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Update on latest Basel developments and new Quantitative Impact Study

The Basel Committee has made a highly important announcement on the results of the quantitative impact study (QIS), launching a **new study to assess the impact of the changes announced to Basel and especially of new, greatly flattened credit risk weighting curves.** It has also over recent weeks made significant strides on operational risk and disclosure, issued a newsletter highlighting important developments in credit risk mitigation, and produced a series of working papers on other issues outstanding from the January consultative paper (CP2). The QIS will also examine the impact of these developments. A paper that had been expected on the retail approach was not issued, but the content will now be incorporated into the next full consultative document. Key impacts of the latest proposals include:

- A **revised approach to operational risk,** and a reduction in the amount of regulatory capital that should be set to cover operational risk from an average of 20% to 12% of current minimum regulatory capital – or possibly 9% if an advanced approach is used.
- A **streamlined set of disclosure requirements,** especially in the area of operational risk.
- **Increased capital requirements for firms that have material portfolios of specialised lending, equities in the banking book and holdings of securitised assets** compared with current requirements.
- **Application of banking book rules on credit risk mitigation to collateralised transactions in the trading book,** with potentially disruptive effect.
- A new QIS to assess the impact on capital requirements of the changes described above and of **modified corporate and retail credit risk weight curves** that would treat lending to lower rated parties significantly more leniently than under CP2. The QIS will also examine a proposal to give some recognition of physical collateral and receivables. These forms of collateral had not been recognised as risk reducing for supervisory purposes in CP2. **Many institutions will be asked – or will want – to participate in the new study.**

Taken together, this amounts to a very substantial potential recalibration of the Basel Accord. Although Basel has not yet committed itself to using the new curves in CP3, institutions will need to reassess the quantitative impact of Basel's proposals, and to update their assessment of the qualitative requirements.

In addition, the QIS points up the **data problems that institutions need to get to grips with urgently.** Only 22 of 138 institutions surveyed were able to calculate capital requirements under the Advanced Method, and Basel reports that institutions have found it difficult if not impossible to overcome data limitations.

Not all of the industry's concerns raised in the CP2 consultation are reflected in these papers, and institutions will find several action and potential lobbying points arise. One of the key implications is that institutions will still only be able to get a picture of the new Accord in its entirety when they see the third consultative paper (CP 3). This is still scheduled for early 2002.

General Approach – Calibration to Expected & Unexpected Losses

The Internal Ratings Based (IRB) approach as outlined in CP 2 required that regulatory capital charges be calibrated to cover both unexpected and expected credit losses in loan portfolios. Although a capital charge for unexpected losses (UL) is uncontroversial, comments on a capital charge for expected losses (EL) have been hostile, as expected losses are covered by provisions and, in some business lines, by margin income.

Basel continues to fudge the issue out of a reluctance to open up the issues of provisioning and the definition of capital that would materially delay the new Accord. Basel therefore now proposes an approach in which capital requirements would continue to be required to cover both UL and EL, in combination with the recognition of provisions actually made and, for the retail portfolio, also of future margin income. Capital requirements for UL and EL can be met by the sum of capital, specific provisions, general loan loss provisions not included in capital, and possibly future margin income, with the combined contribution of the last three elements capped at the EL element of the capital requirement.

Operational Risk

Basel has clarified a number of the issues that arose in CP 2. It has kept to the framework established for operational risk, but has responded to extensive industry comments with five main changes:

- **A revised definition of operational risk,** removing the reference to direct and indirect losses. The new definition of operational risk is:

  "The risk of loss resulting from inadequate or failed internal processes, people and systems or from external events".

