Transposing the new Basel capital rules into German law

The new Basel II capital rules will begin to be applied in Germany on 1 January 2007. At this time, the relevant EC directives will be transposed into national law through amendments to the German Banking Act and the adoption of a Solvency Regulation. Whereas the current Principle I was oriented to quantitative minimum capital standards, the implementation of Basel II will involve the introduction of two additional "pillars": the supervisory review process (Pillar II) and disclosure standards (Pillar III). The more qualitative orientation of solvency supervision in future is reflected by principle-based standards that can be applied proportionally, flexibly, and with due regard to institutions' particular risk profile. The minimum capital requirements (Pillar I), especially to cover credit risk and operational risk, have likewise been refined more in line with risk orientation and risk adequacy and now comprise alternative risk measurement methods of varying degrees of complexity. It is also in supervisors' interests to pay greater attention to sophisticated elements of banks' internal risk management methods in the context of capital regulation or liquidity monitoring.

The current capital rules ...

In 1988 the Basel Committee on Banking Supervision published, for the first time, a framework agreement on capital requirements for credit institutions known as the "Basel Accord". This Accord prescribed, in

particular, an adequate level of capital backing for loans. A bank's regulatory capital must make up at least 8% of its risk-weighted assets. In 1996 the framework agreement was extended to include market price risks in the capital requirements. This led to the following formula for prudential minimum capital requirements.

$$\frac{Own funds}{12.5 \cdot (RWA+MRP)} \geq 8\%$$ [1]

The function of capital here is to cover risks through its loss-absorbing qualities. Its level limits the institution's risk taking.

The capital requirements of the current Basel Accord (transposed into German law as Principle I) are restricted to a simple classification (defined by supervisors) of exposures using only five different risk weightings (0%, 10%, 20%, 50% and 100%). One consequence of this is that the regulatory capital charge for a loan does not reflect the individual borrower's actual default risk since all borrowers in a given category (eg commercial enterprises) are assigned the same risk weight irrespective of their credit rating. The credit institution thus bears the same capital costs for lending to a high-quality borrower as it would for a loan to a borrower with a poorer credit rating, even though the default risk is lower in the first case.

... do not reflect the default risk of the individual borrowers

Institutions now have more precise methods of measuring risk at their disposal. This development has been taken into account in the Revised Framework[2] ("Basel II") which was published in 2004. In future, prudential capital requirements will be much more strongly oriented to the credit rating of individual borrowers and thus distinctly more risk-sensitive.

Capital requirements supplemented by two additional pillars

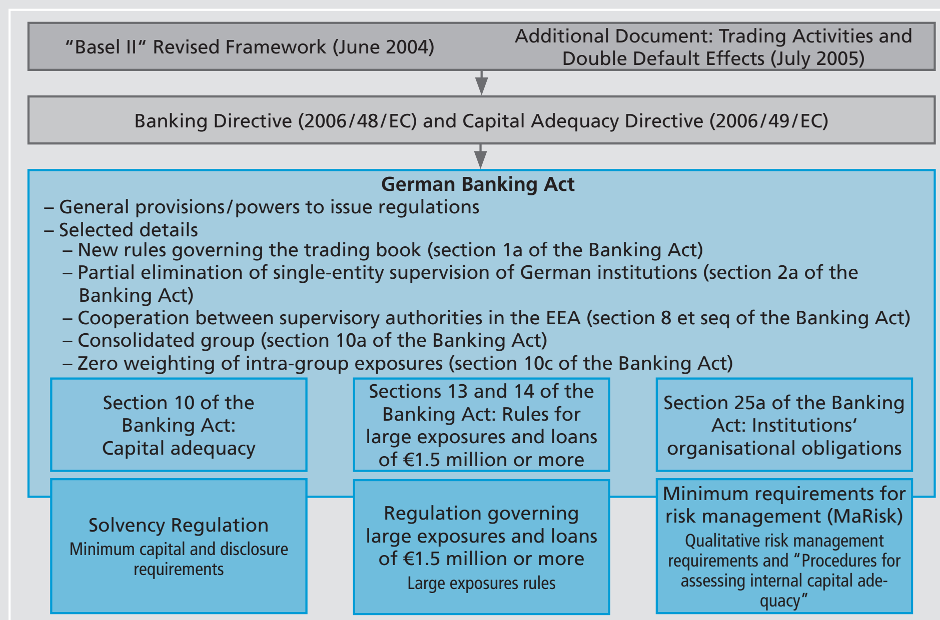
Capital requirements, however, are by themselves not enough to completely capture a credit institution's risk profile. Therefore, two additional pillars have been added alongside the regulatory capital requirements, which constitute Pillar I. Pillar II covers institutions' individual risk profile; banks themselves are required to identify their key risks, manage their levels adequately and back them with capital. Supervisors will assess the adequacy of these internal risk assessments through a review process. Pillar III embraces market participants – who, through the institutions' obligation to comply with extended disclosure requirements, will be able to form a clearer picture of banks' soundness than was previously possible.

Implementation by modernising EC directives ...

Although the recommendations of the Basel Committee – and thus the June 2004 framework for the new capital requirements for credit institutions – are not *per se* legally binding, they formed the starting point for the relevant EU directives. Alongside – and closely based on – the work of the Basel Committee, the European Commission presented proposals for modernising the Banking Directive and the Capital Adequacy Directive; these have since been adopted by the

1 RWA stands for the capital charge for risk-weighted assets, while MRP represents the capital charge for market risk positions.
2 International Convergence of Capital Measurement and Capital Standards: a Revised Framework. It is available for download at the following link: http://www.bundesbank.de/bankenaufsicht/bankenaufsicht_basel_rahmenvereinbarung.en.php.

Transposing Basel II through the German Banking Act and related prudential regulations



Deutsche Bundesbank

European Parliament and the Council.[3] They are to be implemented by the member states by the end of 2006. The cited EC directives, moreover, are now sufficiently consistent with the new Basel capital rules to be regarded as equivalent to the latter. In the EU, this will mean that Basel II will have been implemented for all banks and securities firms from January 2007. Unlike in the United States, where Basel II will be implemented only partly, the EU will experience the positive effects of the new framework throughout the banking industry.

... and, in Germany, by amendments to the Banking Act

Ever since work on the new framework began at European and global level, a close dialogue has been held with the banking sector through several consultation papers in order to align the new rules closely to real-world banking practice. The new rules will be transposed into German law through amendments to the Banking Act and the adoption of the Solvency Regulation and the Regulation governing large exposures and loans of €1.5 million or more (Large Exposures Regulation). Pillars I and III of Basel II will for the most part be incorporated into the Solvency Regulation, while the qualitative requirements of Pillar II will be transposed into German law through the "Minimum requirements for risk management" *(Mindestan-*

3 Directive 2006/48/EC of the European Parliament and of the Council of 14 June 2006 relating to the taking up and pursuit of the business of credit institutions (recast) (EU Official Journal L 177, p 1, 30 June 2006); Directive 2006/49/EC of the European Parliament and of the Council of 14 June 2006 on the capital adequacy of investment firms and credit institutions (recast) (EU Official Journal L 177, p 201, 30 June 2006).

forderungen an das Risikomanagement, MaRisk).

