opportunities lost by the holder) the bonds by increasing validity term – the holder is eligible to exchange it in longer-term bonds and those with higher interest payments before completion of its term; the bonds with limited validity term – the holder is eligible to submit his/her obligation for redemption with nominal price before completion of the term of loan.

**By depending on the issuer, they separate corporate and state bonds.** State bonds may be issued by financial divisions and municipal bodies.

Purpose of issuing corporate bonds is attraction of additional financial resources. Bonds of internal governmental loan and those of municipal loan are issued on bearer. Bonds of enterprises are nominal and bearer.

### **MARKET CHARACTERISTICS OF BONDS**

The bonds have following market features – nominal, rate, point, voucher, discount, etc. payment according to the bonds is provided by means of accruing interest to the nominal price. In terms of holding the bonds, the investor knows in advance the amount of money he receives. Knowledge of the size of nominal is also compulsory for determining current rate of bond, the way the given security is circulated and quoted in interests with its nominal price (i.e. with the sum, stipulated on the bond). Rate of bond is determined by dividing market price of the bonds over the nominal price.

Total income from the bond is formed from following elements:

Interests paid periodically (voucher income);

Changing price of bond within respective period;

Income made by means of reinvestment of interest.

There is principle distinction between shares and bonds; their distinguishing features are given in the following scheme (Figure 8.4).

<b>SIGNS</b>	<b>SHARE</b>	<b>BOND</b>
Term of circulation	Unlimited	Term of circulation is limited
The form of investment of resources	Share	Credit
Sequence of paying incomes	In the second place	In the first place
The right of participating in management	Applicable	Not applicable
Form of income	Dividends	Interest (discount)

***FIG. 8.4. SIGNS DISTINGUISHING SHARES AND BONDS***

### 8.5.3. PROMISSORY NOTE

**Bill** is the security confirming unconditional monetary obligation of issuing promissory note, to pay to the holder (keeper of promissory note) of the promissory note particular money on the particular term. There are simple and transferable promissory notes.

#### ESSENTIAL PECULIARITIES

#### OF PROMISSORY NOTE

The promissory note has particular essential peculiarities.

**Abstractness**, i.e. there is no explanation regarding formation of the monetary term. Forming outcome of particular transaction, the promissory note is separated from it, existing as independent document, and the promise about payment is issued by the issuer of the promissory note, not to one particular person, but to its every legal owner;

**Indisputability**, i.e. obligation on payment exactly in accordance with the promissory note;

**Circulation**, i.e. promissory note may be circulated between unlimited amount of customer by means of signature of the transferor;

**Monetary**, i.e. subject of promissory obligation may be only the price;

**Right of protest**, authorizing holder of the promissory note to express claim in case, if the issuer of the promissory note doesn't pay it, i.e. to confirm officially the fact of refusing payment at the notarial office (according to the location of the payer) on the second day of expiration of the term. After this, the promissory note is submitted to the arbitration;

**Joint responsibility**, existing in the fact that in case of timely protest, holder of the promissory note, its holder is eligible to submit claim to every person, related with present promissory note and to require answer from each of them.

#### CLASSIFICATION OF PROMISSORY NOTE

Kinds of promissory notes are quite diversified and different from each other according to the issuer, term of payment and procedures of holding (Figure 8.5).

Notwithstanding the fact, who pays the sum stipulated in the promissory note, this latest is divided into simple and transferable promissory notes.

**Simple** (solo promissory notes) – this is obligation of the debtor to pay particular sum to the recipient of money or to any other person with the order of the latest within defined term, who submits promissory note on payment. Simple promissory note is concluded by the payer (debtor). **Transferable promissory note** (drafts) is made and signed by the creditor



(trustier) and represents order of the creditor to the debtor (trustee – the first holder of promissory note) or bearer. According to the transferable promissory note , the debtor is turned into the payer.

CLASSIFICATION SIGNS	KINDS OF PROMISSORY NOTES
Subject of implementing payment	Simple transferor
Issuer	State Private
Method of holding	Nominal Bearer (unnamed)
Form of income	Interest Discount
Territory	Local National International
Term of payment	Upon submission; Upon submission, but not later than defined term
Payment warranty	Guarantied Non-guarantied
According to the property	Issued Received
According to the form of issuance	Of security Without security
Opportunity for transfer	Endorsed Unendorsed

**FIG. 8.5. CLASSIFICATION OF PROMISSORY NOTES**

According to the issuer’s principle, they distinguish state and private promissory notes. **State promissory note** is the credit obligation, issued by the government of the country, by the central bank and the ministry of finance. Municipal promissory notes are also issued by the local administration. **Private promissory notes** include the promissory notes, issued by corporations, financial groups, and commercial banks. Bank promissory notes are issued by the banks (as a rule, with discount). Corporate promissory notes are used for signing credit obligations and issued by the industrial subjects.

According to the rule of ownership, they distinguish **nominal promissory notes** and those on **bearers**.

According to the **made income**, promissory notes may be **discount** – means discount (distinction between the price of purchasing promissory note and the price of repayment (nominal); **interest** – means receiving interest.

According to the **territory**, in which the promissory note is circulated, there are **local** (which may be circulated only at the defined territory), **national** (circulating only at the territory of the country) and **international**; we may also distinguish native and foreign promissory notes.

According to the **warranty of payment**, promissory note is separated into **guaranteed** and **unguaranteed**. Guaranteed promissory notes are equipped with the marking of promissory warranty, bank warranty and the guaranty of credit institution.

Based on the fact of ownership, promissory note may be **issued** (own) and **received** (other's) promissory notes.

According to the **opportunity for transferring to the third person**, promissory note may be **guaranteed and unendorsed**. The promissory note may be transferred from one person to another with the transfer label. Such label is called **endorsement**. It doesn't require notarization. By means of the endorsement, promissory note may be circulated between the persons of uncertain amount, performing functions of cash resources. Endorsement may be special and blank. On the special endorsement particular person is stipulated, who receives the promissory note. Blank promissory note is registered on the bearer with the signature of issuer of the promissory note. The promissory note may be attached with the additional sheet – *allonge* – for transferable signatures.

According to the **form of issuance** the promissory note may be of **securities and securities free**. According to the existence of security, they divide promissory notes into the warranted and unwarranted promissory notes. Warranted promissory notes are used as the means for guarantying expediency and accuracy, according to particular transaction. Guaranteed promissory note is not intended for further circulation. It is kept at the deposited account of recovering loan and if payment is provided within prescribed term, it is immediately repaid, if not – than the bank receives ownership right on the promissory note and submit it to the debtor for payment.

**According to the service of transaction** they distinguish **commodity and financial promissory notes**. Commodity promissory notes are based on the commodity transaction, commercial credit, given by the seller to the purchaser in terms of realization of goods. Under such conditions, the promissory note may play the role of credit, on the one hand, and on the other hand, it may play the function of reporting means, which is transferred from one hand to another. Ground to financial promissory note is particular financial operation, which is not related with sale and purchase of goods.

They also distinguish **paid and unpaid, protested and non-protested national and monetary** promissory notes. Monetary promissory note is expressed in foreign currency, which is usually used in the transactions with foreign counter agents, but may be used in internal circulation, as the means opposing to the risk of devaluation of the promissory note nominal.

There also are accepted and domiciled promissory notes. promissory notes are accepted if they have permission of the payer on its paying. They become such from the moment of accepting Transat, when this latest becomes direct debtor. **Domiciled promissory note** is the one reserved on being the subject to payment by the third person (domiciliary agent) according to the residential place of the payer or other place. As a rule, domiciliary agent becomes bank of the payer.

**According to the conformity with the legislation of promissory note**, we may separate classical bills, conforming to the law and quasi-bills.

Under modern conditions, at the market there are promissory notes, issued by banks and enterprises, as short-term instruments of funding turnover resources.

#### **8.5.4. DEPOSIT (SAVINGS) CERTIFICATE**

**Depository – (saving) certificate – is the security confirming the sum of deposit. It is submitted to the bank and confirms the right of the depositor (certificate holder), to accept the sum within defined term and the interest foreseen on it.** If the role of depositor is played by the legal person, depository certificate is signed, and in case of individual – saving certificate.

**Depository certificate – this is the document, according to which, right on demand is transferred from one person to another, which is obligation of the bank on payment of deposits placed here.**

**Saving certificate** – this is the document, according to which right on demand is transferred from one person to another, which is obligation of the bank on payment of saving deposits placed here.

We may separate general signs of depository and saving certificates: they are securities, issued only by the banks; regulated with bank legislation; issued in documentary form; being circulated securities (according to them, the demand may be transferred to the third parties); it is prohibited to use them as settlement and tax facilities on commodity and service, and it is issued and circulated only between residents.

Depository and saving certificates are distinguished according to the depositor, form of settlement, nominal, term of repayment (Figure 8.6). The right of issuing depository and saving certificates is granted only to the banks.

SIGN	DEPOSIT	SAVING
issuer	Bank	
Investor	Legal entity	Individual
Right on demand	Legal entity	Individual
Monetary unit of nominal	In currency with double nomination in Georgian Lari	
Size of nominal	Large nominal	Small nominal
Form of settlement	Cash-free	Cash
Form of placement	Cash	
Method of paying interest	Fixed interest rate; Floating interest rate.	
Term of circulation	Up to 1 year	Up to 3 years
Rule of ownership	Nominal; bearer	
Quality of using	Single, serial	
Method of registering issuance	In box; Without box	

***FIG. 8.6. COMPARATIVE CHARACTERISTIC OF DEPOSITORY AND SAVING CERTIFICATES***

Depository and saving certificate is termed securities, i.e. the term of recovering deposit stipulated in them. Circulation of depository certificate is determined in one year, for saving certificates – it may not be more than three years. If the term of their repayment is transferred, they are considered to be the documents on bearer and the bank is liable to repay it upon first demand of the holder. The size of interest accrued on deposits are stipulated in the depository and saving certificates. They may issue certificates with the right of recovering resources before term and without it, by paying penalties and nonpayment, on preterm recovery of resources. If holder of the certificate requires repayment of invested resources, according to the termed certificate before determined term, it is paid lower interest, the level of which is determined on the basis of the agreement, which is concluded upon entering money for saving.

Minimal size of the nominal for certificates is not determined. Traditionally, it is accepted in the international practice to separate certificates into large-nominal and small-nominal.

Deposit and saving certificates may be issued in singly or in series, as nominal, so – on bearer, as interest – so discount.

According to the **interest** certificate, following methods of paying interests may be determined: fixed interest rate, fluctuating interest rate, size of which is related with several financial index. Initial placement of discount certificate is implemented with the lowest prices on nominal; the interest is paid in the form of distinction between nominal and repayment price.

Deposit and saving certificates are circulated by means of cession of the right of demand.

Alienation of the demand right on bearer is implemented by simple transfer of certificate to the new holder. As for the nominal certificate, the cession is registered on its second party.

#### **8.5.5. CONSIGNMENT**

**Consignment is non-emission security, abstracts by the shipper of sea cargo or his authorized person, on behalf of the owner of the cargo and/or its representative's name.** The consignment is not transport document, including terms and conditions of the agreement of marine shipment, confirming receipt of cargo and the fact of its shipment, granting the right of disposal and ownership by the holder of consignment, and the right of holding and disposing cargo by the holder of the consignment.

Consignment is issued on any cargo, notwithstanding the method of implementation: by concession of entire vessel, concession of separate structures of the vessel or without such terms and conditions.

Legislative acts regulating the issues of issuance and storage of consignment are:

International Convention, 1921 on unification of several method, touching upon consignment (Hague Regulations);

Brussels Protocol, 1968;

About revision of Hague Regulations, 1921 regarding consignment (Hague-Visby Rules);

United Nations Convention on the Carriage of Goods by Sea, 1978 (Hamburg Rules).

The consignment is determined on the basis of loading order, signed by the sender of cargo and transferring to the port export assignment with necessary requisites. In the bill of lading there is the language of the consignment. It may be bilingual. Usually, the consignment is the topographically printed blank. It is the document of standard form accepted in the international practice for transfer of cargos.

The consignments are concluded in three copies of same content and date. One copy is for the sender of cargo, another – for the recipient and the third one is for the carrier. Each copy of consignment is the original copy confirmed with the original stamp. In some cases, serial number (first, second, third) of the original copy is noted. The number of concluded original copies is stipulated in the consignment, provided that only one of them may be the document disposing the goods. If goods are issued based on one of them, two remaining ones will be invalidated. Copies of consignments are printed on the papers, different from original copies.

### **KINDS OF CONSIGNMENTS**

Following kinds of consignments may be allocated (Figure 8.7).

The consignee is determined in the consignment in three ways; consequently, they distinguish nominal, order and bearer consignments. **Nominal consignment** is the one, concluded for accepting particular cargo. According to the nominal consignment, the cargo is transferred at the port of destination to the consignee stipulated in the consignment. Transfer of cargo to the third party may be provided only on the basis of the transaction, concluded in compliance with the rules determined in terms of transfer of credit demand. **Order consignment** is the one, according to which the cargo is transferred with the order of the sender of the cargo, or that of the consignee or with the order of the bank, or the transfer label of the person, with the order of which, the

consignment is concluded. If there is no stipulation in the order consignment of the fact that the document is concluded with the consignee's order, it is considered to be concluded with the order of the sender. **Consignment on bearer** is the consignment issued on the cargo, with simple transfer of exchanging. Order and bearer consignment is circulating. This allows its holder to manage goods on its way, or to put consignment into the bank until consignment of goods. Consignment becomes circulating if it was concluded in this way. Turnover consignment, which is subject to indexation, is used in terms of trading with the goods, such as corn, oil, where consignments on good is purchased on the way and sold with the chain of agreement, according to which intermediaries do not receive goods and only final purchaser receives the goods physically from the ship upon its entering. Non-turnover consignments consider the fact that the recipient will receive goods himself after entering of the ship.

SIGNS OF CLASSIFICATION	KIND OF CONSIGNMENT
Rule of ownership	Nominal; On bearer; Order.
Cargo distribution place	Onboard; Coastal.
Existence of insurance policy	Insured; Uninsured.
Peculiarity of shipment	Linear; Charter.
Existence of proviso in case of damaging cargo	Consignment to the proviso; Net consignment.
Opportunity for disposal of cargo	Circulating, Non-circulating.

**FIG. 8.7. CLASSIFICATION OF CONSIGNMENT**

Necessary notices about the cargo are given in the consignment. **According to the proviso** regarding claims of the carrier regarding amount, quality, packaging of cargo, **they distinguish consignment with the proviso and net consignment.** **Consignment with the proviso** is the consignment, in which there is the remark about defect of the cargo or packing. **Net consignment** doesn't include any proviso, or remark stipulating defective condition of the cargo or packing.

Notwithstanding location of the cargo, the consignment is onboard and coastal. **Onboard consignment** is the one confirming the fact that the cargo received for shipment is loaded onboard. **Coastal consignment** is the consignment on cargo, accepted for loading to the port and waiting for the ship, which has not entered yet.

According to the peculiarities of shipment, they distinguish **linear and charter consignments**. **Linear consignment** is the consignment issued by the shipping company or special vessels implementing shipment on his/her behalf, performing regular routes with determined and announced route vessels, to which there is special reserve port. **Charter (freight) consignment** is the consignment, used in terms of irregular shipments.

**Direct consignment** – is the consignment covering shipment of cargo between loading and unloading ports on one and the same coast. In case of freight shipment is only one part of general shipment and the cargo shall be shipped with other coastal and sea shipments, to the sender of cargo it is convenient to use sequentially consignment, than to conclude agreement with several carriers. **Sequential consignment** is the consignment foreseeing shipment of cargo to other vessels, in the intermediary point and covers entire shipment of cargo from the port of loading to the final destination. Such shipments may be provided when the carrier has several regular lines in different directions or on the basis of agreement between two carriers: one of them receives cargo from the port of discharge and another receives it from the transfer port to the end. Usually, carriers transferring cargo together with sequential consignment, provide precondition of their mutual-obligations between each other, each carrier is liable for the part of the road, at which is provides shipment. In terms of sequential consignment it is required to have exact notices in terms of transferring cargo from one carrier to another.

Notwithstanding the fact, if the consignment includes insurance police, they distinguish insured and uninsured consignments. **Insured consignment** is merging transport document with the insurance police and there is confirmation of receipt of cargo in terms of shipment, as well as from the point of its insurance. It is usually used in case of providing shipment of containers of cargo.

**They also distinguish consignments of following kind:** share consignment – ordinance on transfer of particular part of cargo to be shipped to the destination port or etc. It is used in case of partial selling of cargo by the consignee before its distribution.

Consolidated consignment – the consignment on several cargos, intended for different consignees of cargo.



### 8.5.6. WARRANTY

**Warranty** – has two kinds of using: **first**, warranty is the certificate authorizing the holder to buy securities in the defined price during particular period of time or without term. Sometimes, warrant os offered together with securities, in the form of motivation for its purchasing.

We may distinguish following kinds of warranties (Figure 8.8).

SIGNS OF CLASSIFICATION	KIND OF WARRANTIES
Term of circulation	Termed; Term-free.
The rule of ownership	Nominal; On bearer.
Form of existence	Intermittent; Continuous.

*FIG. 8.8. KINDS OF WARRANTIES*

**Warranty on the share** is the certificate, authorizing its holder purchase shares of company for the determined price within the defined period of timer.

**Warranty with signature** – is the instrument, with the help of which shareholders realize their right on signature or privileges of signature. It is issued by the corporation, determining amount of shares, which may be purchased by the shareholder and conditions of their purchasing in case of additional emission. The warranty with signature is legal document on the signature of holding right and may be transferred to other person. Its variety is ex-warranty – the certificate certifying the right of shareholder to purchase new ordinary shares of the company until their public delivery.

According to the form of existence, they distinguish intermittent and continuous warranties. **Intermittent warranty** is long termed or term0free security, issued together with the bond or privileged share and allowing it to be purchased particular part of ordinary shares of issuers. The holder is illegible to sell them in parts.

**Intermittent (moving) warranty** is the one, which may be sold separately from the securities, it was initially fixed to.

**Bond with warranty** – is the combination of ordinary bond and warranty on purchasing share. The bonds with warrant may be represented as the opportunity for separation from warranty, as

well as this opportunity. Herewith, realization of warranty doesn't mean termination of validity of bond. The warranties allow issuance of bonds with lower interest rate.

**Dividend warranty** – is the certificate, certificate about receiving warranty, to pay dividend to the shareholder.

**Interest warranty** – is the ordinance of corporation about paying interests, accrued to its bonds and other securities.

**Index warranty** – is the option on the exchange index, issued as the part of securities and warranted by the clearing chamber,

**Currency warranty** – is the option, included into the issuance of securities and its holder is eligible to purchase additional securities expressed in other currency, from the issuer. Herewith, voucher and rate of security is fixed in terms of selling principle emission.

**Closed warranty** – is the warranty, determined on selling or purchase of securities, being in the portfolio of investment company.

**European warranty** – this is the warranty, used only on particular days and periods.

Purchasing warranty makes sense in case when they consider growth of the price of shares, in term of their issuance. Selling warranty is one of the methods of placement of new issuance of shares. Trading with warranty may be implemented at the stock exchange.

**Second** – the warranty is confirmation of commodity transaction, for accepting particular goods for storage. In such case, the warranty is commodity-managing document and it is used in terms of selling or leasing goods. It includes: **warehouse** and **security** certificates. **Warehouse certificate** is non-emission security, issued by the warehouse in the form of the paper document and confirming the fact of existence of goods at the warehouse. It serves transfer of property right in terms of selling or exchanging it. At the same time, the warranty is transferred to the creditor according to the endorsement. The creditor may implement following transaction, namely, in terms of repayment of loan to the holders of warehouse certificate. In terms of transferring warranty from hand to hand, the good may change owner several times, and stay in one place, i.e. at the warehouse of industrial subject sending the given warranty. Security certificate is used for acceptance of credit under the security of goods (sum, term). In terms of security goods, warranty shall be separated from the warehouse certificate and transferred to the holder of security.

In terms of taking goods from the warehouse, it is necessary to submit both parts of the warranty stipulated above. In both parts of dual-certificate, requisites shall be similarly recorded

and both parts shall have identical signature from the authorized person and commodity warehouse seal.

Warranty is issued particularly on the nomenclature of goods existed in the reserves of the warehouse of debtor enterprise and which may be submitted to the trade by means of stock exchange. Purchaser of warranty, gets opportunity for purchasing required goods in reduced price, and the debtor – issuer of warrantor – provides rapid and profitable realization of goods and corrects accounts of creditors. Warranty is nominal and on bearer, endorsed and non-endorsed.

### **8.5.7. FUTURES**

Futures is termed equity contract, one party to which undertakes purchasing and another – selling particular amount of basic assets within defined term and for fixed price.

Signing futures contract, as a rule, is not aimed real distribution of goods. Global statistics shows that not more than 5% of contracts are performed without real distribution.

Unconditional performance of futures agreement is warranted by the clearing chamber of the stock exchange, granting high-liquidity to it.

There are more than 60 different equity goods, on which futures contracts are signed. They may be conditionally divided into four principle groups:

Agricultural products and metals;

Securities (principle bonds);

Foreign currency;

Stock exchange indexes.

**Kinds of futures contracts.** On its turn, futures contract is negotiation between parties about sale and purchase of goods, for the predetermined price. In the futures agreement they consider price of purchasing, but the asset before distribution date is not subject to distribution. Participants of transactions are responsible for the terms and conditions of performing contracts. Future contracts are placed to the stock exchange only on such assets, as agriculture goods, ore, foreign currency, securities with fixed incomes, market indexes, bank deposits, etc.

The Parties concluding futures agreement are not sellers and purchasers, as each of them undertakes obligation on acceptance of one asset (for example, shares) and distribution of another asset (for example, money). Though there is such tradition at the futures market. The party undertaking distribution of market asset declares that he “has sold the futures” i.e. occupied “short”

position, and the party undertaking obligation of accepting market asset, declares that he “has purchased the futures” or occupied “**Long**” position.

**Futures price** is the reflection of expectation regarding future price of stock exchange asset. This is the price fixed in terms of signing futures agreement. It may be lower or higher than the price of basic asset currently (spot price). The situation, during which future price is higher than spot price, is called **contango**, and if lower – **backwordation**.

There are following kinds of futures contracts:

**Commodity futures** – agreement on delivery or receipt of goods in particular amount and quality, where there is the price and time fixed. Basic goods may be corn, oil, precious metal, commodity good, etc.

**Financial futures** – agreement, reflecting sale and purchase of particular financial instrument within defined term and price.

**Interest futures** – these futures contracts are those, based on the debt securities. The most distributed kind of interest futures at US market is bill futures. Herewith, US treasury mid-term and long-term bonds with 30-day interest rates and 90-day depository certificate of EUR-USD.

Futures price, basis to which is short term interest, is defined in following rule: interest rate fixed in the agreement – 100. Scale of turnover of agreement price – basic point equaling 0.01%. On each type of each basic point have one and the same absolute cost value:

$$P_{bp} = (B_p \times N_k \times S_k) \div 12 \quad (8.1)$$

Where:

$P_{bp}$  is evaluation of the cost of basic point;

$B_p$  – basic point (cycle equals to 0.0001);

$N_k$  – standard nominal of contracts;

$S_k$  – standard term of performing contract (in months).

Futures price, basis to which is long-term interest rate, determined according to the following procedure: - amount of interest, formed at the market of cash transactions – 100. In the scales of prices is not 0.01%, but 1/32 nominal on each 100 units. Formula of transaction is of following kind:

$$P_{bp} = 1/32 \times 0.01 \times N_k \quad (8.2)$$

**Currency futures** – these are future contracts, based on the foreign currency. Currency futures are realized in accordance with the currency rate. Price of futures contract is expressed with the amount of US Dollars on the unit of currency.

Price of basic point is determined in the following way:

$$P_{bp} = S_m \times N_k \quad (8.3)$$

Where:

$P_{bp}$  is cost of the point in US Dollars per national currency price;

$S_m$  – standard value of basic point, determined by the stock exchange in US dollar per currency unit.

Trading with currency futures agreements is provided in USA at the International Monetary Market, which is subdivision to Chicago Mercantile Exchange (CME). Futures are traded only in St. Petersburg stock exchanges in Russia.

Currency futures, as forward contracts, are fixed cost of particular currency, before some moment of distribution in the future. Different from forward agreements, futures contracts are standardized and trade operations are provided at the organized market there. Successful trading with future contracts, conditions liquidity of stock exchange.

Corporate or institutional investors are able to make important income through hedging financial futures. Trade operations on currency futures, may assist transnational corporations in compensation of the currency risk related with investments.

Futures contracts provide necessary service for the participants of currency market. This service includes:

Particular prices, i.e. interrelation of market participants, providing hedging and speculators provided to determine future price of some currency;

Liquidity, opportunity for market participant, to implement sale and purchase any time, when the market is open for trading;

Protection of customer, implemented by coercion, by developing exchanging rules.

For provision of high level of the customer's protection, they use following measures for SME: margin requirement, protection from bankruptcy; protection from nonfulfillment; clearing system.

In terms of trading with currency futures the first level of security is the nominal margin. Stock exchange defines demand of margin for each company – member of clearing system.

In its turn, the company sets the norms for the customers (seller or purchaser of futures contract). These demands minimize potential loss, which may be suffered by the customer in case of bankruptcy or insolvency of the company.

Except nominal margin, there are demands of maintenance margins as well. The demands are based on the rise or reduction of the cost of futures contract.

For example, there is **Federal Law on Commodity Exchange ACT** in the USA, **regulating commodity trading. Subject to the law, the company acting on the futures market is liable to maintain capital up to the determined level, to have customers resources separated from its capital. This activity is directed towards securing customers in case of bankruptcy of the member of clearing system.**

Clearing system of stock exchange operates only with its member companies and not individual members of the market. The stock exchange performs settlement directly with the members of the clearing system. By means of this, avoidance of influence of customers upon cash resources of the company takes place. Such system provides the means for performing payments to the member companies, notwithstanding possible insolvent party of the opposing position.

Clearing Chamber operates as the warrantor for implementation of future and optional agreements. The Chamber provides timely delivery by the seller, and timely and complete payment for the asset by the purchaser, but liquidation of the most part of agreements is provided before the date of performance, by means of sale and purchase of other agreements (investors close their initial positions by means of compensation transactions).

Standardized futures contracts include following elements determined by the stock exchange:

Unit or volume of contracts,

The method of quotation of price;

Minimal change of price;

Terms of performance

Preliminarily determined term for completion of trade;

Securing or demanding margin.

**For example, evaluation of each currency contract at the monetary exchange of America is provided in US Dollars. The contracts have standard term of performance. Covering currency futures**

contracts is provided after expiration of the term of the contract on the third Wednesday of the month. Trading with the contracts is completed two working days before the said Wednesdays, when the term is expired according to them. Usually, this is Monday, preceding the said Wednesday.

Market quotation of currency futures, as well as market quotation of oil, oil products, and gold futures, performed at the stock exchanges, are published in the financial sections of daily paper Financial Times; in Russia in the papers Komersant Daily, Vedomosti, where quotation of futures of energy products are published. Finding quotation of currency futures is difficult in the information agencies of Georgia, as futures are not circulated in Georgia, and no papers are wasted in this direction.

Currency futures are used by investors, companies, providing operations abroad, as well as exporters and speculators. Purchasing contracts provides “long” position to the purchaser (according to the rapid transactions of position, when playing is directed towards rising rate) and may be used for hedging of future payable obligations with the same currency.

For example, Georgian importer may conclude agreement about purchasing goods with the German suppliers, where settlement is provided in Euros; in terms of hedging during increasing the price of Euro, Georgian importer may purchase one or several future contracts on Euros (according to the volume of future payments). In case of increasing Spot rate of Euro, the cost of future contract will be increased at the same time. On the payment time, the importer may purchase Euro according to Spot-rate.

Due to increasing price of Euro, he will waste more money, but the growth will be compensated by means of increasing the value of futures contract, holder of which is the importer.

Any futures contract may be sold at the market. The profit received in such case will approximately equal to the additional expenditures, which are provided by means of increasing Spot-rate of Euro.

Selling currency rate will give rise to the “short” position (position per termed transactions, when playing is provided on lowering/rising) of seller with this currency.

For example, Georgian exporter may conclude agreement on selling goods with German purchaser in Euros. By reducing cost of Euro for hedging, Georgian exporter may sell one or more futures contract with this currency.

Later, the exporter may purchase futures contract with the settlement date similar to Euros. Consequently, liquidation of currency positions takes place.

**Futures on stock indexes** – these are agreements, based on the index of multiple evaluation of stock market.

For example, in USA they often use for the foundation aggregated indexes of “Standard & Poor’s 500”, New York Stock Exchange and Value line.

The operations with stock indexes turned into the most popular futures transaction, as they represent agreements about sale and purchase of imaginary package of securities, accumulated from the shares of the largest companies, cost of which determines the size of stock indexes in terms of summarizing. For example, PPTC (Russia), Nikkey (Japan), Dow-Jones (USA), Galt&Taggarti (Georgia), etc.

Let us assume that current price of typical package concluding of 500 shares of the largest enterprises of USA, according to which index of Standard & Poor’s 500 is calculated, makes 170 thousand US Dollars. If in one hour, the index goes lower, i.e. total exchange rate of its components suffer fall to 167 thousand US Dollars, the player, who sold index portfolio, purchases it and closes the operation with 3 thousands of profit.

#### **8.5.8. OPTIONS**

**Option agreements.** **Option** is the contract, purchaser of which is eligible to sell or purchase the asset in the fixed price, within defined term, and the seller undertakes obligation to provide realization of this right according to the demand of the counteragent in exchange for the monetary premium.

The investor, which is sure in the fact that its prognosis on particular asset regarding future prices will be justified, having opportunity for concluding future agreement, but this will make it position quite risky, as if his prognosis doesn’t appear to be correct, the investor will be unable to refuse performance of the transaction, as futures agreement considers “obligation”. Herewith, the investor can limit his financial risk by concluding optional transaction.

First the options were used in 1609 in Holland. One of the first options appeared in Holland in the XVII century. These were the options with tulips (flower).

Today, concluding option agreements at the equity markets is provided on different goods, currency, securities, and stock indexes. Rapid growth of option markets worldwide began from 1970 and there are stock options, as well as off-exchange options, circulating outside the



stock-exchange.

Option contracts are signed on five groups of goods:

Currency;

Securities;

Interest rates (stock credits and deposits);

Stock index;

Financial derivative instrument.

Options of credit and deposit interest rates are the issues of interest. They guaranty the purchaser to keep the interest rate stable – upper or lower the determined level.

There are two principle types of options at the global market – American and European. They are different in the terms of performance. For example, according to the American type, the option may be realized during entire term of performance of the agreement, and according to the European one – only on the last day f the term.

The options **on securities** are often called **warrants**. They grant their holders the right to purchase securities of particular amount of particular company for particular price.

**Warrant** – is the security, with the help of which its holder is able to purchase share from the company, with the rate stipulated in the warranty.

Different from the signed rights, the warrant is the long-term security, terms of circulation of which are 5, 10 and sometimes 20 years. Some warrants have no terms of repayment.

**Rate of performance of warrant** – this is the declared rate, according to which the holder of warrant may purchase the share issued by him. The warrants have relatively lower price; due to this they are characterized with unstable rate and provision of high norm of profitableness.

Investment of resources into the signed rights and warranties, gives the opportunity for using effective levers, existed in the opportunity for purchasing particular share in the equity capital of the company with the relatively lower costs of the capital.