  Basel has tried to provide clarity on which operational losses should be covered by giving much clearer guidance on which losses are relevant. This has been achieved by defining the types of loss events that should be included in internal loss data by business line (e.g. commercial banking, asset management) and by event type (e.g internal fraud, and business disruption and systems failures). Basel will not, however, require institutions to seek to strip out operational risk loss events from existing credit loss databases, and has said that the calibration of the overall capital charge for operational risk will be set at a level that prevents double counting with the credit risk charge.
- **Reduction in the overall level of the operational risk capital charge from 20% to 12%** of current minimum regulatory capital. As a result, the alpha factor used for the Basic Indicator Approach has been reduced from 30% to between 17-20% of gross income. Gross Income is now to be the exposure indicator for all business lines within the Standardised Approach.
- **Advanced Measurement Approaches (AMA)** will be conditional upon approval from the supervisory authority, and compliance with a range of qualitative and quantitative standards. In addition:
  - a floor has been set on the capital charge equivalent to 75% of the capital charge under the Standardised Approach.
  - internally generated operational risk measures must be based on a minimum historical observation period of five years. During a transitional period, a three year historical data window is accepted.
- **Reduced disclosure requirements.** The disclosure of operational losses by business line is dropped. Other disclosures, in respect of the approach adopted (and the AMA used if applicable), risk management objectives and policies, and operational risk capital charges by business line still apply.
- **The role of insurance as a risk mitigant.** Basel is still considering this. Its present view is that if the recognition of insurance is to be permitted, then it should be limited to those banks that use AMA. It also believes that a floor should limit the extent to which insurance can reduce the capital charge. This is incorporated in the 25% maximum capital reduction that may be obtained by using AMA.

The most sophisticated institutions, hoping to transition to an internal approach will welcome the more inclusive approach to AMA. Those institutions – specialist institutions above all – that will be using the Standardised Method may feel less content. Industry lobbying for a non-linear charge and for more granularity in the business lines of the Standardised Approach has not yet met with a response. Nor has Basel yet responded to the industry arguments that the proposed prohibition on reverting to simpler approaches needs to be applied with some flexibility, for example where banks are integrating new businesses after mergers or acquisitions.

Institutions hoping to use the AMA approach will need to consider carefully whether they can meet the data requirements, and the feasibility of collating loss data in the event categories proposed. Furthermore, **the requirement for 3 years of loss data as a condition for transitioning to the AMA approach implies that firms that do not have comprehensive loss data systems up and running now, will be unlikely to be able to transition to this approach in 2005.**

Institutions planning to transition to the Standardised Method will need to consider how they will map their business lines into the standardised business lines, and obtain reliable gross income data for these lines.

All institutions, regardless of their approach and the nature of their business are expected to employ sound operational risk management practices. Basel is developing a sound practice standard that will shortly be published against which institutions will need to measure themselves.

Equity Exposure Proposals

In July, Basel issued a working paper on the Internal Ratings (IRB) approach to be taken to equity exposures held in the banking book. This outlines a range of approaches to be applied by institutions that are applying the IRB method and that have material equity exposure. The materiality threshold is exceeded if either:

(a) the average total value of equity investments exceeds 10% of Tier 1 and Tier 2 capital (the figure of 10% may be subject to change); or

(b) the equity portfolio is highly concentrated, i.e. it consists of fewer than 10 individual holdings, and the average total value of these exceeds 5% of Tier 1 and Tier 2 capital.

Basel outlines three possible approaches to setting capital requirements.

- A variation of the Foundation method, but with loss given default (LGD) set at 100% (compared with 50% for corporate debt exposures);
- a simple set of risk weights that would weight publicly traded equities at 250-300% and privately held equities at 400-500%; and
- a variation of a VAR model approach that would yield rather lower capital requirements, but with a floor set at one half of the requirement derived by the simple approach.

Institutions that pass the materiality threshold will need to consider the impact of the requirements on their businesses, and will further need to consider the optimal approach to calculating these requirements.

All institutions that hold equities in the banking book, regardless of whether they use IRB approaches and the nature and materiality of their equity holdings are expected to employ sound risk management practices. Basel has developed a number of sound practice standards for managing the risk of banking book equity investments against which institutions will need to measure themselves.

Specialised Lending Proposals

Basel is consulting on the Internal Ratings based (IRB) approach to be taken to exposures where repayment depends principally on the cash flow generated by the asset rather than the credit quality of the borrower. The activities covered are project finance, income producing real estate, object finance (including some leasing) and commodities finance.

Given that historical loan performance data for such exposures are scarce, Basel has outlined a conservative basic approach that is based on supervisory estimates of PD as well as LGD and exposure at default (EAD) coupled with risk management requirements. Institutions that cannot meet these may be required to use an even more conservative basic approach. Basel is unsure whether to offer a foundation IRB approach in this area and is seeking feedback on whether institutions can provide meaningful estimates of the risk parameters normally required. Institutions will be able to use the Advanced IRB method, if they can reliably and consistently estimate all of the required risk parameters.

