LESSONS FROM THE CURRENT FINANCIAL CRISIS.
A RISK MANAGEMENT APPROACH

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Abstract: In the last twenty years, the financial risk management has gained an important role for the companies and financial institutions. Financial innovations have improved the efficiency of risk management process, but at the same time, they have imposed new challenges for market participants and their supervisors in the areas of systemic risk. An important feature of periods of financial innovation is that the rapid increase in new products and changes in the structure of those markets can outpace the development of the risk management and processing and settlement infrastructure. The current financial crisis has revealed significant weaknesses in risk management practices across the financial services industry. This paper analyses the main lessons that can be drawn from the current financial crisis in order to improve the financial risk management.

Keywords: risk management, financial crisis, lessons, credit derivatives, financial innovation, systemic risk.

JEL Classification: G01, G15, G32.

1. INTRODUCTION

The current financial crisis has begun in August 2007 and has been considered the worst financial crisis since the Great Depression by George Soros, Alan Greenspan, Joseph Stiglitz, Jean Claude Trichet, and the International Monetary Fund81.

Among the factors that contributed to the current financial crisis are cited: increased innovation in financial products and their growing complexity; inappropriate regulation and supervision of financial markets; poor or lax risk management practices at banks and other financial institutions; increased complexity of financial systems; financial market speculation; predatory lending

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81 "The financial market crisis that erupted in August 2007 has developed into the largest financial shock since the Great Depression, inflicting heavy damage on markets and institutions at the core of the financial system.”, International Monetary Fund, „World Economic Outlook”, April 2008.
practices; a combination of cyclical and structural factors (Dăianu and Lungu, 2008);

Risk management is described in the financial literature as being concerned with identifying and managing a firm’s exposure to financial risk; financial risk is defined as the variability in cash flows and market values caused by unpredictable changes in the commodity prices, interest rates and exchange rates (Kaen, 2005).

Financial risk management has become a booming industry starting '90 as a result of the increasing volatility of financial markets, financial innovations (financial derivatives), the growing role played by the financial products in the process of financial intermediation, and important financial losses suffered by the companies without risk management systems (for example, Enron and WorldCom). Some risk management practices in recent years appear to have been driven by the need to meet regulatory expectations set by such initiatives as BASEL II, KonTraG (Gesetz zur Kontrolle und Transparenz im Unternehmensbereich) in Germany, and Sarbanes-Oxley in the United States. Forward contracts, futures, options, swaps, and other more complex financial instruments allow today firms to transfer risks to other economic agents who are able or more willing to bear them.

Risk management is nowadays considered as a key activity for all companies. Many of the disastrous losses of the 1990s, such as those at Orange County in 1994 and Barings bank in 1995, would have been avoided if good risk management practices have been in place (Hull, 2007).

There are two approaches of the risk management process: the traditional one and the ERM. The traditional approach, a segmented and compartmentalized one, consists in the following: different risks are delegated to different specialized persons who use different instruments to tackle these risks. For example, the property and liability risks are the responsibility of the risk manager. At the same time, the treasurer is responsible to manage financial risks (such as exchange rate, interest rate, and credit risk) using different types of derivatives contracts (options, forwards, futures, and swaps).

In the second approach, called Integrated Risk Management (IRM) or Enterprise Risk Management (ERM), all the risks are assembled in a strategic and coordinated framework. Enterprise risk management requires an entity to take a portfolio view of the risk. Corporate Risk Management is subsequently motivated by market imperfections, such as asymmetric information, transactions costs, non-neutral taxes and limited access to external financing.

