Similar but different? The financial crisis in matured Western and emerging Eastern European countries

Thomas Dietz, Tetiana Protsyk, Erich Keller[1]

Abstract

Both the matured West European countries and the emerging East European countries are currently facing an economic recession lasting probably at least until 2010. In the matured Western countries it was the subprime crisis triggering a financial and banking crisis leading to this economic crisis. In large parts of Eastern Europe, however, a currency crisis has triggered (or is at least about to trigger) a banking and an economic crisis at the same time. The banking crisis might cause second round effects on banks in Western countries that have been heavily engaged in East European credit markets.

Whereas in the matured West European countries there have been systematic measures to stop the financial crisis aiming at restoring market confidence, in emerging Eastern Europe these measures have rather had an ad-hoc-character so far predominantly trying to strengthen depositors' confidence in the banking system and mostly differing from country to country depending on how much emphasis has been put by the respective governments to defend the exchange rate of the local currency.

Although subsidiaries of EU banks have played an important role in the financial deepening of Eastern Europe they have now become one of the most important channels of contagion, since – in contrast to what could have been expected by economic theory – there has been a massive withdrawal of funds by their parent banks in the EU.

1. Introduction

Every financial crisis is different. However, some crises are more severe than others, some have global impacts, others don't. The Asian crisis in 1998 for example could be contained more or less to the area where it initially emerged. What started as the so-called subprime crisis in July 2007, however, has in the

[1] The views expressed in this article are the authors' views only and do not necessarily represent official positions of Deutsche Bundesbank or National Bank of Ukraine.

meantime become the biggest financial crisis since the Great depression in the 1930s and has had contagion effects all over the globe. The latest region that has been hit hard by the crisis is emerging Eastern Europe.

Although the Lehman brothers insolvency plays a decisive role for both matured Western countries and the emerging market countries in Eastern Europe and although in the end the result of the financial crisis seems to be the same – a deep economic recession – the transmission mechanisms of the crisis and some of its features seem to be fundamentally different.

In the matured Western countries the subprime crisis has triggered a financial and banking crisis leading to an economic crisis. In parts of Eastern Europe, however, a currency crisis has triggered (or is at least about to trigger) a banking and an economic crisis at the same time. The banking crisis might cause second round effects on banks in Western countries that have been heavily engaged in East European credit markets.

In the matured Western countries public measures taken to stop the crisis aim at restoring market confidence, i.a. by recapitalising the institutions, and to revive the dried-up financial markets by giving the institutions the possibility to issue state-guaranteed bonds. In Eastern Europe up to now public rescue packages have been more ad-hoc based than showing systematic features as in Western Europe (with the exception of some East European countries already being a member of the EU) and more oriented towards restoring depositors' confidence into the banking system.

In the sections below we shall investigate in more detail what triggered the crisis in the Western and Eastern countries respectively, by which mechanisms it got reinforced and what measures exactly the governments have taken to stop the

crisis. Finally we take a look at possible second round effects of the crisis in Eastern Europe for Western Europe.

At the beginning we start with a brief overview of possible classifications for financial and economic crises and their interaction.

2. Some basic framework for analyzing crisis situations

Empirical evidence shows, that in the end each crisis is different. However, several authors have provided some definitions of different types of crisis according to which each crisis can at least be classified[2]. The definitions presented by these authors for a 'banking crisis', a 'financial crisis' and a 'currency crisis' respectively mostly resemble each other. For the purpose of this article we will use the definitions of Mishkin[3], according to which a 'financial crisis' is characterized by a disruption to financial markets making them (by adverse selection and moral hazard problems) unable to efficiently channel funds to the most productive investment opportunities, and the definitions of Bordo/Klingebiel[4]. They define a 'banking crisis' as a period of financial distress that is severe enough to result in the erosion of most or all of the capital in the banking system. A 'currency crisis' according to them is a forced change in parity, the abandonment of a pegged exchange rate or an international rescue. Finally, a twin crisis is a combination of a banking and a currency crisis.

A fourth category of crisis is an economic crisis. Here we distinguish between a stage and a cyclic crisis (also called economic recession). Each market based economy is subject to cyclic economic development creating economic recessions sooner or later[5]**.** Apart from these cyclic crises there are also stage crises, related

2 See for example Kaminsky/Reinhard (1999) or Duttagupta/Cashin (2008).
3 Mishkin (1991).
4 Bordo/Klingebiel (2001).
5 Samuelson/Nordhaus (1995).

to the transition of the economy and society in general from one stage to a higher level of development. The nature of such stage crises was investigated by G. Kondratiev in the early 20th century already[6].

Crises initially developing in one specific country or region are more and more likely to show spill-overs to other countries or markets. Those contagion effects have been facilitated by diminishing restrictions for cross-border capital flows and the increasing use of modern information technologies. On the other hand this free flow of capital can stipulate economic growth in particular in emerging market countries where foreign direct investments (FDI) have been contributing significantly to raising the living standards of the local population. However, the higher the share of foreign capital in relation to the Gross Domestic Product the more vulnerable the local economy gets to a crisis (initially) only affecting the home countries of the foreign investors. As a result a local economic crises may occur both due to domestic and external reasons.

