BASEL II: A Worldwide Challenge for the Banking Business
Introduction

In the four years since it was introduced by the Basel Committee for Banking Supervision, the Basel II Capital Accord has evolved as a complex set of recommendations that will likely create a variety of regulatory compliance challenges for banks in Europe and around the globe.

More important, however, are the wide range of business implications and risk management challenges that Basel II (the "New Accord") could trigger for banks, their non-bank competitors, customers, rating agencies, regulators, and, ultimately, the global capital markets. For example:

- Banks will be asked to implement an enterprise-wide risk management framework that ties regulatory capital to economic capital.
- Non-banks outside the scope of Basel II will not face its compliance challenges but may nonetheless want to use it as a competitive benchmark.
- Bank customers will need to collect and disclose new information—and likely will face new risk structures as a result of increased transparency.
- Rating agencies have new prominence under Basel II and thus could experience new competition.
- Regulators are asked to provide a level playing field as the Basel Committee's recommendations are implemented by legislatures in various countries.
- The global banks could experience extended trends toward securitization as financial institutions adapt to Basel II requirements.

The complexity of the New Accord, as well as its interdependencies with International Financial Reporting Standards and local regulation worldwide, makes implementation of Basel II a highly complex project. For a bank, a project will be driven by the structure of its business, beginning with its strategy and encompassing its risk management and capital calculation methods, business processes, data requirements, and IT systems.

With a structured and disciplined approach, banks can begin to achieve the Basel Committee's intended benefits of enhanced risk management and lower capital requirements. Such changes, in turn, could influence banks' strategies, customer relations, and, over time, their business models.

With this white paper, we emphasize that while the data requirements of Basel II are significant, the New Accord is not simply a data and information systems exercise. Indeed, addressing Basel II's data and IT issues are means to an end, not an end in themselves. Ultimately, Basel II's capital requirements have wide-ranging implications for risk management and, thus, corporate governance. By focusing on those aspects of the New Accord, banks can begin to benefit from its most important opportunities.

Jörg Hashagen
Head of KPMG's Basel Initiative
A Revolution Disguised as Regulation

As the Basel II Capital Accord continues to evolve, the Basel Committee on Banking Supervision moves closer to its goal of aligning banking risks and their management with capital requirements. By redefining how banks worldwide calculate regulatory capital and report compliance to regulators and the public, Basel II is intended to improve safety and soundness in the financial system by placing increased emphasis on banks’ own internal control and risk management processes and models, the supervisory review process, and market discipline.

While the 1988 Capital Accord addressed market and credit risks, Basel II substantially changes the treatment of credit risk and also requires that banks have sufficient capital to cover operational risks. It also imposes qualitative requirements on the management of all risks as well as new disclosures (see Basel at a Glance, page 4). Basel II is scheduled to be implemented by various country bank regulators by the end of 2006, but banks must begin compliance efforts now if they are to strengthen their risk management capabilities and gather the extensive data that is required in some cases. They should make these efforts despite uncertainty about how local regulators will ultimately apply the New Accord to their regulatory capital requirements (see Appendix III: Basel II and the Regulators).

To be able to implement Basel II sufficiently, most banks will need to rethink their business strategies as well as the risks that underlie them. Indeed, calculating capital requirements under the New Accord requires a bank to implement a comprehensive risk framework across the institution. The risk management improvements that are the intended result may be rewarded by lower capital requirements. However, large implementation projects will likely have wide-ranging effects on a bank’s information technology systems, processes, people, and business—beyond the regulatory compliance and finance functions.

Basel II also encourages ongoing improvements in risk assessment and mitigation. Thus, over time, it presents banks with the opportunity to gain competitive advantage by allocating capital to those processes, segments, and markets that demonstrate a strong risk/return ratio. Developing a better understanding of the risk/reward trade-off for capital supporting specific businesses, customers, products, and processes is one of the most important potential business benefits banks may derive from compliance, as envisioned by the Basel Committee.

Since the first consultative paper on the New Accord was issued in July 1999, some banks have tended to treat compliance with Basel II as a technical issue. In fact, for institutions worldwide, Basel II compliance is a risk management challenge with strategic business implications. Indeed, even those institutions that are not required to comply with the New Accord will likely tend to use it as a risk management benchmark so they may remain competitive with those that must comply.
Basel II Creates Advantages and Disadvantages for Banks’ Business

With Basel II’s implementation, banks’ average capital requirements should not change significantly on an industry level, but an individual bank may experience a significant change. For example, capital requirements should drop substantially at a bank with a prime business portfolio that is well collateralized. On the other hand, a bank with a high-risk portfolio will likely face higher capital requirements and, consequently, limits on its business potential. Those deemed “high risk” could include banks that are pure risk takers with a buy-and-hold credit management approach, no clear customer segmentation, a lack of collateral management as well as inadequate processes, unstable IT systems, and a poor overall risk management function. Indeed, such entities may not be able to make the necessary investment in compliance; thus, consolidation in the banking industry can be expected to continue in certain regions and markets.

As Basel II helps banks differentiate customers by risk, advantages and disadvantages will likely emerge for bank customers.

Those with a possible advantage:
- Prime mortgage customers
- Well-rated entities
- High-quality liquidity portfolios
- Collateralized and hedged exposures
- Small and medium-sized businesses

Those with a possible disadvantage:
- Higher credit risk individuals
- Uncollateralized credit
- Specialized lending (in some cases)
 Basel II at a Glance

The Basel Committee asserts that, “An improved capital adequacy framework is intended to foster a strong emphasis on risk management and to encourage ongoing improvements in banks’ risk assessment capabilities.” With Basel II, the Basel Committee abandons the 1988 Capital Accord’s “one-size-fits-all” method of calculating minimum regulatory capital requirements and introduces a three-pillar concept that seeks to align regulatory requirements with economic principles of risk management.

Moreover, Basel I was restricted to measures of market risk and basic measures for credit risk. Basel II introduces an array of sophisticated credit risk approaches and a new focus on operational risk. Thus, Basel II seeks to tie banks’ internal risks and their choices in managing them to the amount of regulatory capital they must maintain. According to the Basel Committee, “Banks with a greater than average risk appetite will find their capital requirements increasing, and vice versa.” At the same time, by putting operational risk management on every bank’s agenda, Basel II encourages a new focus on its management and sound and comprehensive corporate governance practices.

Basel II’s three pillars are defined below:

Pillar I sets out minimum regulatory capital requirements—the amount of capital banks must hold against risks. It retains Basel I’s minimum requirement of 8 percent of capital-to-risk-weighted-assets.

