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NORTHERN ILLINOIS UNIVERSITY

Outlook on Basel II

A Thesis Submitted to the

University Honors Program

In Partial Fulfillment of the

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With University Honors

Department of

Finance

By

Kaushik Patel

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ABSTRACT:

The new revisions to the Basel Accord present opportunities as well as challenges to the banking industry. The purpose of this paper is to explore the ramifications of the revisions and ponder potential reactions from practitioners.

Research was based on journal, database and newspaper articles as well as recently published books exploring the issue.

The new accord is expected to reduce capital holding costs for banks that conform to the regulation. Its long term effect may force banks to become more specialized and tender to a less broad customer base. The imbedded flexibility in the updates allows banks to choose methods that are most beneficial for its long term survival. The accord opens opportunities for banks to explore new products while aligning its capital holdings more closely to its risk portfolio.

Kaushik Patel

OUTLOOK ON BASEL II

In February 1995, Nick Leeson, a young trader with Barings Bank of London working in Singapore, accumulated losses of GBP 830 million betting on the Nikkei market. Barings Bank, once a monument of strength, would be forced into bankruptcy soon after discovering the losses. Leeson began working in Singapore in 1992 and immediately began accumulating losses. Even when losses continued, management had no idea of the events in the Far East. The fall of Barings Bank brought the idea of operational risk to the attention of the banking industry. This would become the basis for the New Basel Capital Accords (Basel II), an update to the banking regulations of the original Basel Capital Accords (Basel I) drafted in 1988. This study examines the elements which led to a need for Basel II. It analyzes the strengths and weaknesses of the new proposal and its potential effect on the banking industry. This paper attempts to determine the adequacy of Basel II and the likelihood that a third version may be necessary.

OPERATIONAL RISK

To begin to understand the proposed changes and the reasoning behind them, one must first have a sound understanding of operational risk. The Basel Committee on banking supervision states that "operational (risk) is the risk of loss from inadequate internal processes or failed internal control. These processes may regard people, tools, methods, procedures or systems" (1). External events, which the organization might not control, are another source of operational risk. Dimitris Chorafas, in his book *Operational Risk Control with Basel II*, states that institutions are beginning to classify operational risk into one of five classes: organizational, policies and processes,

technological, human-engineered, and external factors such as competitors. Banks have begun to rate operational risk second only to credit risk, as operational risk tends to damage an institution's reputation (10, 1-2). Operational risk can be different for every organization since many firms define and weigh the risk internally. Figure 1 reveals different groups of operational risk and their progression. Classical risk represents risks that have been in the system for an extended period. Modern risks are a product of recent studies conducted on corporate evolution. IT oriented risks came to the forefront because of the boom in the use of technology in the workplace. The most important point to notice is the overlapping effect in each category which makes operational risk very difficult to classify and even more difficult to gauge. The result of a study conducted by the Bank of England "found the top six reasons in order of frequency for bank failures to be: mismanagement, poor assets, faulty structure, liquidity, dealing with losses and secrecy and fraud" (10, 9). Sighting the correlation between bank failures and mismanagement, whether through human error, incompetence, or fraud, many in the financial service industry began to wonder why operational risk was not factored into risk assessment. As the Basel Committee prepared to update the current accord it needed additional factors to help monitor the health of the industry. Having no industry wide classifications, each institution would define operational risk in its own way, leaving the measure open to interpretation. The Committee would need to consider supervision requirements for the new risk measure.

After the downfall of the Savings and Loans (S&L) industry in the 1980s, the banking industry in the United States was in turmoil. The international community sought to strengthen the industry at a global level and to apply consistent standards in

every participating member country. Basel I was put into writing with two primary goals. First, the accord was "intended to strengthen the soundness and stability of the international banking system; and secondly, that the framework should be fair and have a high degree of consistency in its application to banks in different countries with a view to diminishing an existing source of competitive inequality among international banks" (1). Basel I was officially drafted in 1988 and performed well above expectations as 100 countries adopted the resolution by 1992. Then the Nick Leeson story broke, unraveling a once strong Barings Bank which had financed the Napoleonic Wars and the Louisiana Purchase. Thus, operational risk was introduced to risk management.

BASEL II

Operational risk also became an essential element of risk assessment because of rapid advancement in technology and the globalization and extensive use of electronics in business. Because technology failures and human errors are major contributors, operational risk is ever more present in the business community. More recently, terrorism has entered the classification of operational risk.

The Basel Committee began a process to revise the accord noting, "(it) became outdated to a large extent because it was a relatively simple and static document: its one-size-fits all approach to capital regulation represented an important advance as a universally accepted standard, but it did not provide a means to recognize more advanced risk measurement techniques. It quickly fell behind as the pace of innovation in technology, financial products, and markets accelerated" (9, 4). The New Basel Capital Accords (Basel II) was designed to encompass three pillars intended "to align capital more closely to risk; to introduce greater consistency in the supervisory review of capital

adequacy; and to promote effective market discipline by enhancing transparency" (9,1). The Committee conducted three detailed Quantitative Impact Studies (QIS), whose purpose was to field test key functions of the proposal with who that would practice them. The papers were followed by extensive comments by academicians as well as practitioners to contribute to the finalization of the Accord (13, 1). As a result of the field research and feedback, the majority of the imperfections were filtered and the details became clearer. Through extensive modeling and research the three pillars were laid out to help set capital requirements, set a standardized process, guide regulations, and impose public disclosure requirements, all while allowing flexibility at the organization level.