3. The financial crisis in the matured western countries

In the matured western countries the prevailing financial crisis is predominantly characterised by perturbances on the money market, the stock markets and the bond markets, in particular affecting banks' activities to get liquidity via wholesale funding. For instance, between the beginning of 2007 and the end of 2008 the Euro and US financial stocks lost on average about 60% of its value, single stocks like Lehman Brothers or Washington Mutual even up to 99,9%[7]. Apart from this financial crisis most of the Western matured countries also suffer from a banking crisis, since several (systemically relevant) banks have incurred large financial losses, deteriorating their capital buffers. For example,

[6] Kondratiev (1926), p.618ff.
[7] Atkinson et al. (2008), p.12.

the Royal Bank of Scotland lost 27 billion British pound in 2008 (the largest company loss in british history) and the Swiss UBS 13 billion Swiss francs[8]. Until the end of 2008 Washington Mutual lost 219% of its tier 1 capital, Citibank still 68%[9]. Although the average percentage change of tier 1 capital of 15 large and complex banking groups in the Eurozone between 2007 and 2008 is positive, the total loss of supplementary (tier 2 and tier 3) capital was 28%[10].

That the crisis has affected the Western world so hard is due to the unanticipated interaction between funding and market liquidity in crisis situations. This interaction has triggered a downward spiral of liquidity and capital, a vicious circle that the radical public measures, mostly taken at the climax of the crisis in the weeks after the insolvency of the investment bank Lehman Brothers, are supposed to stop.

3.1. „Liquidity“ and „Liquidity risk“

There is no single definition for „Liquidity“ or „Liquidity risk“. These terms are multidimensional and defined differently according to the respective cognitive interest in business affairs, economics or law.

For the purposes of this article we define „funding liquidity“ as the possibility of an individual institution to fund itself by borrowing money at third parties, either secured or unsecured. Funding liquidity is high as long as it is possible to get the required amount of money with the right maturity under the required conditions[11]. Funding liquidity is low if funding for the amount and maturity required can only be obtained under unexpectedly unfavourable funding

8 Frankfurter Allgemeine Zeitung (27.2.2009), p.1.
9 Atkinson et al. (2008), p.12.
10 ECB (2009), p.90.
11 The ECB has recently contemplated about a narrower definition of funding liquidity risk and a concept for measuring this risk based on this definition (ECB (2008b), pp.64-66).

conditions (e.g. higher interbank rates or high haircuts or margins under secured funding) or cannot be obtained at all. „Funding liquidity risk“ defined in this sense is typically caused by maturity transformation[12]. It is particularly relevant for institutions that rely on volatile market based (also called “wholesale”) funding. These institutions get their liquidity less from the comparatively stable retail deposits (retail funding), but from the capital or money markets by unsecured short-term funding or by issuing securities, like covered or uncovered bonds (including, for instance, Asset Backed Commercial Papers).

„Market liquidity“ is the possibility to fund itself by selling assets in the market. It is high, if selling or buying an asset (typically securities) is possible at any time and if selling (or buying) the asset does not significantly influence the price of this asset in the market[13]. It is low, if selling is possible only under high haircuts or not possible at all.

Furthermore we have to distinguish between original and derived liquidity risks. Original liquidity risk refers to the possibility that a bank might not be able to meet its payment obligations at any time and is therefore cash-flow based. Derived liquidity risk is linked to the profit and loss of the institution and is balance-sheet based[14]. For example, an asset might only be sold at a price lower than expected (e.g. due to unfavourable developments in the stock market) or wholesale funding might only be obtained at higher costs caused by an unexpected widening of the spread curve of the institution. Original and derived Liquidity risks are both – ceteris paribus - higher under wholesale than under retail funding.

12 Brunnermaier (2008), p.22.
13 Deutsche Bundesbank (2008), p.60.
14 Schierenbeck (1994), p.716ff.

3.2. The vicious circle of market and funding liquidity

The subprime crisis shows impressively how deeply the international financial markets have become integrated and what dramatic repercussions disturbances of the market liquidity can have on funding liquidity and on individual funding costs. Triggered by the subprime crisis and aggravated by interdependencies between market and funding liquidity it is a good – and up to now maybe the most striking – example of how both original and derived liquidity risks can become virulent at the same time.

The reasons for the beginning of the subprime crisis and for its spill-over to other parts of the world, especially Europe, have been described extensively by other authors and do not need to be repeated in detail at this point[15]. In a nutshell, the extensive use of the originate-and-distribute model in combination with the securitisation of loans from the subprime segment of the US housing market and the bursting of the housing bubble in mid-2007 had triggered a loss of value for structured products leading to liquidity problems for – at the beginning – a limited number of banks in the US and in Western Europe. Lax lending standards of the US banks in combination with regulatory gaps in banking supervision contributed to the crisis as well.

