

The Future of Risk Management

Report on the SUERF/Bank of Finland/CEPR/JFI Conference and SUERF Annual Lecture held in Helsinki on 22–23 September 2011

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Pictures (l-r): George G. Pennachi (UIUC & JFI), Viral Acharya (NYU & CEPR) and Gabriel Bernardino (EIOPA)



Given the tremendous advances in financial risk measurement, why did risk management fail in large and complex financial institutions prior to the global financial crisis? This was one of the key organizing thoughts when the call for papers was issued for the fifth joint conference with SUERF and the Bank of Finland on “*The Future of Risk Management*”. To commemorate the Bank of Finland’s 200th birthday (thereby being the fourth oldest central bank in the world), the bank’s other long-time partner in cooperation, CEPR, as well as The Journal of Financial Intermediation, which is planning a special issue on the basis of the conference papers, joined the team of organizers.

The financial crisis of 2007-08 has certainly taught us that the endogenous nature of risk will have to be taken more seriously in risk management. A better understanding and modelling of systemic risks have to be built.

Accordingly, the first session, chaired by **Ernest Gnan** (Oesterreichische Nationalbank and SUERF) dealt with “*Crisis Diagnostics*”. In the first paper, “*Systemic risk diagnosis: coincident indicators and early warning signals*”, **Bernd Schwaab** (ECB) and his co-authors constructed coincident and early warning indicators for systemic risk diagnosis, using a dynamic factor model. Credit risk deviations indicator showed that during 2005-2007 credit risk market assessment increasingly undershot economic fundamentals, leading to the bubble and the ensuing crisis. In her discussion, **Helinä Laakkonen** (Univ. of Helsinki) noted that a very short period was sufficient to build up highly dangerous imbalances leading to a dramatic crisis. However, she also pointed out that the model was rather complicated and that the private credit to GDP ratio might yield similar results in a very simple way.

In the second paper “*Market fragility and International Market Crashes*”, **Kuntara Pukthuanthong** (Univ. of San Diego) in joint work with Dave Berger, used her previous joint work with Richard Roll to construct a one-day ahead fragility indicator, driven by non-diversifiable (systematic) risk, successfully predicting stock market crashes and contagion across markets. **Razvan Vlahu**

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(DNB) raised in his discussion an important question, whether the indicator would lose its capability or become self-fulfilling, if many market participants followed such an indicator. From the audience, Bank of Finland's Head of Research, Jouko Vilmunen brought up the general challenge of how to make indicators give early enough warnings in order to provide policymakers sufficient time to act. One of the key issues concerning the future of risk management in the aftermath of the financial crisis is how much of systemic risks can be expected to be addressed by individual institutions and how much must be addressed by institutions representing public interest. The second session brought the regulatory perspective on this issue.

The second session, chaired by **Jukka Vesala** (Finnish FSA), focused on regulation. **Giovanni di Iasio** (Banca d'Italia) in joint work with Mario Quagliariello on "*Incentives through the cycle: microfounded macroprudential regulation*" addressed incentive distortions in banks. The incentive for banks to pursue sound business practices is increased by the future value of the bank; while it is reduced by a higher expected liquidation value of its assets. A positive shock on asset prices may hence encourage banks' risk-taking. This would justify the countercyclical higher capital buffers such as in Basel III to counter incentive distortions. **Jukka Vesala** praised the paper's contribution in adding to the sound theoretical basis of countercyclical capital requirements but reminded also of the remaining important issues concerning their practical implementation.

The second highly interesting paper in this session was presented by **Razvan Vlahu** (De Nederlandsche Bank) on "*Capital regulation and tail risk*". This was joint work with Enrico Perotti and Lev Ratnovski. The main message of the paper was that excessive equity capital which goes beyond regulatory requirements may encourage excessive risk taking when banks hold "tail risk". This is because the buffer and incentive effects of capital diminish as the higher capital cannot absorb extreme tail losses so that the losses eat deep through the debt value. However, in his comments **Urs Birchler** (Univ. of Zurich and SUERF) emphasized that the paper's reasoning applies only to voluntary excess capital, and maintained that higher regulatory capital unambiguously decreases banks' risk appetite. The global financial crisis also revealed big problems in corporate governance as regards the position and true influence of risk management in financial institutions. Related to this, compensation structures have a close connection with risk taking incentives and hence have a strong bearing on risk management.

