

Implications and Consequences of Basel II for Slovenian Banking Sector¹

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Abstract

In the paper we tried to estimate the implications and consequences of Basel II for Slovenian banking sector just before its implementation. Our survey indicates that a lot of the Basel II impacts are actually unclear to the banks and even to the regulator. The impact on individual institutions will be driven by their level of sophistication in risk management. Banks claim that implementation of the International Rating Based (IRB) approach requires large initial investments in risk management technologies from the cost perspective as well from the knowledge and data gathering. This could deter small banks from choosing the IRB approach.

Keywords: *Basel II, credit risk, market risk, operational risk, capital definition*

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Introduction

The first international document which demanded from international active banks minimal conditions of capital adequacy was Basel I, which was passed in 1988 by the Basel Committee for Banking Supervision (BCBS). Risk measuring

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in Basel I included only credit risk and risk transfer from another country. Market risk was included in 1996 in the definition of Tier 3 capital in Amendment to the Capital Accord to Incorporate Market Risks. This document divided bank portfolio on banking book and trading book.

The revised Framework of the International Convergence of Capital Measurement and Capital Standards also known as Basel II was endorsed on 26 June 2004 by the central bank governors and head of the banking supervisory authorities of the G10 countries. It was developed to further strengthen the soundness and the stability of the international banking system while maintaining sufficient consistency that capital adequacy regulation wouldn't be a significant source of competitive inequality among internationally active banks. In the revised Framework capital requirements are significantly more risk-sensitive with the greater use of assessments of risk provided by banks' internal systems. It also includes operational risk defined as the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events (BCBS, 2004).

Slovenia adopted New Capital Accord (Basel II) through EU Directives 2006/48/EC and 2006/49/EC. In Slovenia Basel II rules have been valid from 1st of January 2007 with possible latest implementation on 1st January 2008. Before that, there have been some activities in order to perceive the consequences of Basel II on Slovenian banking sector and an attempt of the regulator to discuss possible changes in the regulation of Slovenian banks.

Basel II was primarily not written having small banks or small national banking markets like in Slovenia in mind. It is therefore more likely that "internationally active" banks, which have entered Slovenian market, will be implementing the more advanced approaches of Basel II and will therefore gain a competitive advantage.

The paper starts by describing Slovenian national legislation in comparison to the official Accord. Through the analysis of Slovenian banking sector features we try to estimate where the difference could come from. The research on current status of Basel II implementation and expected consequences has been done upon a survey and is presented in section 3. Final section presents concluding remarks.

1. Differences in National and EU Legislative Compared to the Accord

The EU capital adequacy framework is in a large part based on the Basel II standards and applies Basel II standards to all EU credit institutions or banks and to all investment firms authorized under the Investment Services Directive (ISD). As an EU member state Slovenia implemented Capital Requirements Directive

(CRD) into national legislation. Slovenian banks are going to implement new capital requirements most lately on 1st of January 2008 like banks in other countries.

The revised international capital accord based on a more prominent role for credit ratings means another step in improving banking and risk management quality. Not only the banks internal risk tools will improve but also rating agencies have recently expanded their coverage to other debt products and have introduced variants or refinements of their traditional products. In some cases, such as ratings on structured debt, the concept of credit rating is essentially the same as before, although the debt product may be more complex.

Even though implementation of the Basel II framework continues to move forward around the globe there are some differences between the original Accord and national legislations. The same is true for Slovenia. This paper only focuses on the first pillar which is Minimum Capital and includes three types of risk: credit, market and operational risk.

1.1. Credit Risk

Just like in the Accord in Slovenian legislation there are two available approaches for credit risk: The Standardized and Internal Rating Based (IRB) Approach (Foundation and Advanced approaches). In both approaches the differences are small.