The Basel Committee notes, however, that “The new framework provides a [continuum] of approaches from [basic] to advanced methodologies for the measurement of both credit risk and operational risk in determining capital levels. It provides a flexible structure in which banks, subject to supervisory review, will adopt approaches [that] best fit their level of sophistication and their risk profile. The framework also deliberately builds in rewards for stronger and more accurate risk measurement.”

(See Appendix I: Understanding Pillar I Calculations for Credit and Operational Risk.)

Nonetheless, Basel II will limit banks’ savings on capital requirements initially until the potential effects of Basel II are better known. In 2007, for those banks making use of either one of the internal ratings based (IRB) approaches for credit risk or an advanced measurement approach (AMA) for operational risk, minimum capital requirements must equal at least 90 percent of what they were under Basel I. In 2008, minimum capital requirements must be at least 80 percent of the Basel I figure. The Basel Committee has not yet decided on future limitations but is considering keeping them in place when necessary.

Pillar II defines the process for supervisory review of an institution’s risk management framework and, ultimately, its capital adequacy. It sets out specific oversight responsibilities for the board and senior management, thus reinforcing principles of internal control and other corporate governance practices established by regulatory bodies in various countries worldwide (see page 6). According to the Basel Committee, “The [New Accord] stresses the importance of bank management developing an internal capital assessment process and setting targets for capital that are commensurate with the bank’s particular risk profile and control environment. Supervisors would be responsible for evaluating how well banks are assessing their capital adequacy needs relative to their risks. This internal process would then be subject to supervisory review and intervention, where appropriate.” As a consequence, the supervisor may require, for example, restrictions on dividend payments or the immediate raising of additional capital.

Pillar III aims to bolster market discipline through enhanced disclosure by banks. It “sets out disclosure requirements and recommendations in several areas, including the way a bank calculates its capital adequacy and its risk assessment methods.” Enhanced comparability and transparency are the intended results. At the same time, the Basel Committee has sought to ensure that the Basel II disclosure framework aligns with national accounting standards—and, in fact, does not conflict with broader accounting disclosure standards with which banks must comply.
<table>
<thead>
<tr>
<th>PILAR I</th>
<th>Minimum Capital Requirements</th>
<th>PILAR II</th>
<th>Supervisory Review</th>
<th>PILAR III</th>
<th>Market Discipline</th>
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</thead>
<tbody>
<tr>
<td><strong>Market risk</strong></td>
<td>■ No changes from Basel I</td>
<td>■ Banks should have a process for assessing their overall capital adequacy and strategy for maintaining capital levels</td>
<td>■ Market discipline reinforces efforts to promote safety and soundness in banks</td>
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<tr>
<td><strong>Credit risk</strong></td>
<td>■ Significant change from Basel I</td>
<td>■ Supervisors should review and evaluate banks’ internal capital adequacy assessment and strategies</td>
<td>■ Core disclosures (basic information) and supplementary disclosures to make market discipline more effective</td>
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<td>■ Three different approaches to the calculation of minimum capital requirements</td>
<td>■ Supervisors should expect banks to operate above the minimum capital ratios and should have the ability to require banks to hold capital in excess of the minimum (i.e., trigger/target ratios in the United Kingdom; prompt corrective action in the United States)</td>
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<td></td>
<td>■ Capital incentives for banks to move to more sophisticated credit risk management approaches based on internal ratings</td>
<td>■ Supervisors should seek to intervene at an early stage to prevent capital from falling below minimum levels</td>
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<td></td>
<td>■ Sophisticated approaches have systems/controls and data collection requirements as well as qualitative requirements for risk management</td>
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<tr>
<td><strong>Operational risk</strong></td>
<td>■ Not explicitly covered in Basel I</td>
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<tr>
<td></td>
<td>■ Three different approaches to the calculation of minimum capital requirements</td>
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<tr>
<td></td>
<td>■ Adoption of each approach subject to compliance with defined ‘qualifying criteria’</td>
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</table>
Many banks have begun to evaluate how Pillar I’s approaches to credit and operational risk could affect their minimum capital requirements. Fewer institutions, however, have given comparable consideration to Pillar II, under which banks could have to set aside regulatory capital in addition to what is required under Pillar I. Moreover, it is under Pillar II that the New Accord introduces two critical risk management concepts: the use of economic capital, and the enhancement of corporate governance. To achieve the business benefits that Basel II makes possible, banks need to pay particular attention to the requirements of Pillar II.

The Importance of Pillar II for Banks

Pillar II is based on a series of four key principles of supervisory review (see page 7). These principles address two central issues:

1) The need for banks to assess capital adequacy relative to risks overall, and

2) The need for supervisors to review banks’ assessments and, consequently, to determine whether to require banks to hold additional capital beyond that required under Pillar I.

To comply with Pillar II, banks must implement a consistent risk-adjusted management framework that is comparable in its sophistication to, and closely linked with, the risk approaches the bank chose under Pillar I. The four principles provide necessary guidance, as does the Basel Committee’s other guidance related to the supervisory review process (e.g., “Principles for the Management of Credit Risk,” September 2000, and “Sound Practices for the Management and Supervision of Operational Risk,” February 2003).
Pillar II and Economic Capital

In emphasizing risks overall, Pillar II overcomes a substantial shortcoming of the 1988 Accord, which barely distinguished between high- and low-risk transactions. With Pillar II, the New Accord introduces the concept of “economic capital” into the regulatory capital equation—that is, it enables banks to determine capital adequacy based on the level of risk posed by a transaction.

“Economic capital” is the capital banks set aside as a buffer against potential losses inherent in a particular business activity—making a loan, for example, or underwriting a currency. Under Basel II, banks will develop and use various models to allocate capital to transactions based on how much risk an individual transaction contributes to the bank's portfolio of risks. These models would help determine how much capital is required to support the various risks taken by the bank—a purpose regulatory capital cannot adequately serve due to the simplicity of its calculation and regulators' lack of knowledge of the bank's customers, practices, and related risks.

One means banks will use to determine capital adequacy is stress testing. Sound “stress-testing” practices help enable a bank to 1) identify future changes in economic or market conditions or other changes that could unfavorably affect credit exposures, and 2) assess the bank's ability to withstand such events. Banks would choose the tests, subject to supervisory review.

Implementing a capital measurement framework covering all risk types and different business units poses a variety of challenges. However, a consistent and meaningful risk-adjusted measurement framework provides powerful performance indicators that enable institutions to measure and manage risk/return profiles across their various business activities.