Against this backdrop, the theme of the third session was "*Corporate Governance and Pay Structures*". The first paper was given by **Gabriele Sabato** (RBS) on "*Risk management, corporate governance and bank performance*

in the financial crisis" (a joint paper with Vincent Aebi and Markus Schmid). In a sample of 86 US banks they find that only 10 per cent of banks had a powerful independent CRO. Their main result was that banks in which the CRO reports directly to the board (rather than to the CEO) fared significantly better during the financial crisis. **Karolin Kirschenmann** (Aalto Univ.) pointed out in her comments potential endogeneity problems in determining causality and raised the question of whether CRO should actually report to bank creditors.

John Thanassoulis (Oxford Univ.) studied bankers' pay and risk taking in his theoretical paper on "*Bankers' Pay Structure and Risk*". In his model banks compete for employees and use bonuses to provide them with incentives to work hard. On the other hand, such incentives encourage myopic risk taking to earn bonuses. The often proposed solution to this is to delay part of bonus payments. However, since deferred pay is worth less for the employee, the overall bonus needs to be higher. As a result, banks prefer bonuses without deferred payment. These findings may provide explanations to the issue that in the years and decades preceding the crisis consolidation in the financial industry may have increased popularity of contracts without deferred payment and at the same time banks' leverage has grown tremendously. In his comments **Mikko Leppämäki** (Aalto Univ.) praised the paper's relevance and quality but called for some clarification of its most important policy implication. He also noted that the results seem not specific only to the financial industry.

The first day of the conference concluded with the 2011 SUERF Annual Lecture, given by **Gabriel Bernardino**, Chairman of the European Insurance and Occupational Pensions Authority (EIOPA). His topic was "*Risk Management: a Supervisor's Approach*". Mr. Bernardino noted that Solvency II has put risk management into the centre of insurance regulation. Risk management is ultimately the responsibility of the management board. It needs to be well documented and communicated and woven into the organisational structure and decision-making. To be effective, a risk management strategy needs to include a written definition and categorization of risks, appropriate processes, reporting and feedback loops, as well as a suitable own risk and solvency assessment, referred to as ORSA. The ORSA is a central top-down process, enhancing awareness of the relation between risks and the resulting capital needs. It implies a demanding culture of risk management. Insurers should not regard risk management only as a regulatory requirement. On the other hand, supervisors should take a business rather than a compliance perspective and need to challenge the functioning of the system. It is important to bear in mind that capital cannot make up for poor risk management. During the subsequent question and answer session, **Alistair Milne** (Loughborough Univ.) from the audience made an important observation that once the

insurance sector enters a more risk-based capital regulation via Solvency II, procyclical effects in the form of more volatile market movements may be strengthened. Mr. Bernardino acknowledged that this is an issue which requires monitoring.

The second day started with a keynote given by **George G. Pennacchi** (Univ. of Illinois at Urbana Champaign), the managing editor of the Journal of Financial Intermediation. His topic was "*Bank regulation, credit ratings and systematic risk*". If one had to mention one concrete lesson with important practical applications to take home from conference programme, it might have been Professor Pennacchi's main thesis that credit ratings do not reflect systematic risk and that this may have had a profound effect on banks' risk taking in the process that led to the financial crisis. Perhaps most importantly, regulatory capital requirements as well as deposit insurance premia should make a difference between two assets with a similar rating but different exposure to systematic risk; i.e. propensity that an asset's creditworthiness deteriorates together with general market conditions. Similarly rated assets with higher systematic risk tend to provide higher yields, as empirically shown by Professor Pennacchi's research, so banks' have had an incentive to load on such risks in the absence of any extra capital charge on such assets. This may have been one major driver of the popularity of mortgaged based securitized assets in which most other than systematic risk have been diversified away. One solution could be that conventional ratings should be replaced or supplemented with risk measures based on credit spreads which include pricing of systematic risk.

