Basel II
International Convergence of Capital Measurement and Capital Standards
A Revised Framework – June 2004

General Comments

There are several different ways that Basel II is intended to advance banking regulation:

1. The expression of the Three Pillars
2. A more refined and more detailed set of capital requirements
3. Subject to qualification, the allowance of internally based models for determining capital requirements

In many respects, the adoption of Basel II was expected to result in a reduction of capital requirements across the banking sector. The general expectation is that larger banks will tend to benefit more, though the impact will be bar-belled. On the other hand, smaller banks and banks with an unusual portfolio specifically geared to their business model may be hurt. While it was recognized there were some areas where there may have been a need for additional regulatory attention, such as operational risk, there were other areas where historical experience indicated capital requirements were either too high or not sufficiently fine-tuned. Relatively broad categories under prior guidance captured both high and low risk assets in one group. Greater granularity would allow for lower capital charges on the bulk of banking assets while increasing capital charges on other assets that constituted higher risk but represented only a small percentage of the total. Certain other assets and exposures could also be treated conservatively through an outright deduction from capital. Also, with an expansion beyond standardized approaches, it was expected that banking entities with more sophisticated management techniques and processes, after a transitional qualification period, could further reduce their capital requirements by lowering the risk weight of assets held.

This bifurcation of the banking sector would also allow for a different regulatory approach depending on the size and sophistication of the banking entity. While not explicitly stated as such, having some banks use the standardized approach while others qualified for the internal ratings based approach, either foundation or advanced, would give banking regulators the ability to effectively exclude some banks from making certain investments, either by making the capital charge under the standardized approach very onerous or by simply mandating that investing in certain assets required approval of an IRB approach.

The framework document attempts to tread a very broad path. On the one hand, it addresses in great depth many aspects of how banks manage their assets and operations. On the other hand, while it raises many of these aspects as issues to be considered, it does not explicitly give a standard or benchmark. There are also a number of areas in the risk weighting methodology where it is noted that local supervisors should consider either higher or lower weights depending on individual experience.

At this time, U.S. banking regulators have decided to adopt Basel II requirements for large banks and those with significant international operations. What is described later as

the Advanced Internal Ratings Approach would be applicable for these entities. Smaller banks could make the decision to opt into Basel II, but only using the Standard Approach.

The Three Pillars

As has often been cited, key to the framework documents are the three pillars: (1) minimum capital requirements; (2) supervisory review process; and (3) market discipline.

Minimum Capital Requirements: In simple terms, banks are expected to maintain capital equal to 8% of total assets. However, what counts as capital and how different assets are weighted to add up to the numerator and denominator is where the complication lies. Bank capital is divided into Tier 1 and Tier 2. Tier 1 capital consists of permanent capital such as common stock and noncumulative perpetual preferred, less intangibles and excess deferred tax assets. Tier 2 capital consists of higher level capital, or capital that has certain mandatory features, such as cumulative preferred, hybrids and subordinated debt. There is no limit on how much a bank can issue in Tier 2 capital, but what counts as Tier 2, for purposes of regulatory capital requirements, cannot exceed the amount of Tier 1. Tier 2 capital also includes allowance for loan losses, up to a maximum of 1.25% of risk weighted assets, and unrealized equity gains. Assets totaled up in the denominator of the ratio are weighted based on a specific schedule. This is one area where Basel II is a significant step away from prior guidance. There are a significantly larger number of asset categories and each asset category is divided up among a higher number of gradations. The standardized approach assigns specific risk weights to each bucket. Buckets are largely a function of external ratings. More sophisticated banks may be allowed to use internal ratings and weights, but those are still mapped to the same buckets. Whereas all corporate bonds used to carry the same 100% risk weight, higher grade corporate bonds are expected to carry a 20% risk weight under the standardized approach, and potentially even lower under the IRB (internal ratings) approach. The lower risk weights are a significant benefit since the lower number in the denominator magnifies the capital in the numerator. Higher risk assets carry risk weights higher than 100%. Certain exposures, for example certain lower grade asset-backed securities and minority ownership positions, are deducted from capital (50% each to Tier 1 and Tier 2). This is a particularly onerous change in Basel II.

While the standardized approach relies explicitly on the rating agencies – referred to as External Credit Assessment Institutions (ECAI) – Basel II also divides assets into numerous categories, with each having a different risk weight profile for a given ECAI rating. (Note: The NAIC's Rating Agency Working Group has discussed a similar approach, mapping to different NAIC designations and therefore different risk-based capital factors for different asset classes even when the NRSRO rating is the same.) The categories are delineated in a way that is apparently focused on typical bank investment patterns: sovereigns, public sector entities, multilateral development banks, banks and securities firms each have are a different category. Then there are corporate, retail (which includes both individuals and small companies), residential mortgages and commercial mortgages. There are also a number of other categories considered higher risk for structural reasons. Securitized assets are treated completely separately, reflecting in part the fact that banks are frequently the originators of these pools of assets. Retained

tranches create particular issues. Risk weights are intended to much more granular under the standardized approach, as compared with the prior regime.

In addition, the framework has an extensive section addressing credit risk mitigation (CRM). This includes different forms of collateralization and either the substitution of, or haircuts in risk weights. Guarantees and the use of credit derivatives are also addressed, with a detailed discussion of operational requirements and treatment of maturity mismatches in the case of credit derivatives.

