In June 1999, the Basel Committee on Banking Supervision made its long-anticipated announcement to introduce a new capital adequacy framework to replace the 1988 Accord. Citing a critical need to redesign the antiquated 1988 Accord in light of market innovations and fundamental shift toward more complexity in the banking industry during the past decade, the Committee declared that:

"The world financial system has witnessed considerable economic turbulence over the last two years and, while these conditions have generally not been focused on G-10 countries directly, the risks that internationally active banks from G-10 countries have had to deal with have become more complex and challenging. This review of the Accord is designed to improve the way regulatory capital requirements reflect underlying risks. It is also designed to better address the financial innovation that has occurred in recent years, as shown, eg, by asset securitisation structures. As a result of this innovation, the current Accord has been less effective in ensuring that capital requirements match a bank’s true risk profile. The review is also aimed at recognising the improvements in risk measurement and control that have occurred."

With these broad pronouncements, the Basel Committee immediately took to task in laying down the fundamental building blocks of what it calls a more “risk-sensitive” capital framework. In July 1999, the Committee quickly released four papers dealing with the management and disclosure of credit risk. In January 2000, supplementary documents regarding market discipline and banks’ internal rating systems were published by the Committee.
September 2000, the Committee issued guidance on credit risk management and disclosure.6 All of these preparatory documents and so-called consultative papers mentioned earlier paved the way for the more coherent and comprehensive Basel Committee package released in January 2001 for public comments (also known as the Second Consultative Paper or CP2). The CP2 package consisted of 9 parts, parcelled amongst 500 pages. The January 2001 announcement christened the proposed package the New Basel Capital Accord, which is now commonly referred to simply as Basel II.

The decidedly more complex (and controversial) new proposal was originally (and unrealistically) intended to be finalised at the end of 2001 after an early round of planned consultation with the financial industry. Accordingly, the Committee originally envisioned a Basel II implementation date of 2004 among its member jurisdictions. But the proposed revisions quickly encountered stiff opposition, criticism, and skepticism from some industry sectors, in addition to some guarded praises and cautious optimism. There continue to be very strong political interests in many countries as well, including Germany and Italy, but particularly strongest in the US.

It is now the end of 2006, and Basel II is still awaiting implementation beginning on 1st January, 2007 in Europe, albeit only for the simplest approaches through the EU implementation of the Capital Requirements Directive (CRD), and with a further planned implementation of the more advanced approaches set for 1st January, 2008. Interestingly, the US timetable of 1st January, 2009 is only proposed as the first possible date for the implementation of the advanced approaches, subject to some regulatory capital floors.

While trumpeting the more coherent and tidier CP2 package in January 2001, William McDonough, the then Chairman of the Basel Committee and President and Chief Executive Officer of the Federal Reserve Bank of New York, introduced the Basel II proposal, noting,

"the new framework is intended to align regulatory capital requirements more closely with underlying risks, and to provide banks and their supervisors with several options for the assessment of capital adequacy".7

He added further that:
"the Committee believes it has laid the groundwork for a flexible capital adequacy framework that has the capacity to adapt to changes in the financial system and will enhance safety and soundness."

WHY REVISE THE 1988 ACCORD?
The 1988 Accord played a remarkably important role in providing infrastructural support for the integrity and stability of the international financial system. Even though the Accord was only morally and not legally binding, the provisions of the 1988 Accord on risk-based capital adequacy quickly became the reference point for regulation on credit risk, not just in the original G10 (Group of Ten) member countries of the Accord, but also eventually in over 100 countries throughout the globe.8

Unquestionably, throughout the numerous tumultuous market events during the past decade, the 1988 Accord has provided much stability amongst the internationally active banks by strengthening the capital base of the international financial system. The fact that almost all internationally active banks are sufficiently well-capitalised now is a strong testament to the wisdom embedded in the noble goals of the 1988 Accord and the prudence and vigilance with which the regulators throughout the globe have enforced them in their own jurisdictions.

However, in spite of its success, the 1988 Accord has a lot of shortcomings, resulting in vocal outcry for fundamental reforms from the major international banking community. The reasons for revising the antiquated and increasingly ineffective 1988 Accord are plentiful. Below I list a few notable ones:

- Distortions of material credit risk in banking provided by financial innovations during the past decade.

  The most obvious shortcoming during the past decade is the regulatory capital arbitrage opportunities provided by financial innovations through asset securitisation vehicles. Asset securitization has rendered the 1988 Accord’s minimum regulatory capital requirement ineffective as a tool for promoting safety and soundness in banking. Through asset securitisations, banks have been able to lower their risk-based capital requirements significantly without actually reducing the material credit risk embedded in their banking portfolios.
Fundamental need to enhance the risk sensitivity of capital requirements.