The fourth session, "Counterparty Risk", started with **Marie Hoerova's** (ECB) paper, jointly written with Bruno Biais and Florian Heider, on "*Risk-sharing or risk-taking? Counterparty risk, incentives and margins*". The authors provided an important insight that a protection seller's incentive to control its own balance sheet risk may be weakened if the hedge provided by the protection seller is likely to turn out losses. Forcing certain contracts on exchanges may be a solution to the ensuing externality but requires monitoring e.g. by a central counterparty. The discussant **Lauri Vilmi** (Bank of Finland) suggested several further checks on robustness of the results of this highly interesting paper.

Dale Rosenthal's (Univ. of Illinois at Chicago) presentation dealt with "*Market structure, counterparty risk and systemic risk*" in a network theory setting. The author shows that in the event of a large bankruptcy in a bilateral OTC market, other counterparties may be unable to save themselves. Such an externality is higher in OTC markets than in markets with a central counterparty. This argues for centralised clearing in OTC markets. In the discussion by **Karlo Kauko** (BoF) the question was raised, whether also central counterparties might become bankrupt in a worst-case

scenario. Also CCPs require good, transparent governance and control.

The last session before the second keynote was entitled "*Hedge fund performance and systemic risk*". In the first paper, **Juha Joenväärä** (Univ. of Oulu) presented an empirical study on "Hedge fund systemic risk, capital structure and performance". In the paper, fund-specific risk is measured by expected shortfall and market beta, while systemic risk is measured by co-expected shortfall (conditional on an individual financial institution being in distress) and marginal expected shortfall (conditional on the financial system being in distress). Using a database of over 10,000 hedge funds, the author finds that the determinants of systemic and fund-level risk differ significantly from each other. Funds with high systemic risk perform very badly during periods of financial distress, while generating steady positive return for most of the time. Hedge fund systemic risk is associated with higher fund failure probability. These results are of great interest to both investors and regulators. In his comments, **Dale Rosenthal** praised the richness of the paper in terms of its potential to achieve even more results by looking perhaps more deeply into certain aspects.

The paper by **Stefano Giglio** (Harvard Univ.), "*Credit default swap spreads and systemic financial risk*", exploits the fact that CDS prices reflect the probability of a double default, i.e. the default of the reference entity and the default of the writer of the CDS. On this basis, the paper derives alternative indicators of systemic risk. It shows that markets anticipated by more than a month a sharp increase in the default probabilities of Lehman Brothers and Merrill Lynch which ultimately defaulted on the weekend of 13-14 September 2008. In his remarks, **Phil Molyneux** (Bangor Univ. and SUERF) played with an intriguing idea of extending the paper's analysis to a bigger network of banks to obtain systemic default probabilities.

The conference was concluded with **Viral Acharya's** (NYU, CEPR) keynote, "*Governments as shadow banks: the looming threat to financial stability?*" He presented a provocative argument that in order to promote short-term economic growth, myopic governments encourage excessive financial sector competition, offer guarantees to the financial sector and lower the risk standards for lending. Governments do not want credit to be constrained. They do not behave as a long-term oriented prudential supervisor should. Using a small model and the historical example of US government sponsored housing finance agencies, Professor Acharya argued that these agencies are the most systemic financial firms. Agencies enjoy government guarantees, substantially lowering their funding costs, and are subject to much laxer regulatory capital requirements. In sum, myopic governments can distort financial sector regulation to enhance current economic activity, creating tail risk for

future governments and generations. Prudential regulators should recognize the risks to financial stability from short-term governments. Transparency as regards government balance sheets and programs should be increased. Professor Acharya suggested that currently, there is the risk of internationally harmonised financial sector rules to be sabotaged, as countries seeking "growth" may prefer to dilute levels of capital requirements.

The conference was a success also in terms of the number of participants - with almost 90 registered participants this was the best attended conference in the history of the joint SUERF/Bank of Finland Conferences. Moreover, the timely risk management related topic clearly attracted even more financial practitioners to the audience than usual. The call for papers had indicated interest to presentations in which a potential need for a paradigm

shift in private financial institutions' risk management practices would be dealt with. However, when building the conference program from a record number of paper submissions, almost one hundred, this paradigm shift turned out to be a challenging gap to fill. We can be sure there is a future for risk management, to quote the opening remarks of the SUERF president Catherine Lubochinsky, and that future may well see the need to use more economic modelling and not just financial engineering in order to incorporate endogenous risk, agency problems in incomplete markets and systemic risk also in the risk management frameworks of private sector financial institutions.