In the standardized approach the Accord lists risk weights according to the credit assessment. In Slovenia banks have a lot of exposures to Slovenian corporate bodies, which are small and medium sized and have therefore rarely an external rating. According to the CRD, the Slovenian regulator had published procedures for recognition of ECAI-s and mapping of their credit assessments. In the procedures, the mapping of credit assessments is based on a three-year cumulative default rate (three-year CDR) for each credit assessment. The Bank of Slovenia adds some more information, like default definition, ten-years average of three-year cumulative default rate (CDR), target PD for each class if in use, significance level of default rate, definition of the rating methodology (point-in-time or through-the-cycle), transition matrices to finally map ECAI-s ratings and credit quality step in the standardized approach of national legislation.

There are no differences in the treatment of claims included in the regulatory retail portfolios. In the Slovenian regulation, just as in the official Accord, mortgage loans are excluded from the retail portfolio if they qualify for the treatment as claims secured by residential property. In the treatment of those claims there are differences in accuracy level of the formulation. Like most paragraphs in the Accord also those defining claims secured by residential property are broadly specified. The Accord says that the risk weight used should be 35% if lending is

fully secured by mortgage on residential property. The Accord adds that this weight should be used in accordance with strict prudential criteria, such as the existence of substantial margin of additional security over the amount of the loan based on strict valuation rules. The Accord advises the supervisors to increase the standard risk weight where they judge that the criteria are not met. The Bank of Slovenia has set the risk weight for claims in the part where they are secured by residential property at 100%. Risk weight is set to 35%, if the claim meets additional criteria which are the same as in the CRD – only one of the criteria is different. If the value of the secured exposure does not exceed 50% of the market value of the property in question or 60% of the mortgage lending value, banks may risk weight 35%. The difference to the Accord is when the loan-to-value ratio does not meet this precise criterion. The whole claim is weighted at 100, but a residential property as security exists. There are no other significant differences in the treatment of other claims.

Further on, in the Slovenian regulation more explicit definitions of categories of exposures are missing. One such example is the explicit definition for insurance companies, whether they are being treated like banks in the category of claims on institutions or like corporate bodies in the category of claims on corporate bodies. This question is clear in the original Accord. It says that claims on security firms may be treated as claims on banks provided these firms are subject to supervisory and regulatory arrangements comparable to those under the Basel II framework. Otherwise such claims should be treated as corporate bodies. In Slovenian legislation such clear definition is missing.

In other points Slovenian regulation is even more severe than the CRD. One of such rules concerns conditions for including an exposure into the retail portfolio. In Slovenia, an individual retail exposure (or sum of the exposures of connected people) may not exceed 0.2% of the total retail portfolio. This can be problematic for smaller banks or banks with small retail portfolios.

Under IRB approach for the credit risk there is a first difference in exposures categories. Both, the Accord and Slovenian legislation define categories of the exposure to corporate bodies, sovereigns, banks, retail and equity exposure. The Accord additionally defines the category of qualifying revolving retail exposure while the Slovenian legislation includes it as a sub-category of the retail portfolio. However, both the Accord and Slovenian legislation define three formulas to calculate risk weight in the retail portfolio. The difference between the three formulas is in correlation (R), which is given for qualifying revolving retail exposures and mortgages but is being calculated for other retail exposures. In addition, the Slovenian legislation defines the categories of positions in securitization and other assets from non-credit exposures while the Accord has only one more category, which is eligible purchased receivables.

The Bank of Slovenia requires for a bank, which wants to implement the IRB approach gradually, to have at least 50% of all exposures on the IRB approach on the day when the IRB approach is implemented.

Slovenian legislation continues to implement typical Basel II – language, which gives sometimes too much space for the interpretation. Banks are expecting further on more detailed explications from the Slovenian regulator. For example consider IRB approach where it speaks about the quality of the rating models (Jagric and Jagric, 2007). The legislation says, the model should be as much unbiased as possible. When it speaks about the stress testing, it says that the bank should perform it on regular basis and that it should include the majority of the banks' portfolio. But when speaking about quantitative measures it is important that we all understand what little correlation is, unbiased in great extent, performing something regularly etc., in the same way.