Institutions that are planning to adopt the IRB approach and have material specialised lending portfolios will need at least to evaluate whether they are able to map their ratings into the four grades specified by regulators in their basic approach.

IRB Treatment of Asset Securitisations

To be eligible for the IRB treatment of securitisations, institutions must satisfy all of the conditions for entry and on-going use of the internal ratings-based approach for credit risk, as well as additional minimum operational requirements outlined in the working paper. If an institution were permitted to rely on the IRB framework for setting minimum capital requirements for an exposure class, it also would be expected to recognise the IRB treatment for securitisations involving that asset type.

The availability of external ratings and the amount of information the institution has about the securitised asset pool are primary determinants of the IRB treatment for the securitisation tranches. When an external rating is available, or the bank does not have the necessary information to calculate the IRB capital requirement for the underlying assets, it must use the standard risk weights set by Basel. These risk weights are linked to the risk weights for corporate exposures of a similar rating under the Foundation IRB method. Institutions will be required to deduct unrated positions and those with an external rating of below Ba3.

Market Discipline

Basel has dramatically cut back disclosure requirements in response to a hail of adverse industry comment on its January proposals, and while they are still extensive they are more focused. Institutions should read the new working paper carefully to determine the disclosure requirements that will apply to them. As before, access to the more sophisticated regulatory techniques is conditional on additional disclosures. The distinction between required and recommended disclosures disappears – all institutions will have to make all the disclosures that are relevant to them. Disclosure requirements are focused at the group level. For many institutions within consolidated groups, the full disclosure regime will not apply and with any disclosure requirement largely focused on disclosures about capital adequacy. That said, national supervisors have the discretion to require regulated institutions to make full disclosure at a sub-consolidated level.

For disclosures that are not mandatory under accounting or other requirements, management can choose the medium through which to disseminate the information. Audit and verification requirements will be determined by national supervisors, and this remains a key area of uncertainty. Basel states that disclosures should generally be on a semi-annual basis, although some static data need be disclosed only annually, while capital ratios and other fast-changing data may be required to be disclosed quarterly.

While institutions will no doubt welcome this more targeted approach, the required disclosures remain significant. Institutions will need to consider their ability to provide the required information to the required standard of accuracy, in both their implementation and lobbying plans. Institutions should also be aware that this is not the final list of disclosures. Work continues on Pillar 1, and alternative or additional disclosure requirements may be introduced in the full and final consultation in early 2002.

Credit Risk Mitigation (CRM) Techniques

Residual risks (the "w" factor)

The much-disliked "w" factor that covered residual risks in collateralised and guaranteed transactions has been dropped. These risks will now be considered under Pillar 2, the supervisory review process. Basel will be developing additional detailed guidance that ensures effective risk management of CRM techniques and provides sufficient capital to cover the risks involved.

Treatment of credit risk mitigation techniques in the trading book

Basel has clarified that, for reasons of consistency, it will extend its banking book approach to collateralised transactions to the trading book. Basel proposes to apply the comprehensive approach to calculate the counterparty credit risk charge for repo-style and collateralised OTC derivative transactions in the trading book. **Many institutions have been much concerned by this, and will need to assess the impact on their trading book activities.**

Calculation of haircuts for repo-style transactions

The CP 2 proposals were structured to apply on a transaction-by-transaction basis. However, counterparty exposures on repo-style transactions are usually managed on a portfolio basis under master netting agreements. Basel has accepted that, in such circumstances, the proposals would result in higher capital charges compared to the actual economic risks. Basel will review its proposals in the light of this acceptance. Institutions will wish to stay close to this important lobbying point.

Internal hedging of credit risk

Where a bank conducts an internal hedge of a banking book exposure using a credit derivative in its own trading book, it must then transfer the credit risk from the trading book to an eligible third party credit protection provider in order to obtain any regulatory capital benefit. The banking book treatment for credit derivatives will be used to calculate the capital requirements for the hedged banking book position. This rule is already implemented by many supervisors.