Exchange of views with the banking industry

During the national implementation process, too, BaFin and the Bundesbank launched an intensive dialogue with banks and industry associations at an early stage. This dialogue was institutionalised through the establishment in autumn 2003 of the "Implementation of Basel II" Working Group in order to maximise the effectiveness of national implementation.[4]

Amendments to the Banking Act

With the amendments to the Banking Act (Federal Gazette I, No 53, p 2606 of 22 November 2006), the fundamental prudential rules of the European directives will have been implemented, and the legal basis for the Solvency Regulation and the Large Exposures Regulation will have been created.

Structure of sections 10 and 10a of the Banking Act

In the area of capital requirements, the revised section 10 of the Banking Act now generally governs the capital adequacy requirements that apply both to single entities and to groups of institutions and financial holding groups and also generally defines the eligibility of internal risk measurement systems. Section 10a of the Banking Act is confined to questions regarding the definition of consolidated groups, the consolidation procedures and the obligations incumbent on the superordinated institutions. The extended catalogue of capital components listed in the Banking Directive necessitates an even clearer differentiation of the definition of capital or own funds in various areas of application. In future, "modified available capital" will be the key indicator for calculating capital adequacy pursuant to the Solvency Regulation. Add-ons or deductions resulting from the use of certain calculation methods – eg the value adjustment excess in the case of institutions using an internal ratings-based (IRB) approach (IRB institutions) – will be additionally recognised when calculating this "modified available capital".

Internal risk measurement methods ...

The use of internal ratings-based approaches to calculating a borrower's risk and thus the institutions' resultant capital requirements crucially requires corresponding data histories and thus the collection and use of personal data. The Banking Directive – without prejudice to the general provisions relating to the protection of natural persons when processing personal data and to the free movement of data in the European Economic Area (EEA) – therefore expressly recognises a legitimate interest of the institutions in the collection and processing of the personal data necessary to operate internal ratings-based systems. This, after all, is the only way to ensure that these systems are operated reliably and that the results are meaningful. The new section 10 (1) sentences 3 to 8 of the Banking Act therefore contains specific rules governing the use of personal data in connection with such risk measurement methods; this takes due account of institutions' and supervisors' interest in creating and operating such

... require special rules for data protection

4 For more information on the results achieved by the working group, please visit the following page on the Bundesbank's website:
http://www.bundesbank.de/bankenaufsicht/bankenaufsicht_basel_nationaleumsetzung.en.php

systems while at the same time adequately protecting customers' legitimate interests. Whereas, when the rating systems are in live operation, only features that are demonstrably relevant to creditworthiness after applying strict standards (eg income, assets, employment and payment habits) may be factored into the rating systems, prior to live operation features that do not (yet) meet the strict standards that govern live operation may also be used for developing and refining rating systems. Enterprises' business and trade secrets are likewise protected.

Easing of requirements for groups of institutions and financial holding groups and members of institution-based mutual insurance schemes

There are two areas in which the Banking Directive envisages a considerable easing of the requirements for groups of institutions and financial holding groups. If there is a close link between the subordinated institutions and the superordinated enterprise of a group of institutions or a financial holding group, in terms of both capital links and risk management aspects, these institutions, pursuant to section 2a of the Banking Act, may be exempted from key requirements of single-entity supervision under certain conditions. This arrangement enables supervisors to take due account of banks' state-of-the-art, inter-institutional risk management procedures. Pursuant to section 10c of the Banking Act, institutions that meet certain conditions will be eligible in future to apply a uniform zero risk weighting to loans within a group of institutions or financial holding group. A similar arrangement was also made for institutions that belong to the same institution-related mutual insurance scheme (see box on page 72).

How to calculate modified available capital

Liable capital pursuant to section 10 (2) sentence 2 of the German Banking Act

- Items pursuant to section 10 (6a) of the Banking Act, taking due account of the deduction of at least 50% from core (tier 1) capital
  - Shortfalls for value adjustments and expected loss amounts for IRB exposures pursuant to section 10 (6a) Nos 1 and 2 of the Banking Act
  - Securitisation exposures to which a 1,250% risk weight is applied and which the institution does not recognise when calculating risk-weighted exposure values
  - Free delivery exposures for which the payment has not yet been effectively rendered five days past due
- Qualified participating interests pursuant to section 12 (1) sentence 4 of the Banking Act, taking due account of the deduction of at least 50% from core (tier 1) capital
- Large exposure excess amounts in the banking book pursuant to section 13 and section 13a of the Banking Act and capital charges for loans to management pursuant to section 15 of the Banking Act, taking due account of the deduction of at least 50% from core (tier 1) capital
- Large exposure excess amounts from borrower-related trading book and overall business positions pursuant to section 13 (4) and (5) of the Banking Act which are backed by liable capital

+ the eligible value adjustment excess for IRB exposures in additional (tier 2) capital pursuant to section 10 (2b) sentence 1 No 9 of the Banking Act

---

Modified available capital pursuant to section 10 (1d) sentence 2 of the Banking Act

Deutsche Bundesbank

Easing of requirements for groups of institutions

Waiver

Pursuant to section 2a of the Banking Act, institutions domiciled in Germany which are subordinated to another institution or a financial holding company also domiciled in Germany can claim exemption (waiver) at single-entity level from the requirements governing capital adequacy, large exposures and the internal control system by notifying the supervisory authorities accordingly. Such exemption requires the subordinated enterprise to be closely integrated in the group structure. Only in this way can it be ensured that, by waiving the central prudential rules at single-entity level, no risks will arise which could endanger the safety of the assets entrusted to the institutions or which could impair the orderly conduct of banking business or provision of financial services or which could result in the emergence of any unacceptable prudential loopholes and that an adequate distribution of capital resources within the group will be safeguarded. Thus, an institution may only claim exemption if the superordinated enterprise exercises a controlling influence on the subordinated enterprise. Furthermore, the subordinated enterprise must be fully integrated in the group-wide risk assessment, measurement and monitoring procedures and the superordinated enterprise must ensure that the subordinated enterprise is managed in line with the prudential requirements. This exemption can also be claimed by the superordinated enterprises of a group of institutions or a financial holding group if they meet the aforementioned requirements.

Intra-group exposures

Pursuant to section 10c of the Banking Act, loans within a group of institutions or a financial holding group may be given a zero risk weighting for Solvency Regulation purposes provided that they are not assigned to the debtor's own funds (intra-group exposures). Furthermore, both the creditor and the debtor of the loan must be domiciled in Germany and must be included in both the full consolidation and the group's risk management system. Finally, there must be no obstacles to the loan's repayment. This relaxation of the rules also applies to lending between credit institutions which belong to the same institution-based mutual insurance schemes. However, since the requirements of inclusion of the member institutions in the full consolidation of the superordinated institution and in the group-wide risk management system are applicable to groups of institutions and financial holding groups only, these institution-based mutual insurance schemes are therefore subject to special terms and conditions. Key stipulations in this respect are the existence of a liability covenant laid down in a contract or statute to avert insolvencies, appropriate arrangements for monitoring risks and credit defaults as well as the avoidance of multiple use or inappropriate drawing of own funds within the network of institutions. The institutions must provide adequate documentation to show that they have met the requirements. The supervisory authorities are currently holding intensive discussions with the associations of institutions concerned to determine the extent to which the individual requirements have been met.