Depository receipts, signed rights and warranties, convertible bonds, or secondary securities may be only conditionally dedicated to the derived financial instruments, as their occurrence and utilization, as well as pricing, is in direct relation with the circulation of principle securities. The role of creator and issuer of securities is played by the issuers of principle securities (the issuer of classical derived securities is the clearing chamber of the stock exchange).

Besides this, if issuance of the derived securities is implemented for the purpose of hedging trade positions of the participants of market, issuance of the secondary ones will encourage old owners of basic securities (with convertible bonds, signed rights and warranties), or will take securities to the new financial markets (depository receipts).

Official agreements are concluded in one day in the USA on more than 500 shares. Americans have developed creatively the spectra of using options. Particularly, they concluded options on the derived financial instruments, futures agreements, swop-options and the options themselves (double options).

As economical event, the option is the right of sale and purchase (or refusing transactions), concluded with the agreement, and foreseeing implementation of such right during term of the agreement and with the fixed contractual price with particular volume of market asset; or making particular income from financial contribution or cash loan.

The price the option is implemented with is called the performance price, i.e. strike price.

Two parties – the purchaser and the seller - are participating in the optional transaction. Purchaser of the option (holder of the option) is the party of the Agreement, getting the right of sale and purchase of market price or refusing transaction. The seller is the party, which is liable to supply or receive subject of transaction at the request of the purchaser.

In terms of purchasing, the purchaser pays to the seller **option premium** – option purchasing price. The premium is concluded on two components –internal and temporary price. The first one is the distinction between current price of the asset and the price of performing option; another one is external price – this is the distinction between price of premium and internal price of option.

Main task, to be solved by the investor is determination of the option price. For calculation of theoretical price of option, they use quite complex mathematical formula. There are two the most famous models of determining optional premium:

Black–Scholes and Cox model;

Binominal model of Ross and Rubenstein.

For evaluation of the most frequent call option (without foreseeing tax payments and transaction costs) they use the formula of Black–Scholes:

When

$$C = S \times N(d_1) - E \times e^{-rT} \times N(d_2)$$

$$d_1 = \frac{\ln \left( \frac{S}{E} \right) + (r + \frac{\sigma^2}{2})T}{\sigma \sqrt{T}}$$

$$d_2 = d_1 - \sigma \sqrt{T}$$

Where

C is true price of European call-option;

S – current market price of basic asset;

$N(d)$  – cumulative standard normal distribution;

r – interest rate, which is free from the risk;

E – the price of performing option;

T – the time before performance of contract, fractions per year;

e – Grounds to natural logarithm;

$\sigma$ ,  $\sigma^2$  – standard deviation and dispersion of the equity exchange rate.

Binominal model of Cox, Ross and Rubenstein is used for evaluation of the premium of American options. Entire period of validity of option agreement is divided into the time intervals. It is considered that in terms of each of them, price of basic active may be increased or reduced with particular probability. Prices of basic asset receive the meaning for each interval of time; based on the data of standard deviation of the rate, they distinguish possibility of increasing or decreasing exchange price of the asset on each period of time.

Determination of possible prices of option on given time is provided on the meanings of the prices of assets, for the moment of completing the option. After this, by means of consistent discount of option (based on the increasing and decreasing price of the asset on each period of time) they receive the meaning of its price, in terms of concluding agreement.

**Kinds of option.** There are different kinds of options. **According to the terms of performance,** they are divided into two types:

American, during which holder of option may implement his right any time, within option term;

European, during which, realization of rights included in it may be provided only upon occurrence of the term given in the Option.

According to the **rights obtained by the purchaser**, they distinguish two types:

Purchase option – call, authorizing its purchaser purchase the asset envisaged in the Agreement within defined terms, from the seller for the price of implementation, or refuse its selling;

Option of selling, put, authorizing its purchaser sell the asset envisaged in the agreement within defined term to the seller of option, for the price of performance or refuse selling.

As the price of market asset **permanently fluctuate at the cash market**, conformity of spot price and option performance price may not conform to each other. In this regard, they allocate three categories of options:

Option with profit, making immediate profit to the investor;

Option without profit, making no positive and neither negative influence upon financial status of the investor;

Option with loss, giving rise to financial losses in terms of immediate performance.

Options are completed, if in terms of performance they are profitable options.

**The strategies of trading with option agreements.** The options authorize investor use trade strategies. The most simple among them are so-called synthetic strategies: conformity of option purchasing (selling) together with the purchasing basic assets, for example – shares. Such strategies allow investors insure their positions against high risks.

Theoretically, optional strategies allow investors provide maneuvering, but opportunity for different maneuvering in practice is limited with the fact that most of the exchange options are American, preventing the opportunity for exact determination of the outcomes of actions.

Using of option became popular in 80s for securities portfolio insurance. Put-option is used for indexing, which is similar to the portfolio of investor.

By means of options, the investor is able to insure himself from rising and fall of the price of asset interested to him. If the depositor provides hedging of his position from increasing price of the asset, he shall purchase call option or sell put option. In the second case, the investor insures himself only on the size of the premium, made from selling put option.

Each purchaser of option would like to have the warranty for the seller's performance of obligations in terms of implementation of the option. Purchaser of call option tries to receive the warranty for the seller's having ability to provide required shares, and purchaser of put option tries to take the warranty that the seller is able to pay required sum. Due to this in terms of trading with options, the stock exchanges set security demands – the system of securing from the seller's actions, which is known as margin. For brokerage companies, it is allowed to determined stricter demands for the customers voluntarily.

There are more complex strategies, which are formed by simultaneous selling and (or) purchasing of option.

**Combination** – this is the portfolio of different kinds on one and the same asset, with one and the same term, similar and different prices. Kinds of combinations:

**Straddle** combination – call and put options on one and the same basic asset, with similar price of performance and similar terms of agreements. The purchaser is eligible to sell or purchase it with the defined price in the future, basic asset on particular time, but here he shall sell or purchase it. He is prohibited to do both together. It is used in terms of important change of the price of basic asset in the future, but it is impossible determine exactly the direction of the said changes. The seller hopes for fluctuation of the rate not to be big; the seller pays to the purchaser two premiums, sum of which was called stelage tension in prerevolutionary Russia;

**Strangle** – conformity of put and call options, totality of similar expiration, but on the basic assets having different prices of performance. It mostly attracts seller of options, as it allows opportunity for making profit in terms of wide range fluctuation of the rate of shares;

**Strap** – combination of one option having the term of similar expiation and two call-options. Price of performance may be similar and different. The purchaser appeals the combination, if he considers that the market basic price is to be increased;

**Strip** – is the combination of one call-option having similar or different prices of performance of similar terms and agreements and two put-options. They are purchased when there is the assumption that market asset rate is expected to be decreased;

**Spread** – this is the portfolio of the option of one and the same type on one and the same asset, but by performance of different prices; herewith, according to some of them, the investor is the seller, and in other cases – he is the purchaser.

Besides multiple trade strategies, based on the utilization of the options, there also are derived financial instruments, including signs of options. They may include such instruments, as cap, floor, collar, etc.

**Cap** – is the agreement on providing credit with floating interest rate, and with the warranty that it will never be more than particular level. Using this instrument allows the borrower limit the risk according to his obligations.

**Floor** – agreement with floating interest rate of distribution loan, but with the condition that it will never be decreased below particular level. In such case, the creditor limits the risk of decreasing interest rate.

**Collar** – this is the combination of interest options – cap and floor. It protects the investor from great fluctuation of interest rate of investor, as it sets lower limit of changes of interest rate.

**Warrant** on the share is the call option, which is subscribed the company on its share. Usually, issuance of warrants is provided only for long term (five or more years), than typical call options. They also allow term-free warrants.

Prices of performance may be fixed or may vary during the term of warranty as a rule, to increase nominal price of performance in the moment of issuance of warranty, is usually determined as much higher than market price of basic asset. The warranty may be distributed between the shareholders, instead of dividends and to sell in the form of new issuance of securities. The company may also sell the bond or share together with the warranty.

One of the signs distinguishing warranty from call options, exists in the fact that the amount of warranty is restricted. They always issue particular amount of warranties of particular type. Usually, general amount may not be increased or reduced according to the performance of warranties. Performance of warranties influence positively upon condition of the corporation, receiving more resources, at the same time increasing amount of shares and reducing amount of warranties.

**Signed right** looks like the warranty, as it is the call option issued by the companies on own shares. The right is sometimes called signed warranty. This instrument authorize shareholders with the priority right to sign new issuance of ordinary shares until their public placement. Each share, being circulated, receives single right. One share may be purchased with the rights of particular amount and with the cash sum, equal to the price of signature. To provide provision of purchasing new shares, usually, signed price is lower than market price of shares, upon issuance of rights.

The rights usually have short period of validity (from 2 up to 10 weeks from emission) and they may be freely circulated until the moment of performance. Before particular date, old shares are sold together with the rights. This means that purchaser of share will also receive the rights, after issuance. After this, shares are sold for lower prices without rights.

**The options are also related with the bonds with the right of redemption.** May company issues the bonds, allowing redemption of bonds before their repayment for the price, which is usually more than the nominal price. Issuance of such securities means simultaneous selling of simple bond and purchasing call option by the company. For this the company relatively lower price on the bond. Seller of option is represented by the purchaser of the bond.

## CHAPTER 9. PRICING AT THE SECURITIES MARKET

### 9.1. TASKS AND PRINCIPLES OF PRICING AT THE SECURITY MARKET

**Pricing – this is the process of formation of prices, based on the existed economical conditions, applicable regulatory norms and established practice.**

Price – this is monetary expression of the cost of securities. The value is – initial, and price is secondary. The Price is the settlement value, and price is declared, which may be observed in terms of quotation. At any particular moment, price is unambiguous; herewith, pricing depends on the amount of professional participants and the methods of its calculation.

The issuers and investors, sellers and purchasers, intermediaries and specialists participate in formation of prices at securities market. Each of them has own interest and orienteer. For example, price of securities for the issuer is numerical expression of made expenses. For the investor, price is monetary expression of the value of purchased securities.

Price at the equity market depends on the totality of capitals, invested into the securities (demand), and the size of the securities distributed for selling (distribution).

#### **TASKS OF PRICING**

Tasks of pricing at securities market are:

Reflecting real conformity of demand and distribution;

Implementation of particular purposes of pricing;

Foreseeing different factors, influencing upon determination of prices;

Regulation of securities market.

Basic principles of pricing at securities market are:

Scientific approach, i.e. justification of purposes of pricing, kinds of prices and separate elements of prices.

Purposeful direction based on the price policy and price strategy;

Coordination of strategy and tactics of pricing;

Conformity; i.e. opportunity of conforming prices of different periods;

Foreseeing price levels on the similar financial instruments (on securities of different categories);

Reality, reliability, or reflection of actual expenditures made on issuance of securities and reflecting real level of expenditures on equity operations;

Benefits, reflecting emission of securities in the price of securities or purposefulness of operations on them;

Reducible profitableness – it means that the more securities there are at the market, the less valuable each additional unit is;

Demand of investors. Demand of each investor on securities demands on the sum, which are ready to be paid by each of them; i.e. price on securities are determined in compliance with their demand;

Incomes of investors, influencing upon demand. In terms of increasing incomes, demand is increased and, respectively, reduced – in terms of reduction of incomes.

### **STRATEGY OF PRICING**

Principles of pricing are realized in the strategy of pricing. Strategy of pricing depends on the selected purposes, particularly:

Rapid profit from selling;

Setting high nominal price (the strategy of “skimming the cream off”);

Market penetration;

Obtaining part of the market;

Setting low nominal price for the purpose of attracting more investors;

Setting price in accordance with calculation of expenditures;

Anti-expenditure approach;

Setting price at the market level;

Personal relation with customers.

Peculiarities of fixing prices on securities are determined by issuers, at the stage of making and processing decisions about issuance of securities. Terms of issuing securities are determined and market segment of its distribution is selected than. If such segment is too restricted, the price is bound to the date of selling security and may be called fixed price. Generally, the issuer may determine only nominal price of initial placement and last price of repayment. Interim prices within entire period of circulation of securities are determined by the market and not issuer. Determining last price of repayment doesn't touch upon ordinary shares.

### **FUNCTIONS OF PRICE MECHANISM**

**At the securities market, prices fulfill following functions:**

**Accounting**, existed in fixing particular price at the securities market in the process of pricing;



**Control**, existed in control of moving costs of securities of different kind;

**Balancing demand and distribution** – in case of reduction of growth of demand on different kind of securities and distribution, prices are increased on them. Consequently, in case of reducing demand and growth of distribution, prices decreased;

**Distributive**. Newly created price based on deviation of value of prices between fields and regions in compliance with accumulation and utilization;

**Management** – price at the market determines the amount and kind investment degree of issued securities, the method of their issuance, kind of expenditures and profit, as well as the person purchasing securities and method of purchasing.

**Prices are classified according to the following signs:** 1) kind of securities; 2) type of issuer; 3) market segment; 4) kind of operation at the securities market; 5) place and time of pricing.

## 9.2. PRICE OF SECURITIES AND THEIR KINDS

**Cost of securities** – this is cash equivalent of investment quality and management opportunities, depending on particular purposes and methods of evaluation. The more rights owned by the holder of securities, the higher shall their price be. Size of price of securities depends on mutual relation of demand and distribution on them.

During emission, price is determined as the size of expenditures on issuance of securities.

Price during issuance is determined as the size of issuing securities; in terms of their purchasing – as possible income, made in terms of circulation of securities in the future; in terms of conversion – as the cost of replacing of exchanged financial asset.

At the securities market, they use different kind of securities for holding different exchange operations. As we have said, the cost is accounting index and separate methodology is used for determination of the cost of securities.

### KINDS OF PRICES OF SECURITIES PRICES

Following kinds of securities prices may be separated:

**Nominal price** – this is the price, noted at the blank of securities, to be determined in the process of emission, in terms of starting circulation of securities, at the decision of the founder (shareholders, obligations). In particular way, this is conditional value, as even at the initial market of securities, they may not be sold with nominal price. Nominal price is used in terms of determining dividends on shares, for determination of interests in relation with other securities (bonds);

**Emission price** – this is the price of selling securities, in terms of their initial placement. It may be more, less or equal to its nominal price;

**Balance price** – determined on the basis of financial account of the enterprise, as conformity of the price of property created with the own resources of the joint stock company, with the amount of issued shares. Balance price is used in terms of revaluation, insurance, division, merger, providing listing;

**Accounting price** – this is the price, according to which securities are included in the balance of the enterprise at the given moment. It is determined as the sum of actual expenditures on purchasing or issuing securities. It is used in terms of recording it;

**Discount price** – this is the price, determined on the basis of discount of cash flows, by using discount ratio and norm of investment. It is used for prediction of future cost of securities;

**Conversed (exchange) price** – exchange price used in terms of conversion of securities;

**Exchange price** – this is the price showing conformity of distribution and demand on securities on particular moment. It is determined as conformity between current price (i.e. possible price of purchasing) and nominal price on particular period of time.

**Market price** – determined as the price at particular moment, under the condition of complete and reliable information and required marketing. It is used in terms of trading, competition and other forms of free market or in terms of determining average price of demand (distribution);

**Internal price** – brought price of the flows of all future cash resources, received by the holder of securities in terms of respective period of time. Cash flows may include dividends, or interests, as well as income from growth of capital or loss, or both together;

**Equity price** – this is the price determined at the stock exchange, as average price of transaction at particular period;

**Insurance price** – determined as the value of insurance remuneration of the securities price;

**Security price** – possible price of security in terms rapid selling of securities;

**Liquidation price** – determined in terms of liquidation of enterprises, for redemption or repayment of securities. It shows the share of prices of tangible and intangible assets (with possible realization price), left after settlement with creditors by calculating on single security.

**Average auction price may also be separated, as well as internal due price, inflation price, investment price, and market price.**

Consequently, one and the same security may be calculated simultaneously at the same time with several prices, which are essentially different from each other by size.

Price and value are in close relation with each other. Initially, price of securities are determined and further, at the moment of transactions, the value is fixed on its basis.

### 9.3. METHODS AND FACTORS OF PRICING

Pricing at the securities market is provided according to particular procedures, using particular methods, based on the generally recognized principles and separate factors. They may include:

Determining boundaries and time intervals of analyzing securities market;

Elimination of principle criteria;

Studying principle events of analyzing period;

Determination of the level of market penetration;

Determining interdependence of demand and distribution;

Analyzing and evaluation of the methods of approach particular environments;

Identification and studying reasons for changing level of increasing and decreasing the level of prices, demand and distribution.

#### PRINCIPLE METHODS OF PRICING

Principle methods, on the basis of which pricing is provided at the securities market are following: expert, analytical, statistical, normative, parametric (pointed), balance and economical-mathematical modeling method.

**Expert method** is based on the experience, and intuition of specialist-experts. The experts are high-qualified specialists of great professional and practical experience (recognized specialists). They give argumentative conclusions on the levels of real price of these or those securities or separate exchange operation price. Difficulty of the method is the fact that the experts are to be selected attentively and analyzing conditions are to be determined in details.

**Analytical method** is detailed analyzing of market conjuncture, recognizing interrelation of internal relations and events, for the purpose of determining progressive trends and opportunities for perfection. In terms of analyzing, for determination of prices they use such working methods, as conformity, diagnostic factorial analyzing, monitoring, and systemic analyzing. Systemic method of approach foresees analyzing elements of the price of securities and factors of different

directions, which at the same time influence upon the levels of each element. Labor consuming of this method exists in the fact that diversity of different sources of information is to be foreseen.

**Statistical method** is based on the statistic analyze of securities market by using average values – indexes, dispersions (absolute deviation from the average values), and variation (relative deviation from average values); using correlation and regressive analyses. Stock indexes are used relatively actively, allowing determination of trends of changing market conjuncture, according to the particular kinds of securities. Complexity of statistic analyses exists in the necessity of determining correctly kind of statistic dependence and selecting method of analyzing.

**Index method** – exists in determining general trends of changing conjuncture of securities market of particular kind. Complexity of this method exists in selection of stock index for non-convertible securities.

**Normative-parametric (pointed) method.** In terms of analyzing securities or stock operations, they determine every investment characteristic, featuring given securities or operation.

Securities are granted each investment characteristic or stock operation parameter with particular range of normative importance. Normative unit is evaluated with particular amount of points. Each obtained point is summarized and total amount of points are multiplied on the price of preliminarily obtained price of one point. Consequently, the level of particular price is adopted. Default of the said method is inequality of separate parameters, great range of normative values, and subjectively of pointed evaluation.

**Balance method** foresees using balance price of securities determined by dividing total price of the property fixed in the official reports by the enterprise into the total amount of shares. Price of the property is periodically changed in terms of revaluation of basic assets, making it difficult to use the method. According to the balance they determine nominal price of share (authorized capital), nominal price of bonds (short-term and long-term loans), market price (emission income) and price of redemption (net assets). Default of this method is that it is impossible to foresee different factors of pricing.

## **ECONOMIC-MATHEMATICAL METHODS AND MODELS**

Economic-mathematical methods and models are specific lines of analyzing by using computer technologies on the basis of chart or logic models in the form of imitative models or dynamic modeling. They are based on construction of particular schemes (models) fixing particular relation and foresee particular factors, having positive and negative influence. At the securities market they

may use conceptual-mathematical, trend, and competent analyzes, structural, statistical, factorial, graphic, logic and imitative models. These models are schematic reflections of different factors at the level of pricing.

**Conceptual model** foresees particular methods of approaches, concepts (they system of opinions about the process of pricing at the securities market). For example, subject to the price concept, price is modeled as monetary expression of true market price of securities. Balance concept is formed of the fact that the price at the equity market reflects the balance between demand and distribution on particular securities in the moment of implementing equity operations. **Mathematic models** play the role of strictly determined mathematical relation, characterizing the process of evaluation. **Trend models** are built on the basis of depending on several values of prices, characterizing firm trends and fluctuations at the equity market.

**Complex analyzing models** express dependence of the level of price on the particular, settled components of securities market. **Structural models** include analyzing of structural elements concluding particular price, feedback between them and their influence upon changes of price level. Statistic models are based on recovery (repeated creation) of statistic regulations and deviation from them. Using this method initially is theoretically based on the selection of relation and parameters of the model are evaluated on the basis of building dynamic lines of statistic observation. And after this, conformity of the model of selected type is verified with the particular conditions of evaluation.

**Factorial models** are based on factorial analyzes relation of the price level on particular factors of quality determination. **Graphic models** are grounds to technical analyze and they give graphical image of particular trends of the dynamics of changing securities price. **Imitative models** are built in the form of selecting versions of prices of deferent levels under the advantageous, disadvantageous and average conjuncture, in terms of totality of different factors. The models may have statistic and dynamic nature, to be linear and multi-dimensional, to be processed by using computer technologies.

Complexity of the method is selection of the best model for securities of particular kind and exchange operations.

## **RATINGS**

**Rating** occupies special place among pricing methods. Many institutional and private investors foresee rating of securities in the process of making investment decisions when purchasing their

securities portfolio. Rating researches are conducted by professional participants of the securities market, as well as separate analysts.

All rating companies use almost unified symbols. Each symbol has almost similar meaning, as investment rating:

The highest level – AAA;

High level – AA;

The level higher than average, investments are reliable – A;

Average level, particular indefiniteness – BBB+, BBB-;

Intermediate level high indefiniteness – BB;

Speculative – B;

Speculative, high risk of insolvency – CCC;

Speculative, insolvency is doubtless – CC, C;

Outdated, of no clear value – DDD, DD.

Ranging, i.e. granting particular place in the rating, is not always provided objectively. It is more purposeful to consider their outcomes as probable, but not absolute.

Rising rating provokes growth of the price of securities, while reduction considers falling. If rating of the shares is raised by several companies at the same time, price of the shares may be increased in 10% or more in some minutes. Considerations changing rating of shares are absolutely different: expectation for reduction of sales of the products of company, increasing overhead expenses on transport, increasing price on raw material, etc.

There is the multiplication method of evaluation of securities. It is based on using different ratios (multipliers). Total value of securities is determined through calculation of the arithmetic weighted average value or determining their share, to be determined with different methods.

Selection of the method of determining the value of securities depends on the kind and status of securities and territorial and sectorial affiliation, investment characteristics; nature of circulation (quoted, unquoted), liquidity (of high liquidity, of average liquidity, of low liquidity, illiquid); form of issuance (emission, non-emission); profitableness, reliability and safety of securities and their amount; forms of registering transactions and terms and conditions of reimbursement; also goals of evaluation.

## 9.4. FACTORS DETERMINING COURSE OF SECURITIES

Pricing process at the equity market is influenced by great amount of factors, which may be conditionally separated into three groups. Each of the groups has its subgroup (Figure 9.1). For example, the first group includes traditional and specific factors; the second group – objective, subjective and speculative factors; the third group – external and internal factors.

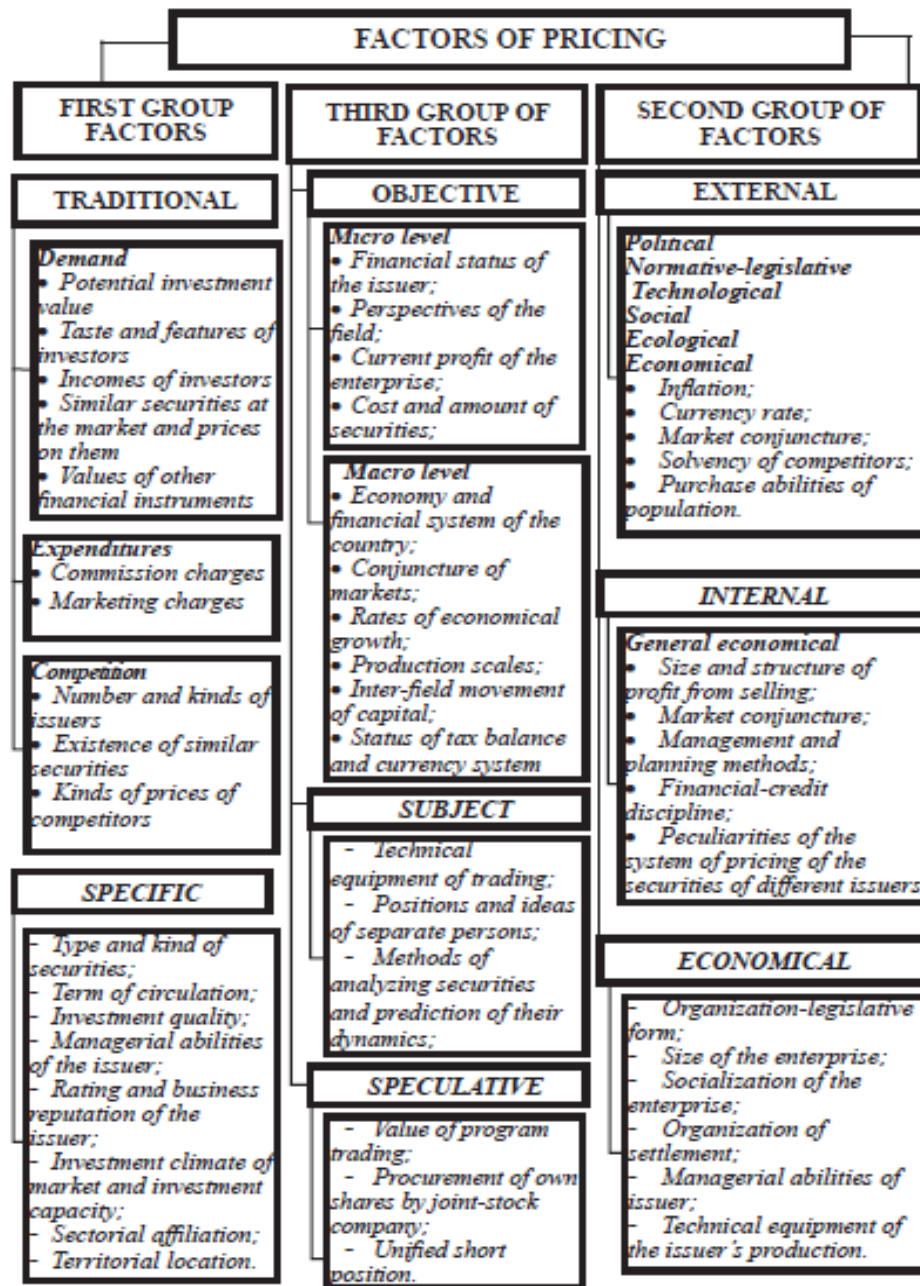


FIG. 9.1. THE FACTORS INFLUENCING UPON THE PROCESS OF PRICING

The process and course of pricing of securities is influenced by two factors: internal environment of the enterprise-issuer and external environment of the enterprise-issuer.

Due to this, study of these factors influencing upon pricing and course of securities shall be provided, in the first place, inside the enterprise in connection with analyzing and evaluation of economical process inside the enterprise and, on the other hand, in connection with analyzing and evaluation of external environmental factors, taking into account social-economical policy of the country.

Such division makes it possible to separate all the factors influencing upon the process of pricing of the enterprise-issuer into two large groups. We shall note that this separation is pure conditional methodology method, making it possible to determined direction influencing upon price and rate of securities more precisely. Under real conditions, these factors are interconnected and interrelated. It is difficult to distinguish them.

### **FACTORS OF THE FIRST GROUP**

First group unites the factors, related with external environment of the issuer-enterprise. It includes economical, social, political, legal, international, scientific-technical and other conditions of the country influencing seriously upon the pricing process inside the enterprise and generally at the securities market. Under modern conditions, this group of the factors gains special importance, they mostly control internal factors by the enterprise and in case of necessity they may solve them independently. External environment includes the factors, which may be influenced by the enterprise through management, as well as the factors, which are not managed by the enterprise. Due to this, external environment covers internal system and restricts it.

Reduction of the rates of economical growth, as well as the problems of taxation, banking, credit and other systems and inflation is immediately reflected in the purchase abilities of the investors, and relatively, capitalization, financial and economical conditions of the enterprise, risk of investments and rating of the enterprise, and finally – rate of the securities of the enterprise.

State legislation and conformity of political forces influence upon investment activities of the enterprise. This is reflected in the legal influence upon the enterprise through issuance of respective normative acts, directly or indirectly influencing and regulating the activity. Relatively important factor related with external environment is taxation system of the country. Among state financial regulation levers, taxes are the main ones. With their help they regulate the level of profitableness and the value of cash savings, left under the management of the enterprise and the company. High level of taxation of the industrial subject restricts their financial abilities from the



point of increasing economical effectiveness of their financial abilities, and their inclusion into the investment process.

Objective evaluation of the situation at the market and possible directions of further activities for the purpose of rising effectiveness of pricing may be provided only on the basis of analyzing each factor. Operation of the enterprise in direction of studying securities market is of special importance. Ignoring a single factor gives rise to non-reliable outcomes defecting direction and power of influence of other factors.

The factors of external environment of the enterprise hardly obey to management or it is not regulated by the enterprise. Their neutralization is in fact impossible, we may only try its avoidance, reduce negative influence or strengthen positive influence of external environmental processes through permanent collection and analyze of the information about trends of developing, also through prediction of possible changes of external environment of the enterprise.

#### **FACTORS OF THE SECOND GROUP**

Factors of the second group are the factors related with internal environment of the enterprise. These are the problems, conditioned through principle functions and tasks of the enterprise. In the first place, main task of any enterprise is management of social-economical potential, i.e. entire industrial mechanism of the enterprise and effective management of investment activities.

Financial status is of special importance for the given enterprise, as well as its image and trust from the side of financial institutes, influencing significantly upon demand and price of securities.

The process of pricing, in the first place, is influenced by internal industrial infrastructure, including offices of the enterprise (accounting, financial-economical, commercial, labor resources, information-analytical office, etc.), the model of formation of internal industrial relations (the form of employment, the system of remuneration, the system of responsibility, the system of stimulation, organization culture of the enterprise); models of forming financial program; pricing models; the model of inter-responsibility; models of dividing income, etc.

**Creation of respective internal industrial infrastructure may solve following issues:** processing financial-economical policy of the enterprise; management of organization development; management of labor resources; control and management of internal industrial relations in the pricing process, implementation of internal audit, conformity of inter-industrial economical and social interests; complex management of information system inside the enterprise; implementation and regulation of commercial activities; pursuing internal and credit-financial policy of the

enterprise; rendering expert-consulting services; forecasting and analyzing risk situations; planning and analyzing commercial-industrial activities of the enterprise.

### **MANAGEMENT FACTORS OF PRICING**

Among management factors of pricing the factors of forecasting may be distinguished, as well as planning factors and management systems of operation of the enterprise by using economical, legal, administrative-industrial and other levers.

Management factor is objective analyze of pricing and evaluation of effectiveness, using different methodologies and criteria of evaluation required for each element of pricing, giving rise to making non-optimal decisions and huge economical expenses. Due to this, it becomes necessary to determine the parameters, evaluation indexes, giving image of effectiveness of the process of pricing and determination of reserves and directions for their further improvement.

Effective management of pricing requires continues rising of the level of financial operation, qualification of the required and correctly selected personnel, improvement of its methodologies and technology. This is possible through computerization.

Such factors, as: value of human resources, professional qualified composition, planning staff, transportation, rotation and training, influence upon pricing of the enterprise. Making specified and qualified decisions on the prices of securities people with particular features and high level of professionalism and competence are required, in order to make rapid reaction on the changing conditions of the work. Human resources, their training, qualification, knowledge and experience, as well as their personal features support not only effective management of the process of pricing, but also rise competitive positions of the enterprise, through profit formation and the mechanism of effective utilization.

One and the same objects and events may be of different importance for different enterprises, which differ in size, field of activities, etc. For example, orientation of behavior for some enterprises is making profit, rising different social functions; for others – obtaining market or widening its boundaries, etc.