Moreover, the business benefits that a bank can derive from economic capital approaches go beyond Basel II compliance. Indeed, the use of economic capital models helps banks address two key business objectives: 1) developing capital through value creation initiatives by linking risk to return, and 2) protecting capital by linking risk to capital required.

While the Basel I proposals only allow the use of economic capital models to assess regulatory capital for market risk, under Basel II the regulators will also allow banks to use these models for operational risk, subject to individual approval. In addition,
Pillar II allows banks to have their own measures of capital requirements beyond the scope of Pillar I. Over time, regulators will likely require banks to disclose much more risk information. Consequently, banks need to seek improved insights into their risks portfolio-wide.

Such a risk management process can help contribute to improved corporate governance—another important goal Basel II supports.

Pillar II and Corporate Governance

Because the New Accord requires that banks implement advanced risk management techniques and methodologies, ultimately its requirements are part of a larger trend toward improving corporate governance. Indeed, Pillar II’s criteria under Principle 1 align with a variety of other regulations and supporting frameworks whose purpose is to enhance corporate governance. Banks that must comply with Basel II will see similarities between Pillar II’s Principle 1 and, for example, the internal controls framework developed by the Committee of Sponsoring Organizations (COSO) of the Treadway Commission in the United States—a framework that many organizations are using in complying with the Sarbanes-Oxley Act (S-O) of 2002. Banks may also see similarities in:

- The framework developed by the Canadian Institute of Chartered Accountants’ Criteria of Control (CoCo) Committee
- The United Kingdom’s Financial Services Authority (FSA) requirements
- The Dutch Regulation on Organization and Control (ROC) of the Dutch Central Bank and the Nadere Regeling 2002 of the Financial Markets Authority
- The German Corporate Sector Supervision and Transparency Act (KonTraG) and Section 25a of the German Banking Act (KWG)

At first glance, banks may have difficulty assessing the scope, relevance, and, particularly, the interdependencies among these regulations. Some of them have been developed over time, thus addressing the accelerating complexity of the twenty-first century management environment; others have evolved in direct response to incidents of major impact on the financial industry. Whatever their origins, however, they are driven by a common goal: to encourage or require incentives for improved risk management and internal control, and, thereby, good corporate governance.

For example, whereas Section 25a KWG and KonTraG in Germany and the U.K. FSA’s Handbook emphasize senior management’s overall responsibility for risk management, S-O establishes clear standards for management’s accountability and shows consequences in case of non-compliance. COSO and CoCo, among others, provide integrated frameworks for internal control, with risk assessment playing an integral role in internal control. Under Basel II, the quality of the individual design and implementation of a control framework will directly affect the bank’s capital charge—thus transforming the binary view of good/bad management into a granular function of cost of capital. Banks will go far in meeting legal and regulatory requirements if they can ensure the establishment of proper business processes, including a sound risk management framework. Enhanced corporate governance is one possible result.

Basel and the Critics: “Pro-Cyclicality” vs. Risk Management

Some critics argue that Basel II’s efforts to align regulatory capital requirements with economic risk management could drive banks to respond by making credit available in a manner that is disproportionately “pro-cyclical.” That is, capital requirements tied to risks would cause banks to continue—and even accelerate—the historic pattern of loosening credit in good times (when risks are perceived to be low) and restricting it in bad times (when risks rise again). This argument—essentially that Basel II ultimately reduces stability—ignores the genuine benefits banks have derived in recent years from formalized quantitative risk-management techniques for credit decision-making.

Moreover, “a capital system with little risk sensitivity creates the potential for problems to escape undetected for longer periods of time.” Indeed, using techniques for hedging, mitigating, and managing risks within the context of credit availability “should reduce the buildup of excessive unintended credit risks that have been assumed in expansions, which in turn will minimize the losses and associated tighter lending standards during recessions. Such lending behavior, in turn, might well reduce the cyclical pattern in minimum capital requirements that would otherwise occur without the better risk management techniques required under...Basel II.”
Depending on its current risk management processes, size, customers, portfolio, and market, a particular bank is likely to experience varying effects of Basel II on at least four levels, as described below.

**Internal Impact: Improved Risk Management Drives Need for New Data**

As discussed previously, Basel II’s focus on risk will prompt an enhanced focus on economic capital management, versus regulatory capital management, because the New Accord drives banks to measure their performance against risk factors other than market share or expected return. Under Basel I, most banks were volume driven; Basel II drives them to become risk-return driven. Once banks can attribute risk to a potential transaction, product, or process, they can ascribe a portion of economic capital to it (based on the risk it poses), define an expected return on it, consider how best to price it, consider risk mitigating techniques, and thereby decide, for example, whether to enter a transaction, engage in a business, or pursue an activity or process.

**Effects of Basel II: Key Challenges for Banks**

![Figure 2: The Environment of Basel II](source: KPMG, 2003)

Basel II affects a variety of constituents, whose needs for information are interdependent.
Using quantitative methods to manage risk—and to deploy capital based on risks—requires high-quality, high-frequency data. Better and timelier information will help enable banks to improve overall risk management—a development that is expected, in turn, to prompt improvements in corporate governance, transparency, and the value of disclosures. Such improvements, however, and the developing link between regulatory and economic capital management, will call on bank leaders to develop and embed a “risk culture” across their organizations. Leaders need to provide employees with incentives to target appropriate customers, to abide by a formalized code of ethics, and to ensure that business processes are reliable and that risk-related information is gathered and disclosed appropriately.

Robust information is at the heart of improved risk management. Inadequate data quality will serve as a poor basis for decision-making. In an environment in which CEOs must attest to the accuracy of their financial statements and the quality of internal controls (as required by the United States’ Sarbanes-Oxley Act of 2002), poor quality information poses new risks with highly serious consequences.

Internal Impact: Key Questions

- Are internal risk management systems and processes adequate to determine all our risk exposures (for example, market, credit, operational, and liquidity risks) and to drive our capital requirement calculations? Are internal controls sufficiently aligned with risks?

- How does our risk profile affect our regulatory and economic capital requirement? Can it be optimized? How does it react to crises? To new competitors?

- How will regulatory capital costs be allocated to business lines across the institution when we have never allocated regulatory capital on a level below the organization as a whole?

- Do we have a code of ethics supported by the appropriate “tone at the top” to ensure that risks are properly managed?

- Do we recognize our shareholders’ expectations for risk appetite?