1.2. Market Risk, Operational Risk, and Capital Definition

Slovenian legislation does not introduce for the market risk that much innovation as it does for the credit risk, which is in line with Basel II. However, there are some differences compared to the official Accord. Slovenian regulation is broader, more precise and stricter. We examine a few cases through this section.

The Accord doesn't speak about the conditions under which the bank may apply rules on standardized and IRB approach for the trading book issues, too. Slovenian regulation sets contain several conditions: trading-book business usually does not exceed 5% of the whole banks business activity, total position in trading-book usually does not exceed 15 million EUR and trading-book business never exceeds 6% of the whole banks business activity and total position in trading book never exceeds 20 million EUR. Whenever a bank exceeds these criteria, the national regulator must be immediately notified and capital requirement must be calculated according to the rules set for market risk. However, it is still unclear what "immediately" means and the Slovenian banks have raised the question whether that meant "daily". The Slovenian regulation requires from a bank to clearly define the aim of the trading in her strategies and policies and defines how the bank can prove the trading aim.

In practice many regulatory requirements are unclear, but they are clear enough in the general Accord. Hereby this includes examples like the following. In the national legislation there are two different terms used, prompt and market exchange rate. We believe that it would be better if only one would be used. Another practical question is who is an independent expert whose job is to validate model assumptions according to the national legislation – is this an external expert or only an internal employee not involved in the model development.

Under the operational risk Slovenian legislation follows the accord with all approaches already laid there down, Basic Indicator Approach, Standardized Approach, Advanced Measurement Approaches (AMA). By providing a range of approaches, banks ought to select the one most appropriate to the bank's size, the complexity of its operations, and the nature of its risks. Basel II Operational Risk Framework requires from Slovenian banks to prepare, develop and implement suitable tools for operational risk management policies. The analysis of our survey, which will be described later on, indicates that Slovenian banks will mostly start with simple approaches and move to more advanced ones in the future. The banks mainly work on the collection of operational risk loss data and are starting with building and modeling of the appropriate database. Operational risk database should enable the bank to gain an efficient overview over all actual operational losses appearing in the bank and in that way help improve operational risk management. Designing of an appropriate database starts with the definition and identification of all types of operational risks which a particular bank is exposed to.

Like in the Accord also in Slovenian legislation the capital is calculated as the sum of Tier 1, Tier 2 and Tier 3 capital. The Slovenian regulation says very clearly what are the components of all 3 categories, for example Tier 1 is the sum of paid up shares (ordinary and noncumulative preference), capital reserves and innovative instruments. For each of named components, there are prescribed features which have to be met. Slovenian legislation says also what the deductions of each capital component are, what the ratios between them are and what for can specific capital component be used.

2. Why May Differences Appear?

We can broadly conclude that deviations from the official Accord are small. Mainly they appeared as a consequence of deviations between EU Directive and the official Accord. Changes from the original Accord appeared due to specifics of the European banking sector. In the EU the main concern about the Basel II implementation is that no bank should suffer on the competitiveness due to Basel II. Differences in sizes between banks in the EU are huge. Basel II could set banks of different sizes into different favorable position. Hakenes and Schnabel (2005) discuss that the implementation of the IRB approach requires large initial investments in risk management technologies, which may deter small banks from choosing the IRB approach. In that case, only large banks profit from the reduction in capital requirements (and hence marginal costs) for safe loans in the IRB approach.

Size of bank as a factor of competitive advantage in the process of implementing Basel II is very important for the Slovenian banking sector. In Slovenia the whole market is small, so no bank can be big in terms of European banks (see Table 1 for comparison). The total of balance sheets of all banks amounted on December 2006 only 33,80 billions of EUR (Slovenian Banking Association, 2007). There are 21 banks active in the Slovenian market. The average total of balance sheet of a bank is 1,61 billions of EUR. The market leader has a market share of about 32% and the total of balance sheet 10,22 billions of EUR. In the sense of economies of scale, available longest (time) data series and experiences, this bank could have the best position in the process of implementing Basel II.