Under modern conditions, information provision is not of less importance for effective pricing than financial and HR provision. There is the problem of correct selection, processing, analyzing, evaluation and transfer of obtained information. This, in its turn, touches upon the problem of optimal selection of the package of programs of applied nature, which may process entire accepted information within shortest period of time.

**One of the factors, related with effective pricing, is the problem of using normative and legislative provision in correct way.** If external legislative provision is not subject to the change, not depending upon activities of the enterprise, internal legislative provision may be improved through making rational and correctly decorated management decisions.

Formation of new information technologies, accessibility of global computer network, creation of new form of cash-free settlement (virtual payments) support involvement of new elements into the pricing structure of the enterprise, giving rise to salvation of one problem and creation of another.

Computerization of collection and processing information of different kinds gave sharp rise to the profitableness of labor, and operative nature of made decisions. Great share of the work may be performed under the conditions of small staff. Though, in order to maintain technological electric systems in good conditions, the enterprise shall hire programmers and engineers for the computers.

Complex analyzing of all possible influence of external and internal environment may be provided at the level of developing operation strategy of the enterprise. Strategic planning makes it possible to related different directions (HR, economical, social, risk, financial, investment) of the implemented policies. This is specially actual in the field of investment activities, where necessity of recording and foreseeing of strong regulation factors takes place, as well as their influence upon behavior of investors and issuers. Based on the outcomes of processing marketing information, strategic planning reduces significantly risk of selecting and realizing ineffective investment project, through lack or/and non-reliability of information. At the same time, in the process of developing strategy, removal of indefiniteness takes place, which is related with subjective evaluation of the analysts.

Above factors influencing upon pricing, make it possible to foresee entire diversity of internal and external environment, to find effective methods and ways of solving all problems. Finally, all these give rise to optimal pricing of securities under the conditions of minimal material expenses and time spending.

Following group of factors, influencing upon pricing, are traditional factors (demand, distribution, expenditures, competitiveness), also specific factors (type, kind, circulation time, investment quality, management opportunities of the securities, rating of issuer and its business reputation, its sectorial affiliation, territorial location, investment climate and investment capacity of market).

Abundance of traditional factors influence upon pricing process and at the same time foreseen in practice, united into 3 groups: demand, competition and expenditures. Factors of the demand include: value of potential investments, taste and features of investors, their incomes, existence of similar securities at the market and prices on them, also prices of other financial instruments. Factors of competition include number and kinds of issuers, existence of similar securities, prices of competitors. Factors of expenses are emission, marketing and other expenses, related with issuance and circulation of securities.

It shall be noted that the named factors may increase and decrease price level. Following group of factors includes three sub-groups: objective, subjective and speculative. In its turn, subgroups of the above factors include totality of the factors. For example: two subgroups are used in the group of objective factors:

- The factors operating at micro-level;
- The factors operating at macro-level (Figure 9.2).

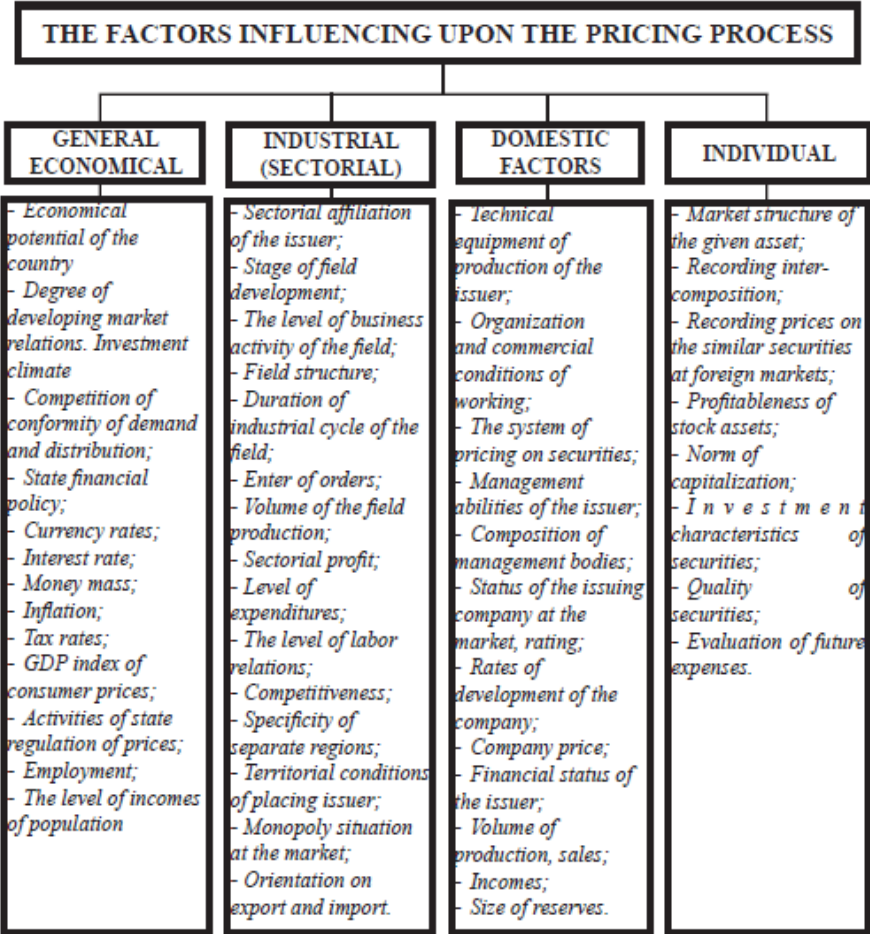


FIG. 9.2 THE FACTORS DETERMINING COURSE OF SECURITIES

## THE FACTORS OPERATING AT MICRO-LEVEL

The factors influencing upon entire equity market include the factors of macro-level. They are characterized with general situation of the economy. They include:

Economical potential of the country, sustainability of economical growth, balance and perspectives, and reliability of the financial system. Named factors influence upon investment attractiveness of the country and degree of the risk of investments.

Conjuncture of commodity markets, gold markets, and real estate markets influence upon selection of direction of investment. Holder of free financial resources analyzes and compares alternative forms of investment and selects relatively profitable one to him.

Speculative and subjective factors make important influence upon speculative and subjective factors.

According to V.E. Esipov and G.A. Makhovikova, speculative factors may include<sup>74</sup>:

The volume of program trading. “Program trading” – this is making profit between changing rates of shares and contract prices on them;

Status of “Unified Short Position” at the stock exchange characterizes total value of the sold shares. If this index is too high, this means that many investors are trading simultaneously for lowering the rate;

Purchasing own shares by the joint stock company. This factor confirms desire of the joint stock company for improvement of its financial conditions (nominally, in terms of possible absorption, or determination of controlling group to improve its status in the company.

Specificity of influence of speculative factors exists in the fact that they take the balance in the complex of pricing factors from objective conditions of reproduction process to the pending regime. Today equity rate is already determined not with the conditions of actual capital, but with the expectation of change of the rate, as there is great amount of speculative capital at the equity market. Primary importance is obtained by the opportunity of making profit and not the size of dividend, on rate difference.

Functioning of securities takes place in the environment, characterized with the abundance of parameters and which may not be always determined quantitatively. Due to this it becomes necessary to provide analyze and research of subjective factors, influencing upon the process of pricing. Subjective factors are related with:

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<sup>74</sup> See: **Esipov V.A., Makhovikova G.P.**, 2001. Pricing at the Financial Market. Tutorial. Spb. PITER. pg. 63. (In Russian)

Technical aspects of functioning of equity market (technical equipment of trading);

Methodology of analyzing securities and forecasting its dynamics. Effectiveness of different methodology of evaluating expenses on the advertisement, scientific-research and experimental construction works, and training of personnel, etc.

Positions and opinions of separate persons, declarations of financial specialists, using trust of investors, and using confidential information by the participants of the stock exchange. This may give rise to the speculative growth and decreasing of rates of shares.

In terms of making investment decisions, they may allocate factors, determining rate of securities. These factors may be separated into four groups: general economical, industrial (sectorial), domestic (characterizing to the given enterprises) and individual (characteristic to the given securities).

For movement of rate price of the share is of great important: volume of securities market; scales of activities of exchange intermediaries, and technical equipment of trading. The more spacious is the market, and better it is equipped, the less the risk of investment activity is. Any technical mistake in quotation and delays in the system may become the moment of unforeseen outcome.

**Securities rate is influenced by:** sectorial affiliation of the issuer and territorial conditions of its placement; degree of technical equipment of the issuer's production; quality of securities; specificity of separate regional investment characteristics and managerial opportunities of securities; activities of state regulation of prices; foreseeing prices on similar securities and service at the foreign market; peculiarities of the system of pricing on securities of different issuers; competition; monopoly; degree of developing market relations; conformity of demand and distribution, and rates of taxes.

An enterprise shall permanently analyze demands of the purchasers, structure of profit received from sales; it shall develop advertisement – information activities; improve commercial-technological and industrial process; provide timely conclusion of agreements with the suppliers and purchasers; implement correct selection of the strategy, based on the knowledge and experience of specialists; improve forms of sales, regulate flows of purchasers, etc.

Taking into account the fact that at each given moment rate of shares is determined in the company or generally in the economy not only with the real situation of cases, but also with the expectations; the investors pay great attention to the analyzing and forecasting of quotation.

## 9.5. THE METHODS OF FINANCIAL ANALYZING OF MAKING

### INVESTMENT DECISIONS

Analyzing of investment features of securities may be implemented in two directions: analyzing market price and internal price. In the first case, they learn market conjuncture of securities, and dynamics of their rates. In the second case, they learn financial and economical status of the issuer, the field to which the security belongs to. Subject to the above, following methodology approaches towards analyzing of the securities market were formed historically:

Method of approach based on technical analyzing;

Method of approach based on the fundamental analyze;

Fundamental analyze – this is analyzing of factors, influencing upon the price of securities, technical analyze – this is learning methods of approaches of the equity market.

#### 1. FUNDAMENTAL ANALYZE

**Fundamental analyze** –this is learning macro economical trends, influencing upon movement of prices and their influence on the dynamics of the price of securities, learning reasons for activities of the issuers and changing prices on securities, forecasting future profitableness of securities on the basis of the trend of price movement. Principle reason for the analyzing is determining securities, which are incorrectly evaluated at the given moment (evaluation of which is increased or decreased) on this basis they forecast probable direction of movement of rates of shares.

**Fundamental analyze is based on the following principles:**

Each security has domestic price. Notwithstanding market price of securities, it shall be sooner or later come close to its domestic price.

Any economical factor, reducing distribution or increasing demand on securities, provokes raise in prices. And on the contrary, any factor increasing distribution and reducing demand, as a rule, gives rise to reduction of prices. On the bases of this, the price is fixed, conforming with particular conformity of demand and distribution.

**Fundamental analyze includes:**

General economical analyze, i.e. analyze and forecast of total economical development, change of the interest rate and changing mass of money, also changing currency rates and financial policy.

Sectorial analyze includes entering of orders and analyzing capacity of production of respective field.

Analyzing separate companies studying dynamics of sales turnover, expenditures and incomes, also property and status of the company at the market.

Study of quality of securities and modeling its prices.

Total economical or macroeconomic analyzing is built in the assumption, that rate of securities is determined with the expected incomes of the company and determined internal price of the share. Expected incomes of the company depend on the general economical influence. State of economy is evaluated by taking into account such factors, as gross domestic product, employment, inflation, interest rate, currency exchange rate, etc. Fiscal and monetary policy of the country is also foreseen, as well as their influence upon the securities market. Therefore, they consider social, political, legislative, international, scientific-technical and financial-economic factors, influencing upon investment activities, and effective securities market. Growth of employment and salaries, and reduction of taxes give rise to the growth of flow of capital to the market, and high level of inflation conditioning using entire resources of population for the consuming purposes.

## **2. INDUSTRIAL (SECTORIAL) ANALYZE**

**Industrial (sectorial) analyze** considers learning of business cycles in different fields of economy and referring of these fields, which were not of interest in the given plan at the given moment. Sectorial analyze is necessary, as far economical development of the field doesn't always coincide with general economical development. There are such fields, which go in front of the general economical conjuncture, and some go behind. There also are the fields, which are developed simultaneously. Industrial analyze allows grouping of the fields according to the level of business activities and stages of development. According to the conjuncture of the fields, they are developed with advanced, parallel and retarded rates, which, in its turn, influence upon movement of the rates of their securities.

Except sectorial profits, rate of securities is also influenced by the inflow of sectorial orders and volume of industrial production, as they make it possible to evaluate expected dynamics of the turnover of sales and profit of the respective field. Future industrial production indexes depend on the dynamics of the indexes of sectorial orders, and they, in their turn, influence upon changing of the rate of securities. Besides this, profit of the field depends on the change of currency rates and the field's orientation towards export or import.



### 3. ANALYZE OF PARTICULAR ENTERPRISE

**Analyze of particular enterprise** – this is analyze of financial state, its diagnostics, analyze of the conditions of the issuer's management and perspectives of development.

Financial analyze represents evaluation and prediction of financial conditions of the industrial subject on the basis of learning relation and dynamics of the index of financial information. It allows evaluation of the retrospective, current and perspective financial state of the enterprise, identification of critical points in the operation of the enterprise, learning reasons of the problems and plan actions for their solution.

**The analyze includes:** balance about profit and loss, fundamental study of reports and other materials published by the companies. Also thorough inspection of the assets of particular corporation, its incomes, volume of sales, and state of production; study of the conditions of the market, which the given issuer enters with its products. Inspection of the corporation also includes analyze of the state of management and perspective of development (learning management practice of the issuing company), as well as organization and commercial conditions of working.

Analyze includes four principle blocks:

Selection of the indexes, which fit analyze of strategic problems;

Calculation of such indexes;

Comparing received values with the similar indexes of the enterprise in previous and planned period, middle sectorial and competition values; and

Using the indexes for identification of the ways of solving problems of possible reserves of the activities of the enterprise and future opportunities.

For determination of accounting and financial conditions of the enterprise, they use financial rate. They distinguish indexes of following kinds:

Insolvency (liquidity) indexes.

**Liquidity** – is the ability of the enterprise to cover its short-term obligations. It means unconditional insolvency of the industrial subject and considers permanent equality between assets and obligations as according to the general sums, so – terms. Analyze of liquidity of balance exists in conformity of resources according to the assets, which are grouped according to their liquidity degrees and set according to the decreasing of liquidity, and obligations of equities, united according to their terms of repayment and growth of the terms.

According to the degree of liquidity, i.e. speed of transformation into the cash resources, assets of the industrial subject are divided into following groups:

A<sub>1</sub> – is relatively marketable assets (every cash resource (cash and those at the accounts) of the industrial subject and short-term financial investments (securities)).

A<sub>2</sub> – rapidly realized assets (accounts receivable and other turnover resources);

A<sub>3</sub> – slowly realized assets;

A<sub>4</sub> – hardly realized assets (fixed assets, intangible assets, incomplete capital investments, installable devise).

Balance equities are grouped according to the degree of speed of their repayment:

P<sub>1</sub> – relatively rapid equities (credit debts and other equities);

P<sub>2</sub> – short-term equities (short-term credits and borrowed resources, except bank credits of the workers);

P<sub>3</sub> – long-term equities (long-term credits and borrowed resources);

P<sub>4</sub> – permanent equities.

The Balance is considered to be absolutely marketable if:

$$A_1 \geq P_1; A_2 \geq P_2; A_3 \geq P_3 \text{ and } A_4 \geq P_4.$$

They distinguish following principle indexes of liquidity:

Rate of absolute liquidity:

$$C = \frac{A}{P_1 + P_2} \quad (9.1)$$

Normative value 0.05-0.2.

Rapid liquidity rate:

$$C = \frac{A_1 + A_2}{P_1 + P_2} \quad (9.2)$$

Normative value 0.5-1.

Current liquidity rate:

$$C = \frac{A_1 + A_2 + A_3}{P_1 + P_2} \quad (9.3)$$

Normative value 1.5-2.5 and it depends on the specificity of the field, size of the enterprise, and the degree of trust of creditors to it.

Given rates give impression about ability of the enterprise to implement current accounting and pay short-term obligations. They include the rate of absolute liquidity, intermediary rate of repayment and total rate of repayment.

#### **RATE OF FINANCIAL SUSTAINABILITY**

They show the level of attraction of borrowed capital and opportunities of the enterprise to serve the debt. They include property (independence) rate, share of borrowed resources, share of accounts receivables in the property price, and share of own and long-term borrowed resources.

For evaluation of financial sustainability of industrial subject they use the rate of self-sufficiency, the rate of financial sustainability and “Z account”.

The rate of self-sufficiency characterizes dependence of financial sustainability of industrial subject on the sources of borrowed funds. It shows share of own resources in total amount of resources:

$$C = \frac{C_o}{S_m} \quad (9.4)$$

Where  $C_a$  is the rate of self-sufficiency;  $C_o$  – Own capital;  $S_m$  – total amount of sources of funds.

Minimal value of the said rate is at the level of 0.5. Growth of the self-sufficiency rate means growth of financial self-sufficiency of the industrial subject and reduction of the risks of financial complexities.

**Rate of financial sustainability** is the relation between own and borrowed resources:

$$C_f = \frac{C_o}{L_s} + L \quad (9.5)$$

Where  $C_f$  is the financial sustainability rate;  $L_s$  – short-termed obligations and other equities; and  $L$  – borrowed funds.

If own resources are more than the borrowed funds, this shows that industrial subject holds sufficient level of financial sustainability, reserves and it relatively independent from external financial resources.

“Z-Accounts” are complex rates used for calculation of probability of bankruptcy of the enterprise; this is so-called E. Altman’s Ratios, involved by the author of this method.

$$Z=6.51X_1 + 3.26X_2 + 6.76X_3 + 1.05X_4 \quad (9.6.)$$

Where  $X_1 = (\text{current assets} - \text{current equities}) / \text{general assets}$ ;

$X_2 = \text{size of enterprise reserves} / (\text{common reserves})$ ;

$X_3 = \text{total profit} / \text{total assets}$ ;

$X_4 = \text{cost of ordinary shares} / \text{total equities}$ .

6.51; 3.26; 6.76 and 1.05 are Altman's Ratios.

If general account of the enterprise is more than 2.6, it is considered to have sufficiently sustainable financial state, if the account is less than 1.1, the enterprise is close to bankruptcy.

### INDEX OF BUSINESS ACTIVITY

They show how effective funds of the enterprise are used. They include the rate of transferability of reserves, rate of transferability of funds and general rate of transferability.

Rate of activity (transferability) determine how good the enterprise uses its resources. Ordinarily, rates of activity express relation between total sums made from realization and different elements of assets. Relatively used rates indexes of activity are transferability of fixed assets of turnover resources and intangible assets.

Transferability of turnover resources is calculated with single turnover duration in days (transferability of turnover funds per days) or amount of turnovers during reporting period (rate of transferability).

Duration of single turnover (turnover resources transferability per days) is the conformity of turnover resources to the average balance and one day profit value of the analyzing period.

$$Z = \frac{O \times t}{B} \quad (9.7.)$$

In which Z is the transferability of turnover resources per days; O – average balance of the turnover resources; t – amount of the days of analyzing period (90; 360); B – outcome from realization during analyzing period.

The rate of transferability of turnover resources is characterized with calculation of one conditional cash unit of turnover resources against the size of outcome from realization.

$$C_t = \frac{B}{O} \quad (9.8.)$$

In which  $C_t$  is the rate of transferability of turnover resources. Growth of the value of transferability rate confirms more effective usage of the turnover resources.

Efficiency of using fixed funds is calculated with the fund-outcome and fund-capacity indexes. Fund-outcomes of the fixed funds are determined by conforming outcome made from the realization of products with the average annual price of the fixed funds. Fund-outcomes of the intangible assets are calculated by conforming general value of outcome with average annual price of intangible assets. Growth of fund-outcomes of the fixed funds means increasing efficiency of using fixed funds and intangible assets. Reverse index of fund-outcome is the index of fund-capacity.

### PROFITABILITY RATIOS

They show profitability of the enterprise. Profitability of the industrial subject is characterized with the absolute and relative indexes. Absolute ratio of profitability is the size of profit (incomes). Level of profitability is the relative ratio of profitableness.

**Profitableness is important qualitative index of work of the enterprise, in which state of incomes, expenditures, turnover of goods, using fixed assets, workforce, own and borrowed capital are generalized.** Every kind of the ratio of profitableness is divided into three groups: 1) profitableness of sales; 2) profitableness of funds (capital, assets); 3) profitableness of investments into the enterprise, giving the image of efficiency of industrial activity of the enterprise from different positions.

Profitableness of sales is determined to be the conformity of profit from realization of products (goods, work, services) with the profit and reflects relation between profit and outcomes, as well as size of the profit, which is made from the unit of sold goods.

$$R_1 = \frac{P}{T} \quad (9.9)$$

In which  $R_1$  is the profitableness of sales;  $P$  – profit made from realization of products (goods, work, service);  $T$  – outcome of realization (turnover of goods).

Profitableness of industrial funds of the enterprise (capital, assets) is determined with dependence of profit (net, total) with the average price of the fixed and turnover funds and intangible assets.

$$\begin{aligned}
R_2 &= \frac{\Pi}{K} = \frac{\Pi}{(O_{OCH} + O_{Oe} + H_a)} = \frac{\Pi}{T} \times \frac{T}{(O_{OCH} + O_{Oe} + H_a)} = \frac{(T - Z) / T}{(O_{OCH} + O_{Oe} + H_a) / T} = \\
&= \frac{1 - (Z_n / T + Z_3 / T + Z_a / T + Z_{nx} / T + Z_{np} / T)}{O_{OCH} / Z_a \times Z_a / T + O_{Oe} / T + H_a / T} = \\
&= \frac{1 - (Z_n / T + Z_3 / T + Z_a / T + Z_{nx} / T + Z_{np} / T)}{O_{OCH} / Z_a \times Z_a / T + (T_3 / T + D_3 / T - K_3 / T - D_C / T) + H_a / T}
\end{aligned} \tag{9.10}$$

In which,  $R_2$  – is profitability of capital, assets, C – capital, A – fixed funds, O – turnover funds, I – intangible assets; E – current costs,  $E_s$  – expenditures on purchasing goods,  $E_e$  – expenditures on salaries;  $E_a$  – depreciation charges;  $E_p$  – sum of interests on using credits;  $E_c$  – other costs of turnover.

This formula allows deep comprehension of the concept of profitability in case of using factors of different kinds in different amount. Particularly, absolute factors (profit, capital); relative factors (profitability of sales, fund-outcome); indexes of intensity of using resources:  $E_g/T$  – cost-consumption;  $E_e/T$  – salary-capacity;  $E_a/T$  – depreciation-capacity;  $A/E_a$  – speed of transferability of fixed capital;  $O/T$  – speed of circulation of turnover capital;  $I/T$  – speed of transferability of intangible assets.

The capital may be considered to be not totality of the fixed and transferable funds, but the totality of own and borrowed resources. In such case the formula will take the following form.

$$R_2 = \frac{P}{C} = \frac{P}{C_k + L} \tag{9.11}$$

In which  $R_2$  – profitability of capital;  $C_k$  – own capital; L – attracted resources.

This ratio shows efficiency of using entire capital of the enterprise. Reduction of index means reduction of demand on the goods and excess accumulation of assets.

Profitability of investments in the enterprise is calculated as conformity of incomes made from the securities and share participation in other enterprises with the total amount of long-term financial investments. It is calculated with the following formula:

$$R_3 = \frac{D}{DB} \tag{9.12}$$

$R_3$  – profitability of investments in the trade enterprise;

D – incomes from securities and share participation in other enterprises. DB – long-term financial investments. Growth of the value of this ratio shows growth of efficiency of resources invested in the enterprise.

For determination of profitableness alongside with the index of turnover of goods, capital, fixed and turnover resources they use also other indexes. Specially distinguishing one is the **index of expenditures**. Conformity of profit from expenditures shows the way of profit share on each unit of expenditures. Other index of efficiency may include conformity of profit with the amount of personnel, etc. Each index determines particular aspect of outcomes of operation of enterprises. They have no normative value; they depend on multiple factors and are essentially different according to the different profile, size, and structure of assets and resources of funds.

The indexes related with the movement of assets are of great interest. They include **balance indexes**; the indexes related with the rate of shares and the shares themselves. Balance indexes include – cash flows and net outcome.

The indexes of the shares are calculated per single share. They include: dividend on single share, cash flow on single share or sum on single share. They are filled with the ratio of dividend outcomes, characterizing dependence on the value of dividends and price and sufficiency ratio of shares with the help of which they may evaluate share of dividends paid in the net income of corporation. By using these indexes we may compare degree of profitableness of shares of different issuers, and the degree of directions of exchange instruments and investments.

#### **INDEXES RELATED WITH THE RATE OF SHARES**

Indexes related with the rate of shares are: dividend, i.e. actual income (P/E ratio); relation “share rate/profit”, (KGV) or relation “rate/cash flow” (KCV).

P/E ratio is determined as relation of exchange cost of shares with the value of net profit calculated per single ordinary share. This ratio is high in corporations having high perspectives and low – at the enterprises of instable state.

Analytic index – of the relation “rate/profit” is the conformity of actual rate of shares and profit calculated per single share. It is often used for distinguishing shares of low and high rating. Relation “rate/profit” shows the amount of sum paid for single share. Otherwise, how many years are needed to the company for earn the money equal to the present cost of the share of this enterprise under the conditions of unchanged value of profit.

After calculation of this ratio, it is conformed to the similar index of other company of the given field, or average index of the relation “rate/profit” at entire market. This allows distinction of relatively cheaper and more expensive shares.

Following ratios are – relation “rate/cash-flow”(KCV) calculated on the basis of true rate of shares divided into the cash-flow calculated per single share of the company.

Conformity KCV indexes, similar to the conformity of KGV indexed, shall take place within the bounds of one particular field. Reason to this is separation of fields into the capital-consuming and labor-consuming (salary-consuming) fields – relatively, there is distinction between cash-flows, which, in their turn, replace KCV ratio. Due to the high depreciation charges of capital-consuming fields (electronic industry, car construction) have extremely high cash-flow and relatively low index of KCV.

Consideration of KCV index makes it possible to have idea about enterprises in terms of the companies' merger. In terms of extremely low KCV for the holders of shares it becomes possible to transfer their investments at the expense of compensations offered by the interested purchasers (as these latest, wishing to purchase control package of shares, are, usually trying to offer triple cash-flow in the form of purchase price). KCV index also fits for evaluation of the companies, planning to place their shares to the stock exchange.

The investor supposing to purchase shares profitably shall use both ratios: KCV and KGV.

D/e ratio is calculated as relation between dividend on ordinary shares and its exchange price. Dividend actual income shows the amount of interest paid to the investors on purchasing of one share under the conditions of constant size of the dividend.

#### **OTHER RATIOS OF FUNDAMENTAL ANALYZING**

Following ratios fit or instrumentation of fundamental analyzing:

**Beta-ratio** determines the influence of general situation at the market upon particular security in general. If it is positive, efficiency of the given security is similar to the effectiveness of the market. The ratio is deemed to be measurer of risk, when value of beta-ratio is more than 1, investment risks are higher at the market as average, and when beta-ratio is less than one – on the contrary.

**R-square** – characterizing share of the bit of risk of given security. The closer the index is to the zero, the more independent conduct of share is in relation with general trends of the market. Due to this, it is better to invest in the shares, to which this ratio is high.

**Alfa-ratio** – characterizing relation between free index “Interfax” and shares of separate enterprises. If the ratio is positive, it is not evaluated perfectly by the securities market. Due to this, the securities, to which value of the given ratio is more than zero, is recommended in the first place to be included into the investments portfolio.



**K-ratio** the index confirming level of liquidity, equaling to the geometric mean between the amount of quotation on purchasing shares and quotation on selling shares, this index equals to the amount of quotations, represented in the base of data of the agency of financial information. More value of K-index conforms to the less index of spread.

Outcomes of analyzing of given ratio may be conformed to the standards, similar indexes of western companies or other issuers of researched sector of the market.

#### **4. MODELING PRICES OF SECURITIES**

Financial analysts use respective indexes and methods.

Determining internal price of securities. This procedure includes prediction of future cash flows, required evaluation of profitableness of securities, evaluation of profitableness required in terms of discount of expected cash flows of investments;

Comparing internal price of securities with the current market rate;

Evaluating respective expenditures and risk;

Analyzing factors influencing upon prices of securities;

Determining price of securities;

Making main conclusion if the price of corporation is increased or reduces compared with the real price of its assets. Under the term not evaluated shares they consider securities of corporation, market price of which is much lower than their price, determined to be the relation between dividend and interest.

Main default of fundamental analyze exists in the fact that it doesn't foresee real changes, fluctuation of prices and considers that securities' price is stable or equally fluctuated.

#### **TECHNICAL ANALYZE**

**Technical analyze** is the study of condition of equity market, i.e. study of data of prices and identification of their trends for determination of price dynamics, determining they cycled character during current and future period, and identification trends. Supporters of the school of "technical" analyze are based on the fact that in the equity rates they consider all the trends and notes, which are in the future reflected in the financial reports of companies, becoming the object of their fundamental analyzing. Technical analyzing studies particular conformity between demand and distribution of securities, based on the volume of the operation sale and purchase, i.e. change of prices at the equity market.

Principle basic provisions of technical analyze is that there are **trends** at the securities market, i.e. sustainable movement of prices in one direction maintained independently from the random fluctuations. **Trend line** is principle instrument of technical analyzing for determination of turn of market and finding favorable moments of transactions.

Bending trend line upwards or downwards shows direction of the trend from the point of rising or falling or decreasing rates of shares.

Purpose of trend analyzing is: 1) evaluation of current direction of price dynamics (trend); 2) evaluation of validity term and period of given direction; 3) evaluation of the amplitude of price fluctuation in active direction (deviation from current quotations).

**Trend is determination of price movement upward or downward.** They distinguish trends of three kinds:

**Bull trend** – prices raise: prices are increased and much faster than they decreased;

**Bear trend** – prices move downwards, the prices decrease and faster than they grow;

**Side trend** – there is no determined direction of price movement.

Here they use following laws of movement: “active trend is probable to continue until changing direction” and the “trend will move to one and the same direction, until completion”.

Trend has validity term, i.e. life cycle. Trend may be short-term, long-term and middle-term. Long-term trend may continue 2-2.5 year; middle-term – from 3 months to one year, and short-term – from 1 day to 3 months.

Lifetime of the trend may be increased on the basis of analyzing lifecycle of the trend, which consists of 3 periods: start, maturity and completion of the trend.

It is of great importance to determine length and amplitude of the cycle accurately. Insignificant change of the rate (in narrow corridor), strong change of rate (as a rule, change more than 1% during the day and night and 0.3% and more during one calendar hour).

After determining these three components of price dynamics securities may be purchased or sold.

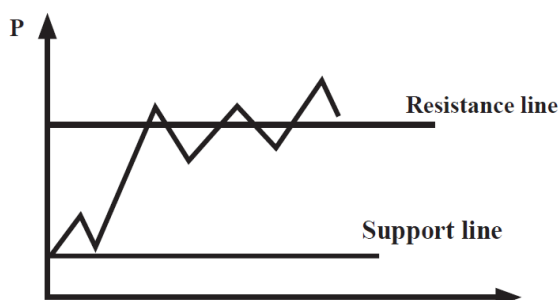
## **DIAGRAM AND GRAPHICAL KINDS**

### **OF TECHNICAL ANALYZE**

**Technical analyze** means construction of diagrams and charts, reflecting indexes of volume of trading and other factors. **Graphical analyzing** is used for 1) making it possible to perform real prediction of prices; 2) determining exact time of the phenomenon, 3) fixing price dynamics and eliminate firm trends.