Customer Impact: Changing Relationships

Improved risk management and data flows should enable banks to identify target clients, evaluate their customers in a more thorough way than they might have done in the past, and determine whether to retain certain customers. Banks will need to request new and timely information from borrowers to perform the internal rating assessments and the collateral evaluation that are essential to Basel II’s risk calculation process.

The standardized credit risk approaches require external rating of most borrowers to be taken into account. Thus, external ratings agencies acquire new importance under the New Accord. Certain markets will remain accessible to un-rated borrowers, but they are likely to face premium pricing, as lenders would have to set aside additional capital to cover the risks they pose. Moreover, even un-rated borrowers will find that banks are required to rate them internally.

These developments will almost certainly affect existing relationships between banks and their customers. Rather than incur the expense of providing extensive new information, large customers may choose to seek funds directly from the capital markets. An external rating can open doors in the capital markets; thus, the more information a borrower can provide, the less it needs a bank. By contrast, those customers unable to provide appropriate, timely information could be deemed higher risk than others and thereby face tightened credit lines or much tighter credit conditions (covenants) and increased funding costs.
Although banks reduce their credit risk in these transactions, their operational risk may rise. For example, a bank may choose to sell a securities portfolio to a special purpose vehicle (SPV) or transfer credit risk via a derivatives transaction. When it does so, the bank needs to designate separate people, processes, and IT systems to that SPV and ensure proper management of related legal issues to mitigate risks. Moreover, increased overall operational risk may require higher regulatory capital, which partly may offset savings on the credit side. Banks may also discover that their best and/or largest customers no longer need their services. Such companies can access the capital markets directly—by issuing bonds, equity, or asset-backed securities—and are as likely to do so as a bank. Retaining such customers could become a challenge.

Global Impact: Improved Financial Market Stability

The banking industry’s improved risk management, enhanced information flows, and related disclosures could drive parallel improvements in the stability of the financial markets. New disclosures will provide regulators with “early warnings” that banks or rating agencies could pass on to the public and investors, potentially enhancing trust in the financial markets.

For the individual institution, the challenge will be to determine how to translate internal risk management into external disclosures. Scenario analysis of both credit and operational risk—and to what extent to disclose such analysis—becomes increasingly important for banks in an environment in which...
regulatory capital is aligned with economic risks. Basel II’s disclosure requirements are intended to “allow market participants to assess key information about a bank’s risk profile and level of capitalization.” Such information has increased importance and potential value under Basel II, in which banks have new license to rely on internal models and ratings to determine their capital requirements.

In addition, the growing importance of rating agencies and the dependency on their services and conclusions has to be considered. Potential clients could be affected, and the bank’s rating itself could be subject to increased scrutiny—scrutiny that is currently not subject to independent supervision.

Basel II also affects financial institutions that do not have to comply with it. Such non-banks or near banks (i.e., certain credit card companies, leasing companies, auto manufacturers, or retailers’ financing arms) may not have to fulfill Basel II’s potentially extensive disclosure requirements or make investments in managing operational risk. However, Basel II will raise the standard for risk management across the global market, and such institutions will likely seek to enhance their risk management techniques by adopting those the New Accord describes. The end result could be improvements in global market stability.

Global Impact: Key Questions

- Which disclosure strategy/policies should we adopt?
- What are our competitors or peers doing, both banks and non-banks?
- How can we communicate information externally in a meaningful way? Should we disclose stress-testing and scenario analysis efforts?
- What are the possible approaches to disclosure? Can disclosure become a competitive advantage?
- What additional impact will rating agencies gain on cost of capital via market disclosure?
## Figure 3: The Implementation of Basel II: Effects, Challenges, and Risks

<table>
<thead>
<tr>
<th>Constituent</th>
<th>Current Situation</th>
<th>Effects of Basel II</th>
<th>Challenges</th>
<th>Risks</th>
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</thead>
<tbody>
<tr>
<td>Banks</td>
<td>Use “one-size-fits-all” regulatory capital approach</td>
<td>Need to implement risk management framework tying regulatory capital to economic risks</td>
<td>Interpret new regulations and understand effects on business</td>
<td>Fail to diversify loan portfolio to mitigate risks</td>
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<td>Need to choose credit and operational risk approaches (Pillar II)</td>
<td>Manage change to risk culture</td>
<td>Fail to determine the extent of change required, associated costs, benefits, and relevant options</td>
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<td>Need to gather, store, and analyze wide array of new data</td>
<td>Secure and maintain board and senior management sponsorship</td>
<td>Fail to implement change consistently across the organization</td>
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<td></td>
<td>Need to embed new/enhanced practices across the organization</td>
<td>Face new expectations from regulators, rating agencies, and customers</td>
<td>Need to avoid “gaps/overlaps in operational and credit risk approaches</td>
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<td>Needs external/interatial rating to obtain credit</td>
<td>Need to consider whether to target certain customers/products or eliminate others</td>
<td>Receive a reduced credit rating</td>
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<td>Face increased transparency of account profitability</td>
<td>Determine what to do with surplus capital</td>
<td>Become a target of consolidation</td>
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<tr>
<td>Regulators</td>
<td>Operate in a fragmented environment</td>
<td>Need well-trained, educated professionals to fill roles that are traditionally not as well paid as comparable positions within financial institutions</td>
<td>May create new costs for banks and ultimately for customers</td>
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<td>Need enhanced information to be able to anticipate bank problems (e.g., respond in crisis/default)</td>
<td>Gain power to set incentives, penalize wrong-doers, and act (not react) – thus contributing to increased financial stability and transparency</td>
<td>Impose numerous locally specific choices that diminish the effects of the levelled playing field that Basel II seeks to create</td>
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<tr>
<td>Rating Agencies</td>
<td>Operate in an oligopolistic environment dominated by Standard &amp; Poor’s, Moody’s, and Fitch (Europe); others face high barriers to entry</td>
<td>Grow based on new need for ratings by banks and capital market participants</td>
<td>Face reduced market share because most banks will likely use IRB approaches</td>
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<td></td>
<td>Compete with new, smaller players allied in new associations designed to improve their competitiveness and reputation</td>
<td>Gain access to more and timely information through the new disclosures Basel requires of banks</td>
<td>Fail to benefit from increased competition if smaller agencies cannot surmount barrier to entry</td>
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<td></td>
<td>Respond to requirements for greater transparency in rating components</td>
<td>Gain power to set incentives, penalize wrong-doers, and act (not react) – thus contributing to increased financial stability and transparency</td>
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<tr>
<td>Capital Markets</td>
<td>Face trend toward securitization, including credit derivatives</td>
<td>Deal with accelerating trends toward: - Securitization, and growth in derivatives markets - “Risks” (e.g., corporate bonds) offered in smaller parcels - New growth of debt market</td>
<td>Face reduced customer base as low-quality corporations avoid debt markets and favor stable relationships with banks</td>
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<td>Deal with accelerating trends toward: - Securitization, and growth in derivatives markets - “Risks” (e.g., corporate bonds) offered in smaller parcels - New growth of debt market</td>
<td>Create investor trust and reduce volatility by encouraging the development of a regulatory framework, by market</td>
<td>Deal with potential for: - Volatility in the debt market - Reduced liquidity</td>
</tr>
<tr>
<td>Financial Institutions out of Basel II’s scope (non-banks, near-banks, credit card companies, consumer financing companies)</td>
<td>Not covered by financial regulation comparable to the Basel regime</td>
<td>Operate in same markets but in different regulatory environment than Basel-compliant institutions</td>
<td>Fail to respond effectively as Basel II becomes an industry benchmark</td>
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<td>Operate in same markets but in different regulatory environment than Basel-compliant institutions</td>
<td>Do not need to gather or disclose the same information as Basel-compliant institutions</td>
<td>Face potential downgrades when assissed by external rating agencies and not applying Basel II</td>
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<td>Need to consider the extent to which “complying” with Basel II is strategically important to help the institution remain competitive and to signal quality</td>
<td>Can potentially offer similar financial products at a lower price than competitors</td>
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<td>Face potential downgrades when assissed by external rating agencies and not applying Basel II</td>
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Although the Basel II proposals are subject to change, banks need to act expeditiously to prepare for implementation by 2006. Firms that are slow to respond to the challenges may miss opportunities to reduce their regulatory capital as well as leverage other risk management benefits. Indeed, a poor or inadequate implementation of Basel II could affect a bank's ability to manage its risks and its customer base or other aspects of its business in ways that would extend beyond issues of inadequate regulatory compliance.