Risk Management: a Supervisor's Approach

SUERF Annual Lecture held in Helsinki on 22 September 2011

By Gabriel Bernardino, Chairperson, EIOPA

It is a privilege to be here in Helsinki to deliver the SUERF Annual Lecture and to present to you some reflections on the future of risk management and its role in the supervisory framework of the insurance industry. The topic of this year's Conference is of particular relevance in the present crisis situation. Now, more than ever, financial institutions need to rely on strong risk management capabilities in order to deal with the different challenges posed by the economic slowdown, the financial market volatility and the stress on sovereign debt. In my remarks I will discuss the relevance of the sound risk management principles embedded in Solvency II, the new regulatory regime for the insurance and reinsurance industry in the European Union, refer to the supervisor's expectations in the different key areas of the framework and give some insights about the importance of the own risk and solvency assessment (ORSA). Finally, I will make some observations about the way the supervisory review process should deal with risk management and identify some challenges ahead.

1. Is risk management relevant for prudential regulation?

During the last decade, not only risk management itself but also its practical application underwent a major transformation. Improvements in modelling methodology, significant development of new internal control instruments, increasing investors' and analysts' pressure as well as a new generation of risk managers with a more holistic view arriving in the companies also triggered change. Companies which invested, early and continuously, in establishing an effective and well integrated risk management benefited from a competitive advantage during the financial crisis of 2008/09.

It should not come as a surprise that insurance and reinsurance undertakings are in the forefront of the application of sound and robust practices of risk management. After all, insurance is in itself a risk management tool and thus the industry possesses a wide range of specific know-how and experience in this area.

Nevertheless, from an historical perspective, risk management has not been viewed as a relevant element of the insurance regulatory regime. This has changed with Solvency II as I will mention later on.

I believe that appropriate risk management is a cornerstone of any modern risk-based regulatory regime and consequently has its own role in the supervisory process.

This is indeed confirmed by the lessons drawn from the crisis at the level of the FSB – "Regulators should develop enhanced guidance to strengthen risk management practices, in line with international best practices, and should encourage financial firms to reexamine their internal controls and implement strengthened policies for sound risk management".

2. Solvency II – A regime based on sound risk management principles

Solvency II, the new European Union framework for insurance and reinsurance supervision, is mostly known for its risk-based capital requirement calculation. However, it is essential to recognize that one of the most important elements in this regime is the heavy reliance on robust risk management practices.

Under the Solvency II regime insurance and reinsurance undertakings shall have in place an effective risk management system comprising strategies, processes

and reporting procedures necessary to identify, measure, monitor, manage and report, on a continuous basis the risks, at an individual and at an aggregated level, to which they are or could be exposed, and their interdependencies.

Importantly, risk management cannot be seen as a point in time procedure. It is a continuous process that should be used in the implementation of the undertaking's overall strategy and should allow an appropriate understanding of the nature and significance of the risks to which it is exposed, including its sensitivity to those risks and its ability to mitigate them.

Taking into consideration some lessons from the financial crisis, Solvency II identifies a number of elements which are particularly relevant for a robust implementation of a risk management system:

- First of all it is paramount to recognize the ultimate responsibility of the management body in ensuring that the implemented risk management system is suitable, effective and proportionate to the nature, scale and complexity of the risks inherent in the business.
- Secondly, the risk management system needs to be documented and communicated to the relevant management and staff to ensure it is embedded within the business.
- Thirdly, an effective risk management system should cover all material risks the undertaking might be exposed to.
- Finally, and significantly, the risk management system shall be integrated into the organizational structure of the undertaking and into its decision-making processes.

Furthermore, in order to be effective, there are a number of conditions that a risk management system should require:

- A clearly defined and well documented risk management strategy that includes the risk management objectives, key risk management principles, general risk appetite and assignment of risk management responsibilities across all the activities of the undertaking and is consistent with the undertaking's overall business strategy;
- Adequate written policies that include a definition and categorization of the material risks faced by the undertaking, by type, and the levels of acceptable risk limits for each risk type, implement the undertaking's risk strategy, facilitate control mechanisms and take into account the nature, scope and time horizon of the business and the risks associated with it;
- Appropriate processes and procedures which enable the undertaking to identify, assess, manage, monitor and report the risks it is or might be exposed to;
- Appropriate internal reporting procedures and feedback loops that ensure that information on the risk management system, which is coordinated and challenged by the risk management function is actively monitored and managed by all relevant staff and the management body;
- A suitable own risk and solvency assessment (ORSA) process.