At the beginning the subprime crisis primarily had impacts on institutions making extensive use of maturity transformation or having provided liquidity support to Structured vehicles (SPVs) with the same business model. These impacts were particularly painful for institutions that were predominantly relying on wholesale funding and that showed little diversification in their funding structure, but did not really represent a financial crisis at that time, never mind an international one.

[15] See for example ECB (2008a) or Sachverständigenrat (2007).

However, this started a downward spiral (a vicious circle) of declining values of financial instruments, market disturbances and eroded equity (own funds), restricting the institutions' access to funding liquidity in the end. The loss in value of financial instruments triggered additional and unforeseen liquidity needs at the institutions, which partly tried to fund their liquidity needs by selling off securities. This was the reason for the decline of value of a lot of financial instruments in the markets. Due to these losses incurred, financial market players like the US investment banks or hedge funds, which show a very high debt to equity ratio, and that typically want to keep their leverage ratio at a constant level, were forced to sell off further financial instruments. This put additional pressure on the price of securities, triggering a further sell-off wave, etc.[16]

As a result, under the new IFRS rules, many institutions had to show considerable losses in their balance sheets which in return decreased their equity (own funds)[17]. Later on, additional losses due to the insolvency of Lehman Brothers or due to their exposure to icelandic banks brought a further erosion of equity.

The continuous reduction of capital cushions left not only the banks with doubts about the solvency of current (and future) counterparties. This – in a next step - affected also the markets for interbank lending. The price for unsecured short term funding (especially one week up to three months), the Euribor, was rising sharply, since the institutions started to hoard liquidity instead of lending it to their counterparties. At the same time the spread between Euribor and Eurepo

[16] Sachverständigenrat (2008), p.123 and 127f. See also ECB (2008a), p.15, ECB (2008b), p.16 and p.44f.

[17] The impacts of IFRS on the valuation of securities are described in detail by ECB (2008a), p.95-97. It has to be emphasised at this point that up to now the losses displayed are mostly unrealised losses. If and up to what extent they will be transformed into realised losses will only be visible in some years, if not some decades (given that the securities will be held-to-maturity and, in the case of ABS for instance, depending on whether or not the actual defaults in the end will be higher or lower than currently expected by the market).

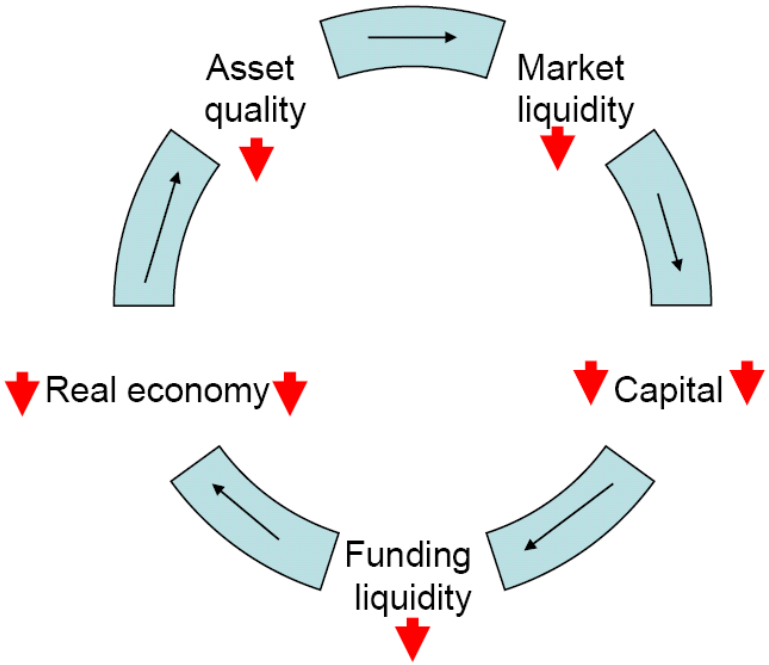
(price for secured short term funding) widened significantly, first to more than 50 basis points from July 2007 to July 2008 and then after Lehman insolvency up to 180 basis points. By this, institutions without sufficient collateral were put under additional liquidity pressure, both under the perspective of original and derived liquidity risk.

The visible (and maybe even more the assumed forthcoming) equity problems of banks and corporates caused a widening of funding spreads not only in the money market. Already in the course of 2007 the spreads of long term BBB rated corporate bonds in the EU had almost doubled[18], being even higher for sub-investment grade bonds. As a consequence the issuance of covered and uncovered bonds has declined sharply due to unfavourable funding conditions, restricting significantly the use of these two funding sources for closing liquidity gaps. While at the beginning of the crisis it was predominantly original liquidity risk concerning the market participants (and the supervisory authorities), derived liquidity had started to play a role at least as important.

At the moment most banks obviously still seem to have a sufficient buffer of liquid assets to get access to Central bank funding in order to avoid liquidity gaps. Without the unsecured interbank lending market being restored, however, and without funding costs returning to normal conditions, it is uncertain for how long they can renounce on deleveraging on a broad scale. This holds particularly true for institutions that rely on wholesale funding[19]. If there should be significant deleveraging in the next months, further losses at the institutions have to be expected since their business will be reduced. Further losses, however, means more problems with their equity, which means less favourable funding conditions, etc., which means entering a further round in the vicious circle described in Figure 1.