Table 1
Structural Indicators of the EU Banking Sector for 2006

| Country | GDP p.c. | Population per CI | Population per employee | Assets per employee | Assets/GDP | Loans/GDP | Deposits/GDP | Share CI5 |
|-------------|--------------|-------------------|-------------------------|---------------------|--------------|--------------|--------------|-------------|
| LU | 290.5 | 3 001 | 19 | 33 919 | 2 539.9 | 482.3 | 871.7 | 29.1 |
| IE | 167.8 | 54 529 | 109 | 30 090 | 674.8 | 230.0 | 165.1 | 45.0 |
| DK | 164.4 | 28 466 | 117 | 17 726 | 373.5 | 203.2 | 70.1 | 64.7 |
| SE | 136.8 | 44 515 | 193 | 16 438 | 252.9 | 132.1 | 59.7 | 57.8 |
| NL | 131.2 | 47 365 | 140 | 16 078 | 354.8 | 196.0 | 150.3 | 85.1 |
| FI | 128.8 | 14 588 | 220 | 10 651 | 152.7 | 78.7 | 53.4 | 82.3 |
| UK | 127.9 | 150 955 | 134 | 21 304 | 506.3 | 162.2 | 143.2 | 35.9 |
| AT | 126.4 | 10 237 | 109 | 10 348 | 306.2 | 135.5 | 104.5 | 43.8 |
| BE | 120.9 | 100 457 | 155 | 16 509 | 357.2 | 123.7 | 148.4 | 84.4 |
| FR | 115.1 | 76 231 | 145 | 13 156 | 319.7 | 105.3 | 79.2 | 52.3 |
| DE | 113.8 | 40 179 | 119 | 10 286 | 308.5 | 132.2 | 119.5 | 22.0 |
| IT | 102.2 | 72 633 | 172 | 8 218 | 189.3 | 96.5 | 63.1 | 26.3 |
| EU25 | 100.0 | 54 996 | 152 | 12 069 | 322.0 | 132.0 | 108.8 | 42.1 |
| ES | 89.9 | 125 194 | 168 | 9 605 | 257.7 | 164.1 | 135.3 | 40.4 |
| CY | 76.6 | 2 292 | 71 | 6 860 | 512.3 | 121.1 | 165.3 | 63.9 |
| GR | 71.3 | 179 290 | 179 | 5 068 | 161.4 | 85.7 | 108.1 | 66.3 |
| SI | 60.1 | 74 370 | 170 | 2 943 | 117.3 | 71.9 | 59.0 | 62.0 |
| PT | 59.4 | 59 622 | 182 | 6 822 | 255.9 | 148.8 | 114.1 | 67.9 |
| MT | 51.0 | 22 534 | 115 | 8 693 | 599.6 | 276.7 | 217.0 | 71.4 |
| CZ | 45.2 | 179 725 | 271 | 3 034 | 100.7 | 45.3 | 68.0 | 64.1 |
| EE | 39.5 | 96 050 | 237 | 2 707 | 117.6 | 87.0 | 58.2 | 97.1 |
| HU | 36.2 | 47 502 | 256 | 2 385 | 104.3 | 62.6 | 52.4 | 53.5 |
| SK | 33.1 | 224 622 | 275 | 2 125 | 94.9 | 43.9 | 61.4 | 66.9 |
| PL | 28.9 | 52 741 | 245 | 1 216 | 69.8 | 35.5 | 44.8 | 46.5 |
| LV | 28.7 | 84 752 | 196 | 1 947 | 140.3 | 95.4 | 68.3 | 69.2 |
| LT | 28.4 | 44 078 | 394 | 2 012 | 73.1 | 51.8 | 36.7 | 82.5 |

Note: CI – credit institution; GDP p.c. – GDP per capita (EU25 = 100); Assets/GDP – Assets/GDP (in %); Loans/GDP – Total loans of CIs to non-Cis/GDP (in %); Deposits/GDP – Total deposits of CIs from non-Cis/GDP (in %); Share CI5 – Market share of the 5 largest CIs (in % of total assets).

