SME-targeted Implementation of Basel III – Executive Summary (28 July 2011)

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commissioned by the Austrian Federal Ministry of Economy, Family and Youth and the Austrian
Federal Economic Chamber

1. Introduction

The regulatory framework of Basel III is mainly aimed at improving the quality and the quantity of capital, increasing liquidity, and reducing the leverage ratio in banks. In spite of the expected positive effects in terms of higher financial market stability and lower vulnerability to crises, there are concerns that tightening capital requirements could result in negative economic effects. These concerns do not only relate to the financial sector itself, but due to the multiplier function of banks in loan financing, first and foremost to the business sector. Given the significant role banks play in financing SMEs, SMEs could be particularly badly affected.

With regards to SME financing, the specific consequences of Basel III will be very dependent on the conditions under which banks can raise their required capital until the end of the transition period (end of 2018) and how attractive the investment category "SME loans" will be in absolute terms as well as in comparison with other investment classes. The degree of attractiveness will be a result of the earnings as well as of the costs that can be attributed directly to this asset class – which in particular also includes the costs incurred by minimum capital requirements.

The following summary will document the importance of banks for SME financing and analyse the relative attractiveness of the investment category SME loans. Subsequently, the SME minimum capital requirements now valid will be discussed on the backdrop of the credit-rating structure and stability as well as in the context of selected changes according to Basel III[1] and of a possible easing of lending requirements.

2. SME financing in light of Basel II and III

SMEs are important drivers of the economic growth of a country. For example, between 2006 and 2008 in the EU-27 two-thirds of the added-value growth of the non-financial economy was generated by SMEs.[2] Traditionally, SMEs draw in their funding mainly on bank loans – in addition to using retained earnings. This holds true for both the euro area and the US. Figure 1 shows the results of SME surveys referring to sources of funding used in the euro area and in the US. According to these findings, in the euro area internal funds (retained earnings) are the source of financing most frequently utilized, followed by bank loans and bank overdraft/credit cards. In the US the list of funding sources most used is headed by the same three types of funding. However, the first two types of funding are not in the same order as in the euro area (bank loans, internal funds, credit cards).

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[1] The deliberations in this study focus on the planned regulatory changes as stipulated in the Basel text, as by the time of publication of the draft of CRD IV, the main contents of this study had already been completed.
[2] Non-financial economy not including mining and quarrying, cf. Eurostat (2009): SMEs were the main drivers of economic growth between 2004 and 2006, Statistics in focus, 71/2009, Luxemburg, S.6.

Figure 1: SME Financing
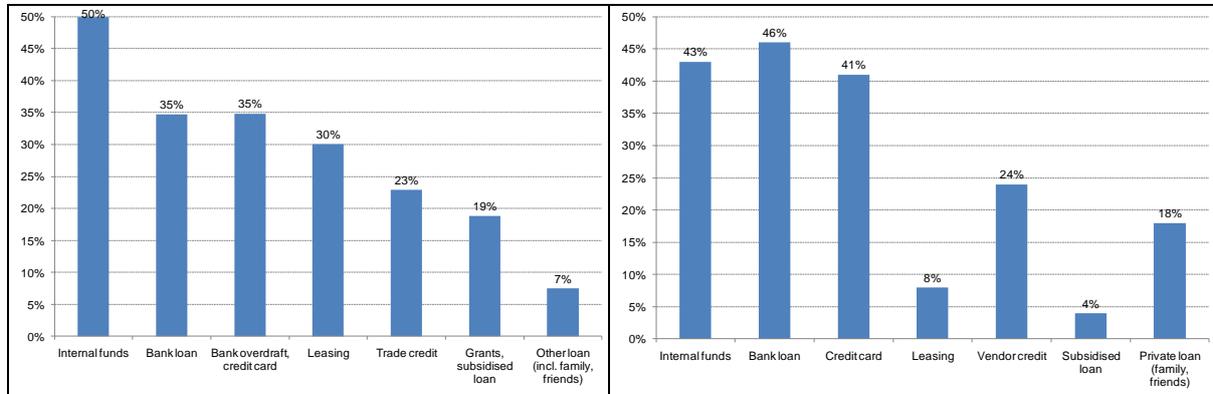
Notes: Survey results for SMEs in the euro area (left) and in the US (right), end of 2009. Evaluation of the question "For each of the following sources of financing, could you please indicate whether you used them or not during the past 6 months?" (euro area) and the question "What types of financing has your company used within the last 12 months to meet your capital needs?" (US), data in % of those surveyed.

Source: ECB (Survey on the Access to Finance of small and medium-sized Enterprises), National Small Business Association (NSBA).

With the introduction of Basel II there were also at first apprehensions that the funding conditions of SMEs would worsen under the new regulations, which in the end led to special measures to ease SME financing. In this study the historic bank lending rates for SMEs and large enterprises are examined for Basel II's potential effect using error correction models.