In terms of technical analyzing, they mostly distinguish charts of three kinds: 1) linear 2) columns, and 3) dots and figures.

1. **Linear chart** – this is continues line reflecting development of closing rates. It is used when determining general rate and when they do not want to lose time on quotation of the opening rate, minimal and maximal rates or in terms of minimal deviation, characteristic to the securities during the day, when it is not necessary to give details of the rate (Figure 9.3.).



*FIG. 9.3. LINEAR CHART*

**Resistance line** – this is the line, above which price of shares shall not go. When the price crosses the line, this is the sign for purchasing, as in such case; it is expected to have further growth of the rate price of securities, because it crossed particular psychological barrier of investors.

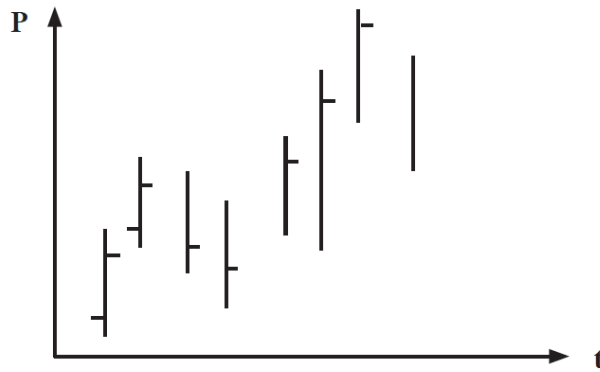
**Support line** – this is the line below share price shall not go. If the rate price of shares falls below given level, it is considered to fall in the future and shares shall not be sold.

Priority of linear charts is simplicity of construction and accessibility of its forms. The fault exists in the fact that light changes of demand and distribution is not reflected when continues quotation takes place.

2. **Column chart** – this is graphical image of opening rates at the moment of opening stock exchange, minimal and maximal rates and closing rates of stock exchange for each unit of the time during reporting period (for example: for one day), the highest and the lowest rates of the periods are unified forming the column. Ordinarily on the left side of the column they note opening rate, and on the right side – closing rate (Figure 9.4).

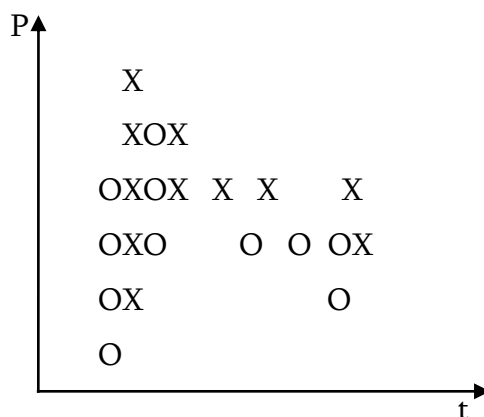
By means of the chart value of deviation is clearly seen during the day, as well as small changes of demand and distribution. If, for example, losing rate has the trend of enclosing minimal rate of the day, this is the sign of weakness of securities according to the technical analyzing and vice versa.

They use column charts of the day, month and year in practice.



**FIG. 9.4. COLUMN CHART**

3. **Charts in the form of dots and figures.** This chart is the instrument of analyzing giving graphical image of change of conformity between demand and distribution and giving signs for purchasing or selling (Figure 9.5). Rate movement is given in the chart vertically, when the rate is changed in one direction. When change of direction of the rate takes place, the rate is show in new column, to the right of the old column, where change of rate is also noted vertically, but here they don't foresee the time, according to which the rate change takes place (number of week is noted). Rise of rate in one unit (preliminarily agreed value, for example, 10 cents), is given with X sign and reduction is given with the mark O. In the form of minimum of turning point, during following period they select one point (distance between two units), on the rate axle. This means that the trend of change of rate is noted on the chart of new column only in case if this change of trend makes full unit. New column is selected only in case, when minimum of selected turning point is achieved. Such method of approach is considered to be the shift or reversing.



**FIG.9.5. THE CHART EXPRESSED IN DOTS AND CROSSES**

Which rate (opening, closing, minimal, maximal) will be used for evaluation depends on the object of study. If distance between minimal and maximal rates is small, or when determined with only unified rate, it is useful to use closing rate for evaluation. In case of extremely variable securities, in terms of rising trend of the rate, evaluation is provided in accordance with the maximal rate of the day; while in terms of reducing trend – according to the minimal rate.

Given specific chart is recommended for practical use only after using other methods of analyzing. Principle distinction of this chart exists in the fact that there is not time axis here (time, during which movement of the rate takes place, is not considered), while new column of prices is built in case of finding other directions of the dynamics.

One of the methods of technical analyze is building charts on the basis of moving average. It is calculated as arithmetic mean of prices during days of particular amount, selected by the analyst. For determination of its value they exclude from the calculations of following day the oldest price of shares and the last (new) price is added. Such method of approach allows acceptance of more blurred trend and provide abstraction of everyday fluctuation of the price of shares.

They also use in technical analyze graphic of volumes, as confirming, as it shows the level of activity of the market. It may be built during the period of time starting from several minutes. Starting with an hour and upper figures is much information-consuming.

Technical analyze is based upon the opinion that rates of shares show direction of trends. This allows receiving of information about future changes of rates based on the data of past or current periods. Of course, given analyze doesn't fit for the warranty of price change according to the correctly identified regularities, but it allows making conclusion about directions of changes of price and their duration.

Fundamental and technical analyze are two, relatively distributed methods of financial analyze, used in terms of making investment decisions. Fundamental analyze makes it possible to selection of the multiple securities, which is relatively effective from the investment point of view; i.e. it helps us respond to the question, purchasing or selling of which security may be provided. As for the technical analyze – when shall it be done.

## 9.6. STOCK INDEXES OF SECURITIES MARKET

The most convenient instrument for description of the dynamics of equity market and evaluation of its condition is the stock index. **Stock index is the index generalizing state of securities market, calculated as average value on the basis of rate price of input securities.**

Stock indexes show change of relation between current and previous basic state of development of analyzing part of the securities market. By comparing current value of index with its precious value we may analyze reaction of the market on this or that macroeconomic phenomenon, or corporate transformation.

According to the stock indexes, we may analyze changes of the state of cases at separate segments of securities market, regional and sectorial equity markets and separate elements.

### PRINCIPLE TASKS OF THE STOCK INDEXES

Stock indexes allow solution of numbers of principle tasks among which following may be distinguish:

The index performs information function. It reflects direction of movement of equity quotation describes trends made by the equity market and determines speed of their development.

Index is the indicator of economical condition. Firm trend of the growth of index means economical growth in the country and vice versa. This allows selection of correct policy of investment in long-term period.

The index performs the function of prediction. In global practice we may find similar situation of the market in the past and the movement of index, demonstration of which took place earlier, which may repeated currently.

Stock index may be made as separate independent security. According to the value of the index they provide trading, purchase options and futures contracts. This makes it possible to manage assets more flexibly and implement operations of hedging of transactions with securities of issued, which are included in the stock index.

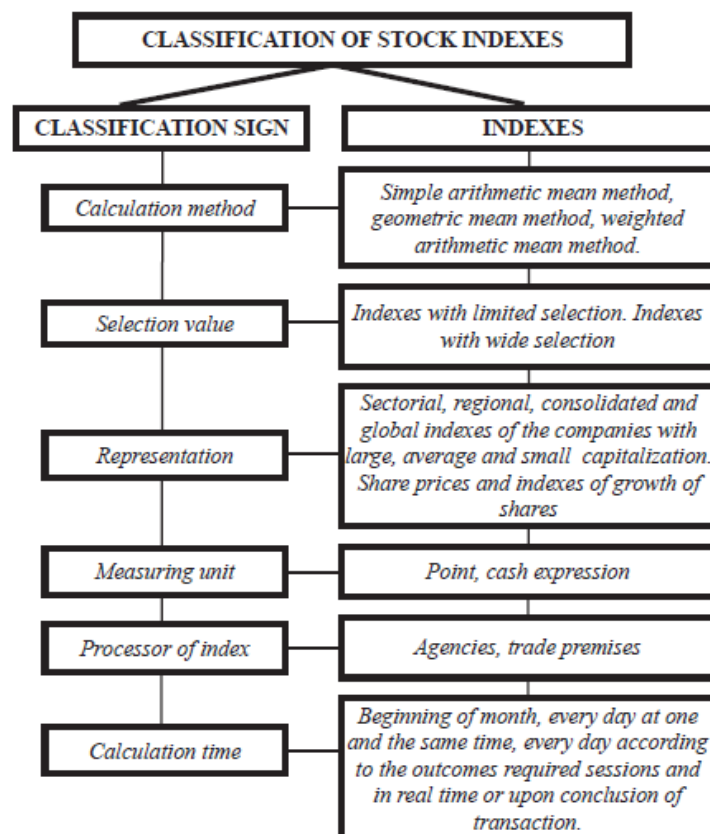
The indexes are oriented towards selection of securities in the portfolio, directions of investments and determination of proportions. Structure of selection of index makes ground to the structure of portfolio of securities. Structure of the portfolio is in conformity with the structure of selection of the stock index. The stock indexes help investors in creation of optimal portfolios of securities and build their investment policies on it.

The index plays the role of basic starting point. For example, efficiency, providing by the stock index was often fluctuating as minimally allowed in the process of fiduciary management for profitableness of the securities portfolio.

Indexes allow giving formal description to the complex situations, i.e. solving the task of reducing amount of parameters according to which they evaluate various groups of securities.

Indexes temporarily replace statistic data, solving the problem of absence of necessary information. In case of incomplete statistic processing of information according to the separate issuers the problem of analyzing these shares is formed though the volumetric indicators of technical analyze.

The indexes used in practical activities may be classified according to the methods of calculation, basis of calculations, measurement units and the subjects, calculating these indexes (Figure 9.6).



**FIG. 9.6. CLASSIFICATION OF STOCK INDEXES**

Value (size) of selection is one of the principle factors, influencing upon degree of the index. The selection shall give quite accurate opinion about the learnt sector of the market. In the global practice there are indexes with limited selection (Dow Jones transport index, including

20 companies of the USA), and generally wide (global index including 2500 companies from 84 countries) Using of small amount of selection have positive and, at the same time, negative sides. Positive side is the speed of calculation and cheapness of such indexes. While negative is great possibility of mistakes, compared with the large scales of selection.

The index shall include every sector of the studied market and at the same time only what it represents. From the point of selection of shares, from the point of formation of reporting base (representation), they divide indexes into the general market and sectorial indexes, those with large, middle and small capitalization of indexes, indexes of value shares and growth shares, etc.

It is necessary to determine principle criteria of selection. One of their parts learns market in general, others – conjuncture sectors or fields of market. **Sectorial indexes** are calculated for particular field of economy (energy, ferrous and nonferrous metallurgy, oil complex, banks, etc.). For the basis of calculation they take shares of leading companies of particular field. **Complex indexes** are calculated on the basis of the prices of shares of companies of different fields. As a rule, the wider is the circle of selection, the closer the index is to the total ratio of state of economy or its separate field.

Stock index becomes more mobile and conjuncture indicator in terms of uniting components not by the sectorial signs, but according to the criteria of company capitalization; i.e. according to the complex market price of every share, which is not in circulation.

Indexes require periodical correction of their components. Their review may take place in compliance with the given criteria (for example: liquidity of shares). The rule of inclusion of new components and exclusion of old ones is determined by the processors themselves.

## **PRINCIPLE METHODS OF CALCULATING**

### **TOCK INDEXES**

Three principle methods are taken for the grounds of calculating stock indexes:

Method of simple arithmetic mean;

Method of weighted arithmetic mean;

Method of geometric mean.

In terms of using **the method of simple arithmetic mean** prices of shares of every issuer included in the index **in terms of closing trading are summarized and the sum is divided by the amount of components to receive mean value**. Notwithstanding simplicity of calculations, this method has essential fault. It doesn't foresee real scales of the market of shares of particular issuer. Strong and



weak companies occupy similar place in its structure. This is the method Dow Jones family indexes are calculated with.

**The method of weighted arithmetic mean** is used for reflection of the influence of volumetric indexes in the index, i.e. using the methods of weighting prices of shares. More often they use market capitalization in the form of weight (share of given security at the equity market in total volume of sales). This method is relatively more popular in the global practice of stock indexes, as it foresees adequately influence of shares, according to which capitalization is high and which are much more marketable. Relatively famous indexes calculated with this method are the indexes from S&P family, complex index of New York Stock Exchange; FT – 100.

**Equal weights** may be used. For example, weight ratios of the stock indexes of the magazine “Kommersant Daily” (calculated from January 1, 1995) is unified and makes 100 thousand Rubbles. Thus the index equals to the price of hypothesis investment portfolio, in terms of formation of which, all the resources are equally distributed between assets included, when random selection of any equity asset may be provided.

**The index, calculated with the method of geometric mean** is calculated by multiplying prices of shares included in the index at one another. From the receive outcome, they exclude a root of order  $n$ . in which  $n$  is the number of shares in index. As in terms of using the method of simple arithmetic mean, here they do not consider the fact that the volume of trading with the shares of different companies may be different. Two indexes are calculated with this method: FT-30 in England and the Value Line Composite Index in the USA.

These are principle methods of calculating indexes and, of course, different indexes are calculated differently. Any stock index represents what their processors put in them by means of selecting composing securities and methods of calculation.

**Indexes according to the measurement units** are calculated in the points and cash expressions.

Indexes are calculated by different representatives of securities market, as professional, so – information agencies. **According to the processors**, they divide indexes into the indexes of agencies and those of commercial premises. **According to the time**, indexes may be calculated with particular periodicity:

At the beginning of every month (for particular date);

On every day basis on particular time (for example, every day at 14:00 pm they calculate indexes of skate press);

On daily basis, according to the outcomes of commercial session (indexes of PTC system);  
 In real time (global index is calculated upon conclusion of following transactions).

### CRITERIA OF EVALUATION OF INDEXES

There are two principle criteria of evaluation of stock indexes:

Growth of indexes during particular period. This value is calculated as distinction of the values of indexes between last and initial dates.

Efficiency of finding refraction of trend. We mean comparative analyzing of th values of different indexes. They consider the index trend of which changes direction of its movement the most early in terms of changing trend at the market, is deemed to be the most effective.

Degree of the index depends on the factors influencing upon construction of indexes: size of selection, representation, selection revision, rime of calculating indexes, etc.

Let us consider principle stock indexes used in practice of foreign countries (Table 9.1).

**Table 9.1**

### STOCK INDEXES

NAME OF INDEX	COUNTRY	SELECTION PLACE STOCK EXCHANGE (CITY)	METHOD USED FOR CALCULATION
1	2	3	4
Dow Jones Index	USA	New York Stock Exchange	The method of simple arithmetic mean
Standard & Poor's (S&P) Indexes	USA	New York Stock Exchange	The method of weighted arithmetic mean
NYSE Index	USA	New York Stock Exchange	The method of weighted arithmetic mean
NASDAQ Index (National Association of Securities Dealers Automatic Quotation)	USA	Non-exchange market	The method of weighted arithmetic mean
AMEX Indexes	USA	USA Stock Exchange	The method of weighted arithmetic mean

**Table 9.1 Continuation**

1	2	3	4
Wilshire 5000	USA	USA Stock Exchange	The method of weighted arithmetic mean
Value Line Indexes	USA	New York and USA Stock Exchange and non-exchange market	The method of simple arithmetic mean
Russell Indexes	USA	New York and USA Stock Exchange and non-exchange market	The method of geometric mean
FT-SE-30 (Financial Time Stock Exchange Index)	Great Britain	London Stock Exchange	The method of geometric mean
FT-SE-100 (Financial Time Stock Exchange Index)	Great Britain	London Stock Exchange	The method of weighted arithmetic mean
DAX Indexes	Germany	Frankfurt Stock Exchange	The method of weighted arithmetic mean
CAC Indexes	France	Paris Stock Exchange	The method of weighted arithmetic mean
Nikkei Dow Jones Average	Japan	Tokyo Stock Exchange	The method of simple arithmetic mean
Torix Index	Japan	Tokyo Stock Exchange	The method of simple arithmetic mean
Hang Seng Index	Hong Kong	Hong Kong Stock Exchange	
TSE-300	Canada	Toronto Stock Exchange	The method of weighted arithmetic mean
Straits Times	Singapore	Singapore	
TLL Ordinaries	Australia	Sidney	
AEX Index	Netherlands	Amsterdam	
Swiss Mkt Index	Switzerland	Zurich	
Bovespa	Brazil	San-Paolo Stock Exchange	
MSE Composite Index	Russia	Moscow Stock Exchange	

**Table 9.1 Continuation**

1	2	3	4
Saint-Petersburg Stock Index	Russia	Stock Exchange "Saint Petersburg"	
PTC Indexes	Russia	PTC Stock Exchange	
RMX (Reuters Micev) index	Russia		The method of weighted arithmetic mean
Index Kommersant Daily	Russia		
Galant Taggarti	Georgia	Georgian Stock Exchange	

## 9.7. USA INDEXES

### 1. DOW JONES INDEXES

On July 3, 1884 famous financier Charles Dow involved first stock index – Dow Jones Railroad Average, which was mostly concluded of the railway companies (9 railways and two industrials). The method of its calculation for convenience of usage in terms of trading was the most simple: they took the value of the index of arithmetic mean of prices of 11 shares, which made 69.93 points when closing first day (total price of shares included in the price at that moment made 769.23).

On May 26, 1896 they involved another index called Dow Jones Industrial Average (DJIA, DJIA), which was calculated similarly and included industrial companies. After this, the index remains to be the most popular stock index in the world. In 1928, they made changes in the method of calculating the index: they involved current divisor, making it possible to avoid distortion of values, which takes place with distribution of shares, paying dividends, and changes in the composition of its listing.

In 1929, (already after death of Mister Dow, who died in the age of 51 in 1902) they involved Dow Jones Rail Road Average. At first it consisted of 20 utility companies. Later number of companies reduced to 15 and didn't change after this.

In 1970, they reviewed the name of the first index Dow Jones Utility Average, as "railway" index those times included shares of air companies and other freight carriers. It was called Dow Jones 20 Transportations Average.

For today, family of Dow Jones indexes includes industrial indexes (30 companies), transport (20 companies), utility companies of gas and electricity (15 companies) and aggregate index –

Dow Jones Composite Average, including 65 shares from the side of the companies, which include 65 shares of the companies, which were included in the previous indexes and quoted at New York Stock Exchange (NYSE).

The methods of calculating every index of the said family are similar. The index is calculated with the method of arithmetic mean of the rate of shares of the selected companies.

$$J_{D-G} = \frac{\sum_{i=1}^n P_i}{K} \quad (9.13)$$

In which  $P_i$  is the share price;  $n$  – number of companies,  $k$  – ratio – divisor.

The method of calculating indexes during entire time has not been actually changes. Though, shares included in the listing have been changed several times. Among the shares included in the index, only General Electronic can be proud of itself. Other shares used to enter and leave the index several times they even used to be lost from the market. It shall be noted that the shares of companies of New Economy could not be included in Dow Jones index for long period of time. Their inclusion gave rise to particular problems for the index, though it shall also be noted that inclusion of these companies into the index raised representation of the indicator and approached its compositions to the real placement of forces at USA Stock Exchange. Futures on Dow Jones index are sold at Chicago Mercantile Exchange.

## 2. STANDARD & POOR'S (S&P) INDEXES

One of the most popular indexes calculated by the largest rating agency Standard & Poor's (S&P). Index of the information company Standard & Poor's is calculated with two versions – 500 and 100 companies. They start their history in 1941-1943. Standard & Poor's 500 is main index calculated for 500 large American companies (the most capitalized) and using technologies (according to the weighted capitalization, increased sectorial proportion in it is following: 300 industrial, 20 transportation, 40 utility and 40 financial companies). The Index includes shares 80% of which are quoted in NYSE, also shares at USA Stock Exchange (AMEX) and non-exchange turnover. This indicator is the most recognized one for evaluation of US economy in total and it is considered to be the most prestigious among traders and managers of real sector. The index is calculated with following formula:

$$J_{SP_n} = \frac{\sum P_{ni} Q_{ni}}{\sum P_{n-1i} Q_{n-1i}} \times J_{SP_{n-1}} \quad (9.14.)$$

In which  $J_{spn}$  – index for date;  $PP_{ni}$  – current price of share for n-date;  $PP_{ni-1}$  – price of share for previous period;  $Q_{ni}$  – amount of shares in circulation for previous period;  $J_{spn-1}$  – index of previous period.

Calculation process is based on the conformity of total capitalization of components with the similar value of previous period.

This index is much complex compared with previous indexes. But it is considered to be more accurate due to the fact that it represents shares from large amount of companies (86 fields) and shares of each company is weighted with the value of its price.

Standard & Poor's 100 – Index “weighted according to capitalization” including 100 largest companies of the USA, according to which there are options at Chicago Mercantile Exchange.

Sectorial indexes Standard & Poor's are 90 indexes, including practically every field of economy of USA.

There are many other indexes calculated with Standard & Poor's. Geography indexes include most part of the regions of the world, in which they provide trading with securities. There also are the indexes grouping companies according to the value of capitalization. Such indexes include: S&P Europe 350, S&P Latin America 40; S&P Asia Pacific 100; S&P Mid Cap 400; S&P Small Cap 600; SCPREIT Composite S&P, BARRA Growth & Value; S&P/Topics 150; S&P/TSE 50; S&P/TSE Canadian Midcap; S&P TSE Canadian Small Cap. Futures and options on the indexes are sold at Chicago Stock Exchange. Due to the fact that every index has general methodology, it is easy to compare them.

### **3. NYSE (NEW YORK STOCK EXCHANGE) INDEXES**

Index of New York Stock Exchange is calculated according to every share quoted at the stock exchange (about 2200 companies). This index is weighted according to the capitalization, i.e. change of prices on the given kind of share influences upon the value of index proportionally to the market price of entire issue of shares. It is expressed in US Dollars. They take value of the index for base, which equals to 50.00 at the moment of closing stock exchange on December 31 of 1965. Operations according to the options per this index are implemented at New York Stock Exchange – operations on futures contracts are implemented at New York Futures Exchange, which is the integral part of New York Stock Exchange.

#### **4. NASDAQ INDEX (NATIONAL ASSOCIATION OF SECURITIES DEALERS AUTOMATIC QUOTATION - NASDAQ)**

This is the index of National Association of Securities Dealers. For the first time it was calculated in February, 1971 and it equaled to 100 points. Shares of 3500 companies circulated at non-exchange market were included in the calculation. It is calculated similar to SP-500.

Group of NASDAQ indexes is represented together with these indexes serving to the non-exchange circulation in total, as well as separate fields. They include:

**NASDAQ Composite** (often called simply NASDAQ) is aggregated index, foreseeing conduct of 4381 American and foreign corporations, which are weighted according to the index of capitalization and passing listing in the system (with general capitalization about 6000 billion US Dollars). Most part of these companies produces new economies manufacturing computers, software, and telecommunication and biotechnology companies. Another peculiarity is existence of important amount of foreign companies, much more than together with NYSE and AMEX.

**NASDAQ National Market Composite** – is similar to main index of NASDAQ, according to the listing of National Market, which is the part of the exchange system.

**NASDAQ-1000** – including 100 companies of “New Economy”, which are grouped according to the fields. Peculiarity of this index is not only weighting to capitalization, but involvement of additional quarterly specifying weighted ratio on each share (starting from 1998), giving the conduct of index additional uncertainty; though, authors of the method consider it to be useful.

There is great number of sectorial indexes, which include – NASDAQ Financial-100, NASDAQ Industrial, NASDAQ Transportation, NASDAQ Bank, NASDAQ Telecommunications, NASDAQ Insurance, NASDAQ Computer, NASDAQ Other Finance; NASDAQ Biotechnology. These indexes reflect situation in the respective sector in US economy and it is not of interest to off-shore users. They do not develop any innovation in the methodology of indexes.

Futures and options on NASDAQ indexes are sold at Chicago Mercantile Exchange.

#### **5. AMERICAN STOCK EXCHANGE (AMEX) INDEXES**

American Stock Exchange publishes two principle indexes: AMEX Major Market Index and AMEX Market Value Index. They are calculated differently.

AMEX Major Market Index is simple mean indicator of changes of prices of 20 leading industrial companies. It includes shares of companies, which are registered at New York Stock Exchange.

15 of them are the components of Dow Jones Industrial Index. The operations with futures with this index are implemented at Chicago Stock Exchange.

AMEX Market Value Index is the indicator with weighted market price of all issued share of the companies, which are included in it in the form of components. Shares of 800 corporations registered at USA Stock Exchange are included in it, as well as depository certificates and signature certificates of America. From technical point of view, it is unique, as in terms of its calculation they foresee the fact that the actually paid dividends, which are issued according to the shares included in it. They are reinvested and thus they are reflected in the index. For the first time, this index was published in September of 1973. The options with it are quoted at USA Stock Exchange.

## **6. WILSHIRE 5000 INDEX**

Wilshire 5000 is the largest market index in the listing of which 5000 companies are included, which passed listing at the stock exchanges NYSE, AMEX, NASDAQ. It was founded in 1974.

## **7. VALUE LINE INDEXES**

This group of indexes belongs to the Company Value Line and includes two indexes: Value Line Composite (Arithmetic) Index and Value Line Composite (Geometric) Index. Shares of more than 1700 companies are included in the listing of the indexes.

Value Line Composite (Geometric) Index is calculated from the average geometry of the growth of rates of 1695 shares circulating at New York and USA Stock Exchanges and non-exchange market.

Value Line Composite Index – this is the index weighted according prices. It is considered to give better impression on efficiency of investments, as most of the individual investors do not build their portfolios with weighting of market capitalization.

This group of indexes is of practical interest with the peculiarities of the method of their calculation. This peculiarity of the methodology exists in equal amount of initial resources. For example: 10 shares with the price of 100 US Dollars or 1000 shares with one US Dollars may be purchased with 1000 US Dollars. Of course, in case of such method, calculation of the index is subject to great fluctuations and it gives peculiar reflection of current economical processes. This method doesn't reflect situation at entire market, but it is too useful for dynamic speculators at the market.



## **8. RUSSELL INDEX**

This family of indexes is calculated by the Company Franck Russell and represented with following indexes: Russell 3000 Index, Russell 1000 Index and Russell 2000 Index.

Russell 3000 Index reflects dynamics of shares of 3000 largest US Companies according to the market capitalization of the shares, which make 98% of market price of entire American shares.

Russell 1000 Index reflects the dynamics of shares of 1000 largest US Companies, which are taken from selection of Russell 3000 Index, making 92% of unified capitalization of the companies and represented in Russell 3000 Index.

Russell 2000 Index reflects shares of relatively smaller 2000 companies, represented in Russell 3000 Index and making 8% of entire capitalization of the companies from Russell 3000 Index.

## **9.8. GREAT BRITAIN INDEXES AND OTHER**

### **GREAT BRITAIN INDEXES**

#### **1. FT-SE Indexes (Financial Times Stock Exchange Index)**

FT-SE Indexes are intended for showing price movement at London Stock Exchanges. The oldest index of Great Britain created by the Agency Financial Times in 1935 is known with the name Financial Times Industrial Ordinary Share Index or with abbreviation FT-300 (FT-SE-30). It includes shares of 30 large industrial and commercial companies and it is calculated as geometric mean, made by multiplying rate of 30 shares included in the listing and they take root of 30 degree from the receive outcome. The indexes are calculated by the company FTSE International.

For today FT-SE-100 (Footsie-100) Index is the most distributed one. It is calculated according to the shares of 100 leading British Companies, which are registered at London Stock Exchange. Selection of shares in the listing is provided by the specialists, including representatives of the Newspaper Financial Times. For today capitalization of the companies, which are included in the listing of this index, reflects 70% of total capitalization of Stock Exchange of Great Britain. Calculation is provided by weighting rates of the shares of Companies according to the market capitalization as of January 3, 1984, when value of the index made 1000. Calculation of the index is provided on minutely basis.

2. **FT-SE Mid 250 Index**, listing of which includes 250 companies of Great Britain following those largest 100 companies including and represented in the Index FT-SE-100. It is calculated since December of 1985, when its value equaled to 100. Given Index characterizes market of shares of the companies of average size making 20% of entire market of Great Britain.

3. **FT-SE. All Shares** – represents selected shares of 650 English companies, represented every field of business. It is calculated similar to other indexes. Indexes of share rates FT-SE Eurotrack-100 and FT-SE Eurotrack-200 are weighted indexes of European companies, providing immediate information about movement of shares of continental, European and Ireland share market, as well as their functioning and direction of movement. The Index was involved in 1990.

4. **FT-A World Index** – world index foreseeing 2200 shares from the companies of 24 countries.

#### **GERMAN INDEXES**

1. **DAX Indexes** – business activity indexes of German Stock Exchange include shares of the companies, passing listing at Frankfurt Stock Exchange.

2. **DAX-30** – main stock index of Germany, calculated according to the shares mostly included in trading (on the basis of trade statistics during last three years). Comparative trade securities – this is the securities accumulating relatively more applications for sale and purchase between professional participants of non-exchange market. The index is weighted according to the market capitalization. It is calculated since 1972.

3. **Xetra DAX** – the index, which in fact coincides with DAX-30, but calculated on the basis of the data of electronic list, which is usually longer than session, due to this, closing prices may be essentially different.

4. **DAX-100** – this index is analogue to DAX-30 with the difference that its listing is participated by greater amount of shares (one hundred instead of thirty).

5. **CDAX** – composition index reflecting dynamics of movement of 320 shares.

#### **INDEXES OF FRANCE**

Principle group of French indexes includes following: CAC-40, SBF-80, SBF-120, SBF-250; MidCAC. These are classic indexes included in the listing (respectively) 40; 80; 120; 250 and 100 shares of French companies.

1. **CAC-40** is calculated by Paris Stock Exchange and the Society of French Exchanges together as mean weighted price of 40 shares. It is calculated since December 31, 1987. In such case its value made 1000 points. Futures contract on the given index is the most popular one and they trade with this contract in entire world.

2. **SBF-80** is calculated on the basis of shares of 80 companies according to the companies following first 40 ones. Criteria of selection are total price of shares.

3. **SBF-120** includes every company, which were included in previous indexes (CAC-40; SBF-80).

Indexes CAC-40, SBF-80; SBF-120 are calculated in the regime of real time; i.e. in each 30 seconds during entire exchange session. The indexes SBF-250 and MidCAC are calculated twice a day – at the moment of opening and closing the stock exchange.

### **JAPANESE INDEXES**

Japanese index Nikkei – 225 (Nikkei Dow Jones Average) includes 225 companies in the listing, trading at the Tokyo Stock Exchange. Given index is published since 1950. The method of calculating this index conforms to that of calculating Dow Jones Industrial Average. This is the index of arithmetic mean.

**Torix Index** – is the Japanese index, published since 1968. For the basis of its listing they take the shares traded at the first section of Tokyo Stock Exchange. The index is calculated with the method according to the amount of weighted issued shares.

JPM Index is the method of indexes weighted according to the prices, reflecting the dynamics of 210 ordinary shares and which are actively traded at Tokyo Stock Exchange and represent almost every sector of the economy of Japan.

### **HONG-KONG INDEXES**

Hang Seng Index is the leading index of Asia calculated by the Company HIS Services Limited and published by Hong-Kong Stock Exchange. The Index includes shares of 33 companies, representing production, commerce, finances, utility services and land ownership. Shares included in the index listing make almost 70% of capitalization of issuances of traders of Hong Kong Stock Exchange.