Deutsche Bundesbank

Risk management requirements

The risk management requirements in section 25a of the Banking Act were adapted such that an appropriate risk management system based on methods of gauging and safeguarding risk-bearing capacity include the definition of strategies and the establishment of internal control mechanisms (internal control system and internal audit function). In addition, the fundamental business organisation requirements expressly include regular reviews of the adequacy of the business organisation and its adaptation to changed conditions. Not only the power to issue orders pursuant to section 25a of the Banking Act but also section 45b of the Banking Act give supervisors further scope for taking action to remedy organisational deficiencies affecting an institution, a group of institutions or a financial holding group. These include stiffer capital requirements, imposing restrictions on business activity or ordering targeted measures to reduce risk.

General disclosure rules also contained in Banking Act

Furthermore, in implementing Pillar III of the Revised Framework, section 26a of the Banking Act imposes a series of disclosure requirements in connection with the use of internal risk measurement procedures for calculating institutions' capital requirements. Whereas the specific disclosure events are largely regulated by the Solvency Regulation, section 26a governs general issues concerning the content of disclosure requirements, organisational requirements and exceptions. In the area of disclosure, too, supervisors have the power to issue specific orders to remedy organisational deficiencies or deficiencies in disclosure practices.

Large exposure provisions

It was necessary to amend the large exposure provisions in order to extend the scope for greater recognition of credit risk mitigation provisions contained in the new solvency rules to large exposures. The aim is to create maximum consistency between the two regulatory areas with regard to credit risk mitigation rules (see the section on the Large Exposures Regulation). Moreover, it was necessary to introduce exceptions for energy trading so as not to unduly impede the economically and politically important goal of liberalising the markets for gas and electricity. Pursuant to section 20c of the Banking Act, the existing concentration risks for energy trading, which also need to be hedged, are, no longer to be limited via prudential quantification, but instead to be measured and managed individually by energy traders using internally developed procedures.

Trading book

With the new section 1a of the Banking Act, there is now a separate provision devoted to the requirements relating to holding a trading book, superseding the current section 1 (12) of the Banking Act which governs the distinction between the trading book and the banking book. This was necessitated by the need to take account of the extended rules on trading book business adopted in the new Capital Adequacy Directive. The recast Capital Adequacy Directive now includes more extensive qualitative provisions on holding a trading book, on trading strategies and on the valuation of trading book positions. Since these provisions are specifically tailored to the holding of a trading book, they were not included in the general rules on risk management set out in section 25a of the Banking

Act but instead under the rules governing the trading book. All the same, institutions are equally free to implement these rules in the context of their general risk management system. The requirements governing the trading book also contain provisions relating to banks' internal hedging practices. At the same time, section 1a (3) of the Banking Act redefines financial instruments for the purposes of the act. In future, for the purpose of monitoring solvency, reference will no longer be made to the "financial instrument" concept as defined in the Investment Services Directive or the Financial Markets Directive, which is relevant for the approval requirement for trading in financial instruments, but instead to the broader definition contained in the Capital Adequacy Directive. A financial instrument is said to exist if a contract results in one party having a financial asset and the other having a financial liability or equity instrument. Institutions engaged in only very little trading in financial instruments (ie the sum total of their trading book positions is generally less than €15 million; see section 2 (11) of the Banking Act), however, are exempt from these requirements.

Cooperation among supervisory agencies

Now that institutions are increasingly engaging in banking business across borders and providing financial services in other EEA member states, the rules for cooperation among supervisory agencies (sections 8 et seq of the Banking Act) have been revised to address these changes in market practices. Moreover, a trend towards creating centralised risk management systems is noticeable among internationally active groups of institutions and financial holding groups. Against this background, it has to be ensured that a licence granted by the country of domicile can be recognised throughout the EEA and that competition between institutions domiciled in different member states is not distorted by differences in supervisory standards. For that reason, convergence of supervisory practices in the EU is one of the key goals of the revised Banking Directive.

Internationally active groups of institutions allowed to use internal risk measurement models

One central issue here is the goal of further strengthening the position of the agency responsible for supervising the consolidated institution (the "consolidating supervisor"), as this agency will have an increased role in coordinating the supervision of internationally active groups whose members are domiciled in more than one member state. The provisions in section 10 (1a) of the Banking Act on allowing internationally active groups of institutions and financial holding groups to use internal measurement models accordingly emphasises the special significance of the supervisory authority responsible for consolidated supervision. This provision, however, also ensures that all responsible agencies in other EEA member states are fully involved in the approval procedure. In a continuation of the intensified cooperation between the various agencies responsible for supervising the group's member institutions expressed in sections 8 et seq of the Banking Act, the consolidating supervisor does not decide unilaterally on applications for approval of internal measurement models in a group. Instead, the application is forwarded to the other responsible agencies, provided the institutions they supervise are affected by the application for group approval. Upon receipt of the full appli-

cation, the responsible agencies have six months to reach a joint decision on whether the conditions for approval are met. Should the agencies involved fail to reach a joint decision within that time, the consolidating supervisor has the right to take the final decision.

Use of commercial law-based consolidated financial statements for consolidated supervision

In place of the aggregation of single-entity financial statements which had previously been required by supervisors for all groups of institutions and financial holding groups, now consolidated statements drawn up under commercial law can be used as the basis for calculating consolidated capital adequacy. Use of the consolidated financial statements to calculate consolidated capital adequacy must be based, however, on the respective prudentially defined consolidated group, ie firms that are included in the consolidated financial statements under commercial law yet are not part of the consolidated group for prudential purposes need to be eliminated from the consolidated group. Conversely, the exposures of enterprises that belong to the prudentially defined consolidated group yet are not included in the consolidated financial statements under commercial law are to be assigned to the consolidated own funds and risk positions. Additional provisions ("prudential filters") designed to correct certain valuation rules in the International Accounting Standards (IAS/IFRS) will be included in the Consolidated Financial Statement Transition Regulation *(Konzernabschlussüberleitungsverordnung)*.

Solvency Regulation

Solvency Regulation replaces Principle I

The Solvency Regulation replaces the previous Principle I and spells out the details of the adequacy of institutions' own funds demanded by section 10 of the Banking Act. The Solvency Regulation is scheduled to come into effect on 1 January 2007. For a one-year transitional period, institutions will be able to continue calculating their capital requirements completely on the basis of Principle I.

New methods of calculating credit risk

Principle I had hitherto envisaged only a standardised procedure for calculating the adequacy of the capital backing of credit risk positions. It contained a rigid creditworthiness weighting schema for determining risk which was categorised by type of borrowers and (with regard to sovereigns and banks as debtors) made a relatively simplistic distinction between OECD and non-OECD states. No consideration was given to individual borrowers' probabilities of default. This procedure has been replaced in the Solvency Regulation by two alternative approaches.

Two measurement methods: a new Standardised Approach ...

One of these is for institutions to apply a new Credit Risk Standardised Approach (CRSA), in which the risk weighting is usually linked to external credit assessments.[5] External credit assessments may be used only if they come from institutions that are recognised by supervisors (see box on page 76).

5 For credit risk exposures to central governments, institutions may eschew external credit assessments in favour of using export insurance agencies' country classifications.

Recognition of external credit assessment institutions for risk weighting purposes in the Credit Risk Standardised Approach

Before an institution is granted permission to use the credit ratings issued by an external credit assessment institution (ECAI) to measure the risk weights of credit risk positions in the Credit Risk Standardised Approach (CRSA), the ECAI first needs supervisory approval. Such approval may be granted only if the credit assessment methodology applied by the ECAI and the resulting credit ratings meet certain requirements.

The credit assessment methodology is governed by the following requirements.