The 1988 Accord is an overly simplified approach having only four broad risk weighting categories for credit risk capital charge and crude distinctions of sovereign risks. Consequently, it cannot provide enough granularity in the measurement and distinction of different levels of credit risk embedded in banking portfolios.

Failure of the “one-size-fits-all” approach to risk management.

The application of the same criteria to all banks in determining minimum capital requirement does not provide enough incentive for banks to improve their risk management functions.

Very limited attention given to credit risk mitigation.

Even with the exponential growth in credit derivatives as a risk management tool during the past few years, the 1988 Accord does not recognise offsets in the banking book through credit risk mitigation techniques, in direct contrast to banks’ management of their credit risk on a portfolio basis.

Narrow focus on minimum capital requirement without due emphasis on the risk management processes within banks.

With the exception of the 1996 amendment to include capital adequacy due to market risk, the 1988 Accord was focused primarily on credit risk capital requirements. But over the past 15 years, technological advancements in information technology have allowed banks to make rapid improvements in their risk management functions covering a far more comprehensive range of risks outside of credit risk and market risk. The 1988 Accord simply had not kept pace with developments in the banking industry.

Failure to recognise “other risks” such as operational risk by focusing strictly on financial risk.

Although operational risk was discussed during the 1996 market risk amendment, the current capital accord is focused primarily on financial risk. However, during the past decade, events such as the collapse of large financial entities (e.g., Barings Bank and LTCM), the World Trade Center tragedy and the ensuing market disruption, the Enron/WorldCom bankruptcies and their ensuing issues surrounding corporate governance and accounting practices, the billion-dollar losses due to rogue trading at
All First Bank and other major events have heightened the awareness of risks other than market and credit risks.

Basel II was intended to address most of the shortcomings delineated above. In addition to imposing minimum capital requirements that are more in line with current technological advancement within the financial industry, the revised Accord also strives to incorporate a more enhanced supervisory review process and then overlays it with greater transparency by requiring public disclosure as part of market discipline.

The Basel Committee’s decision to revamp the 1988 Accord was based on very noble objectives:

The fundamental objective of the Committee’s work to revise the 1988 Accord has been to develop a framework that would further strengthen the soundness and stability of the international banking system while maintaining sufficient consistency that capital adequacy regulation will not be a significant source of competitive inequality among internationally active banks. The Committee believes that the revised Framework will promote the adoption of stronger risk management practices by the banking industry, and views this as one of its major benefits. The Committee notes that, in their comments on the proposals, banks and other interested parties have welcomed the concept and rationale of the three pillars (minimum capital requirements, supervisory review, and market discipline) approach on which the revised Framework is based. More generally, they have expressed support for improving capital regulation to take into account changes in banking and risk management practices while at the same time preserving the benefits of a framework that can be applied as uniformly as possible at the national level.

By appending two very important, but less fungible, ingredients into the minimum capital requirements, the Basel Committee has wisely re-emphasised the importance of market discipline and prudent supervision – two of the very basic shortcomings that had allowed the 1988 Accord to be exploited in the first place.

THE ARDUOUS PATH TOWARD BASEL II
Since the initial announcement in June 1999 to revamp the 1988 Accord and replace it with Basel II, the Basel Committee had engaged the financial industry in countless discussions and consultations. These extensive, and often times contentious, discussions resulted in the Consultative Paper Three (CP3) released in
April 2003. There were also numerous data collection and joint regulatory-industry field exercises performed by the so-called Quantitative Impact Study (QIS). CP3 and QIS3 not only attempted to iron out some kinks in previous rounds of consultation with the banking industry, they also set forth the Committee’s targeted desire to finalise Basel II by the end of 2003, with an implementation schedule further delayed to the end of 2006.

Interestingly enough, the results of many of the earlier QIS exercises were inconclusive regarding the proposed calibrations of the proposed Basel II framework. Subsequent QIS exercises were conducted, but the most significant of which is the QIS5 that was conducted between October and December of 2005. The results included extensive analysis of the data collected from 382 banks in 32 countries. On 24th May, 2006, the Basel Committee finally published the results and announced that it had decided to maintain the current calibration as proposed in the framework.