Figure 4: Basel II: Looking Beyond the Pillars

Banks need to ensure that they look beyond the mandates imposed by Basel II's three pillars to consider other aspects of the New Accord as well as overlapping regulation. In addressing credit risk, for example, choosing an approach under Pillar I is one step in the process. Pillar II's principles and guidance as well as Pillar III's disclosure requirements all figure in the equation.
Beyond the Three Pillars

A significant challenge for most institutions is in realizing that compliance with the three pillars is just one aspect of compliance with Basel II. Banks must also consider the Basel Committee’s “Guidance Related to the Supervisory Review Process”—a wide variety of papers the Basel Committee has been issuing since 1994 on topics including credit, market, liquidity, and operational risk management; internal controls; and corporate governance (see Figure 4). This guidance is an integral part of Basel II in that it delineates requirements as well as best practices to which regulators can be expected to adhere.

Many organizations have focused on data quality and availability in implementing Basel II, and, consequently, they tend to perceive an implementation program through an information technology lens. (A 2002 KPMG survey of 190 banks in 19 countries indicated that data collection was widely viewed as the main obstacle to implementation.) Although its data requirements are significant, Basel II is not simply a narrowly focused information systems exercise. In fact, the New Accord requires board and senior management oversight and approval of a variety of corporate governance and risk management activities at the entity and process levels.

For example, Pillar 1 addresses board and senior management responsibilities for oversight of the rating and estimation processes:

- “All material aspects of the rating and estimation processes must be approved by the bank’s board of directors or a designated committee thereof and senior management. These parties must possess a general understanding of the bank’s risk rating system and detailed comprehension of its associated management reports.”

- “Senior management also must have a good understanding of the rating system’s design and operation, and must approve material differences between established procedure and actual practice.”

- “Internal ratings must be an essential part of the reporting to these parties.”

Moreover, for most institutions a Basel II implementation program is not likely to be the only program in progress within the institution. Most banks in Europe, for example, have programs under way to enable them to move from a local accounting standard to International Financial Reporting Standards (see Appendix II: Pillar III and New Disclosures). In addition, most banks are dealing with new internal controls regulations imposed in the United States by the Sarbanes-Oxley Act of 2002. Interdependencies between Basel II and other regulations create both risks and opportunities.

Logistically, delays in one program could cause delays in another. The more important issue is the need to identify the links and overlaps among the various regulations and to understand their effects and the opportunities they present for enhancing corporate governance and risk management. Figure 5 depicts a means of decomposing the Basel II regulations into a logical project structure by topic for purposes of developing a Basel II implementation plan. This topic structure helps to manage linkages to other programs. For example, interdependencies with Sarbanes-Oxley Section 404 would be addressed in the context of corporate governance/risk management.

Figure 5: Basel II Project Structure
Achieving the Benefits of Basel II: A Phased Approach

The complexity of the New Accord, as well as its interdependencies with other significant regulations, makes implementation of Basel II a highly complex corporate governance/risk management project necessitating a structured and disciplined approach. Such an approach can be considered in four phases, as described below (see Figure 6).

**Figure 6: A Phased Approach**

Phase 1 encompasses a gap analysis comparison of the bank’s current state against Basel II requirements, simulation of the impact of capital burden under the possible approaches, and management decisions on credit and operational risk approaches and credit risk mitigation techniques, among other items. Banks would also consider interdependencies with other programs and regulations, such as IFRS conversion or Sarbanes-Oxley.

An important step prior to embarking on the Basel II implementation is development of a master plan, structured by key topic areas (see Figure 5). The master plan will encompass key milestones, project scope, project risks, needed resources, interdependencies, and a step-by-step plan.

In Phase 2, the bank would establish various teams to address specific aspects of Basel II, including corporate governance and risk assessment, credit risk, operational risk, market and other risks, capital planning, disclosures, and the supervisory review process. Teams focus on defining data needs; designing the organizational structures, processes, and systems required for Basel II implementation; and rolling out the plan. Developing and executing a plan can help teams to address organizational considerations such as communications, training, and quality assurance.

During Phase 3, a bank would conduct post-implementation review and use testing to assess its approaches to capital adequacy, its compliance with minimum standards, and its
control environment. These efforts will help it make sure that it is prepared for the supervisory review required under Pillar II. Regulators will expect to see banks “living” their chosen approaches well in advance of the launch of Basel II at the end of 2006. Indeed, a bank using one of the advanced approaches must have all the related processes in place two years in advance so that it will be able to comply with regulators’ expectation that it conduct a parallel calculation against Basel I results in 2006. In addition, banks need to set up a formal approval process, pre-audit for approval, and identify key sensitivities as well as address the communication process with supervisory authorities.

