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Introduction

Currently, banks are in the process of implementing the New Basel Capital Accord, also known as ‘Basel II’. In order to comply with the requirements set by the Bank of International Settlements, banks have initiated Basel II projects for determining the required capital requirements.

KPMG is currently supporting several banks in preparing for Basel II implementation. Although the Basel II Accord was finalized in November 2005, KPMG still receives a great number of questions regarding the interpretation and implementation of the final Accord.

This publication intends to provide answers to a selection of these questions - answers which are tailored to the situation in the Dutch market. As such, it takes into account the interpretations and guidelines drawn by the Dutch Central Bank (DNB).

At KPMG, we are glad to present this Q&A to you and we hope it will address many questions you might have concerning the Basel II Accord implementation.
Basel II Accord

In November 2005, the Basel Committee published the new Basel II framework, the ‘International Convergence of Capital Measurement and Capital Standards, a revised framework’, containing detailed guidelines regarding the solvency of internationally operating banks.

The Basel Capitol Accord sets international adequacy standards and requires financial services companies to have a more risk sensitive framework for the assessment of regulatory capital.

Within the new framework, banks are allowed to use risk models that have been developed internally to measure the capital requirements. In general (depending on the bank’s risk profile) it is expected that banks will be rewarded with lower capital requirements. This reward is intended to stimulate banks to work toward a more advanced measurement of risks. Under more advanced approaches, banks will have to convince the supervisor that the minimum capital requirements are based on representative historical figures. Moreover, banks will have to disclose the risk characteristics of the bank’s portfolio to stakeholders allowing them to be able to determine the bank’s risk profile.
These requirements are described in the three pillars of Basel II:

**Pillar 1:** This pillar describes the guidelines for calculating the bank’s risk profile and capital requirements. Furthermore, the first pillar describes the requirements with respect to the bank’s internal organization.

**Pillar 2:** The second pillar deals with supervisory reviews and outlines the role of the supervisor and the requirements regarding the responsibilities of the bank’s board and senior management. The supervisor is expected to intervene in an early stage in case the bank’s internal organization does not fulfill the requirements and should require banks to take rapid remedial actions to solve the issues. There will be more focus on the interaction between supervisor and bank.

**Pillar 3:** The third pillar deals with market discipline and describes the disclosure requirements toward stakeholders. Through this information, stakeholders are enabled to evaluate the bank’s financial stability in a better way. Pillar 3 is based on the premise that public disclosure of certain information can contribute to effective discipline and regulation.
The deadlines for Basel II implementation are approaching fast. Dutch banks have decided upon the best credit and operational risk approaches to use and are currently implementing the Basel II requirements in their processes. In general, the size of the bank has a direct relation to the complexity of the credit and operational risk approach; the bigger the organization, the more advanced the selected approach.

One of the main concerns for implementing the Basel II requirements is the limited availability and quality of historical data which may complicate the validation of models.

The Dutch legislation and regulations are not final yet. As part of the implementation of Basel II, the Dutch Central Bank has published consultation papers at its website (www.dnb.nl). This is a complicating factor in the implementation process, since legislation and regulations can be subject to changes.
KPMG support regarding Basel II implementation

KPMG supports clients in the implementation process of Basel II. The clearly phased approach as shown below provides a well-structured discipline for implementing Basel II.

At this moment, KPMG is mainly involved in Phase 2 (‘Design & Implement’) of Basel II projects, acting in different roles, including:

- Project management, KPMG supports with project management expertise and capacity to effectively achieve the project targets;
- Roll-out support, providing Basel II expertise. KPMG employs several Basel II specialists who can deliver technical assistance;
- Support in implementing operational risk management frameworks;
• Banks are confronted with several operational risks. KPMG supports banks in identifying the existing operational risks and controls and determining the residual risks by drawing risk and control self assessment.
• Assessment of results achieved by identifying gaps of project results with regard to Basel II requirements;
• Modeling and validation of credit risk and operational risk models;
• Supporting accounting departments to comply with the Corep reporting requirements set by DNB;
• Achieving optimal business benefits resulting from professionalized risk management practices;
• Embedding risk management practices in strategic planning and business processes;
• Setting up the required disclosures in relation to IFRS 7 (‘Financial Instruments: Disclosures’).
General questions on Basel II

The following paragraphs contain questions as received from KPMG clients. In answering these questions, the Basel II Accord and the guidelines as provided by the Dutch Central Bank as at May 2006 have been taken into account.
General questions on Basel II
Below you will find a selection of general questions regarding the Basel II Accord. Within this selection KPMG provides answers to questions regarding the background of the Accord, why it replaces the current Basel I Accord and the structure of the new Accord. It includes the interpretation by The Dutch Central Bank and the timelines that are set.

1. What is the Bank for International Settlements and the Basel Committee?
The Bank for International Settlements (www.bis.org) is a bank owned by and serving central banks. The BIS coordinates the international payments between central banks and the preparation of proposals for national regulations that have a cross-border character. However, it cannot legally enforce these regulations. Apart from hosting meetings and providing secretarial support, the BIS itself does not participate in the process of determining Basel committee policy.

The ‘Basel Committee on Banking Regulation and Supervisory Practices’ (Basel Committee) prepares the proposals for national legislation through EU directives. The preparation of these proposals is coordinated by the Bank for International Settlements (www.bis.org). The Basel Committee provides a forum for regular cooperation on banking supervisory matters. Over recent years,
it has developed increasingly into a standard-setting body on all aspects of banking supervision, including the Basel II regulatory capital framework.

The Committee’s members come from Belgium, Canada, France, Germany, Italy, Japan, Luxembourg, the Netherlands, Spain, Sweden, Switzerland, United Kingdom and United States. Countries are represented by their central bank and also by the authority with formal responsibility for the prudential supervision of banking business where this is not the central bank.

Mr Nout Wellink, currently president of the Dutch Central Bank will take up the chairmanship of the Basel Committee on 1 July 2006.

2. **What is the reason for the revision of Basel I?**

   The goal of the Basel I Accord was to ensure that banks would hold sufficient capital to meet potential future losses (which is vital in reducing the risk of bank insolvency and the potential cost of a bank’s failure to depositors). Since 1988, over one hundred central banks have adopted the Basel I Accord and the goal of the Basel I Accord was met. In the following years, financial markets and products and the risk management function and systems have changed tremendously.
The fundamental objective of the Basel Committee to revise the 1988 Accord was to develop a framework that would further improve the soundness and stability of the financial system by emphasizing the banks’ own internal control and management systems, supervisory review process, and market discipline (transparency), while at the same time maintaining sufficient consistency; the capital adequacy regulation was not to lead to competitive inequality among internationally operating banks.

Basel I provided more possibilities to use products based on capital arbitrage. Basel II also takes into account off balance sheet items such as securitizations when calculating regulatory capital.

The Committee believes that the revised framework will promote the adoption of stronger risk management practices among banks and considers this to be one of its major benefits.

3. What are the differences between Basel I and Basel II?
The main differences between Basel I and Basel II are:

- Basel II encompasses quantitative and qualitative aspects of bank risk
- More active role of bank supervision under Basel II compared with Basel I
- Basel II applies a more risk-oriented capital calculation
- More flexibility in approaches available to banks
- Basel II also takes account of additional risk types (e.g. operational risks)
- Basel II provides the possibility for banks to use internally developed models when calculating risk weighted assets.