Internal Ratings Approach (IRB): While capital requirements were expected to decline modestly under the standardized approach of Basel II when compared with prior guidance, a significantly larger decrease is expected to the extent that banks could qualify to use their own internal ratings. This is because risk weights under the standardized approach reflect broad market experience. On the other hand, sophisticated banks that could qualify their models and systems arguably would also have more sophisticated investment operations that could report significantly better experience. The potential for a substantial reduction in banking capital across the industry is such a concern that after qualifying, for the first three years of operation using an IRB approach, there are gradually decreasing floors for a minimum capital requirement. For each of those years, capital is required to be at least 95%, 90% and 85%, respectively, of what would have been required under prior guidance.

There are two levels for IRB, the foundation approach and the advanced approach. The advanced approach relies on the internal model for assessing all of the different components of credit risk, subject to some minimum standards. This includes probability of default (PD), loss given default (LGD), exposure at default (EAD), and effective maturity (M). The combination of these factors translates into unexpected losses (UL) for which capital requirements are geared. Expected losses (EL) are handled separately. The foundation approach is a circumscribed version of IRB which allows banks to use their own PD but must use supervisory estimates for the remaining components. Banks can gradually qualify different asset classes for using IRB, but once qualified they are not allowed to revert back to the standardized approach.

What are especially worth noting are the requirements for qualifying for IRB. The intent clearly is to divide the universe between those banks with what supervisors can agree to as highly sophisticated investment operations from those that are more basic. There are very detailed minimum operating requirements for qualification and very specific supervisory guidelines to be met before even being considered. In particular, to qualify, a bank must have a minimum of five years of historical information backing their estimates and be able to demonstrate that they have been applying the model for three years. If a bank is able to qualify its model, it must run the two approaches in parallel for one year before it is fully allowed to implement, and then only subject to the floors mentioned earlier. Under the Advanced Internal Ratings Approach, it is also encouraged to have a granular approach to risk weights, similar to the standardized approach. However, how that is accomplished is not defined.

Operational Risk: Operation risk is defined as the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. This includes legal, but not strategic or reputational. As a function of the overall size of the entity and the number of transactions that flows through its systems, this is, in a sense, the risk that the bank could be monetarily liable for mistakes that it makes in those transactions. There are three levels. The basic indicator approach relies on a fixed percentage of 15% of average positive annual gross income over the preceding three years. The standardized approach breaks down the bank's business into eight different business lines and assigns a beta to each, such that the charges could range from 12% to 18%. The advanced approach relies on an internal measurement system.

Trading Book Issues: As a final piece to Pillar One, the framework addresses certain issues relating to assets that are not held for investment. Key to this is daily marked to market valuation.

The Second Pillar – Supervisory Review Process

The primary goal of the second pillar is to encourage banks to develop and use better risk management tools. Supervisors are allowed and expected to set capital targets beyond core minimums that are specific to a bank's risk profile.

Outlined are for four principles: (1) Banks should have a process for assessing their overall capital adequacy in relation to their risk profile and a strategy for maintaining their capital levels. This should include a comprehensive assessment of risks, including credit risk, operational risk, market risk, interest rate risk in the banking book, and liquidity risk (obtaining liquidity in a crisis). (2) Supervisors should review and evaluate banks' internal capital adequacy assessments and strategies, as well as their ability to monitor and ensure their compliance with regulatory capital ratios. Supervisors should take appropriate supervisory action if they are not satisfied with the result of this process. Supervisors should consider the results of sensitivity analyses and stress tests conducted by the institution and how these results relate to capital plans, and should consider the extent to which the bank has provided for unexpected events in setting its capital levels. (3) Supervisors should expect banks to operate above the minimum regulatory capital ratios and should have the ability to require banks to hold capital in excess of the minimum. (4) Supervisors should seek to intervene at an early stage to prevent capital from falling below the minimum levels required to support the risk characteristics of a particular bank and should require rapid remedial action if capital is not maintained or restored.

In addition, supervisors are also held to a certain standard of transparency and accountability. There is expected to be a close and continuous dialogue with industry and a high level of cooperation between supervisors. The home country supervisor is responsible for oversight of implementation of the framework, while the host countries are responsible for supervision of those entities in their countries.

There is additional discussion of interest rate risk, residual credit risk from CRM techniques, credit concentration risk and operational risk. Finally, there is further emphasis on securitization and following the economic substance of transactions.

Pillar Three – Market Discipline

The focus of the third pillar is on developing a set of disclosure requirements which will allow market participants to assess key pieces of information on the scope of application, capital, risk exposures, risk assessment processes, and hence the capital adequacy of the institution. Disclosures should be consistent with how senior management and the board of directors assess and manage the risks of the bank. Public disclosures need to not conflict with requirements under accounting standards, which are broader in scope. Disclosures should be made on a semi-annual basis. Listed specifically are certain qualitative and quantitative disclosures.

Update: Basel III

First, Basel III focuses on what counts as capital. Second, it applies simple universal language for a leverage ratio and includes undrawn lines of credit, etc. The full notional amount of CDS is counted, with no netting. Third, it applies a liquidity ratio, similar to an asset-liability management requirement.

Within the revised capital definitions, certain intangibles are deducted – mortgage servicing rights, some deferred tax assets, minority interests. There are differences between US and European regulators on what should be deducted. U.S. wants to maintain some allowance for mortgage servicing rights. Europe is more focused on minority interests.

Expectations are that Basel III would be adopted some time in 2012. However, there are currently some substantive discussions because preliminary calculations show a significant capital shortfall. Much of this is due to the inclusion of what have been off-balance sheet commitments.