[18] ECB (2008a), p.87.
[19] ECB (2008b), p.15.

Figure 1: The vicious circle of market and funding liquidity



Source: Huertas (2008), p.3

Given the developments described above the subprime crisis obviously triggered a financial crisis in the US and most EU countries, which has resulted in a banking crisis, now leading to an economic recession. As a result, according to IMF calculations the global economy in 2009 will shrink for the first time in 70 years. For the Eurozone the European Central Bank has estimated a decline of economic growth of about 4.6% in 2009[20].

4. Measures to break the vicious circle in Western Europe

The measures taken by many national governments and the EU to contain the crisis, in particularly since October 2008, are trying to break this vicious circle. Before that time it were primarily Central banks trying to mitigate the crisis by

[20] Frankfurter Allgemeine Zeitung (5.6.2009), p.7.

replacing the lack of interbank lending by direct (collateralised) Central bank loans to the institutions. Their instruments to support the banks were (coordinated) interest rate cuts, the extension of eligible collateral and available liquidity facilities (longer maturities, higher volumes, additional currencies)[21] and finally so-called quantitative (purchase of long-term government bonds by the central bank) and credit 'easing' (purchase of securities of other issuers than the government like banks or corporates). However, due to the institutions' problems not only with liquidity but also with equity the central banks could only alleviate the problem, but not really solve it[22].

At first state aid measures were provided on a case-by-case basis, bailing out systemically relevant institutions like Fortis und Dexia in October 2008 or the insurance company AIG in September 2008, which was heavily engaged in selling credit protection to the market. After the insolvency of Lehman these ad-hoc measures were replaced by a more systematic and comprehensive approach, aiming at

- Securing the retail deposits by raising the minimum amount of deposits covered by the respective deposit guarantee schemes
- Reviving the short and medium term liquidity markets
- Improving the capital cushion by recapitalising the institutions

These rescue packages in about 30 states around the globe all show similar features based upon experiences with recent financial market crises like in Sweden and are comprised of

- State guarantees for debt obligations issued by the institutions

[21] For more details on the respective actions of the Fed and the ECB see Sachverständigenrat (2008), p.129-139.

[22] Sachverständigenrat (2008), p.117.

- Recapitalisation by public participation
- Swapping problematic and almost worthless securities („toxic waste“) against government bonds[23]

Part of the rescue packages is also the temporary suspension of the IFRS rules. The SEC, for instance, now allows the banks - on a transitory basis and under certain conditions - not to capture their securities on a fair value basis any more. The EU Commission has adopted a corresponding Directive in October 2008[24]. By this further writedowns can be avoided in many cases.

Depending on the respective support measure the institutions have to pay different fees for the state support and the state can excert different levels of influence on the institution’s business. The strongest state influence on the institutions can be excerted if the state has granted recapitalisation. For example, in Germany the government is able in this case to:

- review the institution's remuneration structure
- limit the salary of the board of directors to 500.000 Euro a year
- prohibit the payout of dividends to other shareholders than the state
- oblige the institution to take account of the demand for credit supply of the real economy, in particular for SMEs, and to grant this supply under 'adequate' conditions[25].

Even if the basic design of the respective rescue packages is the same in the Western countries they differ in details. For instance, whereas in Great Britain and the US banks have to tolerate Recapitalisation measures, German banks are

[23] Sachverständigenrat (2008), p.117.
[24] Sachverständigenrat (2008), p.152.
[25] Sachverständigenrat (2008), p.158.

not forced to do this. Moreover the extent up to which Governments can influence the institution's business strategy differs[26].
Finally, conditions imposed by the European Union under European state aid control have to be taken into account, too. For instance, one of the preconditions to get state aid is a tier one capital ratio of at least 8%[27].

In June 2009 the institutions in the EU have made use of approximately 50% of the amount of government guarantees offered and of about one third of the budget reserved for recapitalisation. This accounts for 3.7 billion € or 30% of the annual GDP of the EU[28]. With this the rescue packages seem to have reached their aim, at least partly, since the stock, the money and the bond markets show first signs of recovery. Indicators for this are (i.a.):

- successful private recapitalisation efforts of US banks
- rising issuance activities on primary bond markets
- the narrowing of the Euribor/Eurepo spread to 70 bp end of April 2009.

5. The situation in Eastern Europe

The following section focuses on the spread of the financial crisis from the matured Western countries to the Central, Eastern and Southeastern countries in Europe (CESEE countries). Eastern Europe is not Eastern Europe, however. Thus, if we talk about emerging Eastern European countries we should start with providing a classification for the CESEE countries facilitating further reading. We define four subsets of CESEE countries:

- CESEE 1: country is both a member of the EU and the Eurozone (Slovakia and Slovenia)

[26] The respective rescue packages are described in detail by Sachverständigenrat (2008), p.153-156 and ECB (2008b), p.85.
[27] Börsenzeitung (10.12.2008), p.3.
[28] Frankfurter Allgemeine Zeitung (10.6.2009), p.11.