Source: ECB (2007)

In this sense Slovenian regulation deviates just a bit more from the Accord than the CRD does. There is a reasonable question if that is enough and if Slovenian banks wouldn't have the need for further deviations from the CRD. Slovenian banks had a lot of concerns about the successful implementation of Basel II

in the time period before 2006. Some of the reasons were concurrent projects in all Slovenian banks, like the adaptation of Euro on 1. 1. 2007 and implementation of International Financial Reporting Standards (IFRS). Small banks suffered under time and resource deficit for appropriate preparing on Basel II. Another reason for skepticism, especially concerning the IRB approach, was because there was little practice with risk management techniques in Slovenian banks.

To estimate impacts of Basel II there have been quantitative impact studies made by BCBS (see BCBS, 2006 and older QIS publications). Besides BCBS, the consulting and rating agencies (PriceWaterhouseCoopers, 2004; Ernst&Young, 2006) as well as the academic field and banks have done research studies in this field (Carling, 2002; Majnoni et al., 2004; Berger, 2004; Hakenes and Schnabel, 2005; Keefe, Bruyette and Woods, 2006).

Conducted Quantitative Impact Studies (QISs) presented by BCBS have shown that the more advanced approach the bank takes, the greater can be the reduction in required capital (BCBS, 2006). Results from the Fifth QIS show that the retail mortgage portfolio contributes the most to the reduction in minimum required capital under the standardized and the IRB approaches (−6.3% to −7.6% for G10 Group 1 banks). Since there was no explicit capital charge for operational risk under Basel I, the highest increase comes from new capital requirements for operational risk (5.6% to 6.1% for G10 Group 1 banks). For Group 1 banks under the IRB approaches, the other main contributing portfolios are corporate and SME retail (decreases) as well as equity (increase) (BCBS, 2006). The results of BCBS's 5th QIS are summarized in Table 2.

Table 2
Results of 5th BCBS QIS

| Grouping * | Change in minimum required capital relative to Basel I in % | | | |
|-----------------------|---|---------------|---------------|----------------------|
| | Standardized approach | FIRB approach | AIRB approach | Most likely approach |
| G10 Group 1 (58) | +1.7 | −1.3 | −7.1 | −6.8 |
| G10 Group 2 (146) | −1.3 | −12.3 | −26.7 | −11.3 |
| CEBS Group 1 | −0.9 | −3.2 | −8.3 | −7.7 |
| CEBS Group 2 | −3.0 | −16.6 | −26.6 | −15.4 |
| Other non-G10 Group 1 | +1.8 | −16.2 | −29.0 | −20.7 |
| Other non-G10 Group 2 | +38.2 | +11.4 | −1.0 | +19.5 |

Note: Included were data from 56 G10 Group 1 banks, 146 G10 Group 2 banks, and 154 banks from other countries. Limited data from the US QIS 4 exercise – an additional 26 Group 1 banks – were also included where possible. Group 1 banks are banks which fulfill all of the following three criteria: (i) The bank has a Tier 1 capital in excess of EUR 3 billion; (ii) The bank is diversified; and (iii) The bank is internationally active. The Committee considered three different country groupings: (i) G10: Belgium, Canada, France, Germany, Italy, Japan, Luxembourg, the Netherlands, Spain, Sweden, Switzerland, the United Kingdom, and the United States; (ii) CEBS are European countries which are either EU member states, EU accession candidates or members of the European Economic Area (EEA); and (iii) non-G10: Australia, Bahrain, Brazil, Chile, India, Indonesia, Peru and Singapore.

Source: BCBS (2006).