4. **What is the absolute minimum capital requirement under Basel II?**

The new capital framework continues to work with the existing minimum requirement of capital, which remains 8% of risk weighted assets.

\[
\text{Capital} = \frac{\text{Credit risk + Market risk + Operational risk}}{\text{BIS ratio (min 8)}}
\]

The banks’ capital adequacy ratio is also known as the BIS ratio. Additional capital requirements can be required as a result of implementation of Pillar 2 of the Basel II Accord.

However banks have to take into account the floors (see question 32) irrespective of the outcome of the risk weighted assets calculation.
5. Which organizations have to implement/comply with Basel II?

The Basel II framework will be applied to internationally operating banks on a consolidated basis.

The scope of application of the framework will include, on a fully consolidated basis, any holding company that is the parent entity within a banking group to ensure that it captures the risk of the whole banking group. Banking groups are groups that engage predominantly in banking activities. The framework applies to all internationally active banks at every tier within a banking group, also on a fully consolidated basis.

Majority-owned or –controlled banking entities, securities entities (where subject to broadly similar regulation or where securities activities are deemed banking activities) and other financial entities should generally be fully consolidated. Insurance activities are not considered financial activities and as such are not in scope for Basel II.

Under EU legislation (Capital Requirements Directive), investment firms are also included.

The Dutch Central Bank has adopted the framework. It will be integrated in the Wet financieel toezicht (Wft) that will be applicable to all Dutch banks and investment firms.
6. What is the impact of Basel II on European and national (Dutch) law?

In the European Union (EU), Basel II is adopted in three steps. In November 2005 the Basel Committee finalized the Basel II Accord. Then the Accord was converted into an EU directive, which addresses the member states and applies to all EU-credit institutions and securities firms. Subsequently the accord is implemented in the national law of the member states.

The existing European legislation, the Codified Banking Directive of 2000 (originally the Solvency Ratio Directive of 1989) and the Directive on the capital adequacy of investment firms and credit institutions of 1993) was based on the Basel I Accord of 1988 and the Basel market risk amendment of 1996. It applies to all credit institutions and investment firms in the EU. Through amended European Directives and the Capital Requirements Directive (CRD), Basel II is implemented in the legislation and regulations of the EU member states. The CRD is applicable to both banks and investment firms. Conversion of the EU legislation in national legislation of the member states is the last step resulting in regulations that are binding for all banks in the Netherlands. In the Netherlands, the Ministry of Finance is responsible for the implementation in national legislation, which is to be accomplished by amending the provisions governing the prudential supervision of banks and investment firms. This will result in changes in the Wet toezicht kredietwezen (Wtk) that will be replaced by the Wet financiering
toezicht (Wft). Within the context of the Wft, DNB will implement the Basel II supervisory regulations and practice.

7. **Which guidelines apply to banks in the Netherlands?**
   
The applicable guidelines and consultation documents that have been drawn by DNB are published on DNB’s website (www.dnb.nl). Additional guidelines and interpretation can be found on the website of the Committee for European Banking Supervisors ‘CEBS’ (www.cebs.org).

8. **What do the three pillars of Basel II consist of?**
   
Pillar 1 describes the guidelines for calculating the bank’s risk profile and capital requirements for credit, market and operational risk. In general, it gives guidelines on:

- Internal risk management;
- Risk modeling and quantitative measurement;
- Calculation of minimum capital requirements according to Basel II.

Pillar 2 outlines the role of the supervisor and the requirements regarding the responsibilities of the bank’s board and senior management. Banks are required to have implemented a sound capital assessment process taking into account all material risks for determining the capital adequacy. The supervisor is expected to intervene in an early stage in case the internal organization does not fulfil the requirements and should require...
banks to take rapid remedial actions to solve the issues. There will be more focus on the interaction between supervisor and banks.

Pillar 3 describes the disclosure requirements towards stakeholders. Through this information, stakeholders are enabled to evaluate the bank’s financial stability in a better way.

9. What is the impact of Basel II on market risk in the trading book?

In general the definition of market risk under the Basel II Accord has not changed with regard to the amendment to the capital accord to incorporate market risks. Market risk is defined as the risk of losses in on and off-balance sheet positions arising from movements in market prices.

To amend the Capital Accord of July 1988 (to take account of and set capital requirements for market risks), the Basel Committee issued the Market Risk Amendment on the Basel I Framework in 1997. It describes two alternative approaches to the measurement of market risk, a standardized method and an internal models approach, closing with a number of worked examples. Originally released in January 1996 and modified in September 1997, the Amendment was further revised on 14 November 2005 to incorporate the Basel Committee’s 18 July 2005 paper, the application of Basel II to trading activities and the treatment of double default effects, solely as a matter of convenience to readers. This paper sets forth capital requirements for banks’
exposures to certain trading-related activities, including counterparty credit risk, and for the treatment of double default effects, or the risk that both a borrower and guarantor default on the same obligation. These requirements have been reflected into the appropriate sections of the Market Risk Amendment.

The definition of the trading book has been changed with regard to the Market Risk Amendment. It is the Committee’s view that open equity stakes hedge funds, private equity investments and real estate holdings do not meet the definition of trading book, owing to significant constraints on the ability of banks to liquidate these positions and value them reliably on a daily basis.

The changes relating to market risk in the trading book set forth by Basel II include:

- The treatment of counterparty credit risk leaves more choices available to measure expected potential exposure
- The capital charges for issuer risk (specific risk) are closer aligned with the credit risk charges of the standardized approach
- Application of credit risk mitigation techniques to trading book products (repo’s, collateralized OTC derivatives, etc.)
- Specific treatment for unsettled transactions
10. **What are possible business benefits of Basel II?**

Possible business benefits resulting from improved risk management are:

- To apply risk-based pricing, tuning pricing to client’s risk profile
- Less defaults as a result of improved insight in client’s risk profile
- Lower cost of funding capital resulting from an improved rating
- Improved insight in processes and related risks could lead to more efficient granting of credits
- Opening more risky segments for business.

11. **To what extent are outsourced activities part of the Basel II scope?**

No specific guidelines have been drawn regarding modeling outsourced activities. In spite of the fact that activities are performed by a service provider, the related products and clients are to be included in the bank’s models, because they are considered to be an integral part of the bank.

The BIS has drawn a consultation paper on outsourcing in financial services (‘Outsourcing in Financial Services’, August 2004) describing nine guiding principles for outsourcing. It stresses that outsourcing is only permissible if management is able to manage risks adequately. The bank should be able to direct the decision making with regard to risk management.
Outsourcing is considered one of the activities that could lead to an operational loss.

When calculating gross income for operational risk management purposes (BIA and SA), it should be gross of operating expenses, including fees paid to outsourcing service providers. In contrast to fees paid for services that are outsourced, fees received by banks that provide outsourcing services shall be included in the definition of gross income.

**12. Is there any overlap between Basel II and SOX?**

Basel II and the Sarbanes-Oxley Act do have overlaps in a sense. Both aim at achieving transparency with regard to the risks and controls of an organization. Although the scope of SOX is limited to internal controls over financial reporting, overlap exists with the controls relevant for Basel II (operational risk).
Timelines
13. When do banks have to comply with Basel II?