Ongoing monitoring, in Phase 4, is important both internally and externally. Pillar II requires banks to monitor and report regularly to senior management regarding the bank’s risk profile and capital needs. It also requires that supervisors review and evaluate banks’ ability to monitor and ensure compliance with regulatory capital ratios. Banks will need to establish monitoring processes and systems that suit the needs of their own organizations and that of their regulators.
Basel II represents a long-term opportunity but with budget issues and operating profits under pressure worldwide, the initial investments banks must make to comply with the New Accord also represent a short-term challenge. Over time, however, the improvements in risk management Basel II is intended to drive may enhance risk culture, reduce volatility of all risks, lower provision for bad debts, reduce operational losses, improve the institutions’ external ratings, and thereby help ensure access to capital markets and raise organizational efficiency.

The New Accord’s risk management requirements are likely to prompt significant changes in the core business of an individual bank as well as in its organizational structure. Under Basel II, the “outputs” of better management of credit and operational risk will be the “inputs” of an economic capital model by which banks can allocate capital to various functions and transactions depending on risk. This new focus on risk will likely have broad implications for institutions not obliged to comply with Basel II as well as customers and the capital markets.

Aside from new or altered methods that must be employed, the new capital requirements will also drive change in resource needs, processes, and IT system architecture. These changes could ultimately pose broad challenges for a bank’s board of directors and its senior management, who are charged with new risk management and reporting responsibilities under the New Accord. These senior leaders will need to consider how Basel II compliance could (or should) integrate with other efforts they are making to improve corporate governance.

To avoid the potential for higher capital reserve requirements that could jeopardize market position, banks need to ensure that they have a comprehensive implementation approach in place. They also need to consider how Basel II’s challenges and opportunities could affect their business and their customer relationships over time.
Large banks can expect that regulators will likely want to see them move in a structured way toward the use of the advanced approaches to credit and operational risk. To meet that goal, banks will need to develop and use quantitative models that are acceptable to regulators. Appropriately designed and implemented, such models can enable banks to measure and monitor risks across the organization, enhance risk management, and ultimately determine capital requirements.

Banks also need to be aware of the views of rating agencies and capital providers, which will likely expect them to use robust risk management methods that enable use of the more sophisticated approaches—and could reward them for such choices. Ultimately, however, regulatory capital requirements for operational risk could dilute benefits achieved from adoption of the more sophisticated credit risk management approaches, although the Basel Committee appears to support the overall goal of providing capital incentives for adopting the more advanced approaches.

Credit Risk Calculations
As depicted in Figure 8, Basel II provides banks with three approaches for the calculation of the minimum capital requirements necessary to cover credit risk:

- Standardized Approach
- Internal Ratings Based (IRB) Foundation Approach
- Internal Ratings Based (IRB) Advanced Approach
Figure 8: Credit Risk Approaches

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Standardized Approach</th>
<th>Internal Ratings Based (IRB) Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rating</td>
<td>External</td>
<td>Internal</td>
</tr>
<tr>
<td>Risk Weight</td>
<td>Calibrated on the basis of external ratings by the Basel Committee</td>
<td>Function provided by the Basel Committee</td>
</tr>
<tr>
<td>Probability of Default (PD): the likelihood that a borrower will default over a given time period</td>
<td>Implicitly provided by the Basel Committee; tied to risk weights based on external ratings</td>
<td>Provided by bank based on own estimates</td>
</tr>
<tr>
<td>Exposure of Default (EAD): for loans, the amount of the facility that is likely to be drawn if a default occurs</td>
<td>Supervisory values set by the Basel Committee</td>
<td>Provided by bank based on own estimates</td>
</tr>
<tr>
<td>Loss Given Default (LGD): the proportion of the exposure that will be lost if a default occurs</td>
<td>Implicitly provided by the Basel Committee; tied to risk weights based on external ratings</td>
<td>Supervisory values set by the Basel Committee and/or at national discretion, provided by bank based on own estimates (with an allowance to exclude certain exposures)</td>
</tr>
<tr>
<td>Maturity: the remaining economic maturity of the exposure</td>
<td>Implicit recognition</td>
<td>Supervisory values set by the Basel Committee</td>
</tr>
<tr>
<td>Data Requirements</td>
<td>■ Provision dates ■ Default events ■ Exposure data ■ Customer segmentation ■ Data collateral segmentation ■ External ratings ■ Collateral data</td>
<td>■ Rating data ■ Default events ■ Historical data to estimate PDs (5 years) ■ Collateral data</td>
</tr>
<tr>
<td>Credit Risk Mitigation Techniques (CRMT)</td>
<td>Defined by the supervisory regulator; including financial collateral, guarantees, credit derivatives, “netting” (on and off balance sheet), and real estate</td>
<td>All collaterals from Standardized Approach; receivables from goods and services; other physical securities if certain criteria are met</td>
</tr>
<tr>
<td>Process Requirements (compliance with minimum requirements will be subject to supervisory review under Pillar II)</td>
<td>■ Minimum requirements for collateral management (administration/evaluation) ■ Provisioning process</td>
<td>Same as Standardized, plus minimum requirements to ensure quality of internal ratings and PD estimation and their use in the risk management process</td>
</tr>
</tbody>
</table>

Under the Standardized Approach, ratings from external agencies such as Standard & Poor’s or Moody’s provide the basis for measuring the credit risk posed by a particular customer. In the IRB approaches, however, banks that receive regulatory approval can use their own internal rating systems, along with formulas specified by the Basel Committee, for the calculation of the capital charge. KPMG’s 2002 survey assessing Basel II preparedness showed that, among 190 financial institutions representing 19 countries, the majority of banks (some 74 percent) intend to adopt an IRB approach. As described in Figure 9, Basel II provides three approaches for the calculation of the minimum capital requirements necessary to cover operational risk:

- Basic Indicator Approach
- Standardized Approach
- Advanced Measurement Approach (AMA)

As described in Figure 9, Basel II provides three approaches for the calculation of the minimum capital requirements necessary to cover operational risk:

- Basic Indicator Approach
- Standardized Approach
- Advanced Measurement Approach (AMA)

Figure 9 summarizes the criteria for these approaches and the effort required of banks to fulfill them. KPMG’s 2002 survey assessing Basel II preparedness showed that while 38 percent of banks have chosen the Standardized Approach, many banks remain undecided about which approach is best for them.