- CESEE 2: country is both a member of the EU and the Exchange Rate Mechanism (ERM) II
  (Estonia, Latvia, Lithuania)
- CESEE 3: country is a member of the EU but neither a member of the Eurozone nor of ERM II
  (Czech Republic, Poland, Hungary, Bulgaria, Romania)
- CESEE 4: country is no EU member.
  (Albania, Croatia, Serbia, Bosnia-Hercegovina, Montenegro, FYR Macedonia, Montenegro, Moldova, Belarus, Ukraine, Russia[29])

Unfortunately, at the moment there aren't any comprehensive reports on the development of the crisis in all the CESEE countries available. We therefore have to concentrate on some snapshots of developments where currently most literature (or most raw data) is available.

5.1. The pre-crisis environment

For the past few years financial deepening has advanced dynamically in the CESEE region. For example, in most countries the ratio of bank credit to households and nonbank corporations to GDP increased by 15 to 25 percentage points between end-2004 and mid-2008, in some countries even at nearly 40 percentage points. The growth rates have been especially high in some CESEE 3 and 4 countries (Albania more than 500%, Bulgaria and Romania about 400%)[30].

Encouraged by the EU accession becoming more concrete, foreign banks, mainly from the euro area, established subsidiaries or branches in almost all

[29] The description of the situation in Russia would require a seperate comprehensive contribution. The developments in Russia are therefore not covered in this article.

[30] Walko (2009), p.77.

countries of the region, quickly becoming the dominant players in the respective banking sectors. At the end of 2007, in some CESEE countries their share of total banking sector assets exceeded 70% (for instance in Bulgaria and Romania). Foreign banks put a strong focus on retail activities, making use of their comparative advantages (good reputation, superior credit technology, governance structure and capitalization) in expanding loans to businesses and households[31].

Whereas it is widely acknowledged in the financial literature that financing by parent banks plays a substantial role in the refinancing structure of banks in the CESEE region, it is difficult to underpin these statements with corresponding data, since there is no centralized, publicly accessible dataset on this issue. Sporadically available data (e.g. for Croatia, Hungary and Romania) suggest that financing from parent banks accounts for around 50% to 70% of the banking sector's external liabilities[32].

The CESEE countries show predominantly bank-based financial systems, in which corporates have so far only marginally made use of the capital market to raise capital. The issuance of debt securities is negligible in most CESEE countries, whereas in the Euro area these instruments account for roughly one-third of banks' net assets. Debt securities issuance plays a more important role only in the Czech Republic and Hungary, but even in these two countries its relevance is much smaller than in the euro area[33]. Funding in the CESEE countries is therefore predominantly deposit driven.

Under these circumstances branches and subsidiaries of foreign banks play an important role when it comes to funding credit growth. If the expansion of the

31 Winkler (2009), p.85.
32 Walko (2009), p.82.
33 Gardo et al (2008), p.81-82 and 121.

domestic deposit base cannot keep pace with credit growth, banks could turn to foreign funding to finance the expansion of domestic lending[34].

Until autumn 2008 spillovers from the Western financial crisis to the CESEE countries were limited[35], due to several reasons. First, there was no significant subprime exposure. Local banks' exposure to subprime or subprime-related assets, i.e. asset-backed securities (ABS) and collateralized debt obligations (CDOs), has been negligible to date. In contrast to this banks had concentrated on the strong momentum of credit markets in the region and on the more profitable local lending business[36].

Moreover, due to the risk capital transfer, the majority of the CESEE countries showed a positive balance of payments, their currencies appreciated repeatedly against US dollar and Euro[37] and their currency reserves increased most of the time. Finally, due to the significant presence of subsidiaries of EU-banks their financial sector was rather stable.

However, already in summer 2007 there were some negative developments typically preceding a financial crisis: First, there was a significant credit expansion, contributing to an output boom in several countries, leading to capacity constraints in some branches, higher inflation and current account deficits[38]. Second, the rising inflation in many CESEE countries caused many central banks in the region (e.g. in the Czech Republic, Hungary, Poland, Romania) to tighten their monetary policies in response to re-emerging inflationary pressures over the final months of 2007[39].

34 Gardo et al (2008), p.121.
35 Winkler (2008), p.91.
36 Gardo et al. (2008), p.120.
37 ECB (2009a), Euro area statistics parts 8.2 and 9, p.73f.
38 Walko (2008), p.77
39 Gardo et al. (2008), p.137.

Third, the credit growth driving domestic demand had increasingly been based on foreign exchange-denominated loans due to the favourable development of exchange rate and interest rate levels. In addition these loans were typically funded by significant FX maturity transformation. Unlike enterprises, which might have earnings in foreign currency via exports, households are usually not hedged against foreign exchange risk leaving the consumers exposed to a sudden slowdown or reversal of capital flows associated with depreciation pressures, raising their debt burden. In such a situation monetary policy is facing a dilemma, because if the Central bank defends the exchange rate, the associated rise in interest rates would be likely to reduce the quality of loan portfolios further[40].