- Objectivity, especially including a systematic structure which can be validated.
- Independence from political or economic pressures.
- The issued credit assessments should be subject to at least an annual review.
- Transparency (ie the documentation of the general methodology should be publicly available).

The resultant credit assessments must be

- recognised in the markets by the users of these assessments as credible and reliable, and
- transparent in the sense that they are available at least to all institutions that have a legitimate interest at equivalent terms.

The application for ECAI recognition for risk weighting purposes has to be lodged by the ECAI itself. This is also to include a declaration of intent by an institution or a central association of the banking industry on the future use of the ECAI's assessments for the purposes of the Solvency Regulation. BaFin and the Bundesbank then jointly examine whether the requirements have been met. If the ECAI is also seeking recognition in other European Union member states, a "joint assessment process" is conducted by the supervisory authorities of the EU member states involved. The existence of a single main point of contact, joint evaluation and agreement between all participating supervisory authorities regarding the joint assessment of the application are all intended to ensure a consistent decision on the application across member states while also reducing the bureaucracy this involves for the applicant. The decision on the recognition of ECAIs is then taken by each responsible national supervisory authority.

Within the framework of the recognition procedure, BaFin and the Bundesbank then assign each credit assessment category used by the applicant ECAI to a supervisory credit rating grade between 1 and 6 from which the risk weights to be used can then be derived. The long-term default rates of the credit assessment categories, but also qualitative factors such as portfolio composition and the ECAI's default definition, are included in the assignment.

Deutsche Bundesbank

... with predefined risk weights or ...

Depending on their external credit assessment, the risk exposures that have to be assigned to certain asset classes are given individualised risk weights.[6] For unrated exposures or certain loans, such as those granted in retail or mortgage business, by contrast, the practice of assigning a uniform fixed risk weight will continue to apply. Retail exposures will benefit in future from particularly favourable treatment, as the new CRSA rules will only require them to be given a 75% risk weight (as against 100% in Principle I). This is advantageous particularly for the medium-sized business sector, as the retail business asset class generally also covers small and medium-sized enterprises up to an overall indebtedness level of €1 million. The risk weight for claims secured by residential real estate property will be reduced from 50% to 35%. These rules are likely to favour, in particular, smaller and medium-sized banks that focus mainly on retail banking business.

In a departure from the general coupling of risk weights to issue or issuer credit ratings, the risk weight for claims on banks depends on the external credit assessment of the country of domicile. Because few smaller and medium-sized institutions have an external credit assessment, a corresponding option in the Banking Directive is being exercised in the national implementation.

... using internal ratings-based methods for measuring credit risk

For the first time, institutions have been given a further option for calculating the regulatory capital charges for credit risk – that of using a more risk-sensitive approach based on their own rating procedures, also known as the internal ratings-based (IRB) approach, in which the credit risk weights are determined using borrower-based risk parameters. Institutions can choose between a Foundation Approach (in which the institution only has to estimate the borrower's probability of default (PD)) and an Advanced Approach (in which the institution calculates not only PD but also loss given default (LGD), conversion factors for off-balance-sheet business and residual maturities). The risk weights are calculated for individual risk exposures using an IRB approach based on individually estimated parameters and classified by given asset classes, using risk weighting formulas.

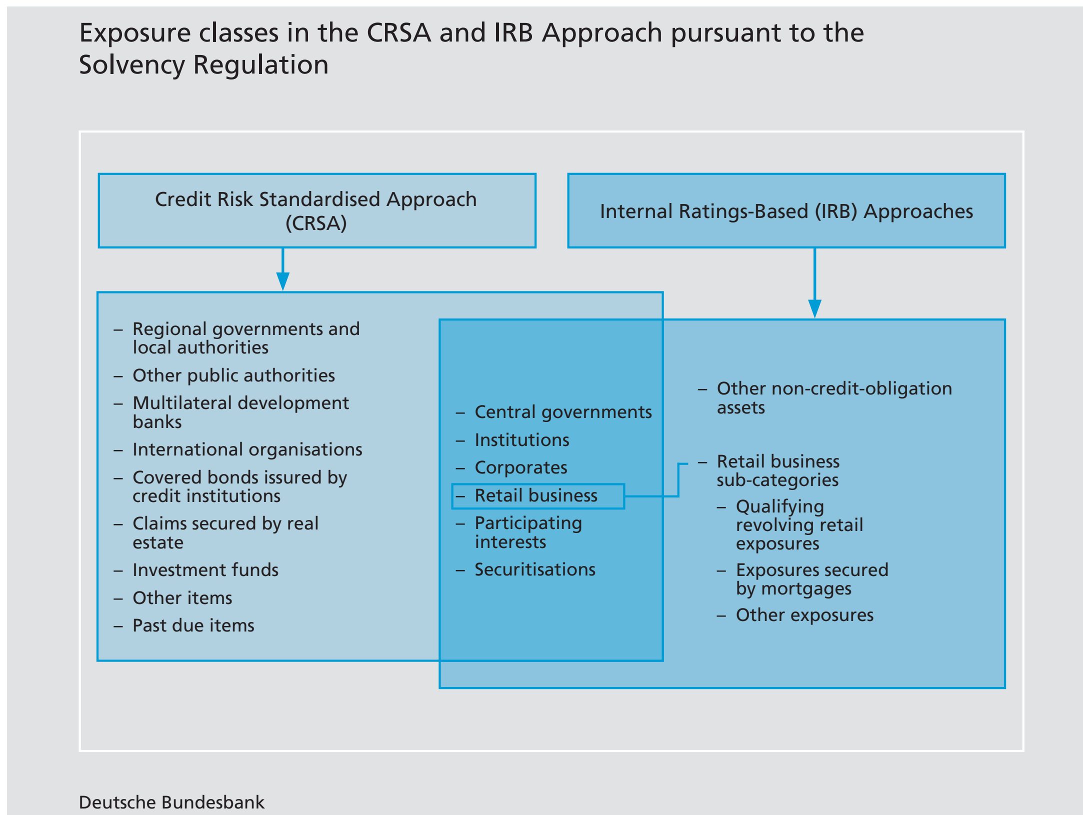
Here, too, some components of the rules are "SME-friendly": as in the CRSA, SMEs can be assigned to the retail business asset class, thus subjecting them to lower risk weights than for the corporates asset class. However, if SMEs are counted as corporates owing to higher total indebtedness, they are also eligible for "haircuts" in capital requirements depending on the amount of turnover and thus on enterprise size.

Supervisory approval necessary in order to use IRB

Since the institutions themselves estimate the risk parameters in the IRB approaches, supervisory approval, which can be given based on an on-site inspection, is necessary prior to the use of these approaches. In this procedure, supervisors' examinations focus on an institution's compliance with the strict catalogue of minimum requirements. During an implementation phase, which generally lasts five years, an institution is permitted to use, to a certain degree, the CRSA alongside the IRB approach

6 The following risk weights are envisaged: 0%, 10%, 20%, 100%, 150%, 350% and 1,250%.

Exposure classes in the CRSA and IRB Approach pursuant to the Solvency Regulation



Deutsche Bundesbank

("temporary partial use"); for some exposures, there is no time limit on this option (also known as "permanent partial use").