Impacts of Basel II on Slovenian banking sector were estimated by the Bank of Slovenia and The Bank Association in 2003. Slovenian Quantitative Impact Study (SiQIS) relies on data from September 2003. Unluckily the study was made before banks had all the necessary knowledge and available data about Basel II. SiQIS therefore implied only the simplest approaches, which are the standardized approach for credit risk and simple approach for the operational risk. In the SiQIS Slovenian banks estimated that only 1% of Slovenian companies in banks portfolios have an appropriate external credit rating which is needed for the standardized approach. The main problem for conducting the study was the huge data gap in banks. Banks mostly started with additional data gathering after 2003. Upon the results of the three scenarios, the Bank of Slovenia tried to identify which national discretions would be the most appropriate for the Slovenian banking sector. According to SiQIS capital requirements for Slovenian banks would raise on average if taking those simple approaches. There could be an interest in the bank to implement IRB in the future and gain reductions in capital requirements. The results of SiQIS are summarized in Table 3.

Table 3
Results of the SiQIS

| SCENARIO | Change in capital requirements under the Standardized approach relative to Basel I, in % | |
|-------------|--|--------------|
| | Only on credit risk | On all risks |
| Optimistic | -13.92 | -0.60 |
| Pessimistic | +9.80 | +19.98 |
| Realistic | -0.53 | +11.02 |

Source: Bank of Slovenia and Bank Association of Slovenia (2003).

When Bank of Slovenia published draft legislation in 2006 Slovenian banks actively took part in the creation of the said legislation within the Bank Association of Slovenia by participating in the making of comments and observations related to the decisions of the Bank of Slovenia. Some comments by the banks were implemented into the new legislation while for some questions the Bank of Slovenia only gave explanations. Slovenian banks mostly had also comments about what would be more appropriate for the Slovenian market; however the Bank of Slovenia is obligated to implement CRD at minimum. As an EU member state Slovenia could not decide upon a cost/benefit analysis of Basel II consequences on her national banking sector.

The need for differences in Slovenian legislation compared to the Accord is much greater in the IRB approach than in the standardized approach. The reason might be that banks are not yet experienced enough in the sophisticated quantitative risk measure required in the IRB approach. However, this is just a transitional

problem. Banks are mostly aware of that and are not trying to simplify the regulation but rather to learn about the modern risk management techniques and their benefits and could in few years improve competitiveness in this sense, too.

3. Survey on the Slovenian Banking Sector

We tried to estimate implications of Basel II on the Slovenian banking sector upon a survey. There is the review of all questions and answers presented in the Appendix 1. Some banks gave beside of a Yes or No answer also some comments, which we tried to include in our survey as well. The analysis was conducted in August and September 2007, which is only 3 months before the full implementation of Basel II. We have seen that Slovenian banks actively prepared for Basel II implementation in the time, when the survey was done. We believe that the results reflect the implications of the real Basel II for the banks. There are 21 banks or banking groups present at the Slovenian market. We received answers to our questionnaire from 8 banks, which is a small number. We estimate that some banks, especially very small ones, weren't ready to give answers since they don't want to disclose any information about the internal risk management strategies. However, banks which answered have together a market share of about 71%. Therefore the answers to our questionnaire, despite the small number of banks, are considered to be representative enough to form statements about the Slovenian market.

We tried to gain a general impression whether Basel II has positive or negative implications on the Slovenian banking sector overall. For sure there are great implications of Basel II and they will continue to be in the near future. In our survey banks in 75% estimate the impact of Basel II as positive. The rest estimates it as negative or both. As a positive effect, the banks listed, among others: increased transparency, improved risk management practices, bigger impact of bank on capital requirements, increased objectivity at business decisions, stimulation of research, development and adaptation of most sophisticated modern risk management techniques. Based on the comments provided by the Slovenian banks we can list further positive effect, which are expected to appear in the near future: dynamic portfolio management and forward looking risk assessment, greater use of hedging and derivatives, and an increased use of risk-based performance measures and risk-based pricing.

On the other hand there are negative effects reported by Slovenian banks as well. All Slovenian banks face extremely high costs associated with Basel II implementation, economies of scale could not yet appear as time horizon is too short for now and all banks are relatively small when comparing to banks in

other EU economies. Smaller banks need more time in order to estimate if advanced approaches pay off at all and if so, to properly develop and implement them. Besides direct costs, the banks in our survey report high opportunity costs. Slovenian banks don't have highly trained experts in analytical and risk management departments which would work exclusively on Basel II implementation. Additionally, there are only a small number of candidates on the labor market with proper knowledge and experience who could jump into risk management teams of banks right ahead.