However, both from a practical and a theoretical point of view there seemed to be no reason to believe in a sudden reversal of capital flows. Under a practical point of view it was expected that banks would consider their operations in the CESEE region to be of a long-term strategic nature and would therefore try to sustain business activities in CESEE to benefit from generally higher (risk-adjusted) margins[41].

If, under a theoretical perspective, the Diamond-Dybvig model[42] is adjusted to an "international setting" with fixed exchange rates and banks engaging in maturity transformation on the basis of foreign currencies (by granting foreign currency loans to domestic residents on the basis of either foreign currency deposits or foreign currency short-term debt issuance on international capital markets) it is the absence of a lender of last resort with unlimited resources in the international setting, which raises the incentive for any depositor to

40 Winkler (2009), p.84-97.
41 Gardo et al. (2008), p.123.
42 Diamond, D./Dybvig, P. (1983).

withdraw funds when doubts about the banks' solvency arise, thus making the system as a whole more crisis-prone[43].

The CESEE 2 and some CESEE 4 countries have run fixed or quasi-fixed exchange rate regimes and the banking sectors of basically all CESEE countries have made use of significant FX maturity transformation. However, the risk of a sudden stop of capital flows appeared to be well mitigated since the parent banks have been the main foreign currency "depositors" of their subsidiaries and have enjoyed an information advantage with regard to the solvency of their subsidiaries compared to external creditors. Thus, also according to theory a sudden withdrawal of capital was unlikely[44].

In a nutshell, before Lehman insolvency the risk of a sudden stop of capital flows seemed to be low, as it was assumed that foreign banks had done reasonably well in analyzing and managing credit risk, and risks of international illiquidity seemed to be contained due to interlinked ownership structures. Against this background, the region seemed to be heading for a soft landing, with the increase in risk aversion following the events of August 2007 leading to a decline in credit growth, a mitigation of overheating pressures and pushing the current account deficits to more sustainable levels[45].

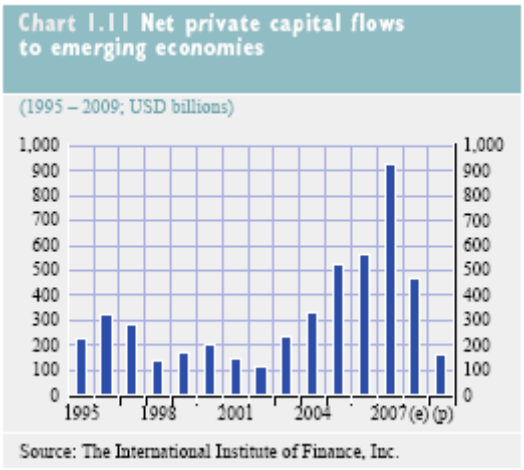
5.2. The situation after Lehman insolvency

However, this assessment proved to be fundamentally wrong. At first, the international financial crisis had affected the CESEE countries by a weakening of international trade, diminishing CESEE exports and moderately disrupting capital inflows. Reflecting the deteriorating macro-financial conditions credit

[43] Winkler (2009), p.90.
[44] Winkler (2009), p.90.
[45] Winkler (2009), p.91.

growth was reduced rapidly, leading to "a vicious circle between weakening economic activity and deteriorating asset quality"[46]. After the collapse of Lehman Brothers EU and US parent banks needed both liquidity and capital, significantly reinforcing the reversal of capital flows into the CESEE countries. According to the IMF cross-border lending had literally come to a halt at the beginning of spring 2009 and parent banks have reduced financing their emerging market subsidiaries in a magnitude that was last observed during the Southeast Asian crisis in 1998[47]. This assessment is supported by data from the Institute of International Finance (see figure 2):

Figure 2: Net private capital flows to emerging economies



Source: ECB (2009), p.26

Several indicators provided evidence of the sudden stop of capital flows, like the substantial rise in interest rates and risk spreads, the strong decline in stock prices, depreciation pressures on currencies as well as sales of foreign exchange reserves by central banks[48]. An example for this is the collapse of the government bond market, the substantial decline in equity prices and the malfunctioning of the foreign exchange swap market in Hungary in September and October 2008. The activation of liquidity-providing repurchase operations in

46 ECB (2009), p.24.
47 IMF (2009), p.24-25.
48 Winkler (2009), p.92.

the Czech Republic or the Polish central bank's introduction of foreign exchange swaps to provide banks with foreign currency liquidity are further examples[49]. On the stock side between September 2008 and mid April 2009 the CECE overall traded index – the index contains stocks from Poland, Hungary and Czech Republic - fell by 72 percent. The same holds true for the Baltic stock indices[50].

The sudden stop in capital flows have put the currencies in all CESEE countries (apart form the CESEE 1 countries) under (additional) depreciation pressure, in some cases being so severe (e.g. Ukraine, Hungary, Romania, Belarus, Latvia) that the IMF had to grant Stand-by-arrangements to cover currency needs due to their current account deficits. In some cases the IMF support was complemented by loans from the World bank, the EBRD and the EU (Latvia also getting support from individual EU countries, notably Sweden)[51]. Further significant currency depreciation will result in severe loan writedowns across the region, eroding the capital and asset quality of bank parents and their subsidiaries. Fear of future rapid depreciation also risks capital flight such as that already experienced in Russia and the Ukraine.