The tightening of resource capital in connection with Basel III is expected to cause banks to reevaluate their investment policy and could possibly provide incentives to limit enterprise funding (in segments that are relatively less attractive) in order to invest capital in segments that optimize costs and earnings. Unpublished data for 2010 from individual banks have been used in order to study the relative attractiveness of various investment categories (loans to private persons, SME loans, large enterprise loans). These data have been kindly provided by some selected Austrian banks. If, for example, the personnel and material costs are put in relation to the outstanding credit volume, there is a significantly higher cost burden for loans to small SMEs than for loans to large SMEs or large enterprises (see Table 1).

Table 1: Costs of SME Loans

Standardised-approach banks			
Costs in percentage of credit claims	large SMEs/LEs	<	small SMEs/private customers
IRB banks			
Costs in percentage of credit claims	large SMEs/LEs	<	small SMEs

Notes: Ranking for the weighted average of banks using the standardised approach and banks using IRB. LEs = large enterprises. Costs include personnel and material costs; costs for IRB banks do not include company overhead. The ranking presented here is valid for all data providing banks. For banks using the standardised approach the segment "small SMEs/private customers" includes the segment that is allocated to retail according to Basel II; all other enterprises are included in the segment "large SMEs/LEs. For some of the IRB banks the limit for small SMEs is in accordance with the Basel II regulation for retail classifications (outstanding volume ≤ EUR 1 million), for other IRB banks, small SMEs are defined according to sales (EUR 0-3 million). The segment "large SMEs/LEs" also includes large international corporates. The data refer to 2010.

Source: Austrian banks, own calculations.

3. Evaluation of minimum capital requirements for SMEs

The analysis of minimum capital requirements for SMEs was done on the basis of the capital requirements now valid and of selected effects anticipated as a result of the regulatory changes planned in Basel III. The focus of the study was directed, on the one hand, at the present level of capital requirements and the increase in capital requirements[3] resulting from raising minimum capital ratios and, on the other hand, at the development (or performance) of SME exposures over the most recent financial market and real economic crisis. The latter is of significance, as Basel III actually was a reaction to the disruptions in the course of the crisis.

Existing minimum capital requirements contain concessions for exposures to SMEs. Thus loans below the one-million-euro level can basically be categorised in the retail segment instead of in the corporate segment. This results in lower risk weights and accordingly in a lower capital requirement for loans that are included in this category. On the whole, SME loans are assigned either to the retail segment (basically with a volume ≤ EUR 1 million) or to the corporate segment (basically with a volume of > EUR 1 million). In addition, within the corporate segment there is in the internal ratings-based approach (IRB) also a subcategory SME, in which SMEs with annual sales of below EUR 50 million are included and given preferential treatment over the regular corporate capital requirements.

In addition to public market information, the data on which the evaluation is based are firstly data made available to the public by the Oesterreichische Nationalbank (Austrian Central Bank, OeNB) and secondly data from analyses tailored for this study and kindly provided by OeNB.

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[3] An analysis of possible effects of the new liquidity framework was not part of this study for two reasons. Firstly, the introduction of the planned liquidity requirements – in contrast to the minimum capital requirements – begins with an observation period, after which they are planned to become minimum standards. Secondly, a well-founded analysis of issues and data related to the planned liquidity requirements would have exceeded the scope of this study by far. Nevertheless, it can be assumed that the envisaged liquidity regulation will be worth further investigation also with respect to SME loans.

Despite the crisis stable development of the good rating categories for retail exposures

The share of SME exposures in the total retail segment is not recorded separately on an aggregate level. Considerations concerning approximations, however, lead to the conclusion that this share is significant and thus that the rating development of the retail segment is considerably influenced by SMEs. As is apparent by Figure 2, which refers to the IRB retail exposures, the good rating classes[4] show a stable development between Q4/2008 and Q4/2010, in spite of the real economic crisis. The share of the good rating classes 3 and 4 remains nearly constant (50% - 49%)[5] in the period under review. The share of the rating class 3 even increases from 1% to 12%. The increase in the default class is approximately that of the entire portfolio.