New procedures to take account of derivative transactions

In order to calculate the credit equivalent amounts of risk exposures in derivatives, there will be two new procedures in future in addition to the original exposure method and the mark-to-market methods: the Standardised Method (SM) and the Internal Model Method (IMM). The SM could also be referred to as a standardised IMM, as it includes core elements of the IMM and thus reflects credit risks much more accurately than previous methods; however, it is less difficult for institutions to implement. In the IMM, credit equivalent amounts are calculated using an internal risk model that assesses the dispersion of future positive market values of derivatives based on modelled market price movements. The IMM may also be used to calculate assessment bases for counterparty credit risk arising from non-derivative transactions with collateral margin calls as well as risks arising from other repurchase transactions and securities or commodities lending or borrowing transactions, which otherwise, would have to be counted as balance sheet or off-balance sheet transactions regarding their counterparty credit risk. Since institutions have considerable discretion when using the IMM, this method, unlike the other procedures, may only be used upon approval by supervisors.

Fundamental revision of rules governing credit risk mitigation techniques

Under the capital adequacy provisions, institutions used to have only very limited scope for recognising collateral for credit risk mitigation purposes (in most cases, only collateral from collateral providers with a risk weighting of 0% or 20% provided institutions with capital relief). The Solvency Regulation represents a fundamental revision of the rules for credit risk mitigation techniques.

Range of eligible collateral sharply expanded

In future, institutions using IRB will be allowed to use not only a much larger range of eligible financial collateral for credit risk mitigation purposes, which will include a wide range of potential collateral instruments up to and including equities, mutual fund shares or also life insurance policies, but also assignments of claims or physical collateral. When using advanced IRB approaches, the range of eligible collateral is even completely unrestricted, provided an institution can present reliable estimates of the asset's intrinsic value. When collateralising securitisation exposures, the rules on credit risk mitigation techniques apply accordingly.

The recognition of mortgages and warranties as eligible collateral has been maintained. Under the rules for warranties, the treatment of credit derivatives will likewise be comprehensively regulated by the Solvency Regulation. For credit risk mitigation techniques to be recognised when calculating minimum capital requirements, however, institutions need to comply with certain minimum qualitative requirements which are explicitly specified in the Solvency Regulation.

Netting

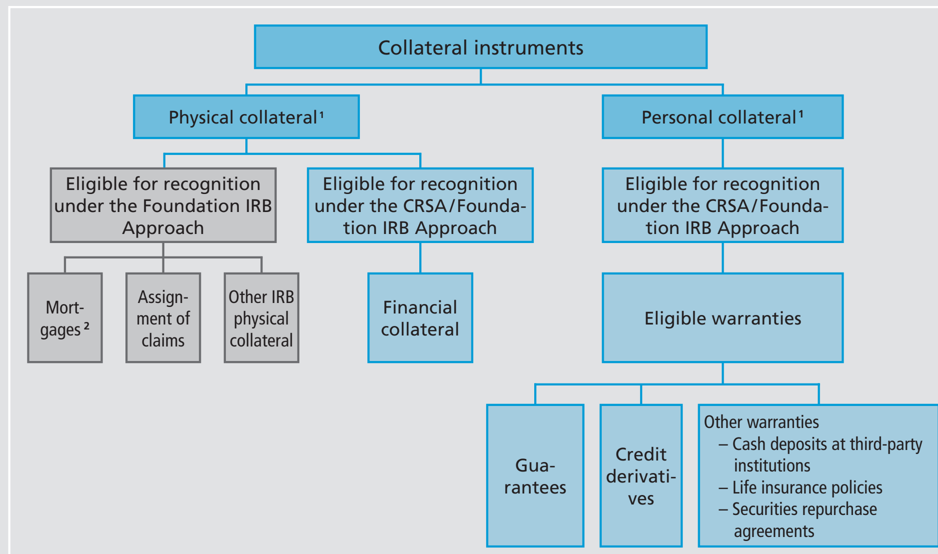
The provisions governing contractual netting have also been fundamentally rewritten. Previously, institutions could only recognise netting effects in the case of credit risk exposures from derivatives and, separately, in the case of repurchase transactions and securities or commodities lending or borrowing transactions in the trading book for credit risk mitigation purposes. On condition that the institution has concluded a bilateral eligible netting agreement, the use of on-balance sheet netting (the netting of mutual money claims and debts) will also be permitted in future. Moreover, institutions, via eligible cross-product netting agreements, will also be able to take account of netting effects in the case of risk exposures from non-derivative transactions with collateral margin calls, other repurchase transactions and securities or commodities lending or borrowing transactions and derivatives, for risk mitigation purposes. However, for such cross-product netting agreements, the use of IMM is mandatory.

New rules governing securitisations

Securitisation risk weights ...

Hitherto the treatment of many securitisation transactions has been agreed with supervisors on a case-by-case basis. With the adoption of the Banking Directive's securitisation provisions in the Solvency Regulation, comprehensive rules have now been introduced for the capital backing of securitisation exposures and conditions created for the originators of securitisation transactions to claim regulatory capital relief. When determining the securi-

Credit risk mitigation techniques: eligible collateral*



* In the Advanced IRB Approach, there are no limits to the range of eligible collateral as long as an institution is able to provide reliable estimates of the asset's intrinsic value and the general collateral requirements are met. — **1** As defined in the Solvency Regulation. — **2** The collateralisation effect of mortgages is recognised in the CRSA through the exposure class "Claims secured by real estate".

Deutsche Bundesbank

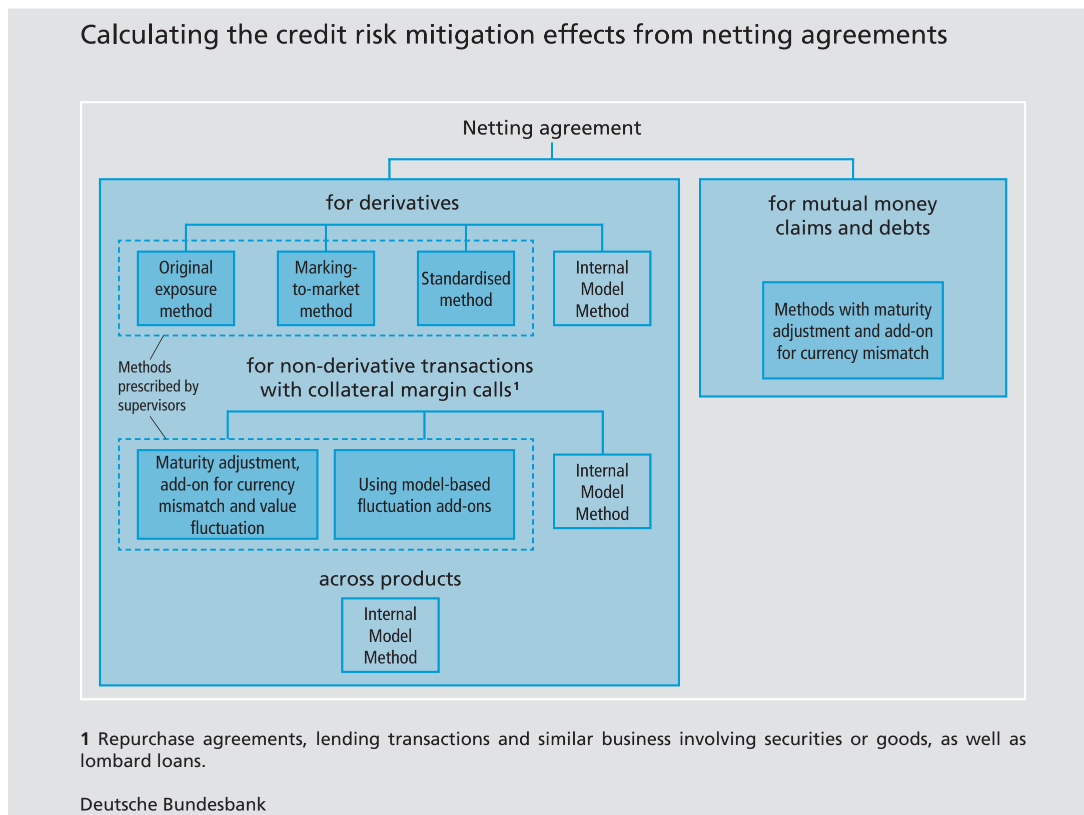
tisation risk weight, a distinction is made between CRSA and IRB securitisation transactions. The classification of a securitisation transaction as a CRSA or IRB securitisation transaction is determined by the credit risk approach that governs the type of asset being securitised (CRSA or IRB). Mixed portfolios are classified according to whether CRSA or IRB positions are predominant in the securitised portfolio.

