# BASEL II VERSUS THE GLOBAL FINANCIAL CRISIS

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## 1. Basel II – present or future

Many banks have invested heavily in recent years to improve methods of risk management to meet the Basel II requirements. But some banks still make great efforts to obtain approval of models of risk management. But now that large banks have almost completed the implementation of the Agreement, the following questions arise:

- which is the next challenge for the management of the bank?
- implementation of Basel II will induce mutations in specific activity of banks?
- large banks will find new methods of capital investment arising from Basel II?

Credit institutions will find the joy or wonder that the regulatory authorities have already suggested that Basel II is only a reference point for a new Basel III - Defining unified capital covered - and Basel IV - full internal models of management risk. In this context, bank management should increase the effort of implementing Basel II and to develop methods for integrated risk management, profitability and capital. Modern banks and other financial institutions already operating in an environment where management is focused not only on compliance with regulations and the relationships they have with the bank rating agencies, shareholders and other investors. Therefore, globalization of financial markets allows potential investors to follow the banks ability to create value which leads to greater competition in banking market. In this context, it must look beyond the Basel II to a new approach to risk management that has resulted from the implementation of this agreement. Thus, Basel II has already made catalyze innovations in bank risk for developing a new ideology of risk. Unlike vision induced namely Basel II compliance and regulations, the new theory of risk management focuses on banking performance. Key elements in this „new agenda of risk management" refer to:

- integrated risk management, profitability and capital, which includes: the integration of foresight, control and external communication; appetite to risk, capital asset management, performance management based on economic value;
- redefining risk models from simple implementation to the creation of value that relate to: work full implementation of risk, organization and governance based on risk, risk reporting and risk infrastructure;
- new generation of risk, expanding area of risk capital that seeks economic and risk aggregation, active portfolio management, construction management risk for the financial risks and risks for non-financial;
- use advanced methods of risk assessment in business management with reference to economic value and applications of credit risk, market and operational risk.

In conclusion, we believe that regardless of how the banks will address the new agenda of the risk, they will still be quite difficult to ignore completely. Therefore risk management bank will face in the next period with a triple challenge:

- banks need to operate in the global financial crisis and adapt to new conditions through an efficient management of liquidity;
- completing the implementation of the Basel II;
- developing a new regulatory framework for risk management in a post-Basel II, risk Ups functions in terms of cost efficiency and bank moved to the next generation of risk-based capabilities in risk management.

If one hopes that now is the time to stand aside and enjoy the benefits obtained through the implementation of Basel II, we feel that this optimism is a little premature. Currently working in risk management implies to look beyond Basel II and to discover new frontiers of risk. But the current crisis will make the process even more. Consequently, proper setting of priorities and deal with the new generation of risk will be the key to meet these challenges.

## 2. Basel II versus other international regulations

We ask the following question: Basel II is the only significant international regulations for the financial sector, or there is other perhaps more important and more expensive? We will try to find the answer among the following.

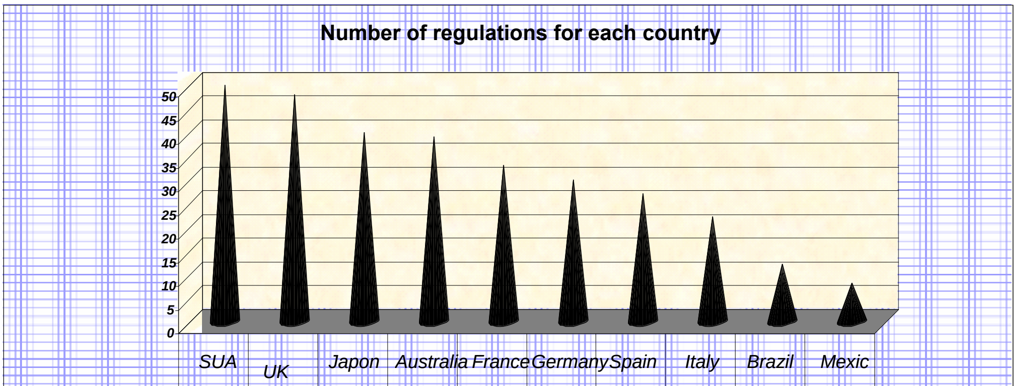
In this regard, a study by consulting firm GMG Insights examines efforts to implement regulations worldwide and offers a new perspective on the costs imposed by these rules. Although the number of regulations implemented is increasing, large financial institutions still lack automated systems management and forecasting. This burden is on the shoulders of these institutions becomes increasingly difficult as the Europe, Asia - Pacific and South America follows the same path as North America for the purposes of developing additional rules which do not affect in any way financial activity in those regions.