The present version of the EU Capital Requirements Directive (‘CRD’) provides for a phased implementation on the basis of which institutions may adopt the simple approaches to credit and operational risks on 1 January 2007. Moreover, the CRD allows institutions the possibility to continue using Basel I during 2007. Basel I will remain in force until the end of 2007. Effectively, this leads to a gradual Basel II adoption rather than a big bang, since banks can decide themselves when to adopt Basel II during 2007. Only for banks adopting the Advanced IRB approach, a single date of 1 January 2008 is set. The IRB approach is based on the use of the internal ratings of a bank’s clients and uses various methodologies for the different types of banks’ portfolios and their various risk-weight curves.

14. Is the parallel run a requirement?

All banks will be required to participate in the parallel run. The parallel run not only applies to banks opting for one of the advanced approaches under Basel II, but also to banks wishing to employ the simple approaches or a combination of simple and advanced.
15. Is it possible to switch between Basel II approaches?
It is not possible to switch to a more simple approach (unless explicitly approved by the supervisor). It is possible to switch to a more advanced approach.

16. What is the duration of the use test?
DNB indicates in the consultation documents that the duration of the use test should be in conformity with the duration of the parallel run. It should be operational for at least one year. The duration of the use test covers such a period that the results of the use test do not show any technical or functional issues (except from negligible issues).

17. When should the first capital requirements calculation be performed and should the bank comply with these requirements?
The date of the first capital requirements calculation depends on the bank’s decision when to adopt Basel II. During the parallel run, the bank should be able to attest that the current regulatory capital complies with or does not deviate much from the required regulatory capital under Basel II.
Credit risk

The majority of Basel II relates to credit risk. The credit risk approach has changed significantly compared to Basel I. The Committee has proposed three different approaches. The more advanced the chosen approach, the more requirements regarding the internal organization and disclosed information.
18. What approaches are there for credit risk?
There are three approaches for calculating credit risk capital charges in a continuum of increasing sophistication and risk sensitivity:

1. The Standardized Approach
2. The Internal Ratings Based Approach – Foundation
3. The Internal Ratings Based Approach – Advanced

19. What are the differences between the approaches for credit risk?
The difference between the approaches is how the parameters in the formula for calculating the required regulatory capital (Probability of Default, Loss Given Default and Exposure At Default) are determined.
The standardized approach is in line with the Basel I Accord, but more risk sensitive. The IRB foundation approach uses internal models and estimates of the PD parameter to calculate the regulatory capital required for credit risk. The IRB advanced approach uses internal models and own estimation of all parameters.

<table>
<thead>
<tr>
<th>Approach</th>
<th>Probability of Default (PD)</th>
<th>Exposure at Default (EAD)</th>
<th>Loss given Default (LGD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standardized</td>
<td>Defined (based on external rating agencies)</td>
<td>Standard formula</td>
<td>Standard formula</td>
</tr>
<tr>
<td>IRB - Foundation</td>
<td>Internal rating model</td>
<td>Standard formula</td>
<td>Standard formula</td>
</tr>
<tr>
<td>IRB - Advanced</td>
<td>Internal rating model</td>
<td>Internal estimates</td>
<td>Internal estimates</td>
</tr>
</tbody>
</table>
The more advanced the chosen approach, the more requirements regarding the internal organization and disclosed information.

20. What is the relation between regulatory capital and risk weighted assets?
Total risk-weighted assets are determined by multiplying the capital requirements for market risk and operational risk by 12.5 (i.e. the reciprocal of the minimum capital ratio of 8%) and adding the resulting figures to the sum of risk-weighted assets for credit risk. The Committee applies a scaling factor in order to broadly maintain the aggregate level of minimum capital requirements, while also providing incentives to adopt the more advanced risk-sensitive approaches of the framework. The scaling factor is applied to the risk-weighted asset amounts for credit risk assessed under the IRB approach. The current estimate of the scaling factor is 1.06.

21. How is the scaling factor determined?
The current best estimate of the scaling factor using QIS 3 data adjusted for the EL-UL decisions is 1.06. The final determination of any scaling factor will be based on the parallel calculation results which will reflect all of the elements of the framework to be implemented.
22. When is a bank considered to be ‘broadly compliant’?

In its draft guidelines on the IRB approach, DNB indicates that banks willing to roll out the IRB Foundation (including Advanced for the retail portfolio) from 1 January 2007 must have an operational rating system that almost fully meets the requirements for rating obligors and determining PDs (or, in the case of retail portfolio, LGDs and conversion factors) by 1 January 2006 at the latest. Institutions that want to roll out the Advanced IRB from 1 January 2008 must also meet these requirements from 1 January 2006. The reason for this ‘broad compliance’ requirement is to prevent banks from changing to the IRB from one moment to the next.

Working with the IRB approach requires an organization to be familiar with modern risk management techniques, model development, assignment of ratings, calculating capital and the application of models to the front-office (risk-based pricing, acceptance, etc). If an organization lacks this expertise, the implementation of the IRB approach involves major risks. The main element of the broad compliance requirement is that the Dutch supervisor is convinced that all involved in the credit risk organization have experience with the use of ratings. DNB has published a non-exhaustive list of assessment criteria that will be used when assessing the concept of ‘broad compliance’ in its draft guidelines on the IRB approach.
23. What is the new portfolio structure recognized by DNB?

Every exposure shall be assigned to one of the following classes:

a. exposures to central governments and central banks
b. exposures to institutions
c. exposures to corporates
d. retail exposures
e. equity exposures
f. securitization positions
g. other non-credit-obligation assets, including the residual value of leased real estate, which do not apply to another class.

In the consultation document on the Internal Ratings Based Approach, credit obligations not assigned to any of the classes above, shall be assigned to class c.

For reporting to the Dutch regulator, the bank will need to use the COREP (Common Reporting) classification which differs from the current classification. In this template, a distinction is made between asset classes (i.e. corporate, retail, etc.) and exposure types (i.e. on-balance, off-balance, etc.).
24. Is it possible to use different approaches for different asset classes or legal entities?

Once a bank adopts an IRB approach for part of its holdings, it is expected to extend it across the entire banking group. The Committee recognizes that, for many banks, it may not be practicable for various reasons to implement the IRB approach across all material asset classes and business units at the same time. Furthermore, once on IRB, data limitations may mean that banks can meet the standards for the use of own estimates of LGD and EAD for some, but not all of their asset classes/business units at the same time.

In practice some banks have adopted a phased roll-out of the IRB approach across the banking group. This phased roll-out should be discussed with and approved by the Dutch supervisor.

25. For which portfolios are LGD models required when using the IRB Foundation approach?

Under the IRB Foundation approach the LGD is determined by the regulator. However the bank can use the CRM (Credit Risk Mitigation) Framework to determine the value of collateral, which in practice leads to an adjusted (lower) LGD. Within the CRM framework the bank has the option to use internal models to determine the value of certain collateral types in the event of a default.
26. How should participations and mezzanine structures be treated in the standardized approach?