... for CRSA securitisation positions ...

Any external ratings that exist for CRSA securitisation transactions are the key criterion for the securitisation risk weight. Unrated securitisation exposures are always to be given a weighting of 1,250% or deducted from liable capital. Exceptions are envisaged for qualified liquidity facilities, second loss positions in asset-backed commercial paper (ABCP) programmes and in cases in which the average risk weighting of the securitised portfolio can be calculated owing to a transparent portfolio composition.

... and IRB securitisation positions

A hierarchy of approaches is envisaged for IRB securitisation transactions. If a securitisation position has been given an external rating, or if the rating can be inferred from a benchmark securitisation position, the Ratings-Based Approach (RBA) is to be used. Otherwise, it is to be examined whether the securitisation risk weight can be calculated using the Supervisory Formula (SF) approach. For certain securitisation exposures in the context of ABCP programmes, upon application and supervisory approval, banks may use an internal assessment approach to calculate the credit rating, and thus the securitisation



1 Repurchase agreements, lending transactions and similar business involving securities or goods, as well as lombard loans.

Deutsche Bundesbank

risk weight, instead of the SF approach. IRB securitisation exposures to which none of the aforementioned procedures are applicable are to be either given a risk weighting of 1,250% or deducted from liable capital. In exceptional cases, there is a "fallback" solution for qualified securitisation liquidity facilities – which is subject to revocation by supervisors – according to which the highest CRSA risk weight in the securitised portfolio can be applied in order to prevent the deduction from capital or a 1,250% risk weighting.

Additional capital requirement for operational risk

Explicit recognition of operational risk

To date, "other" risks, chief among which are operational risks, were covered by a flat-rate solvency coefficient of 8%. However, since, in future, the regulatory capital requirement for credit risk will be calculated with much greater precision, the explicit capital backing of operational risks is envisaged. Three different calculation methods are provided for by the Solvency Regulation.

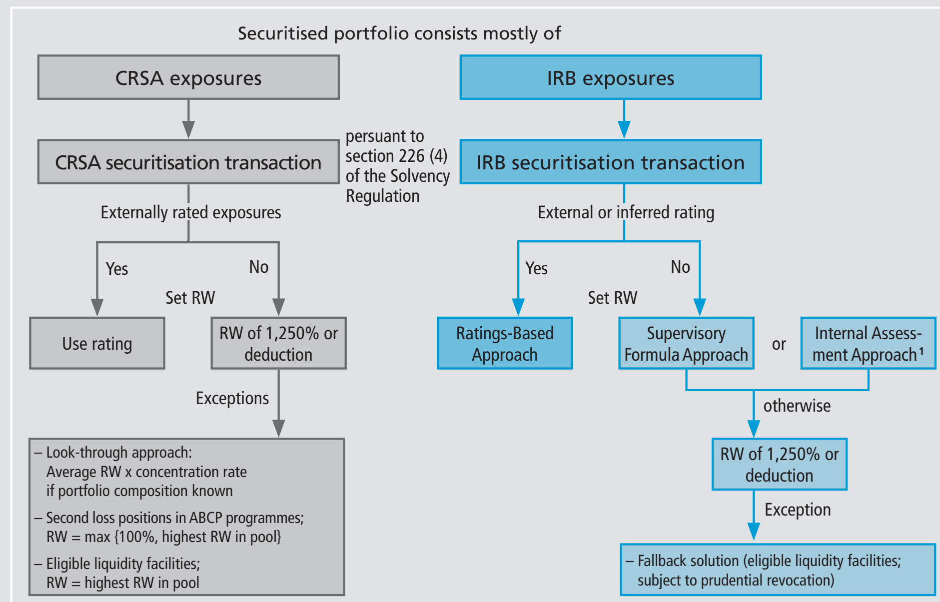
– Basic Indicator Approach (BIA)

– Standardised Approach (TSA)

– Advanced Measurement Approaches (AMAs)

The calculation basis for the BIA and TSA is the three-year average of the "relevant indicator", which is to be calculated from certain items in the profit and loss account (net interest and net commissions received, the trading

Calculating the risk weight (RW) for securitisation exposures



1 May be applied to exposures to ABCP programmes that are not money market securities covered by assets upon prudential approval.

Deutsche Bundesbank

result and other operating income). When using the BIA, multiplying the "relevant indicator" across the board by 15% produces the capital charge. In order to calculate the capital charge using the TSA, the "relevant indicator" is to be broken down into eight business lines defined in the Solvency Regulation and multiplied by weights ranging between 12% and 18%. Alternatively, an institution that is involved primarily in retail and corporate business, when using the TSA, may, subject to prior approval by supervisors, calculate the capital charge in these business lines by multiplying the nominal credit volume by a prudential factor of 0.035.

If an institution has been given permission by supervisors to use an AMA, it may, in compliance with qualitative and quantitative supervisory standards, use its own model to calculate its capital requirements. This is preceded by an approval examination performed by supervisors.

Rules governing "other market risk positions"

Capital charge for other market risk positions

The market risk rules in Principle I – with the exception of necessary systematic adjustments to the new credit risk rules – will be incorporated into the Solvency Regulation largely unchanged in the course of the Basel II implementation process. However, a new standardised procedure that regulates the capital backing of those market risk positions which previous standardised procedures had not been able to capture adequately will be added. These include, for instance, financial

contracts that relate to weather variables, CO_2 emissions or macroeconomic indicators. The methodology of the new procedure is based on historical simulation.

Calculation of capital adequacy

Calculating minimum capital requirements under Basel II

The minimum capital requirements pursuant to Basel II and the Solvency Regulation are calculated as follows.

$$\frac{Own\ funds}{12.5 \cdot (RWA_{(new)} + MRP_{(new)} + OpR)} \geq 8\%$$ [7]

New disclosure requirements

The new disclosure requirements envisaged in Pillar III of the Basel II framework and the recast EC directives were included in the Solvency Regulation because of their close relationship with capital rules. Disclosure obligations are generally aimed at the financial group level; entities belonging to groups are not individually subject to disclosure requirements.

Semiannual or annual disclosure

Institutions or superordinated institutions are required to publish the necessary information annually, and at least semiannually in the case of internationally active institutions, in a suitable medium (eg on the company's own website), unless disclosure has already been effected in the context of fulfilling other publication requirements. Disclosure primarily covers information on risk management relating to risk areas, capital structure, capital adequacy and detailed information on counterparty credit risk, market risk and operational risk, securitisations, credit risk mitigation techniques, interest rate risk in the banking book and equity holdings in the banking book.