But before we make a comparative analysis of various international standards and regulations, it should make some clarifications. In this respect, we have comparisons with the following rules:

- Sarbanes-Oxley Act of 2002, also known as "Public Company Accounting Reform and Investor Protection Act of 2002" or typical Sarbanes-Oxley, Sarbox, or SOX, is a federal law in the U.S. developed in response to a number of scandals in corporate sector and accounting, among them being the ENRON scandal, Tyco International, Adelphia, WorldCom and pilgrim Systems;
- J-SOX - the Japanese equivalent of the Sarbanes-Oxley Act;
- CLERP9 is a law for reporting of the Australian corporate sector;
- Financial Security Law of France ("Loi sur la Sécurité Financière") - the French equivalent of Sarbanes-Oxley Act;
- King Report - South African equivalent to corporate governance.

Organizations worldwide are forced to observe a large number of regulations. Burden of these rules appears to be higher in North America where organizations with an annual net profit of more than 1 billion dollars are required to comply with an estimated 45 regulations worldwide. Companies that have an annual net profit of more than 1 billion dollars have met only 19 such rules (see chart no. 1.).

***Chart no. 1***

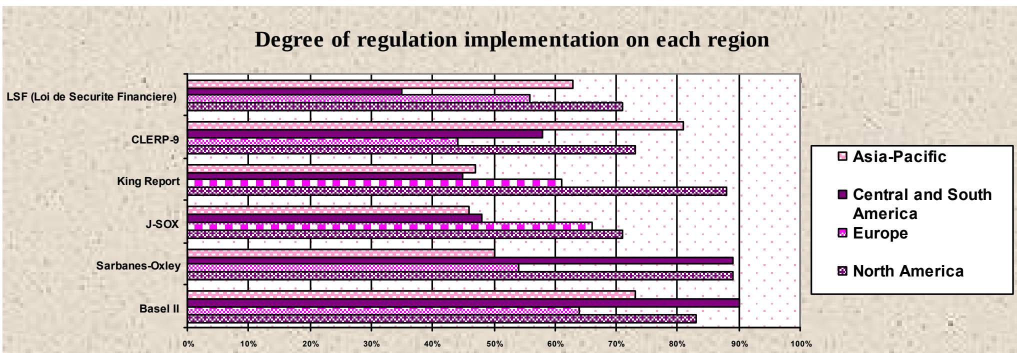



| | SUA | UK | Japon | Australia | France | Germany | Spain | Italy | Brazil | Mexic |
|---|---|---|---|---|---|---|---|---|---|---|
| Series1 | 50 | 48 | 40 | 39 | 33 | 30 | 27 | 22 | 12 | 8 |

*Source: processing data from GMG Insights, Global Report on the Status of IT Compliance Processes, October 2008*

High degree of risk associated with a particular regulation does not necessarily suggest that the rule will be implemented 100%. For example, even if Sarbanes-Oxley is a rule which is directly addressed by top management, it has not been fully implemented by the organization. Regarding Basel II, the degree of implementation is 83% in North America, 64% in Europe, 90% in Central and South America and 73% in Asia - Pacific, as the plot no. 2:

***Chart no. 2.***



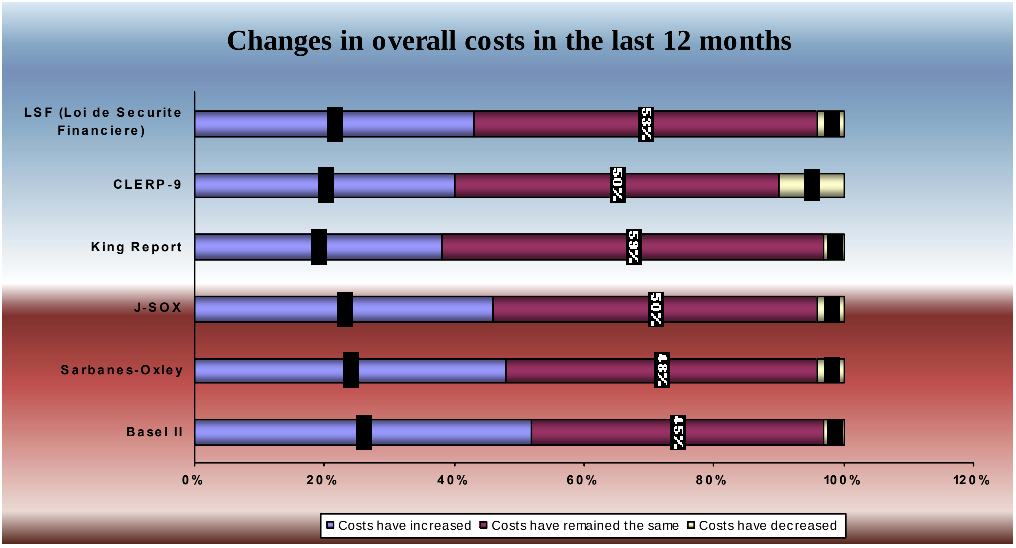

| | Basel II | Sarbanes-Oxley | J-SOX | King Report | CLERP-9 | LSF (Loi de Securite Financiere) |
|---|---|---|---|---|---|---|
| Asia-Pacific | 73% | 50% | 46% | 47% | 81% | 63% |
| Central and South America | 90% | 89% | 48% | 45% | 58% | 35% |
| Europe | 64% | 54% | 66% | 61% | 44% | 56% |
| North America | 83% | 89% | 71% | 88% | 73% | 71% |

*Source: processing data from GMG Insights, Global Report on the Status of IT Compliance Processes, October 2008*

In this context, the costs of implementing these regulations are very large and growing from one year to another. Nearly 46% of organizations say that the time and financial resources necessary to ensure implementation of these standards have increased significantly. Less than 10% reported a decrease in these resources.

Based on the results shown in Chart no. 3. and Table. 1., Noted that implementing the Basel II lead to an increase in costs for 52% of financial institutions examined, the most recorded against other regulations analyzed.

***Chart no. 3.***




*Source: processing data from GMG Insights, Global Report on the Status of IT Compliance Processes, October 2008*

***Table no.1.***

***The most expensive regulations have the greatest impact***

| | The most expensive regulations | The greatest impact over the IT firms | The greatest impact over the business |
|---|---|---|---|
| | **%** | **%** | **%** |
| Basel II | **24** | **32** | **27** |
| Sarbanes-Oxley | **38** | **35** | **34** |
| J-SOX | **19** | **23** | **18** |
| King Report | **17** | **17** | **22** |
| CLERP - 9 | **27** | **23** | **28** |
| LSF | **15** | **12** | **15** |

*Source: processing data from GMG Insights, Global Report on the Status of IT Compliance Processes, October 2008*

Therefore, we believe that, despite the high costs imposed by the implementation of these rules and severe penalties that apply to breaches of requirements, financial institutions shall be guided by the principle "there is still enough regulations." Just identify organizational risk and the cost continues to rise will cause financial institutions to develop solutions for risk management.