For positive effects to become a reality there is still much work to be done across a broad range of areas. In most of the Slovenian banks the knowledge of sophisticated advanced risk management techniques was very poor before Basel II. In our survey 62% of banks estimate current knowledge of sophisticated risk management techniques in Slovenian banking area as bad, given the score 2, on the scale from 1 to 4, taking 1 as the worst and 4 as the best. Other banks estimated it with score 1 (25%) or with score 3 (13%). In Slovenian banks the work and development of risk management techniques was mostly an always postponed task. Now, with Basel II banks have an outside push to improve their internal risk policies and thereby the level of understanding full risks, which occur in banking. All of the banks, which answered to our questionnaire, have already separated and independent risk management unit or department, where employees devote themselves to risk management tasks only.

Before preparation projects for Basel II and final Basel II implementation, 25% of banks have been already using (some) advanced risk management techniques. Banks which have already been using advanced techniques report that Basel II doesn't represent an important change in their internal risk management policy. Banks which have not been using advanced techniques before or used them only in part, would in 83% develop them in the future. Even if Basel II didn't have the chance of using advanced risk management techniques for estimating regulatory capital requirements the banks would probably develop some advanced tools of risk management because of their internal needs (in 66%). In the beginning Slovenian banks will first implement more simple approaches, like standardized approach for the credit risk and go for more sophisticated, like IRB, later on.

Seventy-five percent of banks which responded in our survey consider high implementation costs of Basel II projects as an investment in the business improvement and competitiveness and fulfillment of regulatory requirement at the same time and not only as unnecessary costs, which are caused to the banks by the regulator. Other 25% of banks see costs of implementing Basel II as unnecessary costs, which are caused to the banks by the regulator. 87% of banks report that Basel II did/or will in the near future cause important changes in the daily

business practice. Estimated 62% of the banks report that the Basel II requires a change in the business policy for the groups of clients (Credit lending policy, pricing etc.). In those banks business policy is expected to be changed in the near future. 38% of banks named Small and Medium Enterprises (SME's) portfolio. Capital directive treats this portfolio more favorable in new regulative compared to the old one. Banks noticed this business opportunity very soon and therefore already today change their business policy on SME's. Other banks didn't give answers to this question or they do not expect any important changes in business policy.

Taking market risk measures in consideration we can conclude upon a discussion with Slovenian banks representatives that Value at Risk is the most popular method among banks. However, full implementation of Value at Risk concepts into daily business practice is still in their infancy. In our survey 38% of banks answered that there are or will be changes in their trading book strategy due to Basel II.

Tools for operational risk are not yet well developed. Upon information given by the banks on the Risk management conference in October 2007 under Slovenian banking association, banks started with data gathering for operational risks only few years ago (mostly in 2004 and 2005). Banks will also at operational risk go for more simple approaches (like basic indicator approach) in the beginning and continue with more sophisticated in the future.

Half of Slovenian banks estimate the cooperation of Bank of Slovenia with banks in the field of implementation of Basel II up to now as good (with score 3 on the scale from 1 to 4, where 4 is the best). The other half estimates the cooperation as bad (25%) or very bad (25%) up to now. Slovenian banks in 62% do not expect the current regulation to change importantly. According to the Bank of Slovenia, the Slovenian capital regulation will change in the near future. Like other regulators around the globe also Bank of Slovenia still has much to do to finalize standards and approaches for the review and supervision of the new regulation framework.

Conclusions

The issues that Basel II raises will undoubtedly shape an important part of the dialog regarding the improvement of banking regulation and supervision going forward. It also gives new opportunities, challenges but also milestones to banks in Slovenia and banks around the globe. In the paper we tried to estimate the implications and consequences of Basel II for Slovenian banking sector, just before the implementation. Basel II will certainly have major business impacts on banks themselves and on the markets as well. Only time will tell if we estimate the impacts in the right way.