2. RECENT LITERATURE ON FINANCIAL CRISIS

In the financial literature we can observe in the last two years a substantial amount of analysis regarding the risks management practices before and during the current financial crisis. Some example of recent papers include: Enhancing
Market and Institutional Resilience (Financial Stability Forum, 2008); Credit risk transfer (Working Group on Risk Assessment and Capital, 2008); Observations on risk management practices during the recent market turbulence (Senior Supervisors Group, 2008); Supervisory lessons from the sub-prime mortgage crisis (Basel Committee on Bank Supervision, 2008); Study of market best practices (International Institute of Finance, 2008); Risk management practices including the identification of risk management challenges and failures, lessons learned and policy considerations (International Monetary Financial Committee, 2008). One important finding of these studies is that the investors have underestimated the risks due in part to products complexity and over-reliance on quantitative analysis. In many cases, including rating agencies, the risk evaluation of Collateralized Debt Obligations was wrong.

Theoretical and empirical studies presented the limitations of risk management practices before and during the current financial crisis. René Stulz (2008) argued that there are five ways in which financial risk management systems can break down, all exemplified in the current crisis and other recent ones:

- failure to use appropriate risk metrics;
- mismeasurement of known risks;
- failure to take known risks into account;
- failure in communicating risks to top management;
- failure in monitoring and managing risks.

Empirical evidence suggests also the limitations of the risk management practices during the current financial crisis. A study conducted in 2008 among 125 top finance executives representing a solid cross section of American industry showed that approximately 72% of respondents expressed concern about their own companies’ risk management practices and ability to meet strategic plans. Similar, a survey carried out in 2008 by the Economist 500 senior management involved in risk management from leading banks around the world identified the weaknesses in risk management that contributed to the current financial crisis:

- weaknesses in risk culture and governance;
- the lack of risk experience and skills amongst senior executive and non-executive management;
- lack of influence of the risk function;
- the way risk is measured and reported;
- a compensation culture too oriented towards year on year profit increases;
- business models that were overly reliant on ample market liquidity, ignoring the liquidity risk (KPMG, 2009).

Many studies have highlighted the need for improved Integrated Risk Management: Hanziger (2008), Stulz (2008), Dăianu and Lungu (2008), KMPG(2009), Stulz (2009), Hull (2009).
3. CURRENT FINANCIAL CRISIS – CAUSES AND CONSEQUENCES

In our opinion, the deep crisis that the global financial markets and the banking sector have been confronted with for more than a year has three main causes (Anton, 2009).

First, the USA has been blocked in one of the worst real-estate recessions in its history. What is occasionally seen as the crisis of modern financial instruments has a real economic background. The massive boom on the real estate market in the USA, accompanied by the doubling of prices between 2000 and 2006, is now followed by a significant decrease. Thus, in August 2008, housing prices were 15% under the level of prices in the previous year. At present, price stabilisation is not foreseeable and one should not exclude the hypothesis that prices will continue to fall in the same proportion. At the same time, a significant number of debtors cannot pay back their interests and mortgage instalments. The total volume of subprime and Alt-A mortgages that have been affected by the crisis amounts up to $ 2.000 billion.

Second, financial innovations of the last two decades facilitate the transfer of risks associated with mortgage credits. A significant part of risks associated with mortgages have been transferred via securitisation and sold to investors at global level. In principle, the broader spread of risks stabilizes the system, because in opposition with previous crises, banks no longer need to bear the ensuing losses alone. The broad spread of risks, however, changes the dynamics of the market. While a few years ago credit risks were evaluated only by a small number of experts, nowadays the market analyses them through thousands of participants. Doubts concerning rating quality and price formation caused, in the summer of 2007, the abrupt exit of investors from the market, massive price falls and the total loss of liquidity of the market. Owing to the ensuing uncertainty, the crisis has seized other segments of the market as well, such as the segment of commercial buildings or of credits to finance acquisitions. Because transaction positions are reported as fair value or net recovery value, many banks have registered huge losses. It was only through the decisive intervention of central banks that tensions could be kept under control.