Operational Risk Calculations

The Basel Committee acknowledges the difficulty of developing measures for operational risk, but it sought to provide incentives to banks to continue to develop such measures. Indeed, in April 2003 it asserted that it is “prepared to provide banks with an unprecedented amount of flexibility to develop an approach to calculate operational risk capital that they believe is consistent with their mix of activities and underlying risks.”

As described in Figure 9, Basel II provides three approaches for the calculation of the minimum capital requirements necessary to cover operational risk:

- Basic Indicator Approach
- Standardized Approach
- Advanced Measurement Approach (AMA)

Figure 9 summarizes the differences among the three approaches.

### Figure 9: Operational Risk Approaches

<table>
<thead>
<tr>
<th>Approach</th>
<th>Basic Indicator Approach</th>
<th>Standardized Approach*</th>
<th>Advanced Measurement Approach (AMA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calculation of Capital Charge</td>
<td>■ Average of gross income over three years as indicator&lt;br&gt; ■ Capital charge equals 15% of that indicator</td>
<td>■ Gross income per regulatory business line as indicator&lt;br&gt; ■ Depending on business line, 12%, 15%, or 18% of that indicator as capital charge&lt;br&gt; ■ Total capital charge equals sum of charge per business line</td>
<td>■ Capital charge equals internally generated measure based on:&lt;br&gt; - Internal loss data&lt;br&gt; - External loss data&lt;br&gt; - Scenario analysis&lt;br&gt; - Business environment and internal control factors&lt;br&gt; ■ Recognition of risk mitigation (up to 20% possible)</td>
</tr>
<tr>
<td>Qualifying Criteria</td>
<td>■ No specific criteria&lt;br&gt; ■ Compliance with the Basel Committee’s “Sound Practices for the Management and Supervision of Operational Risk” recommended</td>
<td>■ Active involvement of board of directors and senior management&lt;br&gt; ■ Existence of OpRisk management function&lt;br&gt; ■ Sound OpRisk management system&lt;br&gt; ■ Systematic tracking of loss data</td>
<td>Same as Standardized, plus:&lt;br&gt; ■ Measurement integrated in day-to-day risk management&lt;br&gt; ■ Review of management and measurement processes by internal/external audit&lt;br&gt; ■ Numerous quantitative standards—in particular, 3–5 years of historic data</td>
</tr>
</tbody>
</table>


* Subject to regulatory approval, an “Alternative Standardized Approach” based on loans and advances instead of gross income can be allowed for certain business lines.
Appendix II: Pillar III and New Disclosures

Pillar III’s focus on market discipline is designed to complement the minimum capital requirements (Pillar I) and the supervisory review process (Pillar II). With it, the Basel Committee seeks to enable market participants to assess key information about a bank’s risk profile and level of capitalization—thereby encouraging market discipline through increased disclosure.

“The [Basel] Committee believes that public disclosure is particularly important with respect to the New Accord where reliance on internal methodologies will provide banks with greater discretion in determining their capital needs.” Thus, Pillar III encompasses both quantitative and qualitative disclosure requirements for capital adequacy and capital structure as well as credit risk, market risk, operational risk, and interest rate risk in the banking book. Still undecided, however, are the specifics of required disclosures, including the materiality of disclosed data, its confidentiality, its frequency, and the medium by which it is to be disclosed.

Enhanced disclosure is intended to enhance the transparency of banks’ business and risk structures. It is also intended to provide banks with positive incentives to strengthen risk management and internal controls. The Basel Committee’s belief is that investors, armed with enhanced information, will be able to distinguish between well-managed and poorly managed banks and to use this knowledge in determining a portfolio strategy and an appropriate risk premium. The theory is that across the industry over time, well-managed banks would benefit from better market conditions, while poorly managed banks would face penalties.

Thus, an individual bank may not always benefit from the gains investors and regulators derive from new disclosures. New scrutiny, by the market and by ratings agencies, could have difficult consequences that might evolve differently in a less transparent environment. Problems that banks might be able to work out with their regulators may prompt an immediate, and potentially volatile, response in the market. Understanding the risks of new disclosures is another aspect of risk management that will likely evolve as a result of Basel II.

Efforts to Harmonize Disclosure Requirements

The Basel Committee affirms that the means by which banks will share information publicly will depend on the legal authority of local regulators. Moreover, the Pillar III disclosure requirements apply solely to capital adequacy. They are intended not to conflict with the broader accounting disclosure standards with which banks must comply.
For example, the Basel Committee and the International Financial Reporting Standards (IFRS) Board are seeking to harmonize the two standards during 2003, particularly with regard to Pillar III requirements concerning:

- Disclosures in the financial statements of banks and similar financial institutions (IAS 30). At present, the timetable for completion of IAS 30 extends beyond the proposed timetable for implementation of Basel II. As a result, Pillar III requirements likely will not be incorporated into financial reporting and will require a separate reporting mechanism.
- Financial instruments: presentation and disclosure (IAS 32)
- Financial instruments: recognition and measurement (collaterals, guarantees, derivatives)
One of the most difficult aspects of implementing an international agreement is the need to accommodate differing cultures, varying structural models, and the complexities of public policy and existing regulation. Banks’ senior management will determine corporate strategy—as well as the country in which to base a particular type of business—based in part on how Basel II is ultimately interpreted by various countries’ legislatures and regulators. The receptivity of a sampling of countries to Basel II is outlined below.

**European Union**

Significant financial innovation, advances in risk measurement and management techniques, and increased regulatory and supervisory sophistication have created a pressing need for the European Commission to revise its existing capital adequacy framework. As shown in Figure 10, vetting of a working document has been under way since its publication in November 1999. That effort is intended to bring the framework in line with Basel II and its deadlines, taking EU specificities into account.

Baseline II will be received as a recommendation in the European Union, which will convert it into EU legislation applicable to all EU credit institutions and securities firms in the member states. Each member state would then convert the EU legislation to locally appropriate laws, subject to local regulator interpretation and ongoing supervision. Deviations between Basel II regulations and EU regulations will occur, as will national choices: some member states will adopt Basel II for partial use, for example.

One key issue in the European Union is the potential scope of the application of Basel II. The European Commission proposes to require all banks and certain investment firms to comply with Basel II rather than limiting the scope to only the largest internationally active banks. Some have asked whether the EU legislation should be applicable to European subsidiaries of non-EU banks as well as whether a country could adopt the EU legislation but not Basel II. Whether Basel II is ultimately a recommendation or a set of binding regulations—and how it is interpreted—are also topics generating considerable interest.
Another aspect of the scope of Basel II that remains unknown is the extent to which it could affect the 13 European countries that were invited to join the European Union as of January 1, 2004. The New Accord will become relevant for them now because, assuming they become EU member states, they will have to adopt it in some form.