3. Supervisor's expectations – A guide, not a recipe

From a supervisory perspective the insurance undertaking's risk-management system shall be comprehensive, covering at least areas like underwriting and reserving, asset–liability management, investment, in particular derivatives and similar commitments, liquidity and concentrations, operational risk and reinsurance and other risk-mitigation techniques. In each of these areas supervisors have been transparent in their expectations towards undertakings.

Let me start by underwriting and reserving.

Underwriting risk is at the center of the insurance business. The risk of loss or of adverse change in the value of insurance liabilities, due to inadequate pricing and reserving assumptions is clearly related to the quality of the information available and its management.

Consequently, supervisors expect that suitable processes and procedures will be in place to ensure the reliability, sufficiency and adequacy of both the statistical and accounting data to be considered both in the underwriting and reserving processes.

Furthermore, the undertaking shall ensure that all policies and procedures established for underwriting are applied by all distribution channels of the undertaking insofar as they are relevant for them and that they have in place adequate claims management procedures which shall cover the overall cycle of claims: receipt, assessment, processing and settlement, complaints and dispute settlement and reinsurance recoverables.

Another extremely relevant area in the insurance business is asset–liability management.

The insurer's ALM strategy should describe how financial and insurance risks will be managed in an asset–liability framework in the short, medium and long term.

The ALM framework shall not only recognize the interdependence between assets and liabilities but also take into account any correlations of risks between different asset classes and any correlations between different products and business lines.

Supervisors expect that undertakings also take due account of any off-balance sheet exposures that they may have.

The undertaking shall develop written ALM policies that especially take into account the interrelation with different types of risks, such as market risks, credit risks, liquidity risks and underwriting risks, and establish ways to manage the possible effect of options embedded in the insurance products.

Furthermore, the ALM policies shall provide for a structuring of the assets that ensures the undertaking holds sufficient cash and diversified marketable securities of an appropriate nature, term and liquidity to meet its obligations, including obligations to pay bonuses to policyholders, as they fall due.

Supervisors will also expect that undertakings will develop adequate plans to deal with unexpected cash outflows, or changes in expected cash in and outflows.

Concerning the investment area, supervisors assume that the undertakings will make use of the prudent person principle, defining their investment policy in line with what a competent, prudent and expert manager would apply in order to pursue the investment strategy.

The investment policy shall take into account the undertaking's business, its overall risk tolerance levels, the solvency position and the long-term risk versus performance requirements and its underlying exposure.

When undertakings use derivative products or any other financial instrument with similar characteristics, such as asset-backed securities, collateralised debt obligations or hedge funds, the investment policy shall take into account the goals and strategies of their use and the way they contribute to an efficient portfolio management as well as procedures to evaluate the strategy to use these types of products and the principles of risk management to be applied.

In its policy on investment the undertaking shall also consider how to prudently manage liquidity risk in the short as well as in the medium and long term, taking into account the investment strategy, overall underwriting strategy and claims management strategy.

The investment policy shall include internal quantitative limits on assets or exposures, including off-balance sheet exposures, taking into account each type of asset considered eligible by the undertaking.

It is also expected that special management, monitoring and control procedures will be established, in particular in relation to investments that are not quoted in a market and to complex structured products.

Depending on the nature of their commitments insurers could be subject to relevant liquidity constraints. Therefore, it is the undertaking's responsibility to have sound liquidity management practices which cover both short term and long term considerations and include stress tests and scenario analyses.

The undertaking shall have in place a liquidity contingency plan that includes the continuous monitoring of the undertaking's debt position and analysis of the undertaking's debt capacity, the identification of the available financing options, including reinsurance, the negotiation of credit lines, committed borrowing facilities and intra-group financing and a regular review and testing of these options, both in normal and adverse situations.

Another important source of risk is the various kinds of concentrations that the undertaking may be exposed to. Concentrations can arise in both the assets and liabilities sides of the balance sheet of the undertaking, as well as in off-balance sheet items and can originate from a series of sources, including geographical areas, (entity or group)

counterparties, economic sectors, types of products, providers of services, reinsurance and cumulative exposures in the insurance contracts (both explicit and embedded).