Figure 2: Rating Structure of Retail Exposures in the IRB
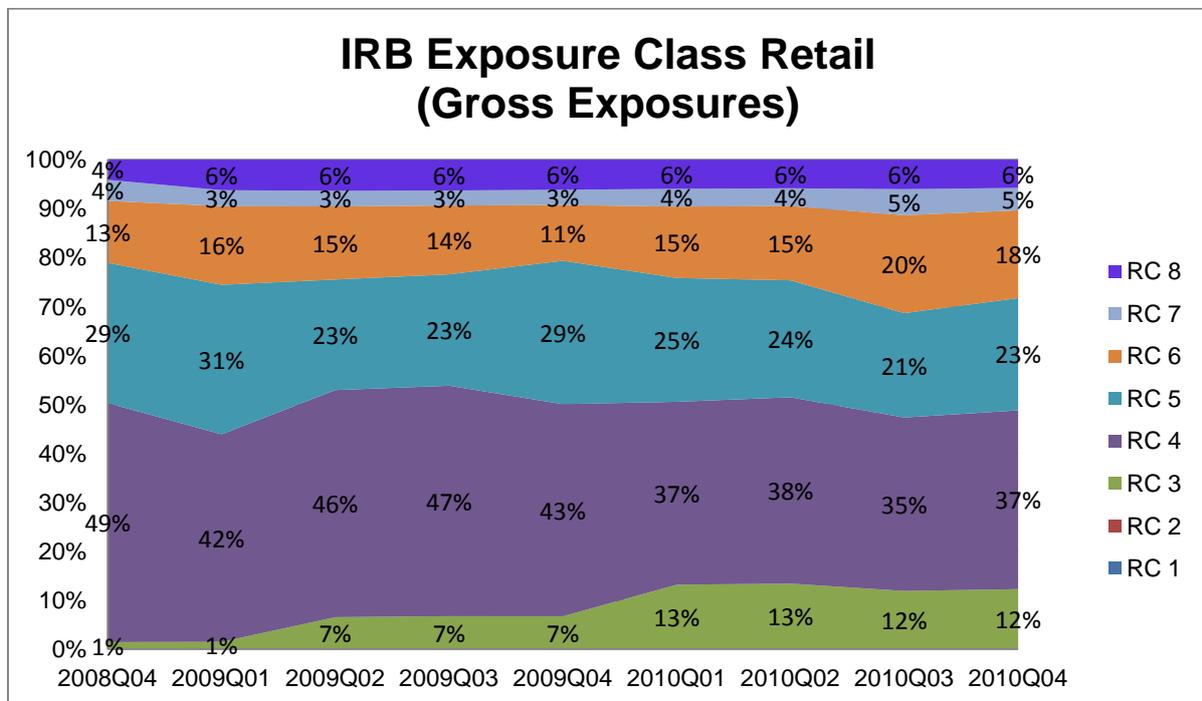
Note: Rating category classification according to the OeNB master scale
Source: OeNB.

The larger SME exposures, which are assigned to the corporate segment, are on the aggregate level documented separately only for the IRB. SME exposures account for approximately 18% of the IRB corporate volume. An analysis based on IRB exposures shows that the SME exposures assigned to the corporate segment have not experienced such a stable rating development in the past two years. The share of the good rating categories 2 to 4 fell here between Q4/2008 and Q4/2010 from 47% to 33%.[6] Also the increase in the share of the default class was higher than that of the whole portfolio.

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[4] RC1: very good, …, RC8: default
[5] For comparison, in the entire portfolio the share of the categories RC1 to RC4 sinks from 72% to 64%.
[6] In comparison, the share in the overall corporate segment fell from 65% to 57%.

The one-million-euro threshold

As significant concessions in capital requirements for SMEs are tied to the one-million-euro threshold, below which SME exposures can in principle be allocated to the retail segment (in the standardised approach 75% risk weighting instead of 100% and in IRB approach use of the lower retail weighting function instead of the corporate weighting), the question of how many SME exposures in Austria lie beyond this limit is of special interest. As no recent data were available on this matter, OeNB carried out an extensive analysis on SME exposures in the Central Credit Register (volumes starting with EUR 350,000). This evaluation showed that approximately 60% of the included (middle to large) SME loans were below the one-million-euro limit. If this limit were raised to, for example, EUR 2 million, about 80% would be included (cf. Figure 3).