The QIS5 results for the G10 countries show that minimum required capital under Pillar 1 of the Basel II framework would decrease relative to the current Accord. “For internationally active and diversified institutions with Tier 1 capital of more than EUR 3 billion), minimum required capital would decrease on average by 6.8%, based on the results for the approach to credit and operational risk that participating banks are likely to adopt after implementation”, the Basel Committee reported in its announcement.

The press release further stated: “Although the Committee believes that the quality of QIS data submitted by banks has significantly improved since the previous exercise, the implementation of loss given default estimates reflecting economic downturn conditions and issues relating to the Committee’s revised trading book rules need further improvement. The Committee also conducted an analysis of the cyclical nature of the Framework. Macroeconomic conditions prevailing in most countries at the time of QIS4 and 5 were more benign than during QIS3. The Committee concluded that this influenced the results, but currently available information does not allow the impact to be quantified with precision.”

“The Committee expects that in the course of implementing the Basel II Framework, supervisors will ensure that banks maintain a solid capital base throughout the economic cycle . . . Mechanisms are in place to achieve this goal.” With this pronouncement, Jaime
Caruana, Governor of the Bank of Spain, stepped down as Chairman of the Basel Committee in May 2006 and was succeeded by Nout Wellink, President of the Netherlands Bank.

Following the industry commentary period resulting from the release of the CP3 documents, in August 2003 the Committee published its most serious report to date entitled, *High-level principles for cross-border implementation of the New Accord*. The report reiterated the target date of year-end 2006 for the official implementation of Basel II and laid down some leg work necessary to initiate its global implementation. The report also emphasised the need for closer cooperation and coordination amongst supervisors. It outlined a “variety of supervisory responsibilities under the New Accord, including: (1) initial approval and validation of ‘advanced’ approaches (eg, IRB, AMA) under Pillar 1; (2) the supervisory review process under Pillar 2; and (3) ongoing assessments to verify that banking groups are applying the New Accord properly and that the conditions for ‘advanced’ approaches continue to be met.”

As a follow-up to its guidance for cross-border implementation, on 2nd June, 2006 the Basel Committee issued a paper entitled, *Home-host information sharing for effective Basel II implementation*, which sets forth general principles for the sharing of information between home country and host country supervisors in the implementation of the Basel II framework.

For convenience and expediency, a comprehensive version of all primary Basel II framework documents was finally compiled by the Basel Committee in June 2006. This compilation, hopefully the latest, reflects the critical milestone achieved in June 2004 when the Basel II risk weight formulas describing the economic foundations as well as the underlying mathematical model and its input parameters were agreed upon by both industry representatives and regulatory bodies.

**RATIONALE FOR THE SECOND EDITION**

While prudent capital adequacy rules are evolutionary in nature, however, it seems clear from significant developments up until 2003 that the major pieces of Basel II were securely anchored in place and await implementation. It was for this very reason that the first edition of this book was conceived. My fundamental goal at that time was to present a handbook on Basel II, highlighting some
of its most important proposals and complicated issues, while pro-
viding guidance to practitioners regarding its implementation.
Many of the chapters were necessarily very technical in nature.
Furthermore, the Handbook was originally designed to be evol-
utionary as well and would, therefore, require continual revisions
as we approach the final implementation date.

Since the publication of the first edition of the Handbook in early
2004, many of the initial and contentious disagreements have abated
and much consensus has eventually been reached amongst all inter-
ested parties. This said, many of the original chapters require some
serious updating and corrections to reflect the finalised Basel II
framework rules. In many sense, the second edition of the Handbook
is really a new book. Over 90% of all the previous chapters have been
carefully revised and rewritten, many of them quite extensively. In
addition, some new chapters have been added to the second edition.

The second edition of the Handbook consists of six distinct sec-
tions, namely:

Section 1: Parameterisation of the Internal Ratings-Based
Approach.
Section 2: Implementation and Testing of Compliant IRB Systems.
Section 3: Securitisations and Retail Portfolios.
Section 4: Regulatory Expectations and Disclosure Issues.
Section 5: Implementing the Advanced Measurement Approach
for Operational Risk.
Section 6: Loss Database and Insurance.

Each of the sections explains in great detail fundamental require-
ments needed for a successful implementation of Basel II. It is my
fervent hope that financial practitioners would find the discus-
sions, explanations, and clarifications in the chapters very useful as
they prepare for a Basel II compliant system within their respective
institution.