In order to properly manage concentration risk, undertakings shall define the sources of risk concentration relevant for their portfolios. Undertakings shall make use of internal limits, thresholds or similar concepts that are appropriate with regard to their overall risk management.

Undertakings need to have in place adequate procedures and processes for the active monitoring and management of concentration risk to ensure that it stays within established policies and limits and mitigating actions can be taken if necessary. The monitoring of concentration risk shall include an analysis of possible contagion lines.

Insurance undertakings are also subject to the risk of loss arising from inadequate or failed internal processes, from personnel and systems, or from external events, usually called operational risk.

This type of risk is increasingly under scrutiny in the financial sector and evidence shows that it can pose serious threats to the financial situation of an entity.

Therefore, the undertaking shall implement an effective process to regularly identify, document and monitor exposure to operational risk and track relevant operational risk data, including near misses.

The operational risk management framework needs to be closely integrated into the risk management processes of the undertaking. Its output must be an integral part of the process of monitoring and controlling the undertaking's operational risk profile.

Finally, let me mention the importance of a due consideration of reinsurance and other risk-mitigation techniques under the risk management system.

In fact, reinsurance and similar risk mitigation techniques enable the undertaking to prudently manage and mitigate in particular the insurance specific risk. However, they also carry new potential risks, such as the risk of counterparty default that need to be appropriately managed.

Supervisors expect that, as part of their reinsurance management strategy, undertakings will have adequate procedures and processes for the selection of suitable reinsurance programs. The level of sophistication for these processes and procedures shall be proportionate to the nature, scale and complexity of the undertaking's risks and to the capabilities of the undertaking to manage and control the risk mitigation technique used.

Each undertaking is responsible for the development of its own reinsurance management strategy. Supervisors will be particularly interested in understanding how the undertaking have identified the level of risk transfer appropriate to its approach to risk and the types of reinsurance arrangements that are most appropriate to limit risks to the undertaking's insurance risk profile.

Furthermore, supervisors will challenge the principles for the selection of reinsurance counterparties and the procedures for assessing their creditworthiness.

It is expected that undertakings will have in place procedures for assessing the effective risk transfer and will define internal concentration limits for credit risk exposure to reinsurance counterparties and appropriate systems for monitoring these exposures.

Supervisors expect that each undertaking will assess which type of financial risk mitigation techniques are appropriate according to the nature of the risks assumed and the capabilities of the undertaking to manage and control the risks associated with that technique. Therefore, the use of derivative instruments should be accompanied by additional requirements on the system of governance.

4. ORSA – The heart of Solvency II

One of the most relevant changes of Solvency II is the requirement for undertakings to develop an own risk and solvency assessment (ORSA) as a tool of the risk management system. ORSA will require undertakings to properly assess their own short and long term risks and the amount of own funds necessary to cover them.

The ORSA aims at enhancing awareness of the interrelationships between the risks an undertaking is currently exposed to, or may face in the long term, and the internal capital needs that follow from this risk exposure, whether an undertaking uses the standard formula or an internal model to calculate the Solvency Capital Requirement (SCR).

The assessment by the undertaking of its own position in terms of risk and solvency is crucial for the implementation of a risk-based regime such as Solvency II.

The standard formula to calculate the SCR introduces a capital requirement that aims to take into account all quantifiable risks for the average undertaking. It may however not cover all material risks a specific undertaking is actually exposed to. A standard formula is, by its very nature, a standardised calculation method, and is not tailored to the individual risk situation of a specific undertaking.

For this reason, in some cases, the standard formula will not reflect the risk profile of a specific undertaking and consequently its overall solvency needs. Therefore, the use of the standard formula does not exempt the undertaking from assessing the own funds it needs considering the risks it faces or may face.

The matching of the own funds to the risk profile should help promote a strong culture of risk management, which in turn is a key underlying feature of the ORSA process and, more widely, in soundly running the business.

Thus, the ORSA really represents the heart of the Solvency II regime. It is fair to say that introducing the ORSA is a demanding task for the management board of insurance undertakings.