Figure 3: Distribution of Medium-to-Large SME Loans according to Size
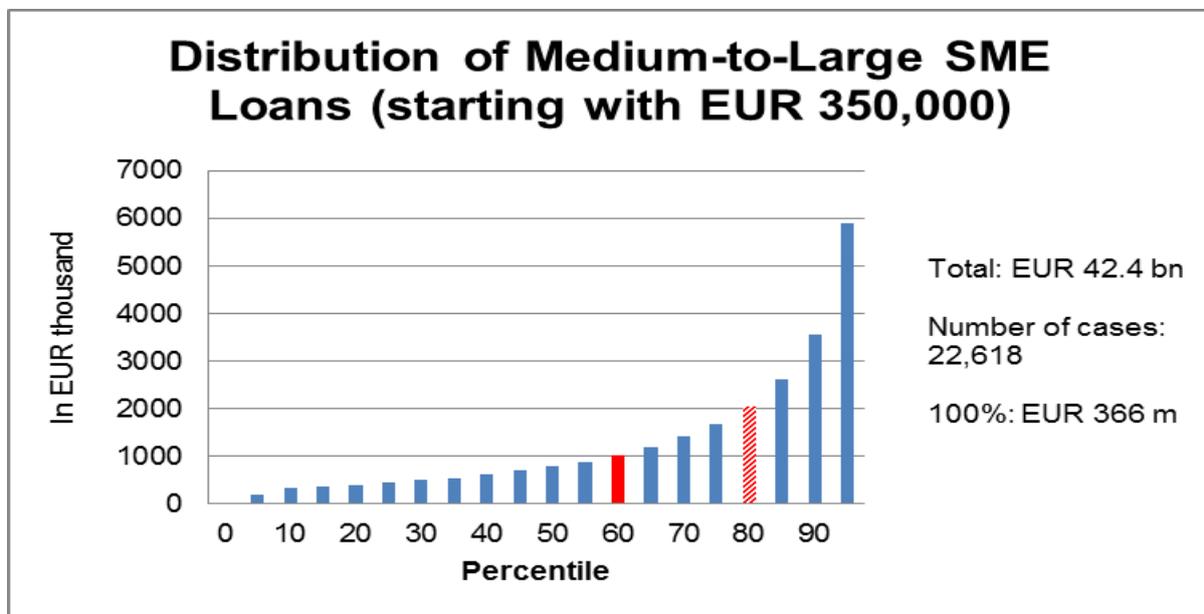
Note: The data comes from a statistical analysis of the Central Credit Register of OeNB (carried out and provided by OeNB; basis: overall utilisation with derivatives).

This figure basically excludes SME loans under EUR 350,000. From the approximately 60% of loans that fall here below the one-million euro threshold, no conclusions can therefore be made on the overall distribution including loans of up to EUR 350,000.

Source: OeNB

Parallel to these considerations, credit risk quantification analyses for a lift of the one-million euro threshold to EUR 2 million[7] have been made. Concerns about a significant rise in risk concentration (as a result of the higher exposure amounts in retail portfolios) could namely be a possible objection to a moderate increase in the threshold. In such a case, shifts in the loss distribution would occur (larger losses would be more probable). However, simple credit risk quantification analyses for an exemplary retail portfolio do not substantiate such concerns.

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[7] As an example, the focus was placed on an alternative threshold in the amount of EUR 2 million because it would already affect a large number of SME loans while at the same time the increase would still remain moderate (also the inflationary effect since the release of the EUR 1 million figure would have to be taken into account in the meantime).

Conclusions and effects

Exemplary effects on capital requirements resulting from the categorization of SME loans either as retail or as corporate exposure, as well as the effects that raising the minimum capital ratios according to Basel III will have, are summarized in Table 2. This table only refers to the total capital ratio and not to the capital components common equity and tier 1 capital (affected more by Basel III).

As can be gleaned from the table, raising the one-million-euro threshold would partially bring about a significant easing of capital requirements for those SMEs that as a result would be categorised in the retail and no longer in the corporate segment. In addition, the effect of the higher scaling factors (minimum ratios) in Basel III increases in absolute terms with the risk weight of an asset – resulting in a broader dispersion of capital requirements, both among categories and across ratings (IRB).

The rating development of retail exposures during the economically difficult times after the systemic outbreak of the financial market crisis (evaluated on the basis of the IRB retail segment) tended to remain stable. Given this fact, the question arises as to whether it would not be possible to consider compensating the effects of the increase in the minimum capital ratios for this exposure category – without losing sight of corresponding risk aspects. The stability of the good rating classes (in combination with the not above portfolio average increase in the default class) since the end of 2008 seems to lead to this conclusion, for example, by reevaluating risk weights.[8]

Table 2: Exemplary Effects on Capital Requirements for SME Exposures

Risk weights		Standardised approach[3]	IRB[1]		
			PD: 0.5%	1.0%	1.5%
Retail		75%	34%	49%	57%
Corporate[2]		100%	58%	77%	87%

Capital requirement					
Retail	MQ: so far	6%	2.7%	3.9%	4.5%
Corporate		8%	4.7%	6.1%	6.9%
Retail	MQ: Basel III	7.9%	3.6%	5.1%	5.9%
Corporate		10.5%	6.1%	8.1%	9.1%

[1] Assumptions: The presented one-year default probabilities do not aim at reflecting a portfolio average, but should rather be representative to some extent and reflect risk sensitivity of the IRB; LGD: 0.45 (to be comparable, for the retail sector as well).

[2] The assumed amount of sales for the corporate segment in IRB: EUR 5 million (to demonstrate the threshold effect if the one-million-euro limit is exceeded).

[3] For the sake of clarity and due to minor effects in this context: provisioning not accounted for.

MQ = minimum capital quota; PD = probability of default; LGD = loss given default = loss in percentage of outstanding amount in case of default.

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[8] The new minimum capital ratios also have to be viewed on the backdrop of the stricter requirements for capital quality.