## 3. Peculiarities of the implementation of Basel II worldwide

On the international background of acute crisis in the banking system, banks are faced with the maturity of the implementation of advanced approaches of Basel II Agreement. Credit institutions is looking forward to take advantage of new approaches and to use sophisticated systems of risk management. Many institutions have spent up to 100 million dollars for the complex requirements of Basel II and the dilemma is whether this was a challenge and has been a real burden. We will try the following to find the answer to this question based on the results obtained by consulting firm KPMG International in a survey of the most representative countries in the world.

In Germany, with the emergence of the governed the Basel II supervisory authorities have launched the idea of a sophisticated approach to allow banks to assess risks using internal parameters estimation. Initially, the Bundesbank central bank is expected that the approach based on advanced Internal Ratings (AIRB) be adopted by a few hundred banks, but after only 60 of them have said that from 2008 onwards will use this approach. Only 70 banks have gone through approval processes at mid-year 2007, they have 60% of the assets of the banking system in Germany. Indeed, judging by these figures, it appears that in Germany, many banks have adopted the approach AIRB.

For large banks, nor could be not to adopt advanced approaches to demonstrate their ability to implement the processes of risk management. These banks had to create a database to enable them to implement methods and processes for advanced management methodology such as RAROC (Risk Adjusted Return on Capital) advanced models or pricing. On the other hand, the possible reduction of capital which has been anticipated since the beginning of the implementation of the Basel II were not so important because the regulatory changes were maintained within certain limits due to recalibration that took place during this trial. Smaller banks have wanted to keep up with new rules to show that just because they are smaller does not mean that it uses only mediocre practice of risk management.

Databases established by the Pillar 1 will allow banks to establish methodologies for forecasting and stress testing systems and customers could benefit from the establishment of more sophisticated pricing and risk adjusted. Regarding banks that are still using the standardized approach, they are especially savings banks and medium and small credit cooperatives. These banks did not have the necessary resources on their own implementation of the Basel II. Therefore, the association of savings banks and cooperative banks' association have offered their support during the preparation methods of rating and to obtain sets of historical data. However, these banks are bound by internal rules to maintain the solvency than the minimum regulated. On the other hand, these banks mainly engaged in retail activities. However, authorities expect that large banks and savings and credit cooperatives to adopt the IRB approach shortly.

In the UK, implementation of Basel II nearly ended. Basel II has meant for many banks the largest investment project in the last period, some banks even spending more than 100 million pounds for the data based on risk, project management and risk management specialist. The question is what will get huge profit from the investment they have made for banks that seek to have the competitive advantage than to struggle on a competitive position. There are several areas on which Basel II has had an impact, namely: improving business decisions, increase operational efficiency and strategic allocation of capital. UK banks are now trying to integrate the activities of Basel II in order to enjoy the benefits outlined above. Meanwhile, banks and were shot after breath past the limits imposed by Basel II and this is from several points of view for a mistake that made the advance on the agreement could be lost now.

The next step that will make banks is to implement a specific risk modeling that accommodates the regulatory authorities. Meanwhile, following the events of recent months will focus on liquidity risk and develop appropriate stress tests. Regulatory authorities in the UK banks were left to cope on their own as regards Pillar 3: was taken a copy of the regulations and the approach of market discipline was left to act. Many banks are seeking to apply the rules without being affected to the financial statements in order to avoid difficulties arising from an audit and the potential to offer greater flexibility to be updated via the internet.

There are still debates on the desirability of the Pillar 3 of Basel II and whether it will take effect in improving discipline in risk management, where more and more interested to access as much information beyond the limit permitted by the Agreement. While competitors seek to learn as much about competing portfolios remains to be seen whether the benefits will appear systematic.