With regard to participations and mezzanine structure, the Basel II Accord indicates that when banks adopt the standardized approach, participations and mezzanine structures are categorized under ‘other assets’. These assets will be risk weighted at 100%, unless deducted from the capital base. Significant minority investment in banking, securities and other financial entities, where control does not exist, will be excluded from the banking group’s capital by deduction of the equity and other regulatory investments. Alternatively, such investments might be, under certain conditions, consolidated on a pro rata basis. For example, pro rata consolidation may be appropriate for joint ventures or in cases where the supervisor is satisfied that the parent is legally or de facto expected to support the entity on a proportionate basis only and the other significant shareholders have the means and the willingness to proportionately support it. The threshold above which minority investments will be deemed significant and be thus either deducted or consolidated on a pro-rata basis is to be determined by national accounting and/or regulatory practices.

Under the IRB approach the mezzanine structures must be classified as either equity or as debt instruments. The classification should be based on the definitions and guidance provided by Basel II. The local supervisor may allow the bank to use partial classification.
27. How to deal with private equity?
Under the standardized approach private equity is considered a high risk asset and as such, national supervisors may decide to apply a 150% or higher risk weight reflecting the higher risks associated with private equity.

Under IRB there are two approaches to calculate risk-weighted assets for equity exposures not held in the trading book: a market-based approach and a PD/LGD approach where the banks determines the PD or a Value-at-Risk approach. Supervisors will decide which approach or approaches will be used by banks, and in what circumstances. DNB has not yet provided final guidelines on the approach that has to be adopted. Where supervisors permit both methodologies, banks’ choices must be made consistently, and in particular not determined by regulatory arbitrage considerations.

28. What are the existing requirements for the diversity of retail portfolios?
Granularity is one of the criterions for risk-weighting exposures in the regulatory retail portfolio at 75%. This portfolio should be sufficiently diversified to reduce the risk in the portfolio. The Dutch Central Bank interprets this in their draft supervisory regulation as a numerical limit that no aggregate exposure to one counterpart can exceed 0.2% of the overall regulatory retail portfolio.
Country risk may also be considered as part of concentration risk arising from borrowers in the same geographic region.

29. **What is the consequence of a difference between provisions and the calculated expected loss?**

Banks using the IRB approach must compare the total amount of total eligible provisions under the applicable accounting standards, with the total regulatory expected loss (EL) amount as calculated within the IRB approach.

Where the calculated EL amount is lower than the provisions of the bank, the supervisors must consider whether the EL fully reflects the conditions in the market in which it operates before allowing the difference to be included in Tier 2 capital. If specific provisions exceed the EL amount on defaulted assets, this assessment also needs to be made before using the difference to offset the EL amount on non-defaulted assets.

The EL amount for equity exposures under the PD/LGD approach is deducted 50% from Tier 1 and 50% from Tier 2. Provisions or write-offs for equity exposures under the PD/LGD approach will not be used in the EL-provision calculation.
30. When do overdrafts impact regulatory capital?

Overdrafts can lead to a default when the obligor is past due more than 90 days on any material credit obligation to the banking group. Overdrafts are considered as being past due once the customer has breached an advised limit or been advised of a limit smaller than current outstandings. Authorized overdrafts must be subject to a credit limit set by the bank and brought to the knowledge of the client. DNB defines a default as a situation where the obligor is past due more than 90 days on any material obligation towards the institution, its parent enterprise or any of its subsidiaries. As such it decided not to implement the provision in the CRD to permit corporates a backstop longer than 90 days to be allowed until 31 December 2011, but adopted a mechanical 90-days overdue criterion.

31. What do I leave when I choose for the standardized approach?

Except from the possibility of implementing enhanced risk management and the related potential business benefits (see question 12), implementing the standardized approach is expected to lead to higher regulatory capital requirements than implementation of the IRB approach.
32. Have floors been set for the changes in capital requirements?

Banks that apply IRB and/or AMA are subject to ‘capital floors’ based on percentages of Basel I calculation during 2007, 2008 and 2009. As a consequence of this provision, banks’ minimum capital requirement during 2007 cannot be less than 95% of what it should be under Basel I. In 2008, the minimum percentage will drop to 90% and in 2009 to 80%. During these years, an institution will be at liberty to use alternative calculation methods to determine their floors, provided it ensures that its method will lead to an outcome that is at least equal to the requirement that would have resulted had Basel I methods been applied in full.

In 2007, only banks that apply for IRB Foundation will be required to calculate their Basel I floor. Banks choosing to apply IRB Advanced (possibly in combination with AMA) or (theoretically) AMA without IRB, the requirement to calculate a floor, will apply from 2008 (i.e. as per their implementation of these advanced approaches).
33. How is a maturity mismatch applied to securitizations?

In a synthetic securitization, maturity mismatches may limit the risk transfer and may thus lead to an additional capital charge. If the maturity of the underlying exposures differs from the duration of the securitization, a maturity mismatch arises. This may mean that the securitization ends before the exposures have been repaid. Hence, after the end of the securitization, the originator institution receives the remaining risk back. Against this risk, it must build up capital, in order to be ‘ready’ for the return of the exposures.

In the consultation paper on regulation of credit risk securitization, DNB indicates that an originator institution of a synthetic securitization shall, for the purposes of calculating risk-weighted exposure amounts, allow for any maturity mismatch between the credit protection by which the trancheing is achieved and the securitized exposures. The maturity of the securitized exposures shall be taken to be the longest maturity of any of those exposures, subject to a maximum of five years. An originator institution shall, when calculating risk-weighted exposure amounts for tranches or parts of tranches which have been assigned a risk weight of 1250%, ignore any maturity mismatches. For all other tranches or parts of tranches, the maturity mismatch treatment shall be applied in accordance with the following formula:
where
(a) \( RW^* \) represents the risk-weighted exposure amounts. The risk-weighted exposure amounts calculated in respect of its positions in a securitisation may be limited to the sum of 8\% of the risk-weighted exposure amounts which would be produced if the securitised assets had not been securitised and were on the balance sheet of the credit institution plus the expected loss amounts of those exposures.
(b) \( RW(\text{Ass}) \) represents the risk-weighted exposure amounts for exposures had they not been securitized, calculated on a pro rata basis;
(c) \( RW(\text{SP}) \) represents the risk-weighted exposure amounts as if there were no maturity mismatch;
(d) \( T \) represents the maturity of the underlying exposures, expressed in years;
(e) \( t \) represents the maturity of the securitization, expressed in years.

The method requires the build-up of the capital buffer to be completed three months (represented in the formula by \( t^* = 0.25 \)) before the end of the protection in accordance with a weighting factor which increases over time and is applied to the current outstanding amount.

A provision which is of particular significance for securitizations concerns the determination of the effective maturity of a credit derivative if the
receiver of the protection (that is, the originator institution) has an option to terminate the protection (that is, the securitization) and the conditions of the agreement underlying the protection include incentives that would make it attractive for the institution to terminate the transaction before contractual maturity. The maturity of the protection is considered to be the period until the first possible date on which that option can be exercised.

34. **What is double default and what is its effect under Basel II?**

Double default occurs in banking, when the obligor and the guarantor fail to meet their obligations.

Under Basel I a substitution approach applied, where the risk weighting of the obligor could be replaced with the risk weighting of the guarantor. However, this fails to give sufficient recognition to guarantees, since both obligor and guarantor need to default before a loss is recorded. Under the new framework additional recognition is given to double default through the application of a formula using both PD of the obligor and the PD of the guarantor.
35. What is the impact of Basel II on interest rate in the banking book?