FINAL THOUGHTS
In their January 2003 white paper on Basel II, G. David and C. Sidler
of EDS summed it best:17

“In the final analysis, Basel II is about full industrialization of the
global financial industry (banking, in particular); realigning a bank’s
activities and businesses based on the best risk adjusted return on capital; and re-engineering the bank’s complete supply chains at least cost, least risk best quality. The Accord also focuses on best practice in bank management and leadership (implementing and embedding the processes of continuous improvement in all areas of bank leadership, management and operations). Finally, Basel II focuses on leveraging information technology to manage global risk (market, credit and operations risks); on transparency; and on optimizing the capital used in the bank in its entirety.”

Indeed, Basel II should not be simply about capital adequacy. It is more about improving risk management within the financial industry by providing the correct incentives for better corporate governance and fostering greater transparency. In fact, Basel II is very important. It provides opportunities, challenges and threats in one full swoop. How the financial industry and its supervisors rise up to these challenges will decide the opportunities for improving the stability and integrity of international banking, and thereby minimise the unavoidable threats that naturally arise in the course of doing business.

MICHAEL K. ONG
Dr. Ong is Professor of Finance at the Stuart School of Business, Illinois Institute of Technology. He was formerly the Director of the Finance Program and the Executive Director of the Center for Financial Markets.

Before retiring from the financial industry in 2003, Dr. Ong was Executive Vice President and Chief Risk Officer for Credit Agricole Indosuez in New York. He had enterprise-wide responsibility for all risk management functions for corporate banking, merchant banking, asset management, capital markets activities, and the Carr Futures Group (now Calyon). He was a member of the Executive Committee and chaired the Risk Management Committee, Credit Committee, Market Risk Committee, Equity Investment Committee, and the Operational Risk Committee.

Previously, Dr. Ong was Head of Enterprise Risk Management for ABN-AMRO Bank. He was responsible for management information and decision support function for the Executive Committee regarding enterprise-wide market, credit, operational, and liquidity risk, as well as RAROC, ROE, and related optimisation models.
Prior to that, Dr. Ong was Head of the Corporate Research Unit for First Chicago NBD Corporation (which became Bank One and then merged with JP Morgan Chase). The unit supports the Bank in its global enterprise-wide risk management function – market and credit risk analysis and the allocation of economic capital – and oversees the quantitative research units of the trading areas. He also chaired the Global Risk Management Research Council which was established in recognition of the Bank’s commitment to overall control and coordination of the quantitative research efforts and systems development across all trading units. Prior to that, he was in charge of First Chicago NBD’s Market Risk Analysis Unit and was responsible for quantitative research in the First Chicago Capital Markets Group. Before joining First Chicago NBD, he was responsible for quantitative research at Chicago Research and Trading Group (which became NationsBanc-CRT and then became Banc of America Securities, Inc.). Prior to that, he served as an assistant professor of mathematics at Bowdoin College for seven years with his research specialty in mathematical physics.

In 1992, he was also an adjunct professor of finance at the Stuart School of Business of the Illinois Institute of Technology where he designed the quantitative portion of the Financial Markets and Trading Program, which RISK acknowledged as the first of its kind. He is a member of the Editorial Board of the Journal of Financial Regulation and Compliance, the Journal of Credit Risk, and the Journal of Risk Management for Financial Institutions. He was the founding editor and Editor-in-Chief of the Journal of Credit Risk, and was on the editorial board of the Journal of Risk and the RMA Journal. He is also a referee for trade and academic journals. He has written numerous articles and contributed book chapters to industry publications. He has also given many presentations and chaired industry conferences.


Dr. Ong has been biographed in Who’s Who in the East, Who’s Who Among Young American Professionals, Who’s Who in Science and
INTRODUCTION TO THE SECOND EDITION


Dr. Ong received a BS degree in physics, cum laude, from the University of the Philippines and his MA degree in physics, MS degree in applied mathematics, and PhD degree in applied mathematics from the State University of New York at Stony Brook.

1 The Basel Committee on Banking Supervision is a committee of banking supervisory authorities which was established by the central bank Governors of the Group of Ten countries in 1975. It consists of senior representatives of bank supervisory authorities and central banks from Belgium, Canada, France, Germany, Italy, Japan, Luxembourg, the Netherlands, Sweden, Switzerland, the UK and the US. It usually meets at the Bank for International Settlements in Basel, where its permanent Secretariat is located.


8 It is estimated that there are currently 110 signatory countries to Basel II.


10 The 11 October 2003 press release by the Committee, however, indicated a mid-year 2004 date for the finalisation of Basel II and an implementation date of year-end 2006.


13 Basel Committee on Banking Supervision, The application of Basel II to trading activities and the treatment of double default effects (July 2005).


15 Basel Committee on Banking Supervision, Home-host information sharing for effective Basel II implementation (June 2006).