In Italy, all banks and most large banks and medium-sized developed internal models for credit risk assessment, although only a part of medium-sized banks will approve models for calculating capital requirements to the national legislation. Implementation of the regulatory framework of Basel II has been a long and difficult project for Italian banks. The main challenge is probably related to the concept that top management had to lead companies that have internationalized market continues to change. Adoption of statistical models of risk assessment is not always received with enthusiasm by analysts and sometimes is not fully understood by the entire organization. Implementation of the agreement may be difficult because the rules are not always explained clearly and concisely, and their adoption at national level may vary from one country to another. In addition, the adoption of common rules at the banking group raises many issues that are not easily resolved. All these problems should then be implemented on an IT infrastructure with a high level of accuracy and this process is very complex and complicated.

Efforts that banks have made in the implementation of Pillar 2 and Pillar 3 have started to see now in the initial results. Italian banks are expected to implement these provisions will lead to increased transparency on the banking market, which will benefit the economy.

In the Netherlands we can speak of the need for a dialogue between the regulator and banks to be resolved any confusion approach. Most approaches to Basel II have started with the risks faced by a particular type of bank and this idea has been more time, bank staff being involved much later. It would have been appropriate for bank officials to engage in time to acquire expertise. Debates converge to the interaction between Pillar 1 and Pillar 2 depending on the bank. Banks have adopted advanced approaches using the same methodology for Pillar 1 and Pillar 2. These banks usually work with models of economic capital, the differences they have with the regulatory authorities usually resides in the use of diversification. However, the diversification may close again the capital requirements imposed by Pillar 2 from the minimum of the Pillar 1. However, regulatory authorities are not committed to use the effects of diversification and therefore there is a difference between those two pillars. In contrast, for banks that have adopted the approach too rigid standardized estimates for the risk and business risk of interest rate under Pillar 2, creates a substantial depreciation of capital under Pillar 1. However, the capital requirements under Pillar 1 are more stringent for a small number of medium sized banks that would like to use models based on Internal Ratings in the Pillar 2 but not yet under Pillar 1.

In The Asia - Pacific there are several levels of training among the banks. The approach taken by most regulatory authorities in this region is that of ”synchronization in implementation" that is, banks are required to adopt standardized approaches in the initial period and at a later stage to move to advanced approaches. Therefore, some banks and have expressed their intention to adopt the advanced approaches in this respect, they implement the necessary infrastructure. It is automatic large banks in countries that have a higher level of preparedness in terms of Basel II. Their goal is to obtain benefits and to maintain the reputation of advanced and innovative banks. There are also banks of "wait and see what happens" which will act under the regulations.

Many banks in Asia - Pacific faces enormous difficulties in implementing the agreement and in compliance with the deadlines set by regulators even for the simplest approaches. We believe that the main problem faced by these banks is handling the data. Banks must have an integrated architecture and the best data to use at a time. Also, given the complexity of financial regulations, is essential for banks to take advantage of internal expertise to evaluate and assist in the implementation of Basel II. Lack of capacity of expertise is a major impediment for many banks in the region. However, another obstacle to the adoption of advanced approaches is that of incoherent dialogue between banks and regulators. In this respect, the lack of data accuracy and inconsistency in expressing requirements, deadlines imposed by the regulatory authorities are just some of the problems faced by banks.

In Brazil, the market believes that the adoption of Basel II regulations will strengthen the capacity of banks to assess and manage different types of risks and robustness of banks. However, Brazilian banks consider that the major challenges to meet these objectives:

- lack of information on Basel II requirements and an overview on the clear implications in the business environment and in implementing Bank projects. Obstacles seem to grow every day, which shows that as the bank learns and progresses in implementing the requirements, the more obstacles arise;
- number of changes is very high and the implementation is one of the major problems, especially for large banks which have produced hundreds of different portfolios and a number of features defined and maintained under the control of project scope;
- need to implement Basel II requirements with other changes that occur on the banking market in Brazil. For Brazil, as for other countries in the same situation, the implementation of Basel II and International Financial Reporting Standards (IFRS) was quite difficult;
- lack of data seems to be one of the biggest obstacles. Identify and collect data to determine the probability of default (PD), the loss given default (LGD) and operational risk are key elements in this area;
- many Brazilian banks have anticipated the growing costs of implementing Basel II and revised budgets.