Until the end of the first quarter of 2009 stock prices in CESEE countries continued to decline, currencies devaluated further and interest rate and credit default swaps increased (see figure 3).
However, since the agreements reached between some CESEE countries and the IMF and the announcement of the G-20 summit in London in April 2009 to raise substantially the financial means of the IMF, these trends were reversed somewhat, including the narrowing of the CDS spreads[52].

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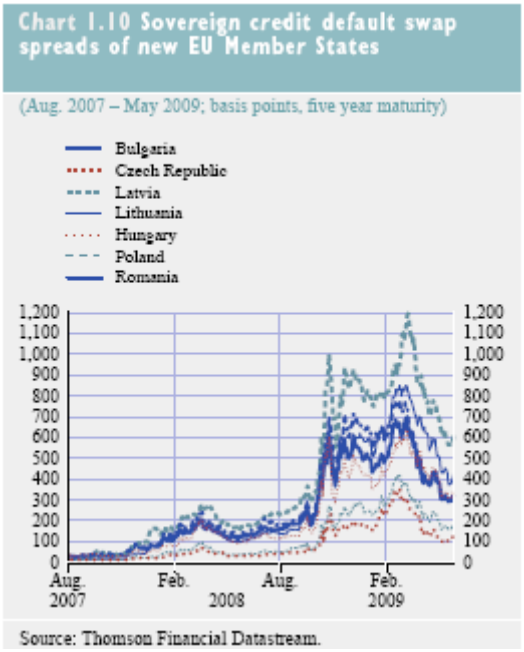
49 Walko (2008), p.86.
50 Frankfurter Allgemeine Zeitung (17.4.2009), p.23.
51 Schreiner/Zauchinger (2009), p.16.
52 ECB (2009), p.25

Thus, the financial crisis in matured Western countries has triggered a currency crisis in most CESEE countries that has triggered a banking and a financial crisis at the same time, also connected with some bank runs as already experienced in autumn 2008 in the Ukraine or Latvia.

Figure 3: Sovereign CDS spreads on some CESEE 2 and 3 countries



Source: ECB (2009), p.25.

These crises seem to have second round effects on banks in Western Europe and - by that - also on the governments of their respective home countries, indicated by rising sovereign CDS premia. Section 6 will elaborate further on that.

5.3. The rescue packages in Eastern Europe

CESEE countries have been hit differently by the crisis. The CESEE 1 countries have not suffered from a currency crisis at all since they joined the Eurozone at the beginning of 2008 and 2009 respectively. However, they also suffer from an

economic recession[53]. In contrast to this, some of the CESEE 2 countries and those CESEE 4 countries that pegged their currencies to the Euro now have most difficulties to fight the crisis. In contrast to other CESEE countries (e.g. Hungary, Poland, the Czech Republic and Slovakia[54]) which lowered their interest rates to facilitate the access to liquidity, these CESEE 2 and 4 countries have not done that at all (or at least not significantly). On the contrary, they sometimes even raised their policy rates to defend their currency.

Rising interest rates deteriorate the loan portfolios of the banks, however, aggravating the crisis. The most striking example for this approach is probably Latvia, where the Central bank has set the policy rate for the marginal lending facility at 30 % for banks, which have used the facility for more than 10 working days within the previous 30 days period, and where the government has implemented radical budget cuts instead of deficit spending.

To mitigate the impacts of the crisis CESEE 3 countries like the Czech Republic, Poland and Slovenia have adopted fiscal stimulus packages of about one percent of their respective GDP[55]. Raising public expenditure for stimulus spending (as an alternative to mitigate a forthcoming recession), or for recapitalising the banks, is difficult for the CESEE 2 countries, however, which want to fulfil the Maastricht criteria for accession to the Eurozone.

It is also a problem for some CESEE 4 countries, since some of them (e.g. the Ukraine) have applied for IMF support to cover their current account deficits, and the IMF has linked its support to strict budget discipline.

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53 For data and future estimations for the respective CESEE countries on how severe these recessions have been up to now (or could be in the future) see Schreiner/Zauchiger (2009), p.13.

54 Schreiner/Zauchinger (2009), p.18.

55 Schreiner/Zauchinger (2009), p.17.

This is particularly delicate since IMF estimates of the potential scale of writedowns on loans and securities at East European banks show approximately 185 billion $ losses. Given an estimated capital buffer of the banks of 83 billion there is capital gap of about 100 billion $. Much of this will have to come from the public sector[56].

In all CESEE countries the effect of Central bank measures trying to expand liquidity provision has been limited given that domestic interbank markets are not a significant source of bank funding[57]. Thus, it doesn't come as a surprise that all CESEE countries have now either introduced or expanded significantly their deposit insurance schemes to maintain confidence in local banks. In case of the CESEE 2 and CESEE 3 countries this was done in accordance with the proposal of the European Commission (equivalent of 50.000 €)[58]. Such measures were particularly necessary in countries that were facing first bank runs in autumn 2008.