Regulation governing large exposures and loans of €1.5 million or more (Large Exposures Regulation)

Large exposures not risk-weighted ...

The definition of the concept of risk for large exposures in the Banking Directive is based on the solvency rules. However, the risk weights are generally not to be used, since the sole purpose of these weights and degrees of risk is to calculate the general solvency requirement for the capital backing of credit risk. In order to limit the maximum loss risk of a credit institution with respect to a single customer or a group of affiliated customers, the nominal value of the exposures, without applying weights or risk grades, is to be used as the basis for defining large exposures. However, the effects of credit risk mitigation techniques can be recognised similarly to those relating to the calculation of minimum capital requirements. Accordingly, when recasting the Large Exposures Regulation, the Standardised Method and the Internal Model Method needed to be introduced in order to calculate the assessment base for derivative transactions, and rules governing credit risk mitigation techniques needed to be incorporated.

... but credit risk mitigation techniques can be used analogously to the Solvency Regulation

7 $RWA_{(new)}$ stands for the capital charge for risk-weighted assets calculated pursuant to the Solvency Regulation. $MRP_{(new)}$ represents the capital charge for market risk positions calculated pursuant to the Solvency Regulation, while OpR denotes the capital charge for operational risk.

With regard to the recognition of credit risk mitigation techniques in the large exposure rules, supervisors may give institutions revocable permission, upon prior application, to recognise the eligible financial collateral pursuant to the Solvency Regulation at its volatility-adjusted value, ie to use the credit amount adjusted for the level of financial collateral instead of the credit amount calculated pursuant to the general provisions of the Large Exposures Regulation. Moreover, institutions using the IRB approach can recognise the collateral effect of financial collateral when calculating credit amounts provided they are permitted to make their own estimates of the loss given default (LGD) and IRB conversion factor parameters for a given asset class and, when doing so, can reliably assess the effects of financial collateral on their credit risks irrespective of other aspects that are relevant to LGD.[8] Here, institutions are required to proceed in a manner consistent with the approach they use to calculate their capital requirements. In addition, institutions may recognise financial collateral, warranties (including credit derivatives) and trading book collateral for reporting purposes or for calculating capital charges provided that they meet certain standards regarding the valuation of this collateral and the management of the risks associated with this collateral, which are spelled out in the Regulation.

Liquidity Regulation

Not directly linked to the implementation of Basel II

Even though no material connection exists, Principle II will be transformed into a Liquidity Regulation pursuant to section 11 of the Banking Act simultaneously with the implementation of Basel II.

Recognition of institutions' own measurement and management methods

The Liquidity Regulation will modernise the quantitative liquidity rules by creating a more risk-oriented and principles-based prudential supervisory regime. From 2007, institutions have been given, for the first time, the opportunity to use their own risk measurement and risk management procedures for the prudential limitation of liquidity risk, subject to prior approval by supervisors. Such an individualised procedure must meet stringent requirements, compliance with which is assessed by supervisors in an approval examination. For institutions that do not use their own procedures, the Liquidity Regulation represents hardly any change from current practice, since the existing rules of Principle II will be incorporated into the regulation largely unchanged as the "Standardised Approach".

Institutions temporarily using Principle I during the year 2007 will be able to simultaneously use Principle II instead of the new Liquidity Regulation until 1 January 2008.

8 For the calculation, the credit amounts are to be multiplied by the LGD adjustment factor, calculated as the difference between one and the quotient of the self-estimated LGD that would arise for this loan if the financial collateral were recognised and of the self-estimated LGD for this loan without recognising the available financial collateral.

The qualitative elements of the Basel Pillar II in the "Minimum requirements for risk management"

Principle of dual proportionality

The "Minimum requirements for risk management" (MaRisk),[9] published on 20 December 2005, flesh out section 25a (1) of the Banking Act, which calls for adequate risk management. These minimum requirements cover the qualitative requirements of Pillar II of the Basel framework. MaRisk stand for a principles-based approach and serve to implement the principle of dual proportionality set forth in the Supervisory Review Process (SRP) enshrined in articles 22, 123 and 124 of the Banking Directive. On the basis of numerous escape clauses, MaRisk can be applied in a simplified manner depending on the credit institutions' size, business speciality and risk situation.

Qualitative elements from Basel's Pillar II

The qualitative elements of the Internal Capital Adequacy Assessment Process (ICAAP) contained in Pillar II of Basel have been factored into MaRisk. For instance, requirements governing risk-bearing capacity (AT 4.1[10]) were introduced, and three new risk categories were added to the requirements for the risk management and risk controlling process alongside the counterparty and market price risks in the trading book already regulated by the "Minimum requirements for the credit business of credit institutions" and the "Minimum requirements for the trading business of credit institutions": interest rate risks in the banking book (BT R 2.3, "Market price risks in the banking book"), liquidity risks (BT R 3) and operational risks (BT R 4). However, MaRisk do not include rules on interest rate shocks,[11] as this is a quantitative element of the SRP.

Integration of the "Outsourcing Circular" into MaRisk

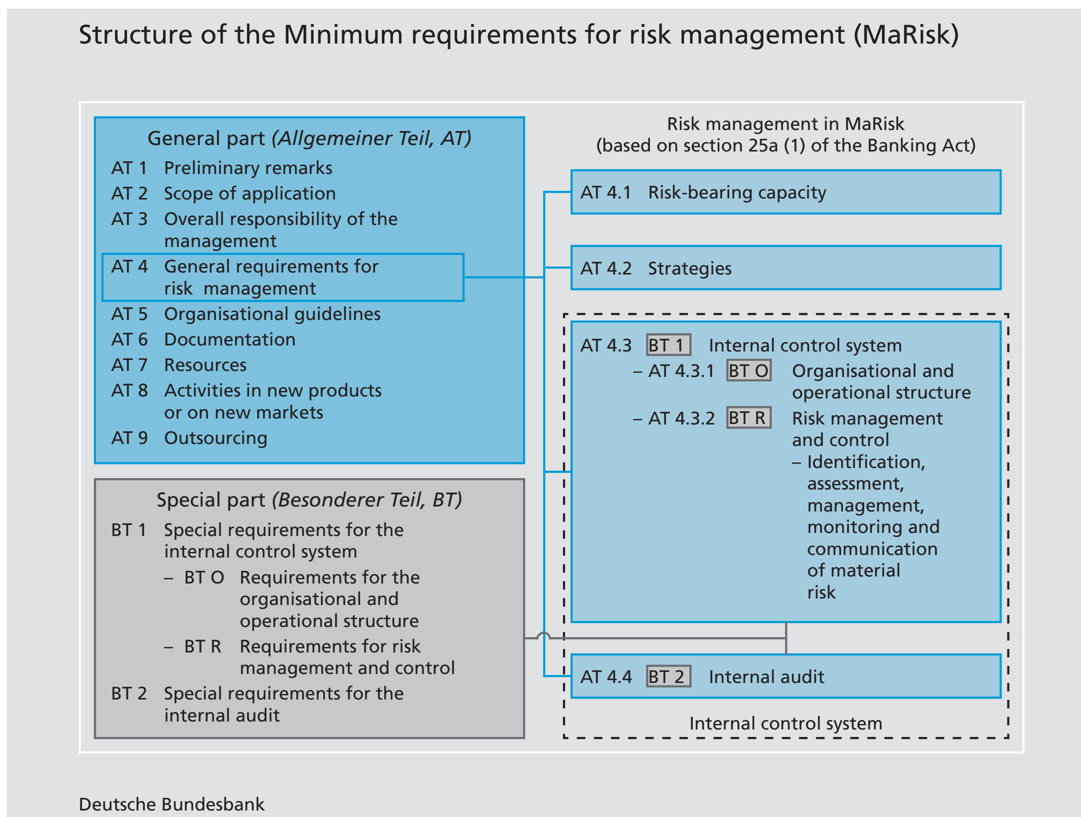
BaFin and the Bundesbank are currently working together on revising prudential rules relating to outsourcing with a view to integrating them into MaRisk. In a similar manner to the "Minimum requirements for the trading activities of credit institutions", the objective in this field is to modernise and reduce the volume of rules in a principles-based, real-world manner. The rules in the Markets in Financial Instruments Directive 2004/39/EC[12] and the implementing Commission Directive 2006/73/EC, as well as the CEBS's Guidelines on Outsourcing, which will shortly be published, need to be taken into account, which means that rules on outsourcing will then apply both in the banking sector and the securities sector.