### **CANADA INDEXES**

TSE-300 – relatively known index of Toronto Stock Exchange, which is weighted according to the value of capitalization and including 14 sectors of economy.

Montreal Industrial – the index of Montreal Stock Exchange.

## INDEXES OF MEXICO

At Stock Exchange of Mexico they calculate IPC Index. This is weighted index including 35 largest companies of Mexico. Composition of the selected companies is corrected for calculation once in each 2 months.

## BRAZIL INDEXES

The most famous index in Brazil is Bovespa, in calculation of which relatively marketable shares are included and which are quoted at San-Paolo Stock Exchange.

Great amount of indexes, existed today at western markets are reflected not with the variety of the methods of calculation, but wide opportunities of selecting shares for their calculation (total market and sectorial indexes; indexes of the companies of small, average and large capitalization; the indexes with the share prices and growth of shares, etc).

These opportunities are restricted for Russian shares, but the amount of native indexes is measured in tens. The first stock indexes, appeared at the Stock Market of Russia were the indexes of Investment Bank, CS First Boston ROS-30 and Skate Press Agency. Later AK&M indexes appeared later. Together with development of the market new indexes were created, which are different from each other with calculation method, purpose, availability. Let us consider relatively more frequently.

## BASIC RUSSIA STOCK INDEXES

Stock Indexes of Russia may be conditionally divided into the indexes of commercial premises and information agencies.

**Indexes of commercial premises.** Subject to the requirements of the Federal Commission of Securities for determination of the situation, when it is necessary to stop trading, every Russian Stock Exchange is liable to calculate aggregated index according to the shares included in the quotation listing.

**Moscow Stock-Exchange** calculates aggregated index МФБ (MSE Composite Index).

**Stock Exchange “Saint-Petersburg”** – Index SPSI (Saint-Petersburg Stock Index).

**Stock Exchange PTC** publishes aggregated index PTC and technical index PTC, reflecting relative change of total market capitalization of shares, which are included in its composition. These indexes have the base of unified calculation (59 shares included in the quotation lists of the stock exchange or selected on the basis of expert evaluation), but they are different from each other with periodicity of calculation (index PTC –

once in 30 minutes; technical index – every minute) and the method of determining prices of shares. Except compulsory aggregated index, Moscow Interbank Currency Stock Exchange calculated the index ММИБ (the index weighted according to capitalization per the most marketable shares, which are lowered in circulation at the stock exchange) and the index ММББ 10 (price, non-weighted index, calculated as arithmetic mean according to the changes of the price of 10 most marketable shares, allowed to the circulation in the section of stock market of the stock exchange).

Since September 2002 ММББ and the Agency Reuters calculated unified index RMX (Reuters Micev Index), foreseeing transactions according to the shares, and included ММББ, РТС and МФБ. Calculation of index in the quotation lists are provided in real time regime. Its changes are reflected in terminals of Reuters. The Index includes more than 80% of quotation lists of market capitalization of shares of Russian Stock Exchange, making it possible to consider it as broad market index. To let RMX, as the instrument of analyzing get practical value, they calculated its historic meanings since December 31 of 1997.

Main fault of every Russian index is brief history. When there is limited knowledge about market conduct in the past, which reduces the value of the index, as the instrument of prediction.

The indexes are dynamic economic category, developed and perfected in accordance with the changes of global economy. Globalization and internalization of stock market gave rise to internalization of the portfolio of securities, in which, together with national stock instruments, those of separate countries and continents are also included. Such portfolios are not enough even for management of (documentation package) of its market conjuncture under the conditions of good knowledge. Due to this, global generalizing indexes of investments became necessary. By means of strengthening trends of international investments, some financial institutions processed international indexes.

At the end of 80s of last century international series were formed, which included 11 regional indexes. Its calculation was provided by three structures – newspaper Financial Times, USA Investment Bank, Goldman Zugz and the company County Natwest Securities. World index is based on 2.5 thousand shares from 24 countries of the world. The information was accumulated from 7 economic sectors. Sectorial indexes of 36 components were used in calculation, which were made from more than 100 sub-sectorial categories. For such volumetric indexes it is of special importance to provide qualitative selection of its components.

Notwithstanding complexities of calculations and processing, global index of actuality is not the only one. There are some more indexes; international Index Morgan Stanley and the first Boston Uroman Index; index of the Union of Switzerland Banks, etc.

For example, the company Morgan Stanley publishes following indexes: World Index, including 1500 shares of 22 countries; European – 600 shares; EAFE (according to Europe, Australia and Far East) – 1000 shares. These indexes foresee almost 60% of capitalization of each market. British Newspaper Financial Times publishes stock indexes together with FT-SE International and Standard Poor's mostly for national, regional and world markets. FT/S&P Actuaries World Indexes are based on the data of 2500 shares. Brokerage companies Solomon Brother and Frank Russell publish indexes Solomon/Russell Global Equity Index.

Of course, given indexes make only part of the stock indicators out of their multiple amount existed at the global market of securities. Together with them there are specialize indicators with the help of which modern stock intermediaries manage global investment processes.

## **9.9. STOCK INDEXES IN GEORGIA**

Reflection of the dynamics of Georgian Stock Exchange is provided with such stock indexes, as Galt and Taggart. This index was created in 2001 with the brokerage company with the same name and it includes shares of eight companies registered at Stock Exchange of Georgia: Bank of Georgia, Galt and Taggart Capital, Emporium Tbilisi, Teliani Valley, Kazbegi, VTB Bank Georgia, United Telecom and JSC Telasi.

Galt and Taggart Index is calculated twice a week, according to the closing prices of the Stock Exchange of Georgia.

The year 2006, due to multiple reasons, was successful for Georgian capital market. At the background of rapid growth of the county economy Galt and Taggart Index (GTI) was increased in 147% (in Georgian Laris) and reached 790.1% at the end of the year, but due to global economical crisis Galt and Taggart Index started falling from February of 2008. August circumstances made the situation much harder. According to the data of the year 2009, 9.36% of Georgian Laris fell to 18.2 and in USA it was fixed to 215.3%. During last periods trading are provided only with the shares of two companies out of the said tens – Bank of Georgia and Liberty Consumer.

## THE COMPANIES CONCLUDING GALT

### AND TAGGART INDEX

According to the information of February, 2009, Galt and Taggart Index includes following Companies:

Bank of Georgia

Liberty Consumer

Teliani Valley – 31.10.08

Caucasus Energy and Infra – 31.12.08

United Telecommunication Company – 08.12.08

VTB Bank Georgia – 23.05.08

Telasi – 27.08.08

Emporium Tbilisi – 18.06.07

Kazbegi – 05.09.08

People's Bank – 26.01.09

/Last trading dates are stipulated/

According to the data of February 23, 2009, Galt and Taggart Index in Georgian Lari was lowered in 113.76% to 139.4; volume of trading shares made 11.899 Georgian Lari; transactions were concluded on one Blue Chip share: Bank of Georgia (GEB, purchasing, Price decreased in 25.51%). Total trade volume on Blue Chip share at the Stock Exchange made 100%.

Price of global depositary receipts of the Bank of Georgia (BGEO) at London Stock Exchange was reduced in 23.3% and made 2.53 US Dollars.

## CHAPTER 10. STOCK PORTFOLIO

### 10.1. PORTFOLIO OF SECURITIES AND ITS KINDS

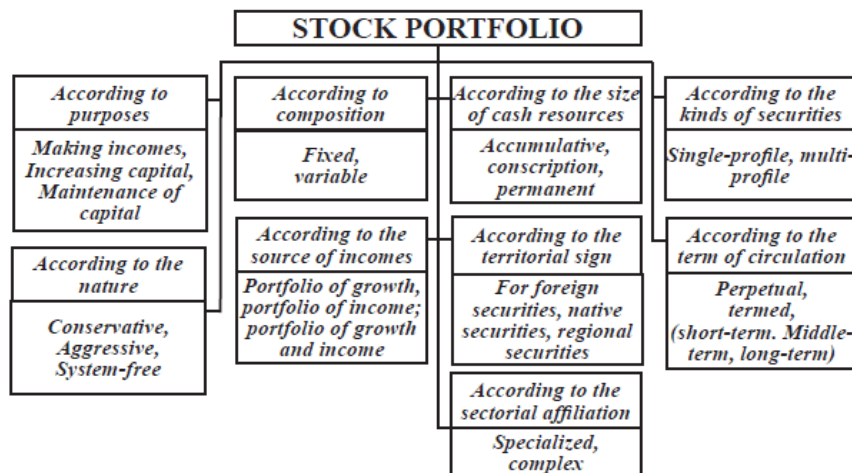
**Portfolio of Securities** – this is the totality of securities selected with particular method, for accomplishment of identified goals. Equality of particular kinds of securities in the portfolio determines structure of the portfolio.

Basic priority of the portfolio of securities exists in the fact that it includes totality of securities, holding such investment indexes, which are unacceptable for separate securities and it is only possible in terms of their combination.

Main task of the portfolio is improvement of investment terms and provision of required level of profitability under the conditions of minimal risk. Conformity of risk and profitability is principle criteria in classification of securities per types and at the same necessary and important to know how and at the expense of which source this income is made: at the expense of increasing rate price, or at the expense of dividends and interests of current payments.

#### CLASSIFICATION OF PORTFOLIO OF SECURITIES

We may consider following classification of the portfolio of securities (Figure 10.1).



**FIG. 10.1. CLASSIFICATION OF PORTFOLIO OF SECURITIES**

According to the purpose of investment they distinguish portfolios of securities of following kind:

Single-purposed;

According to the balanced purposes, purposes of formation of portfolio of securities we may distinguish following: 1) making income; 2) provision of increasing capital on the basis of rising



rate of securities; 3) maintenance of capital. Variety of portfolio, which is focused on full maintenance of capital, being portfolio of capital market, which includes cash money and quickly realized assets.

**According to composition** portfolio of securities may be:

Fixed;

Variable.

Fixed portfolios maintain their structure during prescribed term, duration of which is determined with the term of repayment of securities included in it. Variable and manageable portfolios characterize movable structure of securities, which is permanently renewed for the purpose of making maximum economical effect.

**According to the opportunities of changing initial size of cash resources**, included in the portfolio, they allocate following kinds of portfolio of securities:

Accumulative;

Conscription

Permanent.

Accumulative portfolio makes it possible to increase monetary expression of portfolio at the expense of incomes made from initially invested resources. For **conscription** portfolio it is possible to receive back half of cash resources, which, at the beginning were invested into the portfolio. **In the permanent portfolio**, size of case resources invested initially is maintained during entire term of existence of the portfolio.

They distinguish portfolios **according to the kinds of securities**. Single-profile portfolio includes securities of one kind (for example, shares). Multi-profile portfolios include several kinds of securities, sections, ordinary shares and preferred shares, and kinds of bonds.

**According to the validity period**, they distinguish termed (short-term, middle-term and long-term) and perpetual portfolios.

The investor forms termed portfolio not for the purpose of making simple income, but during the period preliminarily determined for its obtaining. Short-term portfolio is formed from short-term securities. There are no time-restrictions for perpetual portfolio. Determining time-limits makes investor prefer particular kinds of securities, characterized with the required term of repayment (circulation).

**According to territorial sign**, they distinguish:

Portfolios of foreign securities;

Portfolios of native securities;

Regional portfolios.

Portfolios of foreign securities are limited with one particular country (portfolio of securities of particular country), or includes entire regions (developing countries), compiled (diversified) portfolios according to territorial sign, it makes it possible to lower risk level for each separate country.

**According to the sectorial affiliation** portfolios of securities may be specialized and complex.

Complex portfolio is the one made of the securities issued by the enterprises of different fields, which include securities of governmental structures. They are formed of state and municipal securities and bonds; portfolios of securities, which are exempted from taxes. Such portfolios are formed from state debtor obligations; index portfolio, profit of which equals to total growth of share of the companies of stock market, included in the accounting base of selected indexes.

**According to the nature** profile of securities is divided into:

Conservative;

Aggressive;

System-free.

**Conservative** (balanced) – this is the portfolio of securities, which includes famous securities with precisely determined positive characteristics and lowest risk level, which warranty refunding of invested resources, though they make small income; their purpose is maintenance of capital. **Aggressive** is the portfolio formed of relatively venture, but the most profitable securities. In such case, purpose of investment is making income. **System-free** portfolios are formed randomly, without any system.

**According to the source of incomes** they distinguish following kinds of portfolio: portfolio of growth, portfolio of income, portfolio of income and growth<sup>75</sup>.

**Growth portfolio** is formed from the shares of the companies' mark price being increased. According to the rate of growth of the mark price, they distinguish following types:

**Portfolio of aggressive growth**, which includes shares of young, rapidly growing companies. They are directed towards maximum growth of capital. Investments in the portfolio of such type are enough venture, though at the same time, they are able to make the highest income.

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<sup>75</sup> Esipov V.E., Makhovikova G.A., 2001. Pricing at the Financial Market. Manual – Spb.: Piter.

**Portfolio of conservative growth**, which consists of the securities of large, well known companies. They are characterized with the low but sustainable growth rates of the mark price. Such portfolio is intended for maintenance of the capital.

**Portfolio of moderate growth**, which includes venture securities, together with the reliable ones. Given portfolio provides average growth of capital and moderate level of the investment risk.

**Portfolio of income** formed of the shares, which are characterized with the moderate growth of the mark price and high dividends. This group of portfolios is oriented towards making high current incomes (interest and dividend payments) and includes following kinds of portfolio:

Portfolio of regular income, formed of highly-reliable securities and making moderate income under the conditions of minimal risk level;

Portfolio of profitable securities, which are formed of high-profitable bonds and securities of corporations, making high income under the conditions of moderate risk level.

**Portfolio of risk and income** is formed at the stock market for avoidance of possible loss, which is made of falling mark value, as well as low dividends and interest payments. Such portfolio is formed of two parts. The first part includes securities of fixed incomes providing warranted profit. Second part is made of speculative instrument making venture, but potentially more profitable share. One part of financial assets included in the portfolio gives its holder growth of mark price of securities, while second part – warranties income. Priority of this portfolio is that loss made in one part may be compensated with growth of the second part. One of the principle values of this version of investments is that during long-term period of investment the share working under increasing risk will make much more income than at the “Banking”.

This group of portfolios includes:

Portfolio of double value includes securities making high income to their holders at the background of increasing invested capital. Such portfolio includes securities of double value investment funds issuing securities of two types making high income providing growth of capital;

Balanced portfolio foreseeing balance of incomes and risks. It includes rapidly increasing marketable price and high-profitable securities (preferred and ordinary shares and bonds).

## 10.2. FORMATION OF THE PORTFOLIO OF SECURITIES

**Formation of the portfolio of securities – this is the process of creating particular structure of portfolio, i.e. conclusion of combination of securities of different kinds for particular purpose.**

Basic principles of forming portfolio of securities are: 1) profitableness; 2) growth of capital; 3) security; 4) liquidity,

The process of forming portfolio of securities includes following stages:

**Determination of reasons of creating the portfolio and priorities of investors.** First stage includes:

Selection of the type and determining nature of portfolio;

Evaluation of the portfolio investment risk level;

Evaluation of minimal profit;

Evaluation of allowable deviation from the expected profit for the investor, etc.

**Creation of portfolio, selection of the portfolio management tactics.**

Second stage includes:

Modeling structure of portfolio;

Optimization of the structure of portfolio.

**Permanent study and analyzing of the factors**, which are able to change (monitor) structure of portfolio.

**Evaluation of portfolio**, i.e. evaluation of income and risk of portfolio and comparing these indexes to the similar index of entire securities market.

Every stage of the process of formation of portfolio is in close connection with each other.

As we have noted above, purposes of formation of the portfolio of securities may be: 1) making income (for example, regular receiving of interests and dividends); 2) maintenance of capital; 3) provision of growth of capital on the basis of raising the rate of securities. The investor may select one of these purposes or several purposes together. In this regard, it forms single-purpose portfolio of securities or balanced portfolio according to the purposes.

#### **CLASSIFICATION OF POTENTIAL INVESTMENT**

Composition of portfolio of securities depends not only on the purposes of investments, but its nature. Global practice foresees following classification of the types of potential investors: 1) **conservative**, 2) **moderately aggressive**, 3) **aggressive**, 4) **experienced** and 5) **skilled** (Figure 10.1).

Purpose of the **conservative investors** is safety of investments. **Moderately aggressive investors** try not only to maintain invested capital, but also to make income even small. **Aggressive investors** are not satisfied with the interests from the invested resources, but try to achieve growth of capital.

**Experienced investors** try to achieve making profit and at the same time growth of capital and liquidation of securities; i.e. if necessary, their rapid realization at the market. Goal of the **experienced and skilled investors** is making maximal income.

<i>Types of investors</i>	<i>Purposes of investors</i>
<i>Conservative</i>	<i>Safety of investments</i>
<i>Moderately aggressive</i>	<i>Safety of investments + profitability</i>
<i>Aggressive</i>	<i>Profitability + growth of investments</i>
<i>Experienced</i>	<i>Profitability + growth of investments + liquidity</i>
<i>Skilled</i>	<i>Maximal profitability</i>

**FIG. 10.2. BASIC TYPES OF INVESTORS**

Portfolio of securities may be oriented towards reliability (conservative) or profitability (aggressive). The portfolio shall include reliable and less profitable incomes, as well as venture, but more profitable securities of different issuers.

Selection of securities by the investors is implemented with the methods described in the precious Chapter by us. In the first place, they analyze perspectives of the field, which the company operates in and the shares of which became of interest. After this state of the said company at the market, and later they analyze value of its shares, learn how high the price of its shares are, compared to the shares of other enterprises of this field, and which of the enterprises have better market perspectives. They determine conformity between price of shares and the dividends paid on them. They determine how many years are needed for returning of the sum invested in shares to the investor (the faster the better) and after all these, the investors make decisions on purchasing the securities or not.

**THE STRATEGY OF SELECTING INVESTMENT PORTFOLIO OF SECURITIES**

They select investment portfolio of securities, in the first place, on the basis of correctly processed strategy, on the basis of which it is necessary to:

- Select companies with good fundamental indexes, i.e. increasing profit, dividends, volume of sales;
- Expect for the fall of market;
- Purchase shares and issue Stop-orders;
- Permanent monitoring of quarter financial records of the selected companies and track behavior of shares through technical analyzes;

In case of detection of unfavorable financial state of one of the companies, to sell shares of the latest and to fix readiness for purchasing new shares.

In the course of selecting investment strategy, the factors of determining the structure of investments' portfolio are risk and profitability of investments. The factors of selecting securities, determining profitability of investments are profitability of production and the perspective of growth of the scope of sale. High-profitable business provides small period of redemption forming precondition for reinvestment of profit into the development of the enterprise. The investors are always interested in the indexes influencing upon profitability of capital, rate of shares and level of dividends of the enterprise. The level of dividends on the shares depends on the level of profitability. For evaluation of investment potential of the enterprise, the factor at the expense of which profitability of capital is increased or reduced is of great importance. Holders of ordinary shares are mostly interested in rate of shares than level of dividends. Rate of shares depends on numbers of financial indexes of joint stock company (not only the level of net profit (dividends) on single share). Sometimes low level of dividends on shares is related with the necessity that during following periods the dividends will be quite high. All these factors shall be considered for evaluation of the potentials of the funds invested in securities.

Formation of the portfolio of securities may be implemented with the help of numbers of methods and theories. Selection of securities may be realized as on the basis of analyze of securities market, so – on the basis of “random movement”.

Rating of securities and companies influences upon formation of portfolio of securities. Selection of company for investors may be implemented on the basis of stock indexes. It is not easy for the companies to get into the index and it is too prestigious, when they receive particular warranty from the point of security of investment. The index may include great amount of companies of different fields, making it possible to select required company. Selection is started with analyzing of the companies, which have increased dividend payments during recent years. High dividends for the companies mean giving part of profit to their investors, stipulating existence of particular free capital.

#### **THE METHOD OF M.O. HIGGINS AND GARDNER FOR COMPOSITION OF PORTFOLIO OF SECURITIES**

Simpler method of conclusion of composition of securities' portfolio is the method of Michael O. Higgins and Gardner. This method is used for reduction of the investment risk allowing

selection of companies within shortest period of time and not to require analyzing of great number of economical indexes. Essence of the method exists in selection of simultaneous several companies, eliminated according to the following scheme:

To select ten companies, paying maximum dividends in interest in relation with current prices of shares. The list of companies is selected out of Dow Jones industrial index. These companies are characterized with payment of high dividends during extremely long period of time. Though prices on their shares are subject to market fluctuation, but increased from one year to another.

Five companies with low price on shares to be left from this group.

To exclude from the selected five one minimal share with price, four companies will be left.

Investment capital to be divided into five equal shares.

2/5 of the capital to be invested in the companies having the cheapest shares.

Remaining 3/5 to be divided into equal shares between remaining three companies from the selected list.

To calculate amount of shares of the company, conforming to the cash resources allocated on them and to purchase such shares.

This is the rule investment portfolio is formed, which is not needed to be changed during entire year. After a year the portfolio may be reviewed after a year, by using previous scheme. If new list doesn't conform to the old one, its substitute shall be found and later every year to repeat the procedure; though the investor shall be extremely careful. It is not excluded to receive less profit following year compared to the growth of market index.

The essence of the given method is the most simple and effective in course of formation of portfolio of securities. Though it doesn't foresee alienation of the company to various fields, but it support diversity of the investment portfolio.

#### **THE METHOD OF D. ERIASHVILI AND N. KAMENIEVA FOR PROCESSING OF PORTFOLIO OF SECURITIES**

Analogue of the said method is that of N.D. Eriashvili and N.G. Kameneva, during which they use Unity Index instead of Dow Jones index. It includes industrial companies, enterprises, and firms shares of which are represented at the stock market of Russia. They make selection out of 11 companies, instead of 10. They leave not 4, but 5 companies. The capital is divided into 5 shares. 2/3 goes and is invested to the companies having the cheapest shares. Remaining 3/5 of the capital is divided equally by the four (and not three) companies of the list. They calculate the number of

shares of the company, conforming to the money allocated on it and they purchase these shares. Created portfolio is not touched during the first 6 months. After half a year they may review portfolio by using earlier method. If new list doesn't conform to the old one, it is necessary to make mandatory change and then repeat the procedure.

Except stipulated method, there are other methods of formation of portfolio of securities, but any method which worked well in the past, may be useless under modern conditions. Due to this, the investor shall be extremely attentive and be serious in connection with formation of the portfolio, not to suffer loss.

Main task for the investors in course of formation of the portfolio of securities is establishment of optimal conformity between risk, income and liquidity, making it possible to select optimal structure of portfolio. This reason is served by different models.

#### **THE MODEL OF LEVELING PRICES AND ARBITRATION PRICING**

In course of forming portfolio of securities the analysts may use **the model of leveling prices or arbitration pricing model**. In the given model expected income of shares depends of multiple factors. In practice, it is extremely difficult to explain inclusion of which particular factor is needed to the model. Today in the range of such factors they use following indexes: development of industrial production, changing levels of bank interests, inflation, risk of insolvency of particular enterprise, etc.

In course of using arbitration strategy, we may avoid misbalance between capital market and cash markets and futures market.

Generally, any model of the investment portfolio is open and be filled and corrected in course of changing terms of securities. Models of investment portfolios discussed by us make it possible to receive analytic material, which is necessary for making optimal decisions, which, in its turn, condition efficiency of investment activity.

After determining optimal structure of portfolio, the investor may maintain it for long, if the market of securities itself maintains general dynamics and internal proportions. Herewith, in course of sharp changes under market situation or in case of profitableness of selected securities and unexpected fluctuations in the rates, the investor may provide rapid correction of his portfolio through different methods and approaches. Their main goal is disposal of the set of securities included in the portfolio in the way to avoid losing their price, but also to make stable income, which should not be depended on the level of inflation.



### 10.3. METHODS OF MANAGING PORTFOLIO RISKS

Obtained information about state of portfolio at different stages of investments by taking into account different factors, makes it possible to manage permanently structure of portfolio at every stage of making decision.

**Under the management of portfolio of securities, they consider using of methods and technical opportunities determined in connection with totality of securities of different kinds, conditioning: maintenance of initially invested resources, achievement of maximal level of income for provision of investment lines of portfolio.**

Management of the portfolio requires provision of permanent optimization of portfolio for maintenance of quality and provision of growth of its current price. In order to provide stability of portfolio of securities, investors restrict size of investments in the securities of one issuer and thus reaching reduction of the risk quality, providing sectorial diversification.

There are two methods of approach towards portfolio of securities: traditional and modern. **Traditional** method of approach is based on fundamental and technical analyzing. It is focused on wide diversification of securities according to the fields. They mostly use securities of famous companies, having good industrial and financial index, at the same time they foresee they relatively high liquidity and possibility to sell or purchase securities of great amount and to save commission fees.

**Modern theory of management of portfolio** of financial instruments is based on the using statistic and mathematic selection of financial instruments in the portfolio.

#### PRINCIPLE PARAMETERS OF MANAGEMENT OF PORTFOLIO

Main parameters in course of management of portfolio its expected profitableness and risk. In the process of forming portfolio, it is impossible to determined exactly future dynamics of its profitableness and risk. Due to this, selection of portfolio is built on the expected values of profitableness and risk.

Expected profitableness of portfolio is middle weighted value of the expected index of profitableness of these separate securities, which are included in the composition of the portfolio, which are included in the composition of portfolio.

$$K_p = \sum_{i=1}^n x_i \bar{k}_i \quad (10.1)$$

Where  $K_p$  is expected profitableness of portfolio;  $X_i$  – share of portfolio, invested in  $i$  asset.  $K_i$  – expected profitableness of  $i$  asset;  $n$  – number of assets in the portfolio.

Average expected value measured outcome, expected by the investor to receive as average. Risk of the investor exists in the fact that he may make higher or lower profitableness than expected. In practice, they receive following indexes for measurement of risk: dispersion and average square deviation.

Dispersion ( $\sigma^2$ ) is middle weighted from the squares of deviations of possible expected average outcomes and it is determined with the following formula:

$$\sigma^2 = \frac{\sum(k_i - \bar{k})^2}{(n-1)} \quad (10.2)$$

Where:  $\sigma^2$  – is dispersion of profitableness of share,  $n$  – number of periods of monitoring;  $\bar{k}$  – average profitableness of share.

For evaluation of the investor's risk, they may use second formula of dispersion. In the calculations they foresee the fact that risk of the investor is characterized by evaluation of the probable size of the minimal and maximal incomes. Herewith, the more is the distinction between these sizes in case of their equal probability, the higher is the risk quality. In such case, for calculation of dispersion they may use following formula<sup>76</sup>:

$$\sigma = P_{max}(X_{max} - \bar{X})^2 + P_{min}(\bar{X} - X_{min})^2 \quad (10.3)$$

Where:  $P_{max}$  – is the probability of making maximum income;  $X_{max}$  – maximal value of income;  $X_{min}$  – possibility of making minimal income;  $P_{min}$  – minimal value of income;  $\bar{x}$  – average expected value of income.

Average square deviation is calculated with following formula:

$$\sigma = \sqrt{\sigma^2} \quad (10.4)$$

Dispersion and average square deviation characterize absolute fluctuation of possible outcomes. In order to exclude influence of absolute values, they use relative value of fluctuation: variation ratio and beta ratio.

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<sup>76</sup> **Balabanov I.T.** Risk-Management. M.: Finances and Statistics. 1996, pg. 38-39.

## VARIATION RATIO

Variation ratio (V) represents conformity of average square deviation with the arithmetic average and show deviation degree of obtained indexes.

$$V = \frac{\pm\sigma}{\bar{x}} \quad (10.4)$$

Variation ratio is measured from 0 till 100. The higher is the variation ratio, the stronger is the fluctuation and more volatile analyze version of capital investment is. In course of the ratio of variation, the fluctuation up to 10% is deemed to be weak; from 10 till 25% - moderate; and more than 25% - high.

Beta ratio ( $\beta$ ) is used in course of evaluation of investment risk in securities and it is calculated with the formula:

$$\beta = \frac{\Delta_i}{\Delta} \quad (10.6)$$

Where:  $\Delta_i$  is the percentage of changing rate of  $i$  securities.  $\Delta$  is total percentage of change of rates of all shares at the stock market.

Beta-ratio measures trend of shares to move together with market upwards or downwards. The share with high beta ratio is more changeable, than market, and the share with low beta ratio is less reliable than average. Average share has  $\beta=1.0$ .

Norm of required profit on the share includes norm of profit of risk-free securities  $R_f$  plus premium on risk, which depends on  $\beta$  ratio of the share.

$$K_i = R_j + \beta(K_m - R_j) \quad (10.7)$$

This formula is called equation of the model of pricing of the share of capital, CAMP and having fundamental meaning in the financial business.

Holder of each capital faces the choice – to make high profit from venture operations, or low profit from risk-free operations. Due to this, the equation, which is budgetary restriction showing interrelation between risk and profit, is of particular interest.

$$R_p - R_f + \frac{R_m - R_f}{\sigma_m} \times \sigma_p \quad (10.8)$$

Where:  $R_p$  – is expected profit;  $R_f$  – is risk-free profit;  $R_m$  – expected profit from investments at the stock exchange;  $n_m$  – standard deviation of profit from investments at the stock exchange.  $n_p$  – standard deviation of expected profit. In course of growth of standard deviation, average weighted expected profit  $R_p$  is increased.

Risk of the portfolio doesn't equal average risk of the risks of assets, due to the fact that different shares react on changing of market conjuncture differently. Consequently, standard deviation of profitableness of different asses may neutralize each other, giving rise to the reduction of the portfolio risk. Portfolio risk depends on the direction and scope of profitableness of shares included in it in terms of changing market conjuncture.

### WHAT IS COVARIATION AND CORRELATION RATIO?

In course of determining degree of interrelation of two assets and directions of their profitableness they use such indexes, as **covariation and correlation ratios**. Covariation is determined with following formula:

$$Cov_{a,b} = \frac{\sum(R_{ai}-R_a) \times (R_{bi}-R_b)}{(n-1)} \quad (10.9)$$

Where:  $Cov_{AB}$  A and B are  $n$  covariation of securities during periods.  $R_A, R_B$  – profitableness of A and B securities in  $i$  periods.  $R_A, R_B$  – Average profitableness of A and B securities.  $n$  – number of periods, when profitableness of A and B securities were fixed.

Positive value of covariation speaks of the fact that profitableness of studied securities is changed in one direction, and negative – to the opposite. Zero value of covariation means that there is no interrelation between profitableness of securities.

Correlation ratio is calculated with the formula:

$$C_{orr} = \frac{Cov_{ab}}{\sigma_a \times \sigma_b} \quad (10.10)$$

Where:  $C_{orrA,B}$  – ratio of correlation of A and B assets.  $\sigma_A, \sigma_B$  – average square deviation of profitableness of securities.

Correlation ratio is changed within the bounds from -1 till +1. Positive value of the ratio is the confirmation that profitableness of assets is changed in one direction in course of changing conjuncture; negative – opposite direction, there is no zero correlation.

## PORTFOLIO RISK MANAGEMENT

Risk may be significantly reduced in the field of management by means of qualified and effective work, for which they use different methods.

Problems of portfolio risk, as a rule, are solved by the investor or the specialist (financial consultant, fiduciary manager, risk manager, etc.).

Unforeseen governmental decisions, economic fluctuations, changes in the taste (opinions) of investors, actions of competitors and other actions may become reasons preventing exact forecasting and qualified management decisions. The investor shall know how to reduce probable risk level to the optimal value and foresee reduction of negative outcomes of risk even in course of the most unfavorable cases.