The Committee has the opinion that interest rate risk in the banking book is a potentially significant risk which merits support from capital.

Interest rate risk is treated in the banking book under Pillar 2 of the Framework. Under Pillar 2 the measurement process of interest rate risk in the banking book should include all material interest rate positions of the bank and consider all relevant repricing and maturity data. Such information will generally include current balance and contractual rate of interest associated with the instruments and portfolios, principal payments, interest reset dates, maturities, the rate index used for repricing, and contractual interest rate ceilings or floors for adjustable-rate items. The system should also have well-documented assumptions and techniques.

The revised guidance on interest rate risk recognizes banks’ internal systems as the principal tool for the measurement of interest rate risk in the banking book and the supervisory response. To facilitate supervisors’ monitoring of interest rate risk exposures across institutions, banks would have to provide the results of their internal measurement systems, expressed in terms of economic value relative to capital, using a standardized interest rate shock.
Supervisors should be particularly attentive to the sufficiency of capital of ‘outlier banks’ where economic value declines by more than 20% of the sum of Tier 1 and Tier 2 capital as a result of a standardized interest rate shock (200 basis points) or its equivalent, as described in the supporting document ‘Principles for the Management and Supervision of Interest Rate Risk’.

36. What is ‘downturn’ LGD and when is this used instead of regular LGD?

Downturn LGD can be explained as LGDs in "economic downturn conditions where necessary to capture the relevant risks." The framework requires IRB banks to use estimates of LGD parameters and describes approaches to quantifying these ‘downturn LGDs’ in general terms, but deliberately leaves specific details of the quantification process for supervisors to develop in collaboration with the banking industry. The Basel Committee recognizes that the quantification of LGD parameters in general, and of downturn LGDs in particular, is evolving and for this reason the Committee has announced its intention to continue working with the industry to develop appropriate approaches to quantifying downturn LGDs.

The requirement that IRB banks use economic-downturn LGDs is intended to ensure that Pillar I capital requirements properly reflect material systematic volatility in credit losses over time. To the extent that recovery rates on defaulted exposures may be lower during economic
downturn conditions than during typical conditions, a capital rule aimed at guaranteeing sufficient capital to cover realized losses during adverse circumstances should reflect this tendency.

37. **When do mortgages qualify for preferential risk weight?**

The Basel Committee states in the Basel II Accord that in exceptional circumstances for well-developed and long established markets, mortgages on office and/or multi-purpose commercial premises and/or multi-tenanted commercial premises may have the potential to receive a preferential risk weight of 50% for the tranche of the loan that does not exceed the lower of 50% of the market value or 60% of the mortgage lending value of the property securing the loan. Any exposure beyond these limits will receive a 100% risk weight.

This exceptional treatment will be subject to very strict conditions. In particular, two tests must be fulfilled, namely that:

- losses stemming from commercial real estate lending up to the lower of 50% of the market value or 60% of loan-to-value (LTV) based on mortgage-lending-value (MLV) must not exceed 0.3% of the outstanding loans in any given year;
- overall losses stemming from commercial real estate lending must not exceed 0.5% of the outstanding loans in any given year.
This is, if either of these tests is not satisfied in a given year, the eligibility to use this treatment will cease and the original eligibility criteria would need to be satisfied again before it could be applied in the future. Countries applying such a treatment must publicly disclose that these and other additional conditions are met. When claims benefiting from such an exceptional treatment have fallen past due, they will be risk-weighted at 100%.

38. Why is the risk weight for commercial loans 150% for clients with a rating lower than BB (S&P) and 100% for clients without rating?

The 100% risk weighting for unrated is an average weighting. Some unrated would receive a lower weighting if rated and others a higher weighting if rated. Since ratings need to be consistently monitored, a bank cannot ignore a rating if this leads to a higher risk weighting.
39. How should country risk be treated?
The internal capital assessment process, subject of Pillar 2, requires that a bank should be adequately capitalized for all the risks it is exposed to, including country risk. Country risk generally includes the following components:

- the risk that a borrower will be unable to obtain the necessary foreign currency to repay its obligations, even if it has the necessary local currency (often referred to as ‘transfer risk’)
- the risk of an organization’s assets in the country being appropriated
- the risk of default by the government on its obligations (often referred to as ‘sovereign risk’)

Under the standardized approach (Pillar 1), the different treatments for central government exposures denominated and funded in their domestic currency, as opposed to those in foreign currency, address transfer risk. Additionally the standardized approach provides the possibility to risk weight institutions using either the central government risk-weighted based method or the credit assessment-based method. The former takes into account country risk. Where corporates are unrated, exposures are risk weighted at 100% or at the risk weight of the central government, which also takes into account country risk.

Under the IRB approach (Pillar 1), transfer risk should be captured by the rating systems.
Transfer risk is explicitly carved out from the ‘one-obligor, one-rating’ requirement, because default is defined as any exposure (above a materiality threshold) being past due for more than a specific number of days, irrespective of the origin of this past due.

40. How should collateral outside of OECD be treated?
No specific guidance exists on collateral outside of OECD under the standardized approach other than that the collateral must be legally enforceable in all relevant jurisdictions.

Under the IRB approach risks relating to the location of the collateral should be reflected in the LGD. Again, collaterals may only be reflected as a mitigating factor if legally enforceable in all relevant jurisdictions.

41. What credit risk mitigation techniques are there?
Three approaches exist for credit risk mitigation:

- Simple approach: The risk weighting of the collateral instrument collateralizing or partially collateralizing the exposure is substituted for the risk weighting of the counterparty.
- Comprehensive approach using standard supervisory haircuts set by the Basel Committee: Banks are required to adjust both the amount of the exposure to the counterparty and the value of any collateral
received in support of that counterparty to take account of possible future fluctuations in the value of either, occasioned by market movements.

- Comprehensive approach using own haircuts: In accordance with the comprehensive approach. Instead of using standard supervisory haircuts it uses own-estimate haircuts.

The draft supervisory regulation on credit risk mitigation of October 2005 of DNB sets forth the credit risk mitigation techniques and requirements per approach.

42. To what extent is physical collateral accepted as a factor for mitigating credit risk?

In addition to the financial collateral used for credit risk mitigation under the Standardized Approach, banks under the IRB approach can receive recognition for additional collateral types. The following physical collateral are recognized in the Basel II Accord: specified commercial and residential real estate and receivables.

In its consultation paper on credit risk mitigation, DNB also indicates that only for banks using the foundation IRB approach will it be possible, in addition to financial collateral, to recognize physical collateral. Banks will have to demonstrate that the physical collateral meets the established criteria set by DNB.
Operational risk

The quantification of operational risk under Basel II is new. As a result, banks are further professionalizing the operational risk management (ORM) function and the management cycle for ORM. The Committee has proposed three different approaches. The more advanced the chosen approach, the more requirements regarding the internal organization and disclosed information.
43. What approaches are there for Operational Risk Management?

Operational risk is defined as the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. This definition includes legal risk, but excludes strategic and reputational risk.

There are three methods for calculating operational risks capital charges in a continuum of increasing sophistication and risk sensitivity:

- The Basic Indicator Approach (BA);
- The Standardized Approach (SA);
- The Advanced Measurement Approach (AMA).