Often boards are not fully aware of their responsibility not to take on more risks than the capital base allows and the skills needed to achieve the complete and holistic risk picture cannot be outsourced.

Unfortunately, or not, there is no mechanical way of conducting an ORSA and often a cultural change is needed both at the board and in the organization.

For supervisors the important element is to obtain confidence that the board knows what company it is running and that the company can “afford” its strategic plan 3-5 years ahead including bumps on the way. Models cannot replace leadership!

5. The supervisory review process

The assessment of the risk management system implemented by the undertaking is one of the central elements in the on-going evaluation to be made by supervisors under the supervisory review process (SRP).

It is through the SRP that supervisors monitor all undertakings, and identify those with financial and/or organizational weaknesses susceptible to producing higher risks to policyholders.

The SRP should also be risk-based in order to ensure that supervision takes the risk profile of all undertakings into account, provides a further incentive for undertakings to better measure and manage their individual risks, optimizes supervisory resources and ensures an appropriate level of policyholder protection across their market.

The development of a convergent framework for the SRP is a key element in achieving a more harmonized risk-based supervisory regime across the European Union given it provides a common basis for supervisory intervention and for the exercise of supervisory powers. This will be one of the essential objectives of EIOPA for the years to come.

Under the SRP the undertaking should be required to demonstrate to the supervisor that it has a robust risk management system which is capable of identifying, monitoring, and mitigating both current and future risks in line with its set risk tolerance/risk appetite. One fundamental element in this context is the evidence of the use of stress testing and scenario analysis.

In particular supervisors should assess:

- The scope and nature of risk and capital measurement systems, including the measurement tools used to measure and assess the risks within the undertaking;
- The scope, frequency and requirements of the management information presented to the undertaking's management body and evidence of key decisions made based on this information;
- How the undertaking has integrated its internal model into its overall risk management strategy and the level of understanding of the model by the management team;

- The methods used and assumptions made on the determination by the undertaking of its material risk exposures and concentrations;
- The adequacy of the undertaking risk mitigation practices.

The objective of the assessment by supervisors is to evaluate whether this process is adequate and delivers a prudent picture of the risk profile of the undertaking.

6. Towards an appropriate vision for risk management

I would finalize by pointing out some particular challenges which in my view need to be overcome in order to be possible to reap all the benefits of a proper risk management framework:

First of all undertakings should not view risk management only as a regulatory requirement. It should be an integral part of the day-to-day management of the undertaking and should have consequences on the decision-making processes at all the levels of the organization.

Secondly, an adequate level of documentation is surely needed in a risk management system. However, too much focus on documentation could distract the attention from the real important implementation elements. Less but more thoughtful and effective documentation could be beneficial.

Thirdly, supervisors should not approach risk management from a compliance perspective but rather from a business perspective. The supervisory process should encompass an assessment of the undertaking ability to identify, measure, monitor, manage and report, on a continuous basis, all material risks it might be exposed to.

Supervisors need to ask the right questions and not only strive for learning how the risk management system is working in practice but also providing a discussion basis to challenge the functioning of the system.

Supervisors need to reinforce their assessment of the risk management systems implemented by undertakings and should act swiftly when they found deficiencies in this area, imposing repair and monitoring its implementation. Capital is not the answer for poor risk management.

Furthermore, even though sufficient and good quality capital is a primary element of any regulatory regime in the financial sector, capital is not the solution for all the risks. Effective risk management processes and practices, applied in a consistent way can be a relevant tool to foster policyholder protection and promote stability in the markets.

“Risk comes from not knowing what you're doing.”

Warren Buffett

SUERF/OeNB Workshop & SUERF Annual Lecture

The Interaction of Political, Fiscal and Financial Stability: Lessons from the Crisis



OESTERREICHISCHE NATIONALBANK
EUROSYSTEM

to be held at the Kassensaal of the OeNB on 18 June 2012

Further information about the Workshop and Annual Lecture, as well as information about accommodation and registration will appear in the next SUERF Newsletter as well as on the SUERF Website at: www.suerf.org/vienna2012



SUERF/Nykredit Conference

Property prices & real estate financing in a turbulent world

to be held in Copenhagen on 15 November 2012

Further information about the conference, including a Call for Papers will appear in the next SUERF Newsletter as well as on the SUERF Website at: www.suerf.org/cph-nykredit