Pillar I sets the requirements for credit, market and operational risk. Banks are allowed to choose from three approaches to weighting credit risk. "The standardized approach relies on external ratings and regulatory benchmarks" (6, 1). The other two approaches allow banks to use custom models to calculate capital requirements. They differ only in their relative complexity. "The simpler (model) is known as the Internal Ratings Base (IRB) foundation approach, the more complex (model) as the IRB advanced approach" (6, 1). These approaches allow banks to utilize different capital requirements based on the sophistication of the utilized method, a major difference from the set requirement specified in Basel I.

The second pillar concerns regulator requirements and procedures. Basel II requires that institutions hold capital in excess of that specified by the calculations in Pillar I. Regulators are called to action if risk management processes are unacceptable (6, 1).

Pillar III is intended to instill market discipline. It requires more detailed disclosure on bank financials, especially concerning risk management components. The requirements are the product of extensive work between the committee and the International Accounting Standards (IAS) board. Pillar III is expected to establish consistency in reporting requirements (9, 1). The broadened requirements may also be thought of as an extension to the legislation passed to protect investors and creditors, after recent corporate scandals which left major corporations bankrupt and investor losses in the billions (2, 2).

STRENGTHS/BENEFITS

Basel II is expected to improve bank operations and regulations, and help protect investors and creditors. The biggest benefit for banks is that they will be better able to understand the risk they are bearing at any point in time. Stephen Becker in his article, "Smaller Banks Will Be the Winners with Basel II," states that, "the most prominent advertised benefit to the Basel II Accord is that banks could potentially reduce the amount of regulatory capital they hold" (7, 2). Banks will utilize a more detailed approach to analyze risk, hence allowing for better monitoring of risk and a more precise alignment of capital requirements with actual risk. A detailed approach will allow for further development and perfection of reporting systems. Better capital management allows for a more healthy institution, helping to reduce fallout in a contracting economy. It should also aid in internal control efforts, as fraudulent activity may be detected earlier as a result of better monitoring and improved systems. As employees are required to understand the threats that affect the bank, they should become more knowledgeable and more competent. A more detailed approach should result in more comprehensive data,

which in turn will assist management in decision making. The advancements and newly uncovered knowledge should eventually lead banks to adopt more mature risk management techniques.

Basel II should help banks develop competitive advantages. The increase in complexity of operations should in itself become a barrier to entry, as startups will be forced to invest more initial capital to develop proper risk assessment techniques to compete in the industry.

At an industry wide level, the New Accord should provide for consistency across the industry. Pillar III will become an extension of compliance initiatives taken by the federal government through the Sarbanes-Oxley Act and will make available better financial data to help investors make better decisions. An article in Business Line titled, "Basel II Norms: Strength from Three Pillars," states that, "with frequent and material disclosures, outsiders can learn about the bank's risk. Armed with this information, the outsiders can always protect themselves by ending their relationships with the bank" (4, 3). As the previous statement suggests, better reporting will benefit a bank's customers as well as its regulators. Proper reporting can help identify problems early and may save a bank from foreclosure. Consistency throughout the industry is a continuation of the premier goal of Basel I, which the New Accord will continue to advance.

WEAKNESSES/COSTS

In the "Calculus of Basel II," Ivan Schneider writes, "despite the cost and effort involved, the granular approach to risk does not guarantee a smaller capital allocation. In fact, the envisioned savings have been elusive. 'Very few banks believe that there will be saving in terms of regulatory capital'" (12, 1). This is the last thing that the Basel

Committee and anyone in the industry want to hear, especially since some estimates put monetary cost in the range of $10 - $150 million (4, 4). The major costs will stem from more expensive IT, higher staff costs, fees from consultants as well as costs from modeling, data warehousing, data mining and data collection (8, 1). Mr. Becker proposes that, Basel II will not change bank behavior regarding capital requirements because there are other factors that affect capital requirements that are neglected by the New Accord. "We must keep in mind that regulatory capital is the minimum amount of capital that a financial institution must hold...many institutions keep more for shareholder protection and to support a given credit rating. So in effect, reducing the regulatory minimum for capital will not change the overall amount of capital which financial institutions will hold" (7, 2). Adding to the weakness of Basel II is the inherent complexity that comes with improving processes (9, 4). The difficulties institutions will encounter when integrating the changes will further complicate matters. Many of today's risk management processes were developed in individual business units. To meet Basel II compliance banks will need to integrate their systems and bring forth added collaboration between individual units (11, 1). Banks will also need to spend extensive time ascertaining that associates are properly trained. As with any type of change, resistance is inevitable. Banks will have to develop careful plans to integrate the new changes within the allowed timeframe. In the worst case scenario, some banks may find they need more capital to effectively cover their risk, in turn raising implementation costs for these institutions (12, 1).

IMPACT ON LARGE vs. SMALL BANKS

In the United States only large banks and banks with substantial foreign exchange exposure are expected to comply with Basel II - namely banks with $250 billion in assets or foreign exchange exposure greater than $10 billion (11, 1). Smaller banks will have the option to opt-in to the new regulations. Stephen Becker further argues that this is a great opportunity for smaller banks to improve their business: "Smaller institutions tend to have very immature risk management processes and any improvement to those processes is always welcome" (7, 2). By improving risk management techniques, smaller banks will be able to better allocate capital. By utilizing more mature risk analysis, management will be able to make better decisions. Implementing the new requirements should be easier for smaller banks because they are less complex. They are not as heavily siloed and will require less work to install changes (7, 2).

Small banks should also opt into the Revised Framework because they will no doubt feel the trickle down effects from large banks. "Basel II for non Basel II banks," published in *Bank Accounting & Finance,* tries to quantify the