44. What are the differences between the three operational risk approaches for calculating the regulatory capital?

**Basic Indicator Approach:** Banks must hold capital for operational risk equal to the average over the previous three years of a fixed percentage of positive annual gross income.

**Standardized Approach:** In the Standardized Approach, banks’ activities are divided into eight business lines. Within each business line, gross income is a broad indicator that serves as a proxy for the scale of business operations and thus the likely scale of operational risk exposure within each of these business lines. The capital charge for each business line is calculated by
multiplying gross income by a factor (denoted beta) assigned to that business line.

Advanced Measurement Approach: A bank adopting the AMA uses its own internal operational risk management system for calculating the regulatory requirements for operational risk. The models used are subject to supervisory approval.

The differences between the approaches for calculating regulatory capital are summarized below.

<table>
<thead>
<tr>
<th>Approach</th>
<th>Calculation</th>
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<tbody>
<tr>
<td>Basic Indicator Approach</td>
<td>• Average of gross income over three years as indicator</td>
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<tr>
<td></td>
<td>• Capital charge equals 15% of that indicator</td>
</tr>
<tr>
<td>Standardized Approach</td>
<td>• Average gross income over three years per regulatory business line as indicator</td>
</tr>
<tr>
<td></td>
<td>• Depending on business line, 12%, 15% or 18% of that indicator as capital charge</td>
</tr>
<tr>
<td></td>
<td>• Total capital charge equals sum of charge per business line</td>
</tr>
<tr>
<td>Advanced Measurement Approach</td>
<td>• Capital charge equals internally generated measure based on:</td>
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<tr>
<td></td>
<td>• Internal loss data</td>
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<td>• External loss data</td>
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<td>• Scenario analysis</td>
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<td>• Business environment and internal control factors</td>
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<td></td>
<td>• Recognition of risk mitigation (up to 20% possible)</td>
</tr>
</tbody>
</table>
45. What are the qualitative differences between the three operational risk approaches?

More qualitative criteria apply when a more advanced approach is used.

No specific qualitative criteria for use of the Basic Indicator Approach are set out in Basel II. Nevertheless, banks using this approach are encouraged to comply with the Committee’s guidance on ‘Sound Practices for the Management and Supervision of Operational Risk’, February 2003, as emphasized by DNB.

In order to qualify for the Standardized Approach, a set of qualifying criteria applies. These criteria relate to:

- Board and senior management involvement in operational risk management;
- Quality of the operational risk management system used;
- Sufficient resources being available for operational risk management in the organization;
- Policies and documented criteria for mapping gross income for current business lines and activities into the standardized framework;
The qualifying criteria for the AMA cover the standardized approach criteria and additionally relate to:

- The existence of an independent operational risk management function;
- The integration of the operational risk management system in the business;
- Regular reporting on operational risk exposures and losses;
- Documentation of the operational risk management system;
- Independent review and validation of the operational risk management system and processes;

46. Which business lines are there under the standardized approach for operational risk?

The following eight business lines are to be distinguished:

- Corporate finance
- Trading & sales
- Retail banking
- Commercial banking
- Payment & settlement
- Agency services
- Asset management
- Retail brokerage
47. Which risks are operational risks?
Operational risk is defined as the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. This definition includes legal risk, but excludes strategic and reputational risk. Annex 9 of Basel II contains detailed loss event types for operational risk that provide more insight in the events that could cause an operational risk.

48. When do the sound practices for operational risk management apply?
The ‘Sound Practices for the Management and Supervision of Operational Risk’ (February 2003) are not enforced by Basel II nor by DNB. It is encouraged to use these practices and practice shows that all banks have either adopted these practices or are in the process of implementing them.

49. How are operational risks identified?
A method that is commonly used for identification of operational risks is the risk and control self assessment. Risk and control self assessments (RSA) are performed by process owners for the process they are responsible for, often supported by a risk management department.

In sound practices for operational risk management, RSAs are described as the assessment of a bank’s operations and activities against a menu of potential operational risk vulnerabilities. This process is internally driven and often incorporates checklists and/or workshops to identify the
strengths and weaknesses of the operational risk environment. Scorecards, for example, provide a means of translating qualitative assessments into quantitative metrics that give a relative ranking of different types of operational risk exposures.

**50. How can operational risks be quantified?**

Quantification of operational risks is done by linking losses to the underlying operational risks that would cause the loss. But operational risks are also quantified beforehand, as part of the RSA process. Quantification of inherent operational risks is an estimation of the expected loss when no controls would have been implemented (for all transactions/cases during a year) and the possibility that the risk would occur. Both aspects are translated to high, medium and low categories. Whether the expected loss is high, medium or low can be quantified by applying limits (in Euros) aligned with the bank’s risk appetite. The possibility of occurrence can be based on the characteristics of the process and should also be translated to high, medium and low categories.

Quantification of residual risks is similar to quantification of inherent risks, taking into account the controls that have been implemented.

**51. What is the purpose of key risk indicators?**

Key risk indicators (KRIs) are statistics and/or metrics which are monitored periodically to provide insight into a bank’s risk position. KRI monitoring provides the possibility to detect risks and take adequate actions to prevent the risk
from occurring. KRIs provide early warning of an increased risk of future losses.

52. What is a good key risk indicator made of?
In general, adequate KRIs have the following characteristics:

- Specific: The KRI should relate to a specific risk or control;
- Forward-looking: KRIs should be early-warning signals;
- Key: KRIs should be identified for key risks only in order to avoid a surplus of KRIs that take too much time to monitor;
- Measurable: The KRI should be based on objective data that measures the operation of a control at specific intervals and enables comparison of KRI values over different periods. The source data should be available, correct and periodically reviewed for correctness;
- Threshold: KRIs should have tolerance limits to indicate when action is needed;
- Responsibility: The responsibility for monitoring the KRI and mitigating risks should be clear.
53. Is a quantitative threshold for losses required?
Under the AMA, a bank must have an appropriate de minimis gross loss threshold for internal loss data collection.

54. Is a formal application required for the standardized approach?
Only the AMA requires a formal application for operational risk.

55. To what extent is risk mitigation through insurance possible?
Risk mitigation by insurance is allowed under the AMA. The recognition of insurance mitigation is limited to 20% of the total operational risk capital charge calculated under the AMA.
56. Is it possible to use different operational risk approaches for different business lines?

A bank is permitted to use the AMA for some parts of its operations and the Basic Indicator Approach or Standardized Approach for the other parts, provided that the following conditions are met:

- All operational risks of the bank’s global, consolidated operations are captured;
- All of the bank’s operations that are covered by the AMA meet the qualitative criteria for using an AMA, while those parts of its operations that are using one of the simpler approaches meet the qualifying criteria for that approach;
- On the date of implementation of an AMA, a significant part of the bank’s operational risks is captured by the AMA;
- The bank provides its supervisor with a plan specifying the timetable to which it intends to roll out the AMA across all but an immaterial part of its operations. The plan should be driven by the practicality and feasibility of moving to the AMA over time, and not for other reasons.
DNB indicated that, in exceptional circumstances, it may grant a bank written permission to combine the Basic Indicator Approach and the Standardized Approach, provided that the bank has committed to implement the Standardized Approach within a deadline agreed by DNB.

