

We believe that these results will be useful for the national financial regulatory authorities as well as for risk-management in commercial banks. Moreover, we think that these models will be valuable for other emerging economies.

Gareth Peters, *Doctor, University College London, UK;*
Rodrigo Targino, *Ph.D. candidate, University College London, UK;*
Pavel Shevchenko, *Professor, University of New South Wales, Australia*

UNDERSTANDING OPERATIONAL RISK CAPITAL APPROXIMATIONS: FIRST AND SECOND ORDERS

We set the context for capital approximation within the framework of the Basel II/III regulatory capital accords. This is particularly topical as the Basel III accord is shortly due to take effect. In this regard, we provide a summary of the role of capital adequacy in the new accord, highlighting along the way the significant loss events that have been attributed to the Operational Risk class that was introduced in the Basel II and III accords. Then we provide a semi-tutorial discussion on the modeling aspects of capital estimation under a Loss Distributional Approach (LDA). Our emphasis is to focus on the important loss processes with regard to those that contribute most to capital, the so called “high consequence, low frequency” loss processes.

This leads us to provide a tutorial overview of heavy tailed loss process modeling in OpRisk under Basel III, with discussion on the implications of such tail assumptions for the severity model in an LDA structure. This provides practitioners with a clear understanding of the features that they may wish to consider when developing OpRisk severity models in practice. From this discussion on heavy tailed severity models, we then develop an understanding of the impact such models have on the right tail asymptotics of the compound loss process and we provide detailed presentation of what are known as first and second order tail approximations for the resulting heavy tailed loss process. From this we develop a tutorial on three key families of risk measures and their equivalent second order asymptotic approximations: Value-at-Risk (Basel III industry standard); Expected Shortfall (ES) and the Spectral Risk Measure. These then form the capital approximations.

We then provide a few example case studies to illustrate the accuracy of these asymptotic capital approximations, the rate of the convergence of the asymptotic result as a function of the LDA frequency and severity model parameters, the sensitivity of the capital approximation to the model parameters and the sensitivity to model miss-specification.

Olga Afanasieva, Ph.D., Ukrainian Academy of Banking of the National Bank of Ukraine, Ukraine; Yulia Lapina, Ph.D., researcher, Ukrainian Academy of Banking of the National Bank of Ukraine, Ukraine; Tatiana Scherbina, Ph.D., Ukrainian Academy of Banking of the National Bank of Ukraine, Ukraine; Dmytro Govorun, Ph.D., Ukrainian Academy of Banking of the National Bank of Ukraine, Ukraine

RISK MANAGEMENT, CORPORATE GOVERNANCE AND INVESTMENT BANKING: THE ROLE OF CRO

After recent events of global financial crisis and further recession bank boards became more disturbed about the risk governance issues. The lesson was learned that timely risk oversight and measures to its minimization would lead to stability of a bank. That's why the foundation and ensuring of effective functioning of Risk Management Committee in bank is one of the primary goals in this context.

According to Basel Committee recommendations for enhancing corporate governance practice updated in 2010 Risk Management Committee in the lead with Chief Risk Officer (CRO) is responsible for organizing of risk management system, introduction of bank overall risk governance strategy and control of its adherence. These Principles also state that to achieve higher efficiency CRO as a senior executive should have independence.

Let's have a look on how it is realized in today's banks. First of all, some banks (especially in countries with weak or transforming banking systems) don't have special committee to deal with risks at corporate governance level. According to statistical data, in such cases risk governance is delivered to Audit Committee or CEO as one of numerous tasks.

Secondly, we must underline that in most of banks CRO is usually subordinate to CEO, in other cases – to other chief executive (e.g. CFO). To some extension it lengthens a period of reporting and, as a result, of decision-making. Such subordination models can also bring to information asymmetry and to some degree commit the principle of independence. According to recent corporate governance practice in banks CRO may also subordinate straightly to Board. This model of reporting may help to avoid drawbacks mentioned above and to enhance risk governance in the banking institution.

In the context of risk governance one must define obvious difference between its implementation in commercial and investment banks which is explained by the distinctions in their activity. Specific character of investment banking lies down in absence of cash deposits; in selling securities to entities or to the government; in matching sellers and buyers of securities; advising about mergers and acquisitions. The other peculiarity of investment banks