There are following methods of risk management:

Methods of minimization of loss (avoiding risk, avoiding loss, minimization of loss, searching for information);

Methods of reimbursement of loss (transferring risk, transferring control over risk, distribution of risk).

The investor may use one or several methods of minimization of loss.

**Avoiding risk.** It is too difficult to avoid loss caused by the risk entirely. Due to this, in practice this means not to undertake the risk, level of which is higher than ordinary level.

**Avoiding loss.** The investor may try to reduce particular loss; it is impossible to avoid it entirely. Avoidance of losses means avoidance of accidents through particular set of preventive acts.

Under preventive measures they consider the acts directed towards reduction of randomness and size of loss. Ordinarily, for avoidance of loss they use such activities, as permanent control of securities at the market and analyze of information, as well as maintenance of the capital invested in securities, etc. Each investor is interested in implementation of warning activities, though their implementation is not always possible due to technical and economical reasons and it is often related with important expenditures.

Preventive act may include reporting. Reporting is systematic documentation of entire information, related with analyzing and evaluation of internal and external risks, fixing remaining risk after taking all steps, related with management of risks, etc. All this information shall be included in particular base of data and blanks of settlement, which will be easily accessible for further investment.

## MINIMIZATION OF EXPENDITURES

Investor may try to avoid important part of loss, called minimization of losses. Methods of minimization of losses are diversification and limitation.

**Diversification** – this is the method directed towards reduction of risk, in this case, the investor invests his resources in various field (in the securities of different kinds, enterprises of different fields of economy), in order to provide compensation at the expense of another field in case of losses.

Diversification of the portfolio of securities foresees inclusion of securities of different kind, and different characteristics (risk level, profitableness, liquidity level). Possible small incomes (or loss), the securities with high incomes will be compensated with the securities of other kinds. Selection of diversified portfolio requires particular conditions, which, in the first place are related with obtaining complete and reliable information about investment quality of securities. In order to provide sustainability of portfolio, investor limits the size of investments in securities of one issuer and thus achieving reduction of risk level and quality. In course of investing funds into the share of enterprises of different fields of public industry, sectorial diversification is implemented.

Diversification is one of the small amounts of the methods of risk management, which may be used by any investor. The condition that diversification makes it possible to reduce only unsystematic risk is noteworthy, and the risk of capital investment is influenced by the processes, which take place in total economy, such as movement of the bank interest rate, expectation of economic rise or fall, etc. and related risk, may not be reduced through diversification. Due to this, the investor becomes liable to use other methods of risk reduction.

**Limitation** – this is setting limited sums on the securities of particular kind in course of capital investment. Establishment of limits is multistep procedure, including determination of the list of limits, determining each value, and their preliminary analyze. Protection of determined limits provides creation of economical conditions for maintenance of capital, making firm income and protection of the investors' interests.

## SEARCHING FOR INFORMATION

This is the method directed towards reduction of risk through obtaining and using required information in course of making venture decisions by the investors.

Making incorrect decisions is often related with existence of information or insufficiency. Asymmetry of information, when separate participant of the market has access to the important

information, which is not owned by other interested persons, prevents investors to behave rationally and there is barrier on the way of effective usage of resources and funds.

Obtaining required information, raising the level of information provision of investor may reduce risk and improve prognosis. In order to determine amount of required information and purposefulness of its obtaining, they shall conform the profit, given by the information and the expected, limited expenditures, related with obtaining such information. If expected benefit of obtaining information exceeds expected limited expenses, such information shall be obtained. Otherwise, we shall keep ourselves from obtaining such expensive information.

Under modern conditions, there is the business field called **accounting**. It is related with **accumulation, processing, classification, analyze and recording of financial information of different kind**. Investors may use the service of this business field.

The methods of loss minimization are often called methods of controlling risk using all these methods of avoiding risk and reducing loss are related with particular expenditures, which shall not be more than the size of possible loss. As a rule, increasing expenditures on avoiding risk gives rise to reduction of danger and loss provide by it, but to particular level. This limit occurs, when the size of annual expenses on avoiding risk and its reduction equals to the size of annual loss received from realization of risk.

Methods of reimbursement of loss (with the less expenses), are used when investor suffers loss notwithstanding his great attempts from the point of minimization of loss.

### **TRANSFERRING RISK**

The most often transferring risk is provided by means of hedging and insurance.

**Hedging** – this is the system of concluding termed contracts and transactions, foreseeing probable change of prices and changing rates in the future, and its purpose are avoidance of undesired outcomes of these changes. Essence of hedging exists in purchasing (selling) termed contracts with the same term for sale and purchase of real goods and provision of reversal operations in course of actual selling of goods. Consequently, softening of sharp fluctuation of prices takes place. Hedging in market economy is distributed rule of reducing risk.

According to the technique of implementing operation, they distinguish two kinds of hedging:

Hedging on rising (hedging with purchase or long hedge). This is stock operation on purchasing termed contracts (forward, options and futures). Hedging on rising is used in the cases, when it is

necessary to insure rates (prices) against possible rise. It makes it possible to determine purchase price much earlier than purchasing of real asset takes place.

Hedging on reduction (hedging of sales or short hedge) is stock operation of selling termed contracts. Hedging on reduction is used in cases, when it is necessary to insure rate (prices) from possible fall in the future.

Hedging may be implemented by means of operations related with futures contracts and options.

Hedging with futures contracts means using of standard (terms, volume and distribution conditions) contracts in connection with sale and purchase of securities circulated only at the stock exchange in the future.

Positive sides of hedging implemented by means of futures contracts are:

Availability of organized market;

Opportunity for implementing hedging without making important credit risks. Credit risk is reduced at the expense of effective mechanisms of including mutual demands, offered by the stock exchange;

Simplicity of regulation of the size of hedged position or its closing;

Existence of statistics about prices and size of trade on available instruments, making it possible to select optimal strategy of hedging.

Negative sides of hedging through future contracts are:

Absence of opportunities for using agreements of any size and term of performance. Futures contracts are standard contracts. Most of them are reduced, due to the fact that basic risk of hedging is impossible to become much less than particular given size.

Necessity of spending commission costs in terms of implementing transactions;

Separation of resources in course of implementing hedging and sharing risk of liquidity. Sale and purchase of standard contracts requires involving deposit margin and its constant growth under the conditions of unfavorable change of prices.

Hedging support reduction of risk under the conditions of unfavorable changes of prices or rates, but not allowing using of favorable change of prices. In course of operations of hedging, risk doesn't disappear, but the investor transfers his risk to the speculator of the stock exchange.

**Insurance** this is the method, directed towards reduction of risk, elimination of accidental loss, through wasting small permanent expenditures. In course of selling insurance (conclusion of



insurance), the investor transfers risk to the insurance company, reimbursing losses of different kinds, which are caused with unfavorable events through insurance coverage and payment of insurance sum. For this service he received earned income (insurance premium) from the investors.

Mode of risk insurance is determined in the insurance company by taking into account insurance premium, through additional service, submitted by the insurance company and with financial state of the insurer. The investor shall determine relation acceptable to him between insurance premium and insurance sum, taking into account additional services rendered by the insurance company.

If the investor evaluates risk balance attentively and precisely, thus he creates preconditions for avoidance of undesirable risk. Each opportunity shall be used for preliminary determination of potential loss in order to let the investor have necessary data regarding researching every version of its payment and in such case he appeals to the insurance company only in case of catastrophic risk.

#### **TRANSFERRING CONTROL ON RISK**

Investor may entrust control on risk to another person or group of persons.

Through transfer of real property related with the risk or transfer of direction of activity;

By means of transferring responsibility on risk.

Investor may sell some securities in order to avoid investment risk; he may transfer his property (securities, cash resources, etc.) to the professionals (trust companies, investment companies, financial brokers, banks, etc.) under fiduciary management, and, at the same time, to transfer every risk related with this property and activities of their management. Investor may transfer particular direction of risk (functions and portfolio of finding optimal insurance cover) to the insurance broker, who will be engaged in this issue.

**Risk distribution** is the method during which risk of possible loss is distributed between participants in the way to have small possible expenditures of separate participants. Venture funding is based on this method. Existence of different collective funds, collective investors is based on it.

Main principle of venture funding is distribution of risk:

At the expense of accumulation of financial resources in the general funds, which are not related with particular investment projects;

At the expense of organization of funds in the form of partnership;

Several partners – at the expense of management of funds, which are at different stages of development<sup>77</sup>.

Funds of venture financing are related with management of separate enterprises, as well as organization of independent venture firm-investors. Main purpose of such funds is supporting starting science-consuming companies (ventures), undertaking part of financial loss in case of failure of entire project. Venture capital is used for funding of newest scientific-technical processing, their destruction, rendering services for issuance of new products and they are formed at the expense of contributions of separate contractors, large companies, governmental authorities, insurance companies and banks. In practice risks are not strictly distributed according to the categories and it is difficult to receive precise recommendations in direction of risk management. Notwithstanding this, we may use following scheme of risk management (Figure 10.3).

<i>Types of investors</i>	<i>Purposes of investors</i>
<i>Conservative</i>	<i>Safety of investments</i>
<i>Moderately aggressive</i>	<i>Safety of investments + profitability</i>
<i>Aggressive</i>	<i>Profitability + growth of investments</i>
<i>Experienced</i>	<i>Profitability + growth of investments + liquidity</i>
<i>Skilled</i>	<i>Maximal profitability</i>

**FIG. 10.3. MAIN TYPES OF INVESTORS**

Every listed method of solving dispute has its positive sides and faults. Particular method is selected according to the kind of risk. Investor (or specialist, working on the risk problems) selects methods for reduction of risk, which may influence greatly upon size of incomes or price of capital. Investor shall solve, to apply traditional diversification method, or use any other method of managing risks, in order to avoid maximally possible loss and violate his financial interests insignificantly. Conformity of several simultaneous methods may finally appear to be the best decision. From the point of minimization of expenditures, any method of reduction of risk shall be activates, if it requires small expenses. Expenditures for avoidance of the risk of expenses and

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<sup>77</sup> Stoyanova E.S., Bikova E.V., 1998. Financial Art of Commerce – M.: Perspective.

minimization of losses shall not exceed expected value of loss. Each method shall be used before expenses on using it exceed profit.

Reduction of risk level gives rise to the necessity of providing technical and organization activities, requiring determined and often important expenditures. This is not always purposeful. Thus economical opinions set particular limits for particular investors. In course of solving the issues about reduction of risk, it is necessary to conform particular indexes related to expenses, providing acceptable risk level and expected effect.

### **PASSIVE AND ACTIVE FINANCES OF PORTFOLIO MANAGEMENT**

By means of generation of the methods of management of portfolio risks listed about, two forms of management of securities portfolio may be allocated: passive and active.

Passive form of management means creation of well diversified portfolio with preliminarily determined risk level and long-term maintenance of portfolio in unchanged state.

Passive form of management of securities portfolio is implemented by means of following principle methods:

Diversification;

Index method (mirror reflection method);

Maintenance portfolio.

As we have noted, diversification is inclusion of securities of different kinds in the composition of portfolio with different characteristics. Selection of diversified portfolio requires particular attempts, which, in the first place is related with obtaining complete and reliable information in connection with the investment quality of securities. The structure of diversified portfolio shall conform particular purposes of investors. In course of investment of resources, they provide sectorial diversification in the shares of industrial companies.

Index method or that of mirror reflection is built in the fact that they select particular portfolio of securities for the etalon. Structure of portfolio is characterized with particular determined indexes. In the future this portfolio is repeated mirror-type. Using this method becomes difficult with the complex of selecting etalon portfolio.

Maintenance of portfolio is based on supporting of structure and maintenance of the level of total characteristics of portfolio. It is not always possible to maintain unchanged structure of portfolio, as by taking into account unstable situation other securities may be purchased at the

stock exchange. In course of large operations with securities their rate may be changed, giving rise to the change of current price of assets. There may be the situation, when the size of selling securities of joint stock company exceeds of their purchase price. In such case the manager shall sell part of the portfolio of securities, in order to provide payments with customers, returning shares to the company. Large volume of sales may influence upon rate of securities from the point of reduction, which will be negatively reflected on its financial state.

The essence of **active** form of management exists in active work of portfolio of securities. Market characteristics of active management are:

Selection of particular securities;

Determining terms for sale and purchase of securities;

Continuous swapping (rotation) of securities in the portfolio;

Provision of net income.

If they plan to reduce interest rate of central bank, it is recommended to purchase long-term bonds with low income, rate of which increases rapidly, in course of falling interest rate. At the same time, they shall sell short term bonds with the coupons having high income, as their rate in fallen in the given situation. If the dynamics of the interest rate is undetermined, important part of managing portfolio it turned into the assets of high liquidity (for example, termed accounts).

In course of selection of investment strategy, the risk and profitableness of investments remain to be main factors determining sectorial structure of the investment portfolio. In course of selecting securities, main factors determining profitableness of investments, are profitableness of production and perspectives of increasing volume of sales.

## CHAPTER 11. PORTFOLIO THEORY

### 11.1. BASIC POSTULATES OF THE THEORY OF PORTFOLIO INVESTMENTS

The attention, paid to the portfolio investments absolutely conforms to the radical changes, which took place in the second half of the 20<sup>th</sup> century in the economies of the developed industrial countries. On the place of separate, isolated regional financial market, unified international financial market was originated. Traditional set of “main” financial instruments (foreign currency, state bonds, shares and bonds of corporations) was added with new permanently increasing list of “derived” instruments, such as depository signatures, futures, options, warranties, indexes, swaps, etc.

#### PRINCIPLE PROBLEM OF THE THEORY OF PORTFOLIO

Principle problem of the theory of portfolio is selection of optimal portfolio, i.e. determination of the set of assets having the highest level of profitableness in course of the lowest and demanded level of investment risk. Such method of approach is “multi-dimensional”, as according to the amount of assets included in the analyze, so – foreseen characteristics. Essential moment in modern theory also is foreseeing correlation interrelation between profitableness of assets. This allows financial managers to conduct effective diversification of portfolio and thus reduce essentially risk of the portfolio compared with the risk of assets included in it. Existence of the well processed methods of optimization and development of computing technique made it possible to realize practically modern methods of concluding portfolio of investments. However, the process of creating modern theory of investments is still completed and disputes around its main principles and outcomes and active discussions is still in process, but influence of this theory is being permanently increased in modern financial world. Necessity of knowledge of main postulates of classical theory of portfolio is well understood by the professional managers working under the conditions of extremely venture market of finance of Georgia.

Initial stage of development of investment theory belongs to the 20s-30s of the 20<sup>th</sup> century and it is the period of the theory of portfolio finances, as it appears to be the period of origination of science. This stage, in the first place, is represented in the foundation works of I. Fisher regarding interest rate and brought prices. He specified that criteria of investment evaluation are not related

with the present or future consuming by individuals. As they use one and the same investment criteria, they may be accumulated in one enterprise and transfer functions of its management to the professional managers. In their turn, the managers are not obliged to know personal tastes of shareholders of the enterprises. Their objective is to provide maximization of the net brought price. If they make success, they may be sure that they protect interests of their shareholders in the highest level. These theoretical provisions reached peak of development in the USA in the process of involving the first industry of shared funds. This was being actively speculating at the American Stock Exchange.

Important peculiarity of theoretical works of pre-war period was expressed in the process of making financial decisions, in processing full definiteness of conditions. Mathematical means used in analyze accepted for that period were brought only to the origins of elementary algebra and fundamental analyses. Under the conditions of definiteness, totality of the means oriented towards conclusion of financial calculations was called financial mathematics. Notwithstanding hegemony of determined method of approach, meaning of definiteness of financial problems and risk factors was being recognized quite clearly. Herewith, only usage of quantitative, theoretic-probability methods made it possible to study influence of risk upon making investment decisions. Exactly such works were called “**modern theory of investments**”. This stage of development of financial theory was continued up to 20-30 years, before publishing work of G. Markovitz.

We may consider the year 1952 to be the beginning of the modern theory of investments, when G. Markovitz’s article – Selecting Portfolio was published. In the said article the author offered mathematical model of the forms of optimal portfolio of securities for the first time and he certified the methods of building such portfolio under particular conditions. Main merit of G. Markovitz is theoretical-probability formalization of the concepts of profitableness and risk offered in this small Article. This made it possible to transform the task of selecting optimal investment strategy into the mathematic language. It was Markovitz to pay attention to the widely accepted practice of diversification of portfolios for the first time and he showed how the investors may reduce standard deviation of profitableness of portfolio by selecting the shares prices of which are changed differently. Accepted optimized strategy, from the mathematic point of view, belongs to the class of tasks of square optimization in course of linear reductions. Together with the tasks of linear programming, this is the best class of the tasks of optimization, for which they process quite multiple effective algorithms.

## **MAIN PRINCIPLES OF FORMING PORTFOLIO**

### **OF G. MARKOVITZ**

G. Markovitz processed main principles of forming portfolio. On their basis, they created multiple works describing relation between risk and profitableness; though his work could not attract special attention of theoreticians and practicing-economists. At the same time, underdevelopment of computer technique and complexity of algorithms, procedures and formulas offered by Markovitz, could not offer the opportunity for practical realization of his ideas. At the same time, it is not random that they appreciated Markovitz's merit late after publishing his works, and he was awarded Noble Premium in the field of economy only in 1990.

At the beginning of the 60s, Markovitz's pupil U. Sharp processed so-called single-factor model of capital market, in which well known Alfa and Beta characteristics of shares were identified for the first time. On the basis of single-factor model Sharp created simplified method of concluding optimal portfolio. This simplification made it possible to use practically methods of optimization of portfolios. Development of programming in the years of 70s, as well as improvement of statistic technique of evaluation of Alfa and beta indexes of separate securities and, generally, that of market profitableness conditioned origination of the first packages of the programs to solve tasks of management of securities portfolio.

### **MAIN PRINCIPLES OF THE THEORY OF SHARP'S PORTFOLIO**

Sharp's conclusions became known as the models of evaluation of long-term assets, based on the probability that expected premium set for risk at the particular market is changed direct proportionally to Beta ratio (standard measurement of risk). Sharp developed Markovitz's provisions from the point of selecting optimal portfolios of investments, and scientific bit made by him in the theory of portfolios may be formulated in the following kind:

Investors prefer high expected profitableness of investments and low standard deviation. The portfolio of ordinary shares, providing the highest expected profitableness in course of given standard deviation, is called effective portfolio.

If it is necessary to know limited influence of share upon portfolio risk, we shall foresee not the risk of share, but its bit in the portfolio risk. This bit depends on the sensibility of share to the changes of the portfolio price.

Sensibility of share to the changes of the portfolio price is noted with beta ratio. Consequently, Beta measures limited risks of shares in the risk of market portfolio.

If the investors are able to raise loans or issue credits with risk-free interest rate, they shall always have combination of risk-free investments and portfolio of ordinary shares. Composition of such portfolio of shares, it only depends on the fact how the investor evaluates perspectives of each share and not its relation with the risk.

Premium determined for the risks always reflect bit of portfolio in the risk. Some shares increase portfolio risk. Due to this, we shall purchase them if they increase expected incomes at the same time. For example, if one share influences more upon the portfolio risk, than another one, the first one shall have much higher expected income. If the portfolio is effective, relation between expected profitableness of each share and its limited bit in the portfolio risk shall be linear.

Markovitz claims that decision of selecting portfolio shall be proven by the investor only with the expected profitableness and standard deviation. This means that investor shall evaluate expected profitableness and standard deviation of each portfolio, and later to notice best of these two portfolios based on their conformity. In course of this, intuition plays decisive role. Expected profitableness may be represented as the measurement of potential fee, which is related with particular portfolio. Thus, the most suitable portfolio for this shall be selected by the investor only after learning each portfolio from the point of risk and potential income.

Today Markovitz's model is mostly used at the initial stage of forming portfolio of assets, when investment capital is distributed into the assets of different types – shares, bonds, real estate, etc. Two-factor model of Sharp is used at the second stage, when in the particular segment of the market of assets they distribute investment capital in separate particular assets composing selected segment (i.e. particular shares, bonds, etc.).

Influence of Markovitz's Portfolio Theory was significantly strengthened at the end of 50s and beginning of 60s after publishing works of D. Tobin. Particular distinctions between Markovitz's and Tobin's methods of approach are noteworthy. Markovitz's method of approach got into the microeconomic frame, as he pays attention to the behavior of separate investor, forming optimal portfolio on the basis of profitableness of assets to be selected and own risk assessment. At the same time, Markovitz's model initially touched upon portfolio of principle shares, i.e. risk-generating assets, portfolio. Tobin included into analyze risk-free assets (for example, state bonds) as well. His method of approach is essentially macroeconomic, as main object of its income is distribution of capital in the economy with its two forms: cash (monetary) and cash-free (security). In the works Markovitz paid attention not upon economic analyzing of initial postulated of the theory, but



mathematic analyzing of their outcomes and processing algorithms of solving tasks of optimization. Analyzing of the factors, making investors form portfolio of assets and not to keep capital in one particular form, for example in cash. Besides this, Tobin analyzed adequacy of quantitative characteristics of assets and portfolios, making initial data in Markovitz's theory.

### **CAPM MODEL**

Since 1964, three works were identified, opening way to the following stage in the theory of investments. It is related with the model of evaluation of capital assets, so-called CAPM (Capital Asset Price Model)<sup>78</sup>. Sharp's, Lintner's and Mossini's works (relatively 1964, 1965, and 1966) essentially touch upon one and the same issues: "let us assume that each investor has one and the same information evaluate profitableness and risk of separate shares similarly. Let us also assume that they form their optimal portfolio of shares subject to own inclinations towards risk, subject to Markovitz's theory. How in such case prices on shares are formed at the market?" Therewith, CAPM may be considered to be macroeconomic generalization of Markovitz's theory. CAPM became conformity between principle outcome of profitableness of share and risk for the balance of market. In such case they pay attention to the fact that in course of selecting optimal portfolio investor shall foresee not entire risk, related with the asset (risk according to Markovitz), but only with its share, which is called systematic or non-diversified risk. This part of the risk of asset (so-called non-systematic or diversified risk) is removed by selecting (optimal) portfolio. Relation between profitableness and risk is of linear nature.

In 1977, this theory was strictly criticized by Richard Roll. He expressed his opinion that CAPM should be refused, as it excludes empirical verification. Notwithstanding this, CAPM remains to be the most important and influencing modern theory of finances. Even today, it is the only item practical manuals existed in the field of financial management is based on, in the section of selecting long-term investment strategy.

Another cycle of studies is related with the investment theory and financial management theory, in the field of the theory of so-called corporation market. This theory is dedicated to the problem of "adequacy" of market prices. The issue touches upon the fact how market prices reflects "true" price of financial assets; the investor, identifying the fact that market evaluates systematically less or excessively particular assets, it would be able to make income for long time and, in fact, without risk. Hypothesis of effectiveness proves that this is impossible.

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<sup>78</sup> See details in **Sharp W.F., Alexander G., Bailey J.** Investments. M., 1999, Chapter 10.

This means that market prices generally reflect almost entire information available to the investors; in such case fluctuations of market prices may be purely random. None of the investors can foresee future market prices.

### **BLACK-SCHOLES OPTION PRICING MODEL, OPM**

Hypothesis of market effectiveness and the model of “random wander” of market prices of assets related with it stimulated using of dynamic theoretical-probability models based on the theory of random processes. In the course of these ideas M. Scholes and F. Black created so-called Black-Scholes Option Pricing Model, OPM. This model was based on implementation of risk-free transactions by using share and its option. Price of such transactions shall conform to the price of risk-free assets at the market, but, due to the fact that price of shares is changed on different times, probability evaluation of the price of options providing risk-free transactions shall be respectively changed. Works of Black and Scholes, as well as those of R. Merton being in close relation with their works, obtained wide recognitions. Moreover, schemes of calculations given in these works were soon used in practice. It is noteworthy that the 70s is the period of rapid, “explosive” growth.

They often use Black-Scholes model today, though more complex models of shares and other derived securities appeared. In totality, the 70s was the third stage in development of modern theory of investments, which characterized with the fastest widening and deepening of mathematic means of financial analysis. If using elementary algebra during pre-war period was quite seldom case, Markovitz-Sharp-Tobin portfolio theory used elementary theoretical-probability and optimization methods; works of 70-80s required too complex and sophisticated means of modern theory and optimal management of random processes.

The method used for selection of the most desirable portfolio uses so-called indifference curves. They reflected relation of investor with risk and profitableness and due to this it is possible to submit them in the form of 2-dimensional graphics. Its horizontal axle is crossed with the risk measured with standard deviation; the vertical one – with the cost (reimbursement) measured with accepted profitableness. This is the first important feature of the curves of indefiniteness. Every portfolio situated on one curve of indefiniteness is equal to the investor. Another important feature is that the investor considers portfolio located higher and more left on the curve of indefiniteness compared with that situated lower and more right.

The investor has eternally great amount of indefinite curves. This simply means that notwithstanding locations of two curves, it is always possible to build third one,

which will be placed between them. We may also say that each investor has the graphic of such curves, which will be placed between them. We may also say that each investor has such chart of curves of indefiniteness reflecting own choice of expected profitableness and standard deviation. This means that investor shall determine expected profitableness and standard deviation for each potential portfolio and apply them to the chart in the form of curves of indefiniteness.

This doesn't mean that it is necessary to provide evaluation of possible portfolio. Investor will select his optimal portfolio out of multiple ones, each of which:

Provide maximum expected profitableness for particular risk level.

Provide minimal risk for particular value of expected profitableness.

Totality of portfolios satisfying these two conditions is called effective count. Herewith, the portfolios, which are at the border of this diversity, are of special importance.

## **MAIN CONCLUSIONS OF CLASSIC**

### **THEORY OF PORTFOLIO**

Finally, if the investor combines charts of the curves of indefiniteness and effective count, he may start selection of the portfolio located higher and more left than others. This portfolio will conform to that in which curve of indefiniteness touches upon effective count. Thus, classic theory of portfolios underwent numbers of stages of development. Main conclusions, made in classic theory of portfolio today, we may formulate them in the following way:

Effective count includes the portfolios, providing maximal expected profitableness in course of fixed level of risk and minimal risk in course of given level of profitableness.

They mean the fact that investor selects optimal portfolio for the portfolios, making effective count.

Optimal portfolio of investor is identified with the point of contact of the curve of investor's indefiniteness.

Diversification, ordinarily, gives rise to the reduction of risk, as standard deviation of portfolio will be less in the general case, than standard average weighted deviations of securities included in the portfolio.

Conformity of profitableness of securities and market index is known to be market model.

Profitableness of market index doesn't give full image of profitableness of securities; unexplained elements are included in the random error of market model.

Subject to the market model, total risk of security includes market risk and own risk.

Diversification gives rise to the averaging of market risk. Diversification may significantly reduce own number.

Thus, we may formulate following principle postulates classic theory of portfolio is built in:

Market includes finite amount of assets, profitableness of which for the given period is considered to be random.

Investor may receive expected (average) assessment of the levels of opportunities of risk diversification and profitableness and co-variations coupled with them.

Investor may form any allowed (for given model) portfolio, profitableness of portfolios are of random nature.

Conformity of selected portfolios is based only on two criteria – average profitableness and risk.

Investor doesn't run the venture due to the fact that out of the two portfolios of similar profitableness, he will definitely prefer the one of less risk.

Strict observation of these provisions in practice is a large problem, but evaluation of the theory of portfolios shall be based not only on the degree of allowed initial adequacy, but successful solution of the tasks of managing investments by him. During last decades using of the theory of portfolios was significantly extended. More investment managers and managers of investment funds use his methods in practice. Though, this theory has multiple opponents as well, but its influence is permanently being increased as in academic circles, so – in practices of separate countries. This is confirmed with Noble Premium received by the creators and processors of the theory in the field of economy.

## **11.2. MARKOWITZ'S METHOD**

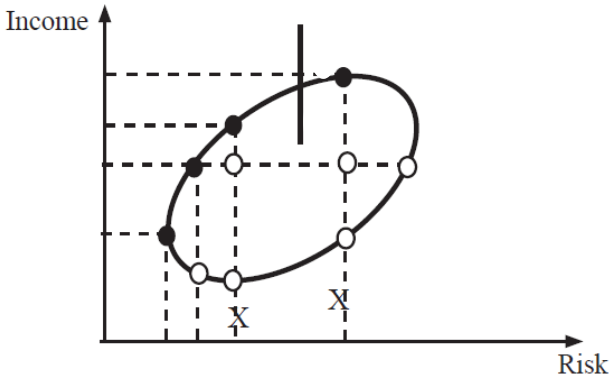
### **DETERMINING STRUCTURE AND LOCATION**

### **OF EFFECTIVE COUNT**

Given model determines indexes characterizing size and risk of investments, making it possible to conform different alternatives of capital investments. Markovitz processed extremely important provision of the modern theory of portfolio of securities: total risk of portfolio may be divided into two components: first one is the systemic risk, which may not be excluded and which is the subject to every security of practically equal nature. Another one is specific risk held by each particular security and which may be avoided in course of management of security portfolio. Such division

of risk allows any investor analyze securities from every side and determine their strong and weak sides in course of formation of the portfolio.

By using the method of processed critical lines, the field of available portfolios may be determined to be allocated from unavailable and effective portfolios. The portfolio is effective, if it includes minimal risk and makes maximal possible income at the given risk level, investor may go for (Figure 11.1).



**FIG. 11.1. FIELD OF POSSIBLE PORTFOLIOS**

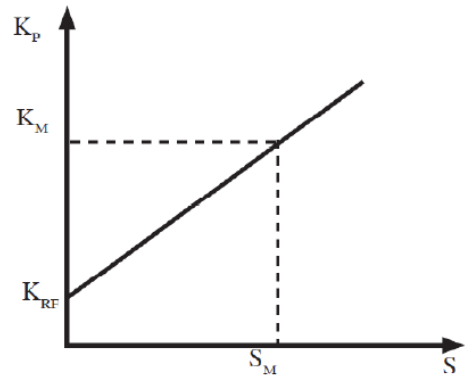
- – effective portfolio;
- – allowed but ineffective portfolios;
- X – excluded portfolios.

The theory processed by Markovitz allows investors measure risk level and determine effectiveness of the portfolio, but it shall not control interrelation between risk level and demanded profitableness.

**CAPITAL ASSET PRICING MODEL**

This interrelation is determined by the Capital Asset Pricing Model (CAPM), which is processed by J. Linter, I. Moisin and W. Sharp. CAPM model is built in the following allowances: existence of ideal capital markets, payments, existence of operation costs, etc. Profitableness demanded in connection with this model, for risk-generating assets of any kind, represent functions of three variables: risk-free profitableness, average profitableness at the securities market and rate of fluctuation of profitableness of given stock asset (financial asset) in relation with the existed profitableness at entire market.

Subject to CAPM, relation between risk and profitableness may be given graphically through the line of increasing capital (Figure 11.2).



**FIG. 11.2. LINE OF CAPITAL GROWTH**

Income made from investments in securities is direct-proportional to the risk, which is confirmed by the investor for the desired income. Relation between risk level and norm of profit equals to the norm of profit of risk-free investments plus the premium for risk according to the given investment. Equation of the capital market line may be represented in the following way:

$$K_p = K_{rf} + \frac{K_m - K_{rf}}{\sigma} \times \sigma p \quad (11.1)$$

Where:  $K_p$  is expected effective profitableness of portfolio;  $K_{PR}$  – risk-free profitableness;  $K_m$  – expected profitableness of market portfolio;  $\square_p$  – average square deviation of portfolio. Equation shows that expected profitableness of effective portfolio equals to the risk-free rate and totality of the premium sum on the risk multiplied on the average square deviation of portfolio.