57. Is it necessary to file a formal application for the operational risk standardized approach?

The application form is only applicable for the use of internal models for calculating the capital requirements for credit risk and/or operational risk. As such it does not apply to the standardized approach for operational risk.
Pillar 2

The second pillar outlines the role of the supervisor and the requirements regarding the responsibilities of the bank’s board and senior management.
58. What is ICAAP and what is new about ICAAP?

The ‘Internal Capital Adequacy Assessment Process’ (ICAAP) relates to how the bank plans its capitalization. Most banks will already have some sort of process in place. However, under Basel II banks are required to add more structure and controls to this planning process, as well as include new measures such as stress testing, economic capital and add-ons for risk not captured under minimal capital requirements (Pillar 1).

59. What are the possible reasons for a difference between economic and regulatory capital?

A difference between regulatory capital and economic capital can be the result of:

- Difference in scope: additional non-financial activities performed by a bank can be included under Pillar 2
- Diversification or concentration effects (number of risk factors the portfolio is exposed to; correlation of default across counterparties and the number and granularity of counterparty exposures) could lead to a rise or decrease in aggregate risk under Pillar 2
- Use of different confidence levels
- Incorporation of additional risks under Pillar 2 (e.g. interest rate risk in the banking book, business risk, strategic risk and business cycle effects)
60. Are banks required to have an internal capital assessment framework?
Under Pillar 2, all banks (irrespective of the approaches chosen) are required to have an internal capital assessment process to support its risks beyond the core minimum requirements. All banks are required to have policies and procedures implemented that ensure that the bank identifies, measures and reports all material risks, including a process that relates capital to the level of risk.

61. Why does Basel II expect the capital requirements under Pillar 2 to be higher than under Pillar 1?
Under Pillar 1, banks calculate capital for credit risk, market risk and operational risk. Other risks, such as interest rate risk in the banking book, business risk, etc. are not captured. Since under Pillar 2 also capital is required for these risk types, Basel II assumes the Pillar 2 capital requirements will exceed the minimal capital requirements under Pillar 1.

62. How should concentration risk be treated?
Sophisticated banks will use portfolio models that capture the way individual risks are correlated and thus be able to calculate the effect of concentrations. For less sophisticated banks, a more qualitative analysis of concentrations in their portfolio will suffice.
Under more advanced approaches, banks will have to convince the supervisor that the minimum capital requirements are based on representative historical figures. This poses requirements with regard to the (source) data that are kept in IT systems.
63. What are the IT aspects of Basel II?
The role of IT under Basel II is twofold. In general, IT provides the data for calculating the capital requirements. These data are included in the source systems, supporting the primary processes of a bank. For calculating the capital requirements and storage of loss data, new IT systems are implemented.

Because of the process support provided by IT, it is also an important risk from an operational point of view. It is part of the loss-event type categories at the first level (‘business disruption and system failures’) and the second level (‘systems security’ as part of ‘external fraud’).

DNB expects the external auditor to perform audits concerning the organization (existence and functioning) of data management and IT systems.

64. What are the requirements for data availability?

Credit risk
A seven-year data history for LGD and EAD applies under the Advanced IRB approach (for non-retail). A transitional provision has been adopted by the EU that will not require banks to have seven years of data history when implementing the Advanced IRB approach. Data history of five years is required at a bank's implementation of the IRB Advanced approach, incrementing upwards by one year, each year up to the maximum of seven years.
DNB indicated that, in line with the CRD, irrespective of whether a bank is using external, internal or pooled data sources or a combination of the three for its PD estimation, the underlying historical observation period used shall be at least five years for at least one source. This also applies to retail exposures.

For the retail portfolio and the IRB Foundation approach, the CRD prescribes that banks could be potentially applying with two years of data to support the parameter estimates, but requiring three years of experience in the use of the internal models (after that particular transitional provision expires). DNB has adopted the discretion to permit starting with the IRB Foundation (including retail) on the basis of only two years of data.

To meet the data requirements at the end of 2009, banks applying the IRB Foundation must have five rather than two years of data. Banks applying the IRB Advanced must have five years of PD data and seven years of LGD and conversion factor data, except for retail exposures.

**Operational risk**
When adopting the AMA, a bank should have three years of historical loss data when it first moves to AMA (this includes the parallel calculations). Subsequently, operational risk models under AMA must use a minimum five-year of internal loss data, whether the internal loss data is used directly to build the loss measure or to validate it.
65. Which parties provide the relevant external data?

Basel II permits banks to use credit assessments by external credit assessment institutions for determining risk weights of debtors and securitization positions, provided that these institutions are recognized by DNB. DNB is currently receiving applications for recognition. No institutions have been assessed and recognized until now.

The following criteria apply to external credit assessment institutions:

- Objectivity
- Independence
- International access/transparency
- Disclosure
- Resources
- Credibility.

66. How are models validated? What are the criteria for validation?

The (initial) validation should be performed by a team of staff who are independent of

1. the business unit(s), and of
2. the model’s designers.

Furthermore, the validation team should be sufficiently knowledgeable (competence) to perform a thorough evaluation. Validation may be outsourced to third parties, but not to the bank’s external auditor to avoid independency conflicts.
The first validation includes:

1. Qualitative analysis of:
   • the model’s transparency (no black box) and logic (intuition);
   • the plausibility of its outcomes;
   • the reality content of the assumptions used;
   • the impact of possible breaks in trend and market developments;

2. Quantitative analysis:
   a. statistical analyses, where possible out-of-sample/out-of-time tests (comparison of forecasts versus actual developments);
   b. benchmarking (possibly mapping against external ratings);
   c. assessment of the adequacy and integrity of the data set underlying the model’s development;

3. A test of the gap analysis (self-assessment) of the draft model against internal and external guideline (see above); and finally;
4. Reporting the outcomes of the validation/evaluation of the model in the shape of a recommendation for the approval process in stage 3 (see below).

Following the model’s initial validation, a fixed cycle (calendar) for validation of the risk model and the risk system should be used. The frequency and depth will depend on the type of model and the risks modeled, but Basel II prescribes a frequency of at least once a year.
The validation process therefore needs to encompass a mix of:

- an assessment of the model’s development (notably drafts, logic);
- benchmarking (compare with external data);
- the verification of the process (e.g. integrity of rating assigned; replicability of ratings), and;
- analysis of the outcomes (e.g. back-testing).

Validation should encompass both quantitative and qualitative elements.

Senior management has the responsibility of ensuring that validation takes place independently and effectively in conformity with (internal) procedures. The internal audit function is the function for determining the independence of validation.
Disclosures and reporting

Banks will have to disclose to stakeholders the risk characteristics of the bank’s portfolio allowing them to be able to determine the bank’s risk profile. The required transparency is part of this section.
67. When is the first Basel II publication to stakeholders due?

The first publication based on Basel II should be in the year of implementation of the Basel II Accord. In general, the disclosures set out in Pillar 3 should be made on a semi-annual basis. As such, the first publication should be in June 2007 or June 2008, depending on the adopted approach. The following exceptions apply:

- Qualitative disclosures that provide a general summary of a bank’s risk management objectives and policies, reporting system and definitions may be published on an annual basis.
- Large internationally active banks and other significant banks (and their significant bank subsidiaries) must disclose their tier 1 and total capital adequacy ratios, and their components, on a quarterly basis.
- If information on risk exposure or other items is prone to rapid change, then banks should also disclose information on a quarterly basis.

68. When does the supervisor (DNB) require the first Basel II report?

The first report to the Dutch supervisor should be published based on the results of the parallel run. This report is limited to Pillar 1. The number of reporting moments under the parallel run depends on the moment of transition to the Basel II approaches and on the advancedness of the selected approaches.

For banks opting to make the transition to Basel
II with effect from 1 January 2007 or to adopt the simple approaches with effect from 1 January 2008, two reporting moments apply: halfway and at year-end of the year previous to transition. Banks intending to use the IRB Advanced and/or the AMA with effect from 1 January 2008 must observe three reporting moments: year-end 2006, mid-2007 and year-end 2007. Banks planning to change to IRB Foundation after 1 January 2007 or to IRB Advanced and/or AMA after 1 January 2008 will also be required to perform a parallel run and report their solvency ratio under Pillar 1 at least one year prior to the implementation of the selected approach. For these institutions three reporting moments apply: at the start, halfway and at the end of the previous year.

69. Should the required Pillar 3 disclosures be part of the annual financial statements?
Basel II disclosures do not have to be part of the annual financial statements. It is however expected to be disclosed together with the annual financial statements.

Role of the internal and external auditor
This section includes the necessary function segregation between the departments responsible for model development and model validation, and the nature and depth of the activities of both internal and external auditors with regard to Basel II systems.
Role of the external and internal auditor
70. What is the role of the external auditor?

DNB indicates that the external auditor must form an opinion on the reliability of the Pillar 1 models for credit risk and operational risk and the bank’s economic capital model for Pillar 2, because:

1. The BIS ratio figures in the bank’s annual financial statements and the BIS ratio are an important indicator within the banking system.
2. The outcome of these models and the decisions based on them are a major factor in the continuity of the bank (and its authorization). Furthermore, in the Netherlands, the external auditor certifies the monthly or quarterly returns submitted in the context of prudential supervision once a year. If the external auditor is to form an opinion on the reliability of the models, the model’s environment and outcomes, he will have to undertake activities in this area, too.

Comparable to audits performed by the Internal Audit department, the external auditor could divide his activities equally among:

- technical validation audits;
- a functional audit (model use, procedures, processes);
- an organizational audit (governance concerning model cycle, alignment business and risk strategy);
• audits concerning the organization (existence and functioning) of data;
• management and IT systems.

DNB does not state that external validation of the models is a compulsory part of the external auditor’s activities.

The Basel II Accord states that the bank’s operational risk assessment system (including the internal validation processes) that must be existing under the standardized and AMA, must be subject to regular review by external auditors and/or the supervisor. This should include both the activities of the business units and of the independent operational risk management function. DNB has not yet provided additional guidelines on whether external auditors are required to perform audits with regard to the operational risk assessment system.

**71. What is the role of the internal auditor?**

According to the EU Directive (Annex 7, part 4, art. 130), the Internal Audit Department (IAD) has the task of ascertaining that a bank wishing to qualify for the sophisticated approaches (IRB, AMA) for credit risk and operational risk meets all minimum requirements. DNB furthermore requires that when a bank applies for IRB and/or AMA, its top management shall give an indication of the extent of the bank’s compliance with the minimum requirements from the Accord. In order to obtain insight in this, the Board of Directors will be probably provided by the opinion of IAD.
Once the regulator has approved the IRB/AMA systems for the calculation of capital ratios, the IAD needs to verify continually (iteratively) whether the institution (still) meets the minimum requirements, and to report on this at least once annually to the Board of Directors and senior management.

In ‘Basel II: Governance of model development, validation and use’, DNB identifies the following non-exhaustive list of subjects that should be covered by the IAD in its audit of the development and validation process:

- Basel II project organizations and the implementation routes (e.g. data management and IT systems);
- Model development;
- Model approval process;
- Implementation of the model/use of the model (use test);
- Model maintenance/model risk monitoring;
- Model validation.
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# Appendix: List of Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMA</td>
<td>Advanced Measurement Approach (operational risk)</td>
</tr>
<tr>
<td>BA</td>
<td>Basic Indicator Approach (operational risk)</td>
</tr>
<tr>
<td>Basel Committee</td>
<td>Basel Committee on Banking Regulation and Supervisory Practices</td>
</tr>
<tr>
<td>BIS</td>
<td>Bank for International Settlements</td>
</tr>
<tr>
<td>CEBS</td>
<td>Committee of European Banking Supervisors</td>
</tr>
<tr>
<td>CRD</td>
<td>Capital Requirements Directive</td>
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<tr>
<td>DNB</td>
<td>De Nederlandsche Bank</td>
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<tr>
<td>EAD</td>
<td>Exposure at default</td>
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<tr>
<td>EL</td>
<td>Expected Loss</td>
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<tr>
<td>ICAAP</td>
<td>Internal Capital Adequacy Assessment Process</td>
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<tr>
<td>IOSCO</td>
<td>International Organization of Securities Commissions</td>
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<tr>
<td>IRB</td>
<td>Internal rating based approach (credit risk)</td>
</tr>
<tr>
<td>KRI</td>
<td>Key Risk Indicator</td>
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<tr>
<td>LGD</td>
<td>Loss given default</td>
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<tr>
<td>LTV</td>
<td>Loan-to-value</td>
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<tr>
<td>MLV</td>
<td>Mortgage-lending-value</td>
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<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
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<tr>
<td>PD</td>
<td>Probability of default</td>
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<tr>
<td>RSA</td>
<td>Risk and Control Self Assessment</td>
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<tr>
<td>RW*</td>
<td>Risk-weighted exposure amounts</td>
</tr>
<tr>
<td>RW(Ass)</td>
<td>Risk-weighted exposure amounts for exposures had they not been securitized, calculated on a pro rata basis</td>
</tr>
<tr>
<td>RW(SP)</td>
<td>Risk-weighted exposure amounts as if there were no maturity mismatch</td>
</tr>
<tr>
<td>SA</td>
<td>Standardized Approach (credit risk and operational risk)</td>
</tr>
<tr>
<td>T</td>
<td>Maturity of the underlying exposures (years)</td>
</tr>
<tr>
<td>t</td>
<td>Maturity of the securitization (years)</td>
</tr>
<tr>
<td>VaR</td>
<td>Value-at-Risk</td>
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<tr>
<td>Wft</td>
<td>Wet financieel toezicht</td>
</tr>
<tr>
<td>Wtk</td>
<td>Wet toezicht kredietwezen</td>
</tr>
</tbody>
</table>
KPMG Netherlands offers services in the fields of audit, tax and advisory. We offer our services to a broad group of clients: major domestic and international companies, medium-sized enterprises, non-profit organisations and government institutions. The complicated problems faced by our clients require a multi-disciplinary approach. Our professionals stand out in their own specialist fields while, at the same time, working together to offer added value that enables our clients to excel in their own environment. In doing so, we draw from a rich source of knowledge and experience, gained worldwide in the widest range of different organisations and markets. We provide real answers so that our clients can make better decisions.