On 2 November 2007 from the U.S. banking agencies (Office for the financial control of the Committee of Governors of the Federal Reserve System, Corporation for federal deposit insurance and the supervision of savings which together are called "agencies") have announced the adoption of „Final Rule Capital of the Basel II ". Final rule outlines the expectations of regulatory Basel II for U.S. banks to:

- have consolidated assets worth 250 billion U.S. dollars or more;
- the consolidated balance sheet foreign exposure of 10 billion U.S. dollars or more;
- they choose to use the rule;
- they are subsidiaries of a bank or a bank holding company that uses the rule.

It is expected that a number of 11 large U.S. banks will be asked to adopt the rule Banking Basel II capital. These banks will need to use advanced approaches to risk assessment of credit and the operation to determine the minimum capital that they need to absorb shocks caused by the loss.

Agencies have decided not public support for the Guide to address supervisory AIRB, AMA, Pillar 2 and 3. It is still uncertain when these guidelines will be published as guidelines AIRB approach for credit risk and guide on the Pillar 2 are still under debate in the light of sub-loans crisis of today. In the absence of a final format of the guide surveillance, "core banks" of U.S. banks and opt-in "(which are about to opt for new rules) began a parallel implementation of the agreement on 1 January 2008. U.S. banks implementing the advanced approaches will pass through a transitional period of 3 years which will operate both the approach based on potential reductions in capital and the current risk-based capital rules. In addition, annually and before crossing the threshold of 85%, an agency will conduct a study to determine the existence of material weaknesses.

Agencies have dropped the proposed Basel IA banks not included in "core banks". However, agencies have announced that will be published in 2008 a ninth revision proposed set of rules for the basic approaches and standardized. Therefore, a small number of large banks have adopted parallel approaches in the advanced Basel II. Other banks that will join the new rules will move to implementation in parallel of the two approaches in 2009 or even later. However, most banks in the U.S. does not intend to adopt the advanced approaches, need to wait for publication of review and standardized approaches to basic and debates will take place on this issue and finally published the new regulations.

In conclusion, the banks of the countries mentioned are subject to multiple pressures. But it is clear that Basel II is a reality and will become an important barometer for the financial system in coming years. Obtaining approval for implementation of different models does not mean that the mission was accomplished. Many banks have already received approval yet enough elements unclarified remaining to be resolved in the period immediately following.

Therefore, banks need to resolve all issues and to implement a combination of result and performance and comply with the provisions in force. "Vision of risk" developed and improved by the Basel II should be combined with the "vision of profitability, which should provide banks a long-term profitability through a" single view of risk and profitability. "

## 4. Impact of financial crisis on the Basel II implementation

On the background of the international financial crisis, the implementation of the Basel II requirements has been slowed due to lack of financial resources. In this context, the Basel Committee proposed in early 2009 a series of improvements to changing regulations Agreement Capital.

Among the proposed changes to highlight the increase of capital requirements to Pillar 1 is that for asset re-securitization for an effective management of potential risks, bringing to the fore the risk of concentration.

As regards Pillar 2, the Basel Committee conducted a series of guides on risk concentration and other risks which were not taken into account under Pillar 1. They are vital for strengthening the Capital Agreement in response to the financial crisis and the efforts of financial institutions for implementation of the agreement.

Understanding and managing risk depends on global access to information on the risks. Improvements proposed by Basel II, to require banks involved in the assets securitization evaluate several indicators of risk and performance and to structure information on the related guarantees is therefore an issue worthy to be considered.

In the same vein, the proposed changes for Pillar 3 refer to the greater transparency of risk management and to strengthen market discipline.

On the other hand, in the context of financial crisis, and to highlight the reduction of resources allocated to implement the report in early 2009 conducted by Capgemini, UniCredit and Efma, World Retail Banking Report 2009, the retail banking system in the world shows that banks are at a significant crossroads.