Implementation of MaRisk

Since the entry into force of MaRisk at the end of 2005, credit institutions have already been eligible to make use of the relief and discretionary scope afforded by the new rules compared with the earlier "Minimum require-

9 The current version of MaRisk (in German only; the abbreviation is taken from the German title, Mindestanforderungen an das Risikomanagement der Kreditinstitute), incorporating decisions of the MaRisk Expert Panel, as well as the minutes of their meetings, can all be found on the Bundesbank's website at www.bundesbank.de/bankenaufsicht/bankenaufsicht_marisk.php. A selection of the above information, including the translation of an earlier version of MaRisk, can be downloaded from the English version of the Bundesbank's website at www.bundesbank.de/bankenaufsicht/bankenaufsicht_marisk.en.php.
10 AT denotes the general section, BT the specific section and BT R the risk management and control section.
11 See paragraph 764 of the June 2004 Revised Framework.
12 This directive, generally abbreviated as MiFID, regulates the conditions for rendering investment services. MiFID supersedes the Investment Services Directive 1993/6/EEC.

Structure of the Minimum requirements for risk management (MaRisk)



Deutsche Bundesbank

ments for the trading activities of credit institutions" and "Minimum requirements for the credit business of credit institutions". The provisions on the SRP, and especially the ICAAP, which entered into MaRisk when implementing the Banking Directive, however, will only be examined and given the green light by supervisors once institutions have begun to apply the risk measurement approaches pursuant to the Solvency Regulation.[13]

Solvency reporting system harmonised throughout the EU ("COREP")

EU-wide reporting system replaces national system

A new path is being embarked upon in the reporting system with the advent of an EU-wide harmonised solvency reporting system (Common Reporting, or COREP) developed at the level of the Committee of European Banking Supervisors (CEBS). In the past, the solvency reporting system, which was based on the Banking Act and Principle I, had been developed by supervisors at the national level. Now, the structure of the COREP reporting system has been imported into the Solvency Regulation completely. Supervisors, however, still have national discretion regarding the amount of detail in the specific information to be provided by institutions. In this context, the Solvency Regulation only requires information at a high level of aggregation in order to do justice to the prudential

13 In the transitional period up until 1 January 2008, supervisors will examine the implementation of the Minimum requirements for risk management on a case-by-case basis.

supervisory aim of making the reporting system as streamlined as possible.

Quarterly reports in future

In future, institutions and superordinated institutions will have to submit solvency reports to supervisors no longer monthly, as in the past, but only on a quarterly basis, thereby partly alleviating their reporting obligations. In addition, according to the new rules, submission deadlines for single-entity reports will be extended in institutions' favour: from end-March 2007, these reports will be due no longer on the 5th business day, but instead the 15th business day, after the end of the preceding month. Reports for groups of institutions and financial holding groups, however, will continue to be due within one month after the reporting date.

Outlook

With the publication of the new German Banking Act on 22 November 2006, and of the Solvency Regulation and the amended Large Exposures Regulation in December 2006 in the Federal Gazette, work on the legal implementation of the recast EC directives has been completed. What will be the impact of the new rules, and what still needs to be done?

Expert implementation not yet complete

First and foremost, expert implementation cannot be described as complete: the two German supervisory agencies, BaFin and the Bundesbank, along with those institutions that have applied for permission to use advanced risk measurement approaches, are still in the process of issuing IRB and AMA approval. This process is likely to take some time yet – not least owing to the generous rules governing the gradual transition to more advaced risk measurement approaches, under which banks can apply for initial approval at institution level or for approval for individual, additional rating systems even years later. With regard to Pillar I of the new capital framework, therefore, the conclusion of regulatory implementation should be regarded more as reaching an (important) milestone rather than as having crossed the finishing line of all implementation work.

Ongoing monitoring of the evolution of capital requirements

Upon completion of the legal implementation, a Basel Committee working group chaired by the Bundesbank will address the issue of monitoring the capital requirements under the new capital adequacy regime. This monitoring is designed to ensure that the aims of the Basel Committee – to create capital incentives for using more advanced risk measurement approaches while at the same time preserving capital in the overall system – are achieved. The Basel II capital requirements are calibrated such that, in Germany, they will lead to slight capital reductions of around 5% in the new CRSA and to somewhat larger capital reductions of around 8% in the IRB Approach. Thus, the correct incentives have been set for transitioning to more risk-sensitive approaches. Depending on the outcome of monitoring, however, a future recalibration of the Basel risk weighting functions cannot be ruled out.

Expert work will also continue on Pillar II, implemented in Germany as MaRisk. The ICAAP requirements represent a journey into un-

ICAAP: uncharted waters in prudential supervision

charted waters in Germany. The evolution of banks' internal methodologies is very dynamic and has not yet reached the end. In this environment, the specific prudential supervisory requirements for ICAAP, in terms of what is "feasible" today, will require some time to take on a specific shape, depending on the size and complexity of the institutions. In addition, as institutions make advances in their methodologies, this shape will evolve over time.

Furthermore, in ICAAP, present-day national requirements for integrated risk management intermingle with future regulatory ideas. In long-term preparation for the potential future prudential recognition of credit risk models, the Risk Modelling and Management Group (RMMG) of the Basel Committee has already begun to analyse and evaluate the *status quo* of modelling and its integration into models of economic capital. In the short term, its results could give a valuable impetus to ICAAP, as it is precisely these internal credit and capital models which form the core of ICAAP among the more advanced institutions, even though they are not prudentially mandatory.

Future focus to be trained on the definition of capital, liquidity risk and ...

Moreover, banking supervisors will set to work on revising the current regulatory definition of capital and on developing international standards for measuring and monitoring liquidity risk. In the latter project, BaFin and the Bundesbank will raise the issue of recognising banks' internal liquidity risk models for prudential purposes for discussion at international level.

... modern risk measurement systems

On the whole, the process launched with Basel II of allowing advanced institutions to use modern internal risk measurement systems for more and more types of risks and risk systems while at the same time providing standardised prudential methods for less advanced institutions will be continued. This will enable institutions to proactively choose a degree of complexity for their own risk measurement and risk management systems which is the best fit for them and their particular business structure.