The Slovenian banking sector adopted Basel II rules through implementation of EU Directives 2006/48/EC and 2006/49/EC into the national legislation. There are some little differences in the Slovenian national legislation compared to the original Accord. We would expect even more differences in the Slovenian capital requirements regulation because of special features of the Slovenian banking market. This market is very small compared to other European economies and therefore the average size of Slovenian banks is smaller too.

Our survey on Slovenian banks indicates that a lot of the Basel II impacts are actually unclear to the banks and even to the regulator. The impact on individual institutions will be driven by their level of sophistication in risk management. Slovenian banks claim that implementation of the IRB approach requires large initial investments in risk management technologies from the cost perspective as well from the knowledge and data gathering. This could deter small banks from choosing the IRB approach. Besides the direct costs, the Slovenian banks claim on high opportunity costs as well.

Slovenian banks estimate the impact of Basel II as positive. Key anticipated benefits include increased transparency, improved risk management practices, better data quality and stimulation of research. Banks which did not use advanced techniques before Basel II, or did it only partially, would develop them in the future. As the results indicate, the implementation of Basel II will require major efforts and changes in the banks. However, only half of Slovenian banks estimate the cooperation of Bank of Slovenia with banks in the field of implementation of Basel II up to now as good. In the future we expect Bank of Slovenia to support Slovenian banks more.

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Appendix 1
Banks Questionnaire

| Questions (Scale: 1 – very bad; 2 – bad; 3 – good; 4 – excellent) | Answers |
|--|---|
| 1. How do you estimate the impact of B2 regulation on Slovenian banking sector? Positive/negative | Positive – 75%; Negative – 25% |
| 2. Could you list some positive effects? | In text |
| 3. Could you list some negative effects? | In text |
| 4. How do you evaluate the knowledge of sophisticated (advanced) risk management techniques in the Slovenian banking sector? 1 to 4 | 1 – 25%; 2 – 62% 3 – 13%; 4 – 0% |
| 5. Do you have in your bank a separated and independent risk management unit (department), for dealing with credit, market and operational risks? Y/N | Yes – 100%; No – 0% |
| 6. Did you in your bank used already before the implementation (or preparation projects) of Basel II advanced risk management methods and techniques? Y/N | Yes – 25%; No – 75% |
| 7. If answer to Q6 is Yes: Does Basel II implementation mean an important change in your risk management policy? Y/N | Yes – 0%; No – 100% |
| 8. If answer to Q6 is No: Are you planning to develop advanced techniques of risk management? Y/N | Yes – 83%; No – 17% |
| 9. If answer to Q6 is No: Would you develop advanced techniques even thou B2 regulative wouldn't give the chance to use them for estimating regulatory capital requirements? Y/N | Yes – 66%; No – 33% |
| 10. What is your view on the costs, which you already had because of B2 implementation and which you will have in the near future? a. an investment for the business improvement and competitiveness and fulfillment of regulatory requirement at the same time, b. unnecessary costs, which are caused to the banks by the regulator. | a – 75%; b – 25% |
| 11. Did something in your daily business operations importantly change because of the Basel II implementation (or you expect to happen in the near future) ? Y/N | Yes – 87%; No – 13% |
| 12. Will you change your business policy for any of the clients groups because of Basel II (Credit lending policy, prizing etc.)? Y/N <i>If Yes: for which?</i> | Yes – 62% (38% named SME's); No or No answer – 38% |
| 13. Will you (or did you) because of Basel II change your strategy in the trading book? Y/N | Yes – 38%; No – 62% |
| 14. Do you expect any (important) changes in the Slovenian capital regulative in the near future? Y/N <i>If Yes: In what sense?</i> | Yes – 62%; No – 38% |
| 15. How do you estimate the cooperation of Bank of Slovenia with banks in the field of implementation of Basel II up to now? 1 to 4 | 1 – 25%; 2 – 25% 3 – 50%; 4 – 0% |