Third, the development of risk management could not evolve at the same pace as financial innovation. For years, the financial and banking sector has striven to implement the Basel II Agreement. Yet the latter refers to assets from the investment portfolio. Innovative structured products affected by the crisis are highlighted in the transaction portfolio, since they were intended for resale. Due to the decreasing demand for these products and the corresponding decrease in prices, risk management in many banks was caught totally unprepared by the crisis. Banks that did not have credit derivatives in their transaction portfolio found themselves, all of a sudden, confronted with the necessity to correct their value in the balance sheet.
Turmoil on financial markets has spread, since many big banks and brokering societies did not have an effective risk management. Some firms invested in assets or sold credits to special investment vehicles, even though they were not bond by contract to do so. Few companies have anticipated the liquidity deficit at the level of the balance sheet. Issuers of Collaterized Debt Obligations, whose reference is securitised financial instruments (ABS CDO), have preserved the least risky positions (senior or super-senior) and have registered losses in the market marking process under the circumstances of deepened subprime credit crisis. The complexity of the positions of these instruments has led to difficulties in their evaluation when market liquidity decreased markedly and correlation risk was materialised on the Collaterized Debt Obligations market as concentrated exposure to subprime credit risk.

4. LESSONS FROM THE CURRENT FINANCIAL CRISIS

The implications of current financial crisis on the international financial markets are multiple. We know that the final lessons of the crisis can’t be drawn now because we need more information and analysis. The current financial crisis has brought home a number of half lessons from the risk management point of view.

One is that financial innovations can held unknown risks. For example, the use of credit derivatives for hedging or speculative purpose implies numerous risks, such as: credit risk, counterparty risk, model risk, rating agency risk, and settlement risk (Gibson, 2007).

The process of financial innovation on the financial markets has determined a reduction of transparency and an increase of the markets interconnectivity. Furthermore, the complexity of financial innovation has generated a separation between money offer and demand. Due to the lack of transparency on the markets for financial innovations and to the complexity of these instruments, investors couldn’t identify and asses properly the risks implied by their investments. As a consequence, the negative perception of risks has expanded on other financial instruments, the risk level has been reappraised and the liquidity has fallen (National Bank of Romania, 2008). Furthermore, the evolution of price and risk associated to the financial innovation (CDOs) is very hard to predict during financial turmoil.

Another important lesson is that standard quantitative models for risk management evaluation/assessment and the users of these models (analysts) underestimated the systematic nature of risks. One should notice that the banks have too similar risk management strategies, which could amplify systematic risk. Using the same models (Value-at-Risk) the investors came to the same conclusion at the same time, adopted similar decision, thereby increasing systematic risk. In order to address this shortage, the financial institutions should use more stress testing and scenario analysis to help measure and manage risks. A wide variety of approaches to
manage risk would help reduce the chances of a common reaction and, at the same time, such measures will be either flexible or sophisticated enough to fully capture the range of possible outcomes.

Innovations in credit risk transfer markets have given rise to some new challenges for market participants and their supervisors in the areas of systemic risk. An important feature of periods of financial innovation is that the rapid increase in new products and changes in the structure of those markets can outpace the development of the risk management and processing and settlement infrastructure - in the credit derivatives sector the gaps in the infrastructure and risk management systems are considered the most conspicuous (Geithner, 2006). The complexity of some financial innovations and the relative immaturity of the various approaches used to measure the risks in those exposures amplify the uncertainty involved.

One of the most important financial innovation for the credit risk management are the credit derivatives, such as Collaterized Debt Obligations and ABS-CDO. A key feature of credit derivatives is that they separate the origination of credit, the funding of credit, and the holding and management of credit risk. Under the impact of credit derivatives, the banks are changing their business model. Hereby, the traditional „buy-and-hold“ model is replaced by some important banks with the „originate-and-distribution” model (Trichet, 2007). The traditional „buy-and-hold“ (or „originate-and-hold”) model implies all aspects of the credit process (originating the loan, funding it, and holding and managing the associated credit risk). The „originate-and-distribution“ (or „underwrite-and-distribute”) model suppose the separation between origination and funding of credit, on one hand, and holding and management of credit risk, on the other hand. Nowadays, the banks distribute portfolios of credit risks and assets to other market players (hedge funds, insurance companies), acting as risk managers in addition to pure credit providers. In our opinion, the business model “originate-and-distribute” will survive, but the banks should improve their risk management models.