Equation of the securities market line is as follows:

$$K_i = K_{rf} + (K_m - K_{rf})\beta \quad (11.2)$$

Where:  $K_i$  – is demanded profitableness for  $I$  securities;  $K_{RF}$  – risk-free profitableness;  $K_M$  – expected or demanded profitableness of the portfolio;  $\beta$  – Beta ratio for  $I$  securities (characterizing change of profitableness of  $i$  securities in relation with the profitableness of securities market).

Expected and demanded profitableness may not conform to each other due to the change of risk-free rate regarding reviewing expected rate of inflation, due to  $\beta$  Beta ratio, changing relation of the investor on the risk.

Given model is well specified from the position of the theory, but its using in practice is reduced, as its parameters are greatly depended to the evaluation.

## THE MODEL OF PRICE EQUATION OR ARBITRATION PRICING

In course of formation of the portfolio of securities, the analysts may use **the model of price equation or arbitration pricing**. In the given model, expected income of shares depends on multiple factors. It is difficult to explain in practice which factor may be included into the needed model. Today, in the range of such factors they use following indexes, development of industrial production, changing levels of bank interests, inflation, the risk of insolvency of particular enterprise, etc.

In course of using arbitration strategy we may avoid misbalance between cash markets and futures markets.

Generally, any model of investment portfolio is open and may be filled and corrected in course of changing conditions of securities. The models of investment portfolios considered by us make it possible to receive analytical material, which is necessary for making optimal decision, conditioning effectiveness of investment activity.

After determining optimal structure of portfolio, investor is able to maintain it for long time, if the securities market maintains general dynamics and internal proportions. Together with this, in case of changes in the profitableness and rates of securities and profitableness, investor may rapidly provide correction of his portfolio through different methods and approaches, main purpose of which is management of the set securities included in it in the way saving them from losing price, as well as making stable income, not depending on the level of inflation.

Markovitz's effective count is angled curve made of the points of eternal amount. Markovitz made bit and represented algorithm of square programming, which is known as critical lines<sup>79</sup>.

Initially, investor shall evaluate vector of effective profitableness and co-variation matrix. For example, let us consider portfolio including three shares. Let us evaluate the vector of expected profitableness, denoted with ER, and co-variation matrix, expressed in VC:

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<sup>79</sup> Sharp W.F., Alexander G., Bailey J., 2000. Investments. M., INFRA-M, pg. 400. In Russian.

$$ER = \begin{bmatrix} 16.2 \\ 24.6 \\ 22.8 \end{bmatrix}, \quad VC = \begin{bmatrix} 146187145 \\ 187854104 \\ 145104289 \end{bmatrix}$$

Based on the above algorithm, they determine the amount of “angle” portfolios, which are related with securities and describing effective count. “Angle” portfolio is effective portfolio, having following features: any combination of two neighboring “Angle” portfolios is the third portfolio lying in the effective count between two “Angle” portfolios. This statement may be shown in the example.

The algorithm is started with determining portfolio of the highest expected profitableness. It includes only one security of the largest profitableness. I.e. if the investor wants to purchase given portfolio, everything, he is to do is that he shall purchase shares of the company of the highest expected profitableness. Any other portfolio is granted less expected profitableness, as with the final calculation, part of the funds of investor will be placed in the shares of another company, having expected profitableness less than S.

For example, Baker is the company with the most profitable shares. Relative effective portfolio will be the first “Angle” portfolio, determined in the algorithm. It is reached by the following vector of weights, marked with X(1).

Its expected profitableness and standard deviation is related only with the expected profitableness and standard deviation of Baker and makes, respectively, 24.6 percents and  $(854)^{1/2}$  i.e. 29.22 percents. This “Angle” portfolio is given in the field of the Figure 11.1.

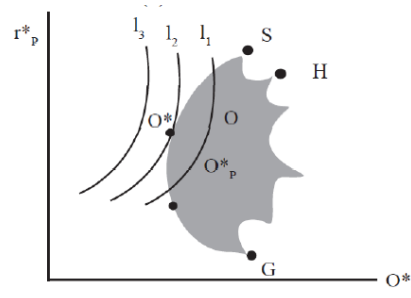
$$X(1) = \begin{bmatrix} 0.00 \\ 1.00 \\ 0.00 \end{bmatrix}$$

After this, the Algorithm determines second “Angle” portfolio. It is placed below first “Angle” portfolio at the effective count. It’s composition is determined with the following vector, noted in X(2):

$$X(2) = \begin{bmatrix} 0.00 \\ 0.22 \\ 0.78 \end{bmatrix}$$

I.e. second “Angle” portfolio is the one, investor of which places 22 percents of his funds into the ordinary shares of the Company Baker, and 78% - in ordinary shares of the Company Charlie. This portfolio in the Figure 11.3 is marked with C(2).





**FIG. 11.3. SELECTION OF OPTIMAL PORTFOLIO**

It shall be said about the first and the second “Angle” portfolios that they are neighboring effective portfolios and any portfolio situated between them is simple combination of their compositions. For example, effective portfolio located between them is of following composition:

$$[0.5 \times X(1)] + [0.5 \times X(2)] = 0.5 \times \begin{bmatrix} 0.00 \\ 1.00 \\ 0.00 \end{bmatrix} + 0.5 \times \begin{bmatrix} 0.00 \\ 0.22 \\ 0.78 \end{bmatrix} = \begin{bmatrix} 0.00 \\ 0.61 \\ 0.39 \end{bmatrix}$$

And the third portfolio is as follows:

$$X(3) = \begin{bmatrix} 0.84 \\ 0.00 \\ 0.16 \end{bmatrix}$$

These weights now may be used for calculation of expected profitableness and standard deviation of the given portfolio, which, relatively, equal to 17.26 and 12.22. Similar to previous two portfolios, this “Angle” portfolio is also effective and it is marked with C(3) in the Figure 11.3.

As second and third portfolios are neighboring ones, their every combination is the effective portfolio, lying between given two portfolios between effective counts.

We have noted above that combination of only neighboring “Angle” portfolios may form effective portfolio. This means that effective count will not include the portfolios which are not neighboring of combination of two non-neighboring “Angle” portfolio and, relatively, any portfolio of their combination will not be effective.

After this the algorithm determines composition of the fourth “Angle” portfolio:

$$X(4) = \begin{bmatrix} 0.99 \\ 0.00 \\ 0.01 \end{bmatrix}$$

We may calculate its expected profitableness and standard deviation, equaling 16.27 and 12.08 percent, consequently, by determining this portfolio, conforming C(4) point in the Figure 11.3 and having the smallest standard deviation among all achievable portfolio, algorithm is stopped. If we continue, we may get twenty effective portfolios between the second and the third “angle” portfolios, and then – respective segment of effective count. The chart will be completely built after performance of the said procedure for the following interval existed between the third and the fourth “angle” portfolio.

## **DETERMINING COMPOSITION**

### **OF OPTIMAL PORTFOLIO**

After determining structure and location of the structure of Markovitz’s effective count, we may determine composition of optimal portfolio of investment. Portfolio is marked in  $0^*$  and conforms to the contact point of the curve of indefiniteness of the investor with the effective count. The procedure of determining composition of optimal portfolio is started with graphical expression of its expected profitableness level by the investor. I.e. the investor may determined on the chart position of the  $0^*$  and then draw rectangular line of the vertical axle. With this operation, the investor may determined two “Angle” portfolios with the expected profitableness “surrounding” given level. I.e. investor may determine such “Angle” portfolio, which will have more close expected profitableness than given portfolio (the closest “Angle” portfolio, located above 0) and the closest “Angle” portfolio of less expected profitableness (closest “Angle” portfolio below 0).

If expected profitableness of optimal portfolio is marked with  $r^*$ , and expected profitableness of two closest “Angle” portfolio, relatively with  $r$  and  $r^*$  (?), composition of optimal portfolio may be determined with the following equation against  $Y$ :

$$r^* = (r + Y) + [r(1 - Y)]$$

Optimal portfolio will be concluded with  $Y$  share invested in the of two closest “Angle” portfolios lying “above” the optimal one and with the share  $1-Y$  invested in the closest “Angle” portfolio, lying below the optimal one. Solution of this equation is  $Y 0,46$ . This means that optimal portfolio with 46 percents is made of the second “Angle” portfolio and that with 54 percents – of the third “Angle” portfolio. This statement in the terms of the volume of investments into the securities of the Companies Able, Baker and Charlie is as follows:

$$[0.46 \times X(2)] + [0.54 \times X(3)] = 0.46 \times \begin{bmatrix} 0.00 \\ 0.22 \\ 0.78 \end{bmatrix} + 0.54 \times \begin{bmatrix} 0.84 \\ 0.00 \\ 0.16 \end{bmatrix} = \begin{bmatrix} 0.45 \\ 0.10 \\ 0.45 \end{bmatrix}$$

Thus, 45 percents of his funds shall invest into the shares of Able, 10 percents – in Baker's and 45 percents – in Charlie's shares.

Consequently, we can make conclusion that the investor will select his optimal portfolio from the count of such portfolios, each of them:

Provides maximal expected profitableness for particular level of risk,

Provides minimal risk for particular value of expected profitableness.

## CHAPTER 12. CLASSICAL AND NEW FUNDAMENTAL ANALYZING

### 12.1. CLASSICAL FUNDAMENTAL ANALYZING OF A SECURITY MARKET

#### 1. CASH RATIO

Cash ratio characterizes ability of enterprise to cover their short-term debt obligations existed with the creditors. It shows what shares of short-term obligations may be covered with cash resources and their equivalents, in the form of freely available securities and deposits, i.e. at the expense of absolutely liquid assets of the enterprise. This index, in the first place, is foreseen by the foreign suppliers and creditors in course of relative short-term crediting. It allows us determine, if the enterprise is able to satisfy demands of creditors in critical situation. According to the analysts, lower limit of this index is 0.2. modern computerized systems of managing cash resources in the west reduced requests existed on the cash resources, due to which it gained objective trend of reducing this ratio. Absolute liquidity of enterprise for strategic investors will have less value.

The ratio is calculated with the formula:

$$CR = (\text{cash resources} + \text{short-term financial investments}) / \text{current obligations}$$

Its recommended value is 0.2-0.5.

#### 2. QUICK RATIO

Conformity of the most marketable part of turnover resources (cash resources, accounts receivables, short-term financial investments) with the short term liabilities. Ordinarily, its value is recommended to be more than one. Sometimes they consider it acceptable to be within the bounds of 0.7-0.8 (Russia). In course of decreasing quick cash ratio, the enterprise may face temporary problem of deficit of quick assets. It may be solved, if the enterprise has credit line at the credit institutions, or such high credit rating allowing profitable sales of its bonds at the financial market.

They note the ratio with the formula:

$$QR = (\text{cash resources} + \text{short term financial investments} + \text{acceptable accounts}) / \text{current passives}$$

Recommended value: 0.3 – 1.

### 3. CURRENT RATIO

They calculate current ratio by dividing turnover assets with short-term obligations. It shows if the enterprise have sufficient amount of resources, which may be used for repayment of short-term liabilities. Turnover assets include cash resources, short term financial investments, and accounts receivable, reserves of raw materials, materials, goods and inventory. In course of calculating cash ratio, regarding calculation issue of existed different components in the composition of working capital, there often are discussions between analysts and according to the points of view of many economists, it is necessary reject every inadequate asset. Subject to the international practice, values of cash ratio shall be within the bounds between from one till two, and sometimes till three. Lower limit is conditioned by the fact that working capital shall be at least enough for repayment of short term obligations, otherwise the company is under the danger of bankruptcy. If working capital is 3-times or much higher than short-term obligations, this is not desired as well, as it speaks of irrational structure of assets. We may justify exceeding 3 times with the fact that every component of current assets are of similar liquidity, i.e. they may be similarly rapidly realized without repayment of price.

It is calculated with the following formula:

$$\text{CR} = \text{current assets} / \text{current passives}$$

Its recommended values are 1-2.

### 4. NET WORKING CAPITAL

This is distinction between turnover assets of enterprise and its short-term obligations. Net working capital is necessary for maintenance of financial stability of the enterprise, as exceeding turnover resources over short-term obligations means that the enterprise may repay these obligations and at the same time it has reserve of widening activities. Optimal value of net turnover capital depends on the peculiarities of the company activities, particularly, its scales, volumes of realization, speed of turnover of material reserves and accounts receivable. Lack of turnover capital speaks of the fact that the enterprise has the ability of timely repayment of short-term obligations; important access of this capital over optimal requirement speaks of irrational use of the enterprise resource. For analyzing, discussion of the rates of increasing own working capital of the enterprise at the background of the inflation rates are of great importance.

Net working capital is calculated with the following formula:

**NWC = current assets / current passives**

Its recommended value is  $>0$ .

Indirect ratios of the problems related with liquidity in the enterprise may be termination of issuing remuneration to the employees, dividends to the shareholders, also non-performance of payments to other creditors of enterprise.

Notification: we shall remember that recommended values of the ratios, as a rule, are essentially different from each other, in different fields or different enterprises of one field. Due to this, we may have opinion about financial state of the company only by analyzing entire totality of financial ratios and based on the peculiarities of the activities of enterprise.

### **RATIO OF FINANCIAL STABILITY**

Ratios of the capital structure reflect conformity of equity and loan resources in the source of funding of the company, i.e. they characterize degree of financial independence of the company from creditors. This is important characteristic for sustainability of the enterprise. They use following ratio for valuation of structure of the capital:

Equity to total assets.

It characterizes relation of the company with external loans. The less is value of this ratio, the more loans are held by the company and there is higher risk of insolvency. There are no regulations for conformity of equity and attracted capital, as regulations of financial ratio in total. Notwithstanding this, there is the opinion among analysts that share of equity shall be quite high – not less than 50 percents. They think that investors and, especially, creditors invest funds with more pleasure into the enterprise having high share of equity, as such enterprise is more probable to repay debts at the expense of own resources. Therewith, at the companies having high share of attracted resources shall pay important moneys for interests and, respectfully, they will have fewer resources for paying dividends and creation of reserves. Determining 50-percent critical level, is the result of following opinion: if in particular case creditors represent entire debts for repayment, the company may sell half of its property formed at the expense of own resources, even if another half of the property appears to be illiquid due to particular reasons. Interpretation of this index depends on multiple factors: average level of ratio in other fields; availability of additional debtor resources to the company; peculiarities of current industrial activity. Low ratio of financial stability and high share of short-term credits in the foreign debts worsens financial stability of enterprise two times. Ratio of financial independence is calculated with the formula:

**ETA=equity/enterprise assets**

Recommended values are: 0.5-0.8.

Total debt to total assets

This is another version of representing structure of company capital. It shows which share of the enterprise assets is funded at the expense of long-term loans. The less is the index the better is financial stability of the Company.

They calculate above value with the following formula:

**TD/TA = (long-term liabilities + current liabilities)/enterprise assets**

Recommended values are: 0.2 – 0.5

Long-term debt to total assets

It shows which share of the enterprise assets is funded at the expense of the long-term loans. The said value is calculated with the following formula:

**LD/TA=long-term liabilities + current liabilities/enterprise assets**

Total debt to equity.

Conformity of credit and own resources of funding, similar to CD/TA, it is one of the forms of representing ratio of financial independence. The less is the ratio the stable is financial state of the enterprise. It is calculated with the following formula:

**TD/EQ=long-term liabilities + current liabilities/equity**

Recommended values are: 0.25 – 1.

Long-term debt to fixed assets.

It shows which share of the fixed assets is funded at the expense of long-term loans.

It is calculated with the following formula:

**TD/FA=(long-term liabilities + current liabilities)/long-term assets**

Times interest earned.

It characterizes degree of safety of creditors from nonpayment of interests for the issued credits and shows how many times the company processed funds to be paid for the interests on the loans. This index also allows determining allowed level of profit reduction, which is used for repayment of interests.

It is calculated with the following formula:

$$\text{TIE} = \frac{\text{profit before exclusion of taxes and credit interests}}{\text{credits}}$$

Recommended value is: >1.

### **PROFITABLENESS RATIO**

Profitableness ratios show how profitable activity of the company is.

#### **Return on sales, %.**

It shows share of net profit in the volume of the enterprise sales. Main and the most often named index of profitableness. It is good for the enterprises of some countries, if it is not negative and conforms to the level of inflation. For western enterprises profitableness changes from one field to another and gets own value.

They are calculated with the following formula:

$$\text{ROS} = \frac{\text{net profit}}{\text{net volume of sales}} 100\%$$

#### **Return on shareholder's equity, %.**

This is essentially, main index for strategic investors (sometimes investors investing their resources for more than 1 year is named so). It allows evaluation of effectiveness of using capital invested by the owners of the enterprise. Ordinarily, this index is compared to the possible alternative investments. Equity is called the totality of reserves formed from the enterprise profit and share capital. Profitableness of equity shows how many money units were processed with each unit invested by the owners of the company. Index of profitableness of equity also characterizes efficiency of work of the managers of issuing company. If income from one share capital out of the multitude of the field companies is much less than others, when this company may have growth perspective in case of performing some conditions and, respectively, the perspective of growth of market price of shares.

ROE is calculated with the following formula:



**ROE=(net profit/own capital) 100%**

**Return on assets, %.**

It is quite important indicator allowing us determine efficiency of using assets of the enterprise. Return on assets shows how many cash units were processed by each unit of asset. Return on shareholder's equity characterizes efficiency of work of financial managers and specialists of the company in the field of management accounting.

ROA is calculated with the following formula:

**ROA = (net profit/enterprise assets) x 100%**

**Return on current assets, %.**

It shows opportunities of the enterprise in provision of the sufficient volume of profit against current assets. The more is the value of this ratio, the more effectively and rapidly they use current assets. Desired ratio of profitableness is different in different fields. Where there are big capital investments and the industrial cycle is long, profitableness of current assets, as a rule, is lower than where capital expenses are less and industrial cycle – fast.

RCA is calculated with the following formula:

**RCA = (net profit/current assets) 100%**

**Return on assets, %.**

It shows ability of the enterprise providing sufficient amount of profit against fixed assets of the Company. The higher value of this ratio is, the more effectively they use fixed assets and reimbursement of new investments implemented in the fixed capital.

RFA is calculated with the following formula:

**RFA = (net profit/long-term assets) 100%**

**Return on investment, %.**

It shows how many monetary units were needed to the enterprise to receive one monetary unit of profit. This ration is one of the most important indicators for competition and investment attractiveness.

ROI is calculated with the following formula:

$$\text{ROI} = (\text{net profit/own capital+ long-term liability}) 100\%$$

**Gross Profit Margin, 100%.**

It shows conformity of margin income of the enterprise with the trading received through realization.

GPM is calculated with the following formula:

$$\text{GPM} = (\text{return from realization excluding variable expenditures/returned realization}) 100\%$$

### **BUSINESS ACTIVITY RATIOS**

Indexes of assets turnover and equity turnover characterize the level of business activity of the enterprise. It is calculated by correlation of annual trading accepted from realization of the products (service, work), respectfully with the average annual price of assets ad own capital. Ratios of this group help us analyze how effectively the enterprise uses its resources. Correlation of the index of business activity is of special importance with the average index of the field, as their size may be essentially different with dependence to the field.

**Net working capital turnover**, multiplies shows how effectively the company uses investments implemented in turnover capital and how it influences upon growth of sales. The more the value of this ratio is, the more effectively the enterprise uses net turnover capital.

NCT is calculated with the following formula:

$$\text{NCT} = \text{net volume of sales/net turnover capital}$$

**Fixed assets turnover**, multiple refunds. This ratio characterizes efficiency of using fixed assets existed under the management of the enterprise. The higher value of the ratio is, the more effectively fixed assets are used by the enterprise. Low level of refunds speaks of insufficient volume of sales, or excess level of capital investments, or ineffective technology of enterprises. Though values of this ratio are quite different in various fields and it depends on the method of accrual of depreciation and practice of evaluation of the assets. Thus, there may be the situation, when the ratio of turnover of the fixed assets is high in the enterprises, where there are worn-out fixed assets, and they are low where these assets were recently installed.

They calculate FAT with the following formula:

$$\text{FAT} = \text{net volume of sales} / \text{long-term assets}$$

**Total assets turnover, Multiples**, multiplies characterizes efficiency of using every resource existed at hand of the companies, notwithstanding sources of their attraction. This ratio shows how many times complete cycle of product and circulation takes place during a year, giving respective effect in the form of profit. This ratio is fluctuating according to the fields.

TAT is calculated with the following formula:

$$\text{TAT} = \text{net volume of sales} / \text{assets of the enterprise}$$

**Stock turnover**, multiples, shows speed of realization of profit in days. For calculation of the ratio, 365 days are divided by the value of the ratio. Generally, the higher is the ratio of reserve circulation, the fewer sources get into this less liquid group of assets. Acceleration of turnover and reduction of reserves are of special importance in course of existence of important debt in the passives of the company.

ST is calculated with the following formula:

$$\text{ST} = \text{prime cost of the sold products} / \text{inventories}$$

#### 5. Average collection period, days.

It shows average amount of the days needed for repayment of debt. The less this amount is, the faster the debt turns into the cash resources, respectfully, increasing liquidity of turnover resources of the enterprise. High value of the ratio may prove difficulties of paying resources according to the accounts of the debtors.

CP is calculated with the following formula:

$$\text{CP} = (\text{sums to be received with settlement} / \text{annual volume}) \times 365$$

### INVESTMENT CRITERIA

#### 1. Earnings per ordinary share.

**Profit on share**, one of the most important indexes influencing upon market price of the Company. It shows net profit share in monetary units, per one ordinary share. Increasing profit

accepted on single share speaks of the growth of the company. Purchasing shares of such company is effective direction of investing resources for some times together with the dividends it is expected to increase rate of shares as well.

EPS is calculated with the following formula:

$$\text{EPS} = (\text{net profit} - \text{dividends on the privileged shares}) / (\text{amount of ordinary shares})$$

**2. Dividends per ordinary share** show the sum of dividends distributed on each ordinary share. Growth in dividends speaks of the growth of profit of the company and as a rule it is the signal of rate price of the share, if increase in price of the share didn't take place before.

DPS is calculated with the formula:

$$\text{DPS} = \text{dividends on the ordinary shares} / \text{amount of the ordinary shares}$$

### **3. Price to earnings, multiples.**

It is one of the indexes, which greater part of ordinary investors and traders of securities market are managed by. This ratio shows payment of how many monetary units are the shareholders going to invest in one money unit of the net profit of the company. It also shows how fast investments made in the company shares may be reimbursed and it allows correlation prices of the shares on the base of conformity. 80-Dollar shares of the ratio  $P/E = 8$ , are relatively cheaper than 15-Dollar shares with the ratio  $P/E=30$ . Some investors think that the shares of low  $P/E$  ratio are always better than those with high ratio.

Rapidly increasing shares, usually deserve high factor then the shares of slowly developing enterprises, as the investors are expecting more in the future from their dynamics. On the contrary, some investors oriented on price will start proving that the shares with high  $P/E$  ratio may go lower, if their income is not meeting their expectations, as these hopes are included in the prices of the shares. The shares of lower  $P/E$  ratio form the sense of more security in the pure form, as in the first place, the market doesn't expect much from them. Risk of these shares exists in the fact that their quotations may remain at one and the same level during years and not to be increased significantly due to excess stability.

It is calculated with the following formula:

$$P/E = \text{market price of share} / \text{EPS}$$

#### **4. Payout ratio**

Interest of net profit of the company, which is used for issuance of dividends. There is normal level in the western corporations is 25-50%.

Subject to the law adopted in 1933 in the USA, public company (joint stock company of open type) is liable to provide settlement with its shareholders on regular basis. The most complete information is given in the annual account of the company, outcomes of the current activity is given in quarterly settlements.

Typical structure of annual settlement is as follows:

Department, broadcasting philosophy of running business;

Detailed description of every kind of the activities of the company. We may obtain from such department the information about effectiveness of management and competitiveness of products;

Financial information, including settlement about profit and loss during year and the company balance, i.e. describing state of its assets and passives for the end of the year compared with the outcomes of last period. Besides this, additional notes may be added, for example, on the judicial suites and proceedings, which the company participated in, or for the changes expected in governmental regulation, which may influence negatively upon profitability of the company;

Auditor's conclusion, confirming completeness and correctness of financial information submitted by the issuer.

## **12.2. THE NEWEST METHODS OF FUNDAMENTAL ANALYZIN**

### **NEW COMPLEX INDICATOR**

### **OF LIQUIDITY OF THE ENTERPRISE**

Any person interested in the state of the enterprise (manager, investor, credit, auditor, etc.), hereinafter referred to as the person making decision is satisfied with simple quantitative evaluation of the index. It is important to such person to know, if the accepted values are desirable or not, if they are good or not. Besides this, the person making decisions tries to make contact with the quantitative values of the index of the allocated group and some complex index, which generally characterizes financial state of the enterprise, i.e. the person making decision is not satisfied with banal evaluation "it's good – it's bad". He is interested in the nuances of the situation and economic interpretation of this nuance values. The assignment becomes more complex due to

the fact that there are many indexes and they often are changed in different directions, for which the person making decision tries to get every financial index into one complex index and think about the level of welfare (vitality) of the company.

So-called Z-indexes are well known in the analyzing, which may be related with the probability of bankruptcy:

$$Z = \sum_i A_i X_i \quad (12.1)$$

Where  $X_i$  are the functions of indexes of accounting,  $A_i$  – totality of the shares made on the basis of so-called discriminative analyze of the groups of enterprise, part of which is bankrupted. They also determine limited norms  $Z_1$  and  $Z_2$ . When  $Z < Z_1$ . In such case there is high probability of bankruptcy of the enterprise, when  $Z < Z_2$ , it is low; in case of  $Z < Z_2 < Z_2$  the state of the enterprise is unclear.

#### **E. ELTMAN'S METHOD**

This method processed by E. Eltman in 1968 is distributed everywhere and used widely in the analysis.

Conformity of data accepted for different countries shows that the shares existed in Z-weights and  $[Z_1, Z_2]$  limited interval are greatly different from each other not only in separate countries, but also within the bounds of one and the same countries per years (conclusions were made by observing states of US enterprises during 10 years). Thus, Z-methods of Altman are not distinguished in the stability to the variations of the initial data. Statistics, which Altman and his followers are based on, might be representative, though it has not important feature of static uniformity of selection. One thing is when statistics are used for the companies of different organization-technical specificity, having unique market signs, own strategies and goals, as well as phases of live cycle, etc. It is important to speak here about static homogeneity of phenomenon and, relatively, the issue of using probability methods, and the issue of acceptance-non-acceptance of “bankruptcy probability”.

Altman's method of approach is valid, when uniformity and representation of the events of saving/bankruptcy is clear (or it is confirmed with the model). Though, main restriction of this method is not the problem of qualitative statistics. The case is that classic probability is the characteristic of general totality of phenomenon and not separate object or case. By considering separate enterprise, we describe randomly its correlation with entire group, though unique nature

of each enterprise is that it may secure even in course of having minimal changes and vice versa. Totality of the faith of enterprise makes the researcher observe the enterprise more insistently, to decrypt its uniqueness and specificity, not to convert it into “one country” together with others, and not to seek for the similarity, but provide diagnostics of distinctions and describe them. In course of such method there is no place for static probability. This is what the researcher feels with intuition and transfers focus from the prognosis of bankruptcy (which would be simple divination without perfect statistics and nothing more) to the understanding of created situation; he/she determines the distance from the bankruptcy of the company.

### **VALENCE AND AXIOLOGICAL METHOD**

In the work dedicated to the identification of the nature of probability we meet with the non-classic probabilities of various types. We shall note two of them: valence and axiological probabilities. Valence probability expresses expectation of H Hypothesis based of the existed context of actual certifications about E objects of the research of probability of realization (in particular case, when E is representative selection of homogenous phenomenon, the probability is static). Axiological probability expresses expectation of realization of H hypothesis about S object of study based on the context of subject evaluation, which are performed by one expert of group of experts. Such probabilities may be given in financial analyze, as it is often appealed in the system of experts and, also in course of making decisions under uncertain conditions (particularly, in course of evaluation of the risk of investments). In such case the concept of accident is replaced with that of the expectation. Though, we shall note that makes use of non-classic probabilities clumsy, when there is much helpful mathematical unit for the studies.

We speak about indistinct values and vague logics; the deeper we study the enterprise, more often sources of uncertainty appear. Usually being rough and approximate, decomposition of the model is related with the increased deficit of quantitative and qualitative initial data. We often face such uncertainty explicitly and unequivocally decryption of which is in fact impossible. Exact measurement of numbers of parameters doesn't take place and subjective component necessarily appears in its evaluation, which is expressed in vague evaluations – “high”, “low”, “more acceptable”, “absolutely expected”, “less probable”, etc. Here appears something described to be linguist variable with derm multitude of its values. As for the relation of quantitative value of some factor and its qualitative linguistic description, it is expressed by granting m factor to indistinct value.

Data of objective tests concluded for the workers of different age groups by elimination of psycho-physiological peculiarities of the said groups (in the context of these observations there is the context of E-certificates).

Intuition performances of experts (context S). Thus, the functions of affiliation of parameters on indistinct values have same features in the analyzing, as non-classic types of probabilities. Moreover, they are quantitative measurements of existed information uncertainty, value of which is described in linguistically vogue form.

### **NEW INDEX OF RISK EVALUATION**

The method of evaluation of investment risk is related with the degree of describing information uncertainty in the part of initial data of the project. If initial parameters have probabilistic description, indexes of efficiency of investments have the image of accidental values and own application probabilistic distribution, though statistically, the less this or that parameter is conditioned statistically, the weaker is the awareness of the context about state of market environment to be described and lower is the level of intuitive activity of experts, the less may be certified usage of probability of any type in the investment analyze.

Alternative method of foreseeing uncertainty is so-called 'minimaxing' method of approach. They form particular class of expected scenarios of development of phenomenon in the process of investments and they select two of them during which efficiency is respectively minimal and maximal. After this, expected effect is evaluated according to Hurwitz's formula with L parameter of conformity. When  $L=0$  (Wald point), making decision is based on the most pessimistic evaluation of efficiency. When in course of realization of the most inauspicious scenario everything is done for reduction of the expected loss, of course, such method of approach minimizes risk of the investor. Though, in course of its using, most of projects will be refused, even those, having good chances for success. Here appears the danger of paralyzing business activity and degradation of the investor, as the person making decision.

### **THEORY OF UNCERTAIN VARIETIES**

The theory of uncertain varieties is the instrument allowing measurement of expectation. By using this method of approach, they developed in the economical literature the method of risk assessment and new complex indicator of assessment of risk level. Let us assume that in the process of multi-variable assessment of the investment project three values of the index of net current price of investments is accepted:  $NPV_{min}$  – minimal,  $NPV_{max}$  – maximal and  $NPV_{exp}$  –



averagely expected. Let us call multitude of the states of investments, when real net current price of the project is more than zero – effective investments.

Let us assume the following condition if fulfilled:  $NPV_{min} < 0 < NPV_{exp}$ . In such case, we evaluate level of the risk of inefficiency of investments with the formula, which is given without solution:

$$V\&M = R \left( 1 + \frac{1-a}{a} \times \ln(1-a) \right) \quad (12.2)$$

Where:

$$a = - \frac{NPV_{min}}{NPV_{exp} - NPV_{min}} \quad (12.3)$$

$$R = - \frac{NPV_{min}}{NPV_{max} - NPV_{min}} \quad (12.4)$$

Risk level V&M gets the values from 0 till 1. Subject to his own investment preference, each investor may provide classification of values and allocation of the section of unaccepted values of V&N of the risk. Risk levels may be ranked in more details. For example, if we involve linguistic variable “risk level” of entire term-wealth of its values (insignificant, low, average, relatively high, unaccepted), each investor will be able to describe independently respective uncertain sub-wealth by taking five functions of  $m(V\&M)$  of affiliation.