The final part of the rescue packages, predominantly relevant for the CESEE 4 countries that have received IMF support, is strengthening banking regulation and banking supervision. One of the reasons for this is not only the fact that banks could expand their loans on a broad scale without supervision intervening, but also that some institutions having received ad-hoc support from the state invested this money in currency speculation, by this aggravating the depreciation pressure on the local currency.

All in all, rather than going for comprehensive rescue packages, the governments especially of the CESEE 4 countries have gone for ad-hoc measures for single institutions. In this respect the possibility of state capital injections has been broadly established throughout CESEE countries, but so far recapitalisations have only been effected in Romania (EximBank and CEC

56 IMF (2009), p.32.
57 IMF (2009), p.34.
58 Schreiner/Zauchinger (2009), p.16.

Bank) and Russia, since the banks have been reluctant to make use of them[59]. It is mostly the CESEE 3 countries' rescue packages that resemble most the measures taken in the matured Western countries. Poland, for instance, has a rescue package comprised of state guarantees and public recapitalisation. The most effective tools for fighting the crisis seem to have been the support measures from the IMF (plus the (additional) financial support from the World bank, the EBRD and the EU), however.

6. Second round effects – Re-contagion effects for Western European Banks?

The problems with subsidiaries or branches in the CESEE countries have led to downgrades and higher funding costs for the parent banks in some EU countries, reducing further the incentive to maintain funding to the subsidiaries. Consequently, sovereign CDS spreads and bond yields of countries with large banking groups showing substantial exposures to emerging Europe have risen sharply reflecting concerns on the potential costs of bailing out those banks[60]. This holds especially true for Austria, where claims of the BIS reporting banks accounted for 8.5% of the CESEE countries' total GDP in 2007 (about 66% of Croatia's and 33% of Slovakia's GDP). But also banks in Germany (6.2%), Italy (6%), France (4.9%) and Sweden (for the CESEE 2 countries) play an important role here[61].

Since the agreements reached between some CESEE countries and the IMF and the announcement of the G-20 summit in London in April 2009 to raise substantially the financial means of the IMF, spreads have narrowed again. However, the dire prospects for the CESEE subsidiaries clearly have a negative

59 Schreiner/Zauchinger (2009), p.18.
60 IMF (2009), p.29.
61 For more details on this see Österreichische Nationalbank (2008), p. 16.

impact on some banks and countries of the EU most likely reinforcing the crisis in matured Western countries.

7. Conclusion

The matured Western countries in Europe are currently facing an economic recession that had its starting point in the subprime crisis triggering first a financial and then a banking crisis. Whereas in the end Eastern Europe shows the same result - an economic recession - the ways of contagion differ fundamentally. The Lehman insolvency triggered (or at least reinforced) a currency crisis in most CESEE countries which led to a financial and banking crisis at the same time, creating negative second round effects in those Western countries where the banks have been engaged heavily in the CESEE local credit business. In this respect, the saying that every financial crisis is different has again been proved.

The crisis in Eastern Europe shows a new financial crisis scenario (contagion by the matured Western countries) and hasn't really come unexpected since credit booms have preceded many financial and currency crises[62].

What was not expected, however, was the role of foreign banks, since their positive role for financial deepening of the CESEE markets in the end seems to have been overcompensated by the destabilizing factor of contagion. Thus, the current crisis reveals, that a strategy of financial development based on foreign entry is no guarantee for a smooth process of finance and growth.

Furthermore, key insights of modern finance theory did suggest that a sudden stop of capital flows was unlikely. The collapse of Lehman Brothers and its

[62] Winkler (2009), p.86.

impact on the major euro area banks active in Eastern Europe contradicted this, as it almost wiped out the macrofinancial stability advantages linked to foreign ownership.

Due to the minor role of money and capital markets the public support measures in Eastern Europe differ in some cases significantly compared to Western Europe. They have mostly been taken on an ad-hoc basis and are primarily aiming at restoring depositors' confidence into the banking system. Moreover, Central banks in the CESEE 2 and some CESEE 3 and 4 countries are in a delicate position since their primary goal is to defend the exchange rate of the local currency and not stimulating the liquidity in the local money markets, and some of their measures might reinforce the crisis instead of mitigating it.

Against this background, some form of fiscal expansion would be helpful to counteract the expected decline in demand, like in the matured Western economies. However, many countries in the region have missed the opportunity of the "boom years" to build up a fiscal reserve that can be used in times of need, and are now facing restrictions concerning deficit spending imposed either by the aim of joining the Eurozone or by IMF support.

The most important step to contain the Eastern European crisis and by this also possible contagion effects to Western Europe therefore have been the agreements between the CESEE countries most affected by the currency crisis and the IMF and the decision at the G-20 summit in April 2009 to significantly expand the financial means of the IMF. Only the future will show, however,, whether or not this has really been enough to finally stop the crisis.

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