Sub-mortgage crisis marked a clear end in 2008 of positive trends in the mortgage, with an explosion in the costs of financing have a severe impact on the profitability of mortgage. To ensure that they are prepared for the challenges following the retail banks will have to implement significant changes and develop models of profitability mortgage more effective, according to World Retail Banking Report 2009 Capgemini conducted by UniCredit and the Association of European financial management and marketing (Efma).

The findings of the report are derived from an extensive market survey conducted in eight European countries, USA and Japan, based on interviews with executive directors of 54 banks and a retail-depth analysis of the profitability. World Retail Banking Report 2009 includes mortgage banking and strategies of the past, structural changes of the market, challenges facing the mortgage and key solutions that banks will have to apply significant in 2009 and thereafter.

The report finds that the profitability of mortgage has been a widespread decline between 2003 and 2007, mainly as a result of decreased net interest income (down an average of 50 points on the main markets) due to intense competition between retail banks. As a result, retail banks are forced to prepare for a significant decline in mortgage activity due to three main factors: lower overall economy, with assets of crisis its impact on the cost of financing and the threat of increased cost of risk. The general trend by regulators to protect consumers (for example, the penalties for repayment in advance of credits and caps on total rates applied to customers) will likely continue, and it will also have an impact on the profitability of the mortgage unit.

Over 80% of banks subject to the survey reported that their analysis focuses solely on profitability net interest margin, some also taking account of other income (rates, margins of insurance) in combination. But few do what is necessary to succeed today and developed a vision of the mortgage profitability, including revenues, cost of risk, operational costs and high costs of employees, and use key indicators of profitability (net operating profit after tax, economic value added and income-adjusted capital to risk adjusted according to risk).

The authors have conducted a survey among banks to determine their main activities and opportunities to address this new market over the next five years. 57% of survey respondents have cited improved productivity and sales capacity mortgage opportunity as the number one, followed by pricing and risk management (55%), and optimizing IT Middle / Back Office (45%).

According to Bertrand Lavayssière, Executive Director, Global Financial Services, Capgemini: "Over the next five years, banks should focus on improving risk management processes and tools for the selection of customers and strengthening the monitoring of credit portfolio. At the same time, they must exploit new opportunities for improving productivity and capacity for the sale of mortgage loans increased by cross-selling, where and allow the critical mass should be developed a specialized sales force. Banks must also focus on price optimization strategies by setting prices based on customers achieving expansion that today's customers would not even cover the cost of funding.

## 5. Conclusions

- The new Capital grants credit institutions a much greater flexibility in risk management. Costs have scared banks but for the moment, they fear this will affect profitability.
- Basel II has begun to be put into practice in many countries of the world, including in the European Union at the end of 2008. "Most banking institutions in Europe still struggle with applying Pillar 1 of Basel II, especially in the area of technology and training systems. As regards the implementation of pillar 2 of

most European banks are in the planning stage, while the pillar 3 is either forgotten or is removed from the plans, but in any case no concerns at this time ", according to the same study conducted by Ernst & Young.

Therefore, to deepen the topics related to birth, development, calibration, refining and finally implement a sophisticated system of measurement of capital requirements applied on a methodology common to all banks, but in different macroeconomic conditions gave us the opportunity to see that full and immediate implementation of certain minimum requirements is difficult, even for banks that already support the sophisticated management of credit risk. Therefore embraced the view that exposure to the type of corporate, bank, sovereign and retail entities in case of banks that have already implemented the agreement, a transitional period to implement the Agreement, on 1 January 2009, during which those requirements will be relaxed, and supervisors will need to ensure full implementation of these approaches by the end of this period.

- Countdown for Basel II has begun, not only for banks will have to submit new framework for capital adequacy, but also for the thousands of clients and especially for specialists working in the field of risk management, so the conclusion here that is loose that no minutes need not be wasted in our efforts to get itself thoroughly theory and practice applicable to the field.
- Basel II is only a reference point for a new Basel III - Defining unified capital covered - and Basel IV - full internal models of management risk.

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