### 12.3. METHODS OF FUNDAMENTAL ANALYZING

Main methods of fundamental analysis are: Analyzing on the basis of net current values; Comparative analysis.

#### ANALYSIS ON THE BASIS OF NET CURRENT VALUE

The model of assessment on the basis of net current price is based on the discount theory. They think that price of the company is the sum of discounted future cash flows for the current period, which shall be distributed between the creditors, and the holders of preferred and ordinary shares, it is calculated with the following formula:

$$CV = S_t = \sum_{t=1}^T \frac{FCFF}{(1+WACC)^t} \quad (12.5)$$

Where CV (Company Value) and EV (Enterprise Value) are synonyms; FCFF is Free Cash Flow to Firm, which is distributed between every investor of the company – creditors (including – holders of corporate bonds), and the holders of ordinary and preferred shares; WACC – is Weighted Average Cost of the Company, i.e. the price of every source of long-term funding of business; T=n – discount period.

Let us consider the methods of fundamental analysis at the example of oil business. In the first place, we shall note following peculiarities of oil business, which shall be foreseen in course of analysis.

Oil business is extremely capital-consuming, due to which the period of return of the invested capital is more compared to multiple other businesses (trading, pharmaceuticals and even energetic). Therefore, the problem of predicting cash flows shall include future activities of the Company for at least 10 years in advance. This period is determined not only by the duration of running mining works and operation of ores, but also the lifecycle of the oil-wells. In some countries duration of oil extraction license shall be foreseen, which makes 20 years (without exploration) and 25 years (including exploration).

Capital-consuming of the field makes it necessary to evaluate price of entire capital of the Company, i.e. own and borrowed (which together form so-called “invested capital”). Truly, oil companies, providing 70% of funding at the expense of the borrowed capital, having high level of financial leverage and their price greatly depends on correlation of own and borrowed resources than in case of the issuers of other fields.

Cost of the shares of oil companies strongly depends on the dynamics of oil prices, and this risk is specific and may not influence upon remaining issuers of the equity market. This gives rise to the problem of correct evaluation of risk, i.e. discount rate, which shall be used in course of pricing.

We may relate only small part of the oil companies to the companies of the countries of developed economies. They determine additional restrictions for the fact that only several on them have diversified business in the field of downstream that they provide leveling geological risks and those of fluctuation of oil prices.

Among such companies are only BP Amoco, Exxon Mobil, RD, Shell, Total, and Elf Aquitaine. Gordon’s Model may be acceptable only to these companies, which is derivative of the formula (12.5) with the term of permanent growth: ("g" in the formula is the growth rate).

$$CV=FCFF(1+g)/(WACC-g) \quad (12.6)$$

"g" in the formula is the growth rate.

According to the practice of price crisis and business history, practically every other company, including such strong ones as ARCO, ENI, BHP, Chevron, Conoco, OSI-Dental Petroleum, LASMO, Enterprise are under geological risks, as well as under the danger of oil price volatility.

In the global practice of assessment of Going Concern, they use division of future cash flows into the flows, which are calculated with direct forecasting of industrial indexes (so-called "forecasting" or "predictive" period), and the flows of post-prognosis flows (Terminal Value), which are calculated according to Gordon's Model; they assume that during quite long period (10-20 years) the company (and even the country, which the issuer belongs to) will reach such level of development, when long-term rates of rising price of his business becomes equal to the rates of increasing GDP of the same state, in the environment of which business of the issuer is being developed. This assumption is of special importance, especially for the developing markets current risks of which is much more than future risks, of course, under the conditions of gradual development of the economy.

Thus, price of the company is determined as:

$$CV = S_t = \frac{TFDFF}{(1+WACCT)^T} + \frac{FCFF(1+g)^T}{(WACC_{tv}-g)^T} \cdot \frac{1}{(1+WACCT)^T} \quad (12.7)$$

Where FCFF is total net cash flow in the last year of the predicted period; WACC – average weighted price of the capital of the forecast period; WACC<sub>tv</sub> – average weighted price of the capital of post-forecast period; g = rate of increasing business of the company.

Only such method of approach is acceptable to the oil companies in course of the cash flows. Due to the capital-consuming of business and duration of return on the invested capital, forecast period shall never be less than 10 years. The rates of increasing post-forecast period shall not be more than the level allowed psychologically in the business of oil, such as the rates of requesting oil and oil products, possible rates of growth of oil extraction, etc.

Peculiarity of analysis price of capital is profitableness of investments implemented in the shares of the re (rate to equity), rf (risk-free rate); r<sub>exp</sub> (expected return of investor); β – beta-index, risk index.

It is known that CAPM is private case of APM-model, where every risk influencing upon the dynamics of the rate price is conformed to own value of β-index. It is APM that is recognized to

be the most actual in course of assessment of oil companies, which is related with the autonomy of the equity market and the commodity market of raw oil. Due to the independent operation, it, in its turn, may turn into the driving force of the market of shares of oil companies (in the way not influencing upon other sectors – banks, tourism, telecommunications, trading with the goods of wide consumption, etc.).

Calculations of some researchers show that discount rate calculated for oil-processing companies of the developed country (for example, LASMO or Enterprise) APM 0 model shall be more in 5 percent than with CAPM model, while for the integrated companies (RD Shell or Total) – in 2-3 percents.

### COMPARATIVE ANALYSIS

Comparative analysis is based on the conformity of industrial and financial multipliers of the company under evaluation with average multipliers of the market, field or entire country or those of the similar companies. Main task of comparative analysis is determination of relatively over-rated or less rated shares.

Main financial multipliers of the stock market are:

P/S (Price/Sales) – conformity of price of share to the return made from one share;

P/E (Price/Earning) – conforming of price of share to the net income made from one share;

P/BV (Price/Book Value) – conformity of price of share to the book value of one share;

P/OpCF (Price/Operating Cash Flow) – conformity of price of share to the value of operating cash flow per one share.

Each ratio has strict fundamental justification. If we refer to Gordon's Formula:

$$PO = DP SO(1+g)/(r-g) \quad (12.8)$$

And with their help, we express above multipliers, and we will get following:

$$PO = DOEPSO(1+g)/(r-g);$$

$$PO = EPSO = P/E = d/(r-g);$$

$$PO = BVOROEO(1+g)/(r-g); \quad (12.9)$$

$$PO/BVO = P/BV = Droe/(r-g);$$

$$PO = [SaleOEPSO/SPSOdO(1+g)]/(r-g);$$

$$PO/SalesO = P/S = NetMargind/(r-g);$$

For these ratios there are no objective levels of values – they are absolutely empirical and also depend on the period of economical period. The level of P/S ratio for the oil companies of the developed markets is in fact within the bounds of 20-30, P/BV – at about 2, P/OpCF – may be within the bounds of 4-6.

### **INDUSTRIAL MULTIPLIERS**

Industrial multipliers allowing conformity of oil companies at the stock markets include: capitalization / reserves and capitalization / production.

These multipliers are the most specific for the oil companies and they often use the time of issuers with foreign analogues incorrectly. Main peculiarity reasoning making of incorrect conclusions is basic peculiarity of different oil companies, including business of issuers of many countries.

The most incorrect type of conformity is direct conformity of issuers of different types according to the reserves. The first main distinction exists in the method with the help of which the companies receive these reserves for processing. For example, it is known that today main part of reserves at the balance of Russian oil companies has been explored during the period of USSR. These reserves are often non-profitable, or there is no infrastructure needed for their processing at the respective ores. Real Cash Flow is determined more by oil production, than its reserves. Due to this, this parameter shall be used for comparison, though it has the defect that it may reflect only 30-50 percents in many foreign oil companies. Main part of profit is made by the western oil companies in the field of realization of oil products, compressed air and oil-chemistry enterprise.

Assessment of issuers of “oil” share is characterized with such peculiarity, which cannot always be foreseen by the analysts. Much more peculiarity is formed when they use in business methods of assessment known in global practice.

## BIBLIOGRAPHY

1. **Adrian T., Shin H.**, 2008. Liquidity and Financial Cycles // BIS Working papers. No.256.
2. **Ahluwalia R., McGintry L., Beinstein E. A.**, 2004. Relative Value Framework for Credit Corelation. Research paper. J. P. Morgan.
3. **Altman E., Brady B., Resti A., Sironi A.**, 2003. The Link Between Default and Recovery Rates: Theory, Empirical Evidence and Implication. Working paper.
4. **Amtram M., Kulatilaka N.**, 1999. Real Options. Managing Strategic Investment in an uncertain world. Harvard Business School Press.
5. **Ang A., Hordrick R., Xing Y., Zhang X.**, 2004. The Cross-section of Volatility and Returns. Working paper. Columbia Business School.
6. Asset-Backed Securities Issuance 1996-2010. Securities Industry and Financial Markets Association. U. S. [www.sifma.org](http://www.sifma.org).
7. **Baer H.**, 2006. Asset securitization: securitization of financial assets - an innovative technique of financing banks / trans. from Germ. M.: Volters Kluver. In Russian.
8. **Baheti P., Morgan S.** 2007. Base Corelation Mapping. Lehman Brothers Quantitative Credit Research Quarterly.
9. **Bakhtadze L.**, 2007. Financial Market. Auxiliary Manual. Tb.: publishing house "Verge".
10. **Balabanov I.T.**, 2000. Elements of Financial Management. Study Guide; 3rd publishing. M.: Finansi I statistika, pg. 414-424, 431-437, 449-458.
11. **Balabanov I.T.**, 1996. Risk-Management. M.: Finances and Statistics. pg. 38-39.
12. **Barberis N., Huang M., Santos T.**, 1999. The Center for Research in Security Prices. Working paper. University of Chicago, Graduate school of Business.
13. **Barger A., Herring R., Szego G.**, 1995. The Role of Financial Institutions // Journal of Banking and Finance.
14. **Beard J.**, 2005. United States Market Review // World Leasing Yearbook 2005. 26 th ed. / L. Pail (ed.). L.: Euromoney Institutional Investor Publication.
15. **Black F.**, 1976. The Pricing of Commodity Contracts // Journal of Financial Economics. Vol. 3. No.2.
16. **Black F., Scholes M.**, 1973. The Pricing of Options and Corporate Liabilities // Journal of Political Economy.

17. **Bodie Z., Kane A., Marcus A. J.**, 2001. Essentials of Investments, Irvin, Mc Craw - Hill.
18. **Boer F. P.**, 2002. The Real Options Solution. John Wiley & sons, Inc.
19. **Borovkova V.F.**, 2007. Securities Market. SPB.: Piter. Pg. 19, 28. In Russian.
20. **Brigham E, Ehrhardt M.**, 2005. Financial Management. Translated from English – St.P.: Piter. pg. 57, 226-228.
21. **Brigham E, Gapenski L.**, 2005. Financial Management in 2 Volumes. M.: Ekonomicheskaya Shkola. Vol.: 1; Pg. 148-152. In Russian.
22. **Brigham Y., Erhard M.**, 2005. Financial management. St.P. Piter. In Russian.
23. **Bussey L.E.**, 1978. The Economic Analysis of Industrial Projects. Englewood cliffs. N.Y. Prentice – hall. pg. 3.
24. **Caprio G.**, 2009. Financial Regulation in a Changing World: Lessons from the Recent Crisis. Williams College. September.
25. **Cassin D., Hricko T.**, 2001. Exploring the Determinants of Credit Risk in Credit Default wap Transaction Data. Working paper. University of Lausanne.
26. **Cecheti S. G. Moesner R.**, 2008. Commodity Prices and Inflation Dynamics // Bis Quarterly Review. December.
27. **Chantladze V.**, 1987. The Issues of Financial Theory. Tb.
28. **Chaplin G.** 2005. Credit Derivatives. Risk Management, Trading & Investing. John Wiley & Souns, Ltd.
29. **Cooper I. A.**, 1977. Asset Values, Interest Rate Changes, and Duration // Journal of Financial and Quantitative Analisys. No.12.
30. **Copeland T., Antikarov V.**, 2001. Real Options. N. Y.: L.: Texere.
31. **Copeland T., Koller T., Murrin J.**, 2000. Valuation. John Wiley & sons, Inc.
32. **Cox J. C., Ingersoll J. E., Ross S. A.**, 1985. Theory of the Term Structure of Interest Rates // Econometrica. Vol.53. No.2.
33. **Cox J., Ross S., Rubinstein M.**, 1979. Option Pricing: A Simplified Approach // Journal of Financial Economics. No.7.
34. **Damodaran A.**, 2002. Investment Valuation. John Wiley & ons, Inc.
35. **Darius R., Radde S.**, 2011. Can Global Liquidity Forecast Asset Prices // IMF Working paper. August.
36. **Das S. R.**, 1995. Credit Risk Derivatives // Journal of Derivatives. No.2.

37. **Davidson, E. et al.**, 2007. Mortgage securitization: global experience, structuring and analysis. – M.: Vershina. In Russian.
38. **Diatlov S.**, 1994. Elements of the Theory of Human Capital. M. SPB, pg. 160.
39. **Dixit A. K., Pindyck R. S.**, 1994. Investment Under Uncertainty. Princeton University Press.
40. **Domanski D., Heath A.**, 2007. Financial Investors and Commodity Markets // BIS Quarterly Review. March.
41. **Duffie D.**, 1999. Credit Swap Valuation // Financial Analysis Journal.
42. **Duffie D., Eckner A., Horel G., Saita L.**, 2006. Frailty Corelated Default. Working paper. Stanford University.
43. **Duffie D., Lando D.**, 2001. Term Structures of Credit Spreads with Incomplete Accounting Information // Econometrica, Vol. 69.
44. **Duffie D., Pedersen L., Singleton K.**, 2003. Modeling Sovereign Yield Spreads: a Case Study of Russian Debt // Journal of Finance. No.58.
45. Elements of banking, vol. I; Tb.; TSU, 2007 (second edition).
46. **Ellizade A.**, 2006. Credit Risk Models I: Default Corelation in Intensity Models, CEMFI Working paper.
47. **Esipov V.A., Makhovikova G.P.**, 2001. Pricing at the Financial Market. Tutorial. Spb. PITER. pg. 63. In Russian.
48. **Estrada J., Serra A.**, 2005. Risk and Return in Emerging Markets: Family Matters // Journal of Multintional Financial Management. No.15.
49. **Fabozzi F. J.**, 2000. Investing in Asset-Backed Securities. NY. Frank J. Fabozzi Associates.
50. **Fabozzi, F.**, 2007. Bond Market: Analysis and Strategies. 2nd ed. M.: Alpina Business Books. In Russian.
51. **Fang H., Lai T. Y.**, 1997. Co-Kurtosis and Capital Asset Pricing // The Financial Review. No. 32.
52. **Firer S., Williams M.**, 2005. Intellectual Capital and Traditional Measures of Corporate Performance.
53. **Fisher I.**, 1976. Purchasable Force of Money. M., pg. 42.
54. **Fleksner K.**, 1994. Informed Society Economy with Human Face. M., “Mezhdunarodniye Otnosheniya”.



55. **Friend I., Westerfield R.** Co-skewness and Capital Asset Pricing // Journal of Finance. No.35.
56. **Gamsakhurdia G.**, 1995. Principal Problems of Financial Policy of Georgia at the Present Stage. Tb.: “Meridiani”.
57. **Gamsakhurdia G.**, 1997. Role of Finances in Transitive Economy of Georgia. Tb.: “Meridiani”.
58. **Gibson R.**, 2000. Asset Allocation: Balancing Risk. McGraw-Hill.
59. **Girman L, Jonks M.** 2007. Elements of Investments. Translated into Georgian by **L. Qoqiauri**. Tb.: TSU (Second edition).
60. Global Financial Stability Report. IMF. 2010. September-October.
61. **Goilo V.**, 1998. Intellectual Capital. “MEiMO”, No. 11, pg. 68-77.
62. **Graham J., Harvey C.** Equity Risk Premium Amid a Global Financial Crisis, Evidence from the Global CFO Outlook survey 2009. SSRN WP.
63. **Hagan P., West G., 2004.** Interpolation Methods for Yield Curve Construction. Working paper.
64. **Hamilton D. T., Varma P., Ou S., Cantor R.**, 2005. Default and Recovery Rates of Corporate Bonds Issues. Moody`s Investor`s Services.
65. **Hartmann M. A., Khambata D.**, 1993. Emerging tock Markets: Investments strategies for the Future // Columbia Journal of World Business. No.21.
66. **Hicks J.R.**, 1937. Mr. Keynes and The Classics: A Suggested Interpretation. Econometrics 5.
67. **Hielcher U., Ohl H. P.**, 1994. Assett-Backed Securities. Stuttgart.
68. **Hull J. C.**, 2006. Options, Futures, and other Derivatives. Pearson Education.
69. **Hull J., Predescu M., White A.**, 2005. The Valuaton of Correlation-dependent Credit Derivatives Using a structural Model. Working paper.
70. **Hull J., White A.**, 2000. Valuing Credit Default Swaps I: No Counterparty Risk, Working paper.
71. **Hull J., White A.**, 2001. Valuing Credit Default Swaps II: Modelling Default Corelation // Journal of Derivtives. Vol. 8. No. 3.
72. **Hull J., White A.**, 2003 . The Valuation of Credit Default Swap Option // Journal of Derivtives. Vol. 10. No. 3.
73. **Hyatt Ch.**, 2001. Securitization of Lease Backed Receivables Overview of Market.

- The Banker`s Perspective. L., June.
74. **Iacono F.**, 1997. Derivatives Handbook Risk Management and Control. Ch. 2. Credit Derivatives // Capital Markets Risk Advisors.
  75. **Ibbotson R., Chen P.**, 2002. Stock Market Returns in the Long Run: Participating in the Real Economy. Working paper. Yale School of Management.
  76. **Ilmanen A.**, 1996. Market Rate Expectation and Forward Rates // Journal of Fixed Income.
  77. **Inozemtsev V. V.**, 1998. In Search of Wealth of the Society. "MEIMO", No. 3, pg. 151-153.
  78. International Financial Services London. Banking. 2008.
  79. **Irvin S. H. Sanders D. R.**, 2010. The Impact of Index and Swap Funds on Commodity Futures Markets: Preliminary Results. OECD Food // Agriculture and Fisheries Working papers. No. 27.
  80. **Jamshidan F.**, 1997. LIBOR and Market Model and Measures // Finance and Stochastic. Vol. 1. No. 4.
  81. **Jarrow R., Turnbull S.**, 1995. Pricing Options on Derivative Securities Subject to Credit Risk // Journal of Finance. Vol. 1.
  82. **Jarrow R., Yu.**, 2001. Counterparty Risk and the Pricing of Defaultable Securities // Journal of Finance. Vol. 61.
  83. **Jibuti M.** 2003. Securities Market of Georgia. PUBLISHING COMPANY "SIAKHLE". TB., PG. 193-200, IN GEORGIAN.
  84. **Jones D. G., Kapadia R.**, 2000. Debt Instruments (Chapter B2) in the Act Manual of Corporate Finance and Treasury Management. L.: Gee Publishing Ltd.
  85. **Kendall L., Fishman M.**, 1996. Primer on Securitization. Cambridge, MA: MIT Press, 1996.
  86. **Kethari V.**, 2005. Securitization of Equipment Leases: Issues and Opportunities // World Leasing Yearbook 2005. 26 th ed. / L. Paul (ed.). L.: Euromoney Institutional Investor Publication.
  87. **Ketkar S., Ratha D.**, 2001. Securitization of Future Flow Receivables: A Useful Tool for Developing Countries.
  88. **Keynes J.M.** General Employment Theory and Money. Pg. 288-300.
  89. **Kidwell D.S., Peterson R.L.**, Blackwell D.U., 2010. Financial Institutions, Markets and Money.

- SPb: publishing house “Peter”. In Russian.
90. **Kovzanadze I.**, 2002. The Problems of Functioning of Commercial Banks of Georgia at the Present Stage. Tb.: TSU.
  91. **Lo A.**, 2002. The Statistics of Sharp Ratios // Financial Analysts Journal. July-August.
  92. **Longstaff F. A., Schwartz E. S.**, 1995. Simple Approach to Valuing Risky Fixed and Floating Rate Debt // Journal of finance. Vol. 50. No.3.
  93. **Lucas A., Klaasen P.**, 1998. Extreme Returns, Downside Risk, and Optimal Asset Allocation // The Journal of Portfolio Management.
  94. **Madan D. B., Unal H.**, 1998. Pricing the Risk of Default // Review of Derivative Research. Vol. 2. No.2/3.
  95. **Madura J.**, 2003. International Financial Management. 7th ed. Thomson. pg.17.
  96. **Marshall J., Bansal V.**, 1998. Financial Engineering. Complete guide of financial innovations. Translated from English; M.: INFRA-M, pg. 33.
  97. **Massa M.**, 2002. Financial Innovation: The Role of Derivatives When a Market for Information Exists // The Review of Financial studies. Summer.
  98. **McCouley R., McGuire P.**, 2008. Dollar Appreciation in 2008: Safe Haven, Carry Trades, Dollar Shortage and Overhedging // BIS Quarterly Review. December.
  99. **Merrick J. J.**, 2001. Crisis Dynamics of Implied Default Recovery Ratios: Evidence from Russia and Argentina // Journal of Banking and Finance. Vol. 20. No. 10.
  100. **Merton R.**, 1974. On the Pricing of Corporate Debt: The Risk structure of Interest Rates // Journal of Finance. Vol. 29.
  101. **Milovidov V.D.** 1996. Mutual Investment Fund. M.: “INFRA-M”.
  102. **Mirkin Ya. M.**, 1997. Securities and the stock market. M.: Perspective. In Russian.
  103. **Moorad C.**, 2006. Credit Default Swap Basis. Bloomberg Press.
  104. **Nardari F., cruggs J.**, 2005. Why Does stock Market Volatility Change Over Time? A Time-Varying Variance Decomposition for Stock Returns. Working paper. ARIZONA State University.
  105. **Neftci S. N.**, 1996. An Introduction of the Mathematics of Financial Derivatives, N. Y.: Academic Press.
  106. **Nielsen L.T.**, 1999. Pricing and Hedging of Derivative Securities. Oxford: Oxford

University Press.

107. **O`Kane D., Schloeg L.**, 2001. A Counterparty Risk Framework for Protection Buyers. Lehman Brothers Quantitative Credit Research.
108. **O`Kane D., Turnbull S.**, 2003. Valuation of Credit Default Swaps. Lehman Brothers Quantitative Credit Research Quarterly.
109. **Pezier J., White A.** 2006. The Relative Merits of Investable Hedge Fund Indices and of Funds of Hedge Funds in Optimal Passive Portfolios. Submitted JAI.
110. **Qoqiauri L.** Elements of Banking. Third edition. Tb.: GTU. 2012.
111. **Qoqiauri L.** Perspectives of Development of Stock Exchange and Investment markets in Georgia. Tb., 2001.
112. **Qoqiauri L.**, 2002. Investment Market: Theory, Policy, Practice. Tb.: Publishing Company "Siakhle".
113. **Qoqiauri L.**, 2002. The Concept of Forming and Developing Investment Market in Georgia. Tb.
114. **Qoqiauri L.**, 2005. Cash Flows: Essence, Management, Analyze. Tb.: "Poligrafia".
115. **Qoqiauri L.**, 2008. Management of Cash Flows and Discount Analyze (course of lectures). Tb.: TSU.
116. **Qoqiauri L.**, 2009. Investment Market: Essence. Formation. Development. Tbilisi, Tbilisi State University.
117. **Qoqiauri L.**, 2009. Theoretical Genesis of Investments, New York.
118. **Qoqiauri L.**, 2010. Investment Business. Tb.: Technical University of Georgia.
119. **Qoqiauri L.**, 2010. Investments. Tb.: GTU.
120. **Qoqiauri L.**, 2012. Elements of Banking (third addition). GTU.
121. **Qoqiauri L.**, 2012. Investment Management and Policy (second edition). Tb.: STU.
122. **Qoqiauri L.**, 2012. Investment Policy and Strategy. Second edition. Tb.: Technical University of Georgia.
123. **Qoqiauri L.**, 2013. Theoretical Genesis of Investments (second edition). Tb.: TSU.
124. **Qoqiauri L., Shonia N.**, 2008. Security Market. Tb.: Tbilisi State University.
125. Quarterly Review of SIFMA. USA. 2008-2010.
126. **Reilly F.K., Brown K.C.**, 2003. Investment Analysis and Portfolio Management. 7th Edition, Thomson South-Western, Australia.
127. Report of bank of England. 2008.

128. **Roache S. K., Rossi R. M.**, 2009. The Effects of Economic News on Commodity Prices. Is Gold Just Another Commodity? // IMF Working paper. July.
129. **Robertson D., Wright S.** 1998. The Good News and the Bad News about Long-run Stock Market Returns. Working paper. University of Cambridge.
130. **Saks J., Lauren F.**, 1996. Macro Economy. Global Method of Approach. M., Delo, pg. 132.
131. **Schmidt R., Hackethal A., Tyrell M.**, 1998. Disintermediation and the Role of Banks in Europe: An International Comparison // Universitat Frankfurt am Main. Working paper. er. 6. Finance & Accounting. No. 10 January.
132. **Schonbucher P.J.**, 1997. Pricing Credit Risk Derivatives. London School of Economics, Financial Markets Group. Working paper.
133. **Schonbucher P.J.**, 2000. A Libor Market Model With Default Risk. Working paper. Bonn University.
134. **Schonbucher P.J.**, 2000. Credit Risk Modelling and Credit Derivatives. PhD Thesis. Faculty of Economics, Bonn University.
135. **Schonbucher P.J.**, 2000. Factor Models for Portfolio Credit Risk. Department of statistics, Bonn University.
136. **Schonbucher P.J.**, 2003. Credit Derivatives Pricing Models, John Wiley & Sons.
137. **Schwartz S.L., Steven L.**, 1994. The Academy of Asset Securitization // Stanford Journal of Law, Business, and Finance. Vol. 1., No. 133.
138. **Scott H., Sanders D.R.**, 2010. The Impact and Swap Funds on Commodity Futures Markets: Preliminary Results // OECD Fond. Agriculture and Fisheries Working papers. No.27.
139. Securities Market. Manual under the editorship of **V.A. Galanova; A.I.B. Basova**. M.: Finansi i statistika. 2001, pg. 12. In Russian.
140. Securities Market. Under Edition of **V.I. Kolesnikova**. M. SPb. 2007. In Russian
141. Securities Markets in OECD Countries. Organization and Regulation. OECD Documents, 1995.
142. Securities secured by mortgage and assets / under. ed. L. Heir / M.: Alpina Business Books, 2007. In Russian.
143. Securities, under the editorship of **V.I. Kolesnikov and V.S. Torkapovski**. M.: Finansi i statistika. 1999; pg. 34. In Russian.
144. Securitization in Russia. Ways to Expand Markets and Reduce Borrowing Costs // Position

- papers of the International Finance Corporation`s Technical Working Group on securitization. 2005. March.
145. **Sharp W.F., Alexander G., Bailey J.**, 1999. Investments. M., Chapter 10.
  146. **Sharp W.F., Alexander G., Bailey J.**, 2000. Investments. M., Infra-M, pg. 400. In Russian.
  147. **Sharpe W.**, 1970. Portfolio Theory and Capital Markets. McGraw-Hill.
  148. **Shonia N.**, 1997. The Issues of Forming Security Market in Georgia. Gori, etc.
  149. **Shonia N., Gugeshashvili T., Ghavtadze G.**, 2004. Security Market. Kutaisi, A. Tsereteli State University.
  150. **Shtillih O.**, 1992. Stock Exchange and its Activities. Translated from German. SPB, pg. 181.
  151. **Sortino F. A. Van Der Meer R.**, 1991. Downside Risk // The Journal of Portfolio Management. Summer.
  152. **Sortino F., Price L.**, 1994. Performance Measurement in a Downside Risk Framework // Journal of Investing. No.3.
  153. Steadfast Performance of Italian Lease Transactions as Real Estate Continues to Dominate. [www.standaranpoors.com](http://www.standaranpoors.com).
  154. **Stella P.**, 2009. The Federal Reserve System Balance sheet: What Happened and Why it Matters // IMF Working paper. May.
  155. **Stiglitz J.E.**, 1993. Financial Systems for Eastern Europe`s Emerging Democracies. San Francisco, California: An International Centre for Economic Growth Publication, pg. 81.
  156. **Stoyanova E.S., Bikova E.V.**, 1998. Financial Art of Commerce. – M.: Perspective.
  157. **Tavakoli J. M.**, 1998. Credit Derivatives: A Guide to Instruments and Applications. John Wiley & Sons.
  158. **Tavakoli J. M.**, 2001. Derivatives & Synthetic Structures. 2nd ed. Willey Finance.
  159. The Brookline Quarterly Econometric Model of the United States. Chicago, 1995.
  160. The Strategy of Security from Global Economical Crisis, Government of Georgia, December, 2002. [www.parliament.ge](http://www.parliament.ge)
  161. Trends of Georgian Economy, GEPLAC Quarter Review, 2000. October.
  162. Trends on Financial Markets. Europe & USA. International Financial Services London. Banking. 2009.
  163. Triennial Central Bank Survey. Foreign Exchange and Derivatives Market Activity in April 2010

- // BIS. 2011. April.
164. Trouble Expected For Italian Leasing AB in '09. 2009. March 19. [www.totalsecuritization.com](http://www.totalsecuritization.com).
  165. **Usman P. A.**, 2001. New Applications for Credit Derivatives // University of Queensland Law School Working paper. June.
  166. **Van Horne J.C.**, 1995. Financial Management and Policy, Prentice-Hall.
  167. **Vasicek O. A., Gong G.**, 1982. Term Structure Modeling Using Exponential Splines // Journal of Finance. Iss. 2. No.37.
  168. **Verheugen G., Reichenback H.**, 2004. Study on Asset-Backed Securities: Impact and Use of AB on ME Finance. European Commission Enterprises, [www.easf.fazenda.gov.br](http://www.easf.fazenda.gov.br).
  169. **White E.**, 2010. Global Leasing Business Contracts by 15%. As Industry Hunkers Down to Ride a Bigger storm. World Leasing Yearbook 2010 / L. Paul (ed.). L.: Euromoney.
  170. **Williams J.B.**, 1982. The Theory of Investment Value. Cambridge, mass.: Harvard Univ. Press.
  171. **Wooldridge P. D.** 2006. The Changing Composition of Official Reserves // BIS Quarterly Review. September.
  172. **Zambon S.**, 2003. Accounting, Financial Analysis and Audit in the Intangible Economy. PRISM; Final Report. 31 March, etc.
  173. **Zhou C.**, 2001. An Analysis of Default Correlation and Multiple Defaults // Review of Financial Studies. Vol. 14. No. 2.

Scientific edition

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# **FINANCIAL MARKETS**

**Monograph**

Edited by

Dr. of Economics, Prof. **Prokopenko O.**

English language editor **Keinashvili T.**

Technical editor **Balavadze M.**

Correctors: **Qoqiauri N., Chodrishvili N.**

Sent to be published 14.02.2019

Signed to be published by Drukarnia i Studio Graficzne Omnidium 28.02.2019

Paper format B5 (170x240 mm). Conv. pr. sheets. 28,6. Conv. ed. sheets. 24,5. Edition 100 ex.

Published by

University of Bielsko-Biała

2, Willowa st.

43-309, Bielsko-Biała, Republic of Poland