**United States**
The presence of both federal and state bank regulators has brought almost all U.S. banks under the regulatory authority of more than one agency. The three primary federal agencies that will be responsible for overseeing commercial banks affected by Basel II are:

- The Board of Governors of the Federal Reserve System (the Fed): directly supervises and examines state-chartered banks that choose to become members. The Fed is also the supervisor and primary regulator of bank holding companies and the umbrella regulator for financial holding companies; as a result it is responsible for supervising the overall banking organization. As a result of supervising holding companies, the Fed gains an insight into the operations of many banks not directly under its supervision.
- The Federal Deposit Insurance Corporation (FDIC): directly supervises and examines state-chartered banks that are not members of the Federal Reserve System.

The Federal Deposit Insurance Corporate Improvement Act of 1991 created a supervisory framework linking enforcement actions to the level of regulatory capital held by a bank. This system of supervision, known as prompt corrective action, represents an attempt to provide a timely and non-discretionary triggering mechanism for supervisory action.

All U.S. banking regulators have been supportive of Basel II. They have indicated that, between July and September 2003, they will address how Basel II will be implemented in the United States. Early indications, still subject to some negotiation, suggest that Basel II implementation may be required for a small number of internationally active banks (perhaps 20 major banks representing approximately two thirds of U.S. banking assets and 99 percent of the foreign assets held by the top 50 domestic U.S. banking organizations), and voluntary for about a similar number of major banks that may or may not be internationally active. In addition, the stated intention is to allow only the Advanced IRB approach to credit risk for those banks; the Foundation IRB and Standardized approaches will not be permitted. Similarly, only the Advanced Measurement Approaches to operation risk will be permitted.

**Asia/Pacific**

**Australia**
The Australian Prudential Regulation Authority (APRA), which is responsible for supervision and policy for the Australian financial system, is firmly in favor of Basel II implementation. As it begins to also cope with the extensive Basel II regulatory approval requirements, APRA faces considerable resource and process challenges over the next few years.

Australia’s four major international banks have also embraced Basel II, and they have indicated their intentions to adopt the more advanced approaches. On the other hand, Australia’s smaller institutions have work to do if they are to achieve the IRB approaches for credit risk. This disparity represents a significant challenge for the national banking market, as the large banks may gain a distinct pricing advantage over smaller competitors.

**Hong Kong**
The Hong Kong Monetary Authority (HKMA) supervises three types of “authorized institutions” (AIs): banks, restricted license banks (RLBs), and deposit-taking companies (DTCs). The Hong Kong Banking Ordinance requires locally incorporated AIs to maintain a capital adequacy ratio of at least 8 percent. The HKMA may increase the ratio for a particular institution depending on its risk profile. Capital adequacy is a key component of Hong Kong’s internationally recognized CAMEL framework, which also assesses asset quality, management earnings, and liquidity.
The local banks are in favor of Basel II’s IRB approach, as it would allow individual banks more direct control of their regulatory capital requirements. The MAS has been working closely with Singapore-incorporated banks toward implementation of the New Accord, emphasizing in particular the far-reaching importance of the corporate governance and risk self-assessment requirements in Pillar II. Banks are optimistic about their ability to adopt the IRB Approach (at least the Foundation version) by the Basel Committee’s deadline of 2006.

Singapore
Basel-type capital adequacy ratio (CAR) requirements were first imposed by the Monetary Authority of Singapore (MAS) in 1992 and have been applicable only to local banks. The CAR requirements are still based on the 1988 Basel Capital Accord and on the “Amendment to Capital Accord to Incorporate Market Risks” issued by the Basel Committee in 1996. Total CAR has been set at 12 percent since inception—50 percent higher than the 8 percent Basel Committee standard adopted by many countries. The types of eligible capital are also conservatively defined.

HKMA has been supportive of the new capital proposals, and announced publicly in 2001 its intention to implement the New Accord in keeping with the Basel Committee’s timetable. While the HKMA shares some of the industry’s concerns about the calibration of the New Accord and potential problems arising from cross-border implementation, it has stated that it will encourage AIs to adopt some elements of the IRB approach with a view to improving capital management.
The following terms are used throughout this document; with the exception of S-O, their definitions are provided by the Basel Committee.26

**Asset Securitization**: The packaging of assets or obligations into securities for sale to third parties.

**Credit Risk**: The risk of loss arising from a credit event, such as default by a creditor or counterparty.

**Credit Risk Mitigation**: A range of techniques whereby a bank can partially protect itself against counterparty default (for example, by taking guarantees or collateral, or buying a hedging instrument).

**EAD**: Exposure at default.

**External Credit Assessments**: Ratings issued by private or public agencies.

**Internal Ratings**: The result of a bank’s own measure of risk in its credit portfolio.

**Internal Ratings-Based (IRB) Approach**: an approach to credit risk under which banks will be allowed to use their internal estimates of borrower creditworthiness to assess the credit risk in their portfolios, subject to strict methodological and disclosure standards.

**LGD**: Loss given default.

**Market Risk**: The risk of losses in trading positions when prices move adversely.

**Operational Risk**: The risk of direct or indirect loss resulting from inadequate or failed internal processes, people, and systems, or from external events.

**Pillar I**: The rules that define the minimum ratio of capital to risk weighted assets.

**Pillar II**: The supervisory review pillar, which requires supervisors to undertake a qualitative review of their bank’s capital allocation techniques and compliance with relevant standards.

**Pillar III**: The disclosure requirements, which facilitate market discipline.

**PD**: Probability of default.

**RWA**: Risk weighted asset.

**Sarbanes-Oxley Act (S-O) of 2002**: Enacted in the United States on July 30, 2002, S-O established new responsibilities for listed companies with respect to corporate governance, management reporting, financial statement disclosures, and management assessment of internal controls. It also changed the responsibilities of external auditors.

**SME**: Small and medium-sized enterprises.

**SPV**: Special purpose vehicle.
Endnotes


7 These four principles complement the extensive supervisory guidance developed by the Basel Committee, the keystone of which is the Core Principles for Effective Banking Supervision and the Core Principles Methodology. Basel Committee on Banking Supervision. Consultative Document, The New Basel Capital Accord, April 2003, p. 139.


14 Eight Questions on the New Basel Accord, a survey conducted by KPMG’s Basel II Initiative, 2002.


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