Among the risk management failures it can be observed the inappropriate recognition of counterparty risk. The counterparty risk is measured by losses that may result via the OTC derivative contracts to the financial system from the default (or fail) of one or more banks or broker dealers. The importance of counterparty risk management in the Over-The-Counter derivatives markets have been well-documented by Segoviano and Singh(2008).

The incentives and compensation policies promoted by the financial industry have not been appropriately correlated with the risk management. Because the compensation culture have been too oriented towards short-term gains, the managers have assume growing risks which they did not understand or which they disregarded.
Due to the concentration of derivatives transactions at a small number of dealer banks, these markets have been exposed to the systemic risk. After the collapse of one of the biggest investment bank-Bear Stearns, which was very involved in the Collateralized Debt Obligations (CDOs) market, the investors have asked their self if the principle “too big to fail” is still valid, which bank would have financial distress and which are the major effects of the collapse of an important actor in the credit derivatives market.

The lack of prudential regulation for a segment of credit markets determines increasing risks. In the United States of America the subprime mortgages markets are not regulated by the Federal Reserve Systems, even if almost 15% of the value of the mortgages market is subprime.

The international rating agencies such as Moody's, Standard & Poor's and Fitch Rating have given easily prime ratings for the first tranche of CDOs, and in this way, they increased the lack of transparency. The rating agencies have recognized that in time they have been surpassed by the volume and the complexity degree of financial instruments which they should rate. Furthermore, the current financial crisis has presented new elements which did not correspond with the classical risk models used by the agencies in order to asses the credit derivatives.

Many investors have not properly understood the difference between CDO ratings and bond ratings, which determined the underestimations of CDO risks. While the performance of the corporate bonds depends on the condition of the issuing company and the macroeconomic conditions, the performance of the CDO depends more heavily on the macroeconomic cycle. At the same time, the estimations of CDO’s default probabilities are based on the historical data from good times since these financial innovations have never previously experienced serious market turbulences.

During the financial crisis many financial institutions have revealed the lack of risk experience and skills at the non executive Board level and the failure in communicating risks to top management. The risk manager task is to identify and assess the risks faced by the company, to communicate these risks to the board of directors and to the CEO, and to manage those risks. If the reports about risk exposures are too complex or not very clear, then the risk management systems will fail. For example, the Swiss bank UBS, which was very affected during the current financial crisis, tried to explain its subprime and housing exposures in an overly complex way and to the wrong audience (Stulz, 2009). In the UBS report to its shareholders, the bank explains that “a number of attempts were made to present subprime or housing related exposures. The reports did not, however, communicate an effective message for a number of reasons, in particular because the reports were overly complex, presented outdated data or were not made available to the right audience. The extensive catalogue of risk reports runs against a simple presentation
of the risks that needed to be managed and identification of the actions that needed to be taken. Risks were siloed within the risk functions, without presenting a holistic picture of the risk situation of a particular business.” (UBS, 2008).

Another important lesson of the current financial crisis is that financial institutions should respect the rules of corporate governance and the principle of segregation of duties. In the centre of risk management infrastructure should stay a strengthened risk governance regime.

4. CONCLUSION

The ability to manage risks is a source of competitive advantage and a way to increase the shareholder value for non-financial and financial corporations. The financial crisis of recent years has highlighted the need for improved enterprise wide risk management procedures. In order to address the main shortages highlighted by the current financial crisis, the financial institutions should put more emphasis on stress testing techniques and rethink the compensation plan. At the same time, the evolution of global financial markets enforces an upgrading of the actual regulation and settlement systems in order to respond to the new systemic risks, to assure the financial stability and to contribute to the global financial governance.

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