New Quantitative Impact Study and new credit risk weighting curves

Basel is proposing to **conduct a new QIS** to assess the potential impact of the changes described above and, in addition, what would be a number of very significant modifications to the Accord **if they are finally adopted.**

- A modified risk weight curve for all corporate, sovereign, and interbank portfolios. The modified curve treats lending to the very highest quality counterparties slightly more harshly, but significantly reduces the capital requirements for lending to parties with a higher probability of default (e.g. SMEs). For example, the capital requirement for a loan with 20% default probability would fall from 50% under CP 2 to 30% under the new proposals. The effects of this modified risk weight curve would also flow through to other portfolio treatments that are defined relative to the corporate IRB risk weights, including aspects of the securitisation, equity, and specialised lending proposals.
- Greater recognition of physical collateral and receivables. These forms of collateral were not recognised under CP 2. The new QIS will ask banks to specify the amounts of loans that are fully secured by either physical collateral or by receivables. The survey will then consider the impact of assuming a 45% LGD for loans fully secured by (non-real estate) physical collateral and a 40% LGD for loans fully secured by receivables.
- Modified risk weight curves for both residential mortgage exposures and for other retail exposures. As with the modified risk weight curve for corporates, this treats lending to parties with higher default probabilities considerably more leniently than CP2.

Taken together, if they were finally adopted, the effect of these proposals would be a considerable reduction in capital requirements. Although Basel has not yet committed itself to using the new curves in CP3, institutions will need to factor these new proposals into their assessment of the impact of Basel.

The new QIS and the modified curves follow the results of the study on the impact of CP2. The results will be no surprise to institutions. They show that, on average, the CP2 proposals deliver a large increase in overall capital requirements, irrespective of the approach taken. They also show that CP 2 did not deliver the incentive structure that

Basel had set out to create. This has clearly led Basel to produce modified credit curves and to conduct the new QIS.

The QIS results for **internationally active banks** show that the proposals for credit risk deliver an increase in capital requirements under both the Standardised and IRB Foundation approaches, and that the Foundation approach would generate higher capital requirements than the Standardised. The minimum capital requirement under the Standardised approach would be 6% higher on average. Under the IRB Foundation, minimum requirements would be 14% higher. These numbers rise to 18% and 24% respectively when the impact of the operational risk charge is factored in. Credit risk capital requirements are lower under the IRB Advanced with an average reduction of 5%. However, even here, the impact of the operational risk element results in an overall increase of 5% in capital requirements.

The results for **smaller institutions that would be more likely to use the Standardised approach,** suggest that the average increase in capital for credit risk would be 1% (but up by 13% taking account of operational risk).

The results for **internationally active EU banks** suggest that EU banks derive obtain a smaller reduction in capital using the Advanced Method than do non-EU members of the G10.

The results of the QIS point up the considerable **data issues** that institutions need urgently to get to grips with, if they are to meet supervisory requirements. It is clear that many found the QIS an extremely difficult exercise. Of the 138 institutions surveyed, only 22 were able to calculate the requirements under the Advanced Method for all portfolios (as against 127 for the Standardised Method and 55 for the Foundation Method). Of the 22 only a small sample were able to apply maturity adjustments to calculate capital requirements. Few if any institutions seem to have been able to cope with the full complexity of the Basel regime.

Referring to data quality overall, Basel reports that institutions “have found it difficult, if not impossible in some cases to overcome data limitations”. **This points up the importance and urgency of addressing data limitations in implementation programmes.** It may also be powerful evidence in institutions’ lobbying activities on data requirements for Pillar 1.

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PwC Basel II Diagnostic Updated

The PricewaterhouseCoopers Basel II Diagnostic has been updated to reflect the latest Working Papers from Basel.

The Basel II Diagnostic supports institutions conduct a gap analysis of where they stand against the New Basel Accord. The diagnostic takes the requirements of the new Basel Accord and transforms them into a questionnaire and database software tool. It covers the qualitative criteria that need to be addressed by organisations in parallel with the quantitative capital impacts.

The diagnostic assists organisations to determine the extent of their compliance with the Basel proposals and to more quickly focus attention on the key requirements and their impacts on the business.

PricewaterhouseCoopers has already applied this tool at a number of leading organisations in the UK and across Continental Europe in order to identify the major gaps in credit and operational processes, produce recommendations and develop prioritised action plans for achieving Basel II compliance.

If you would like more information on the diagnostic tool or would like to arrange a demonstration, please contact any of the people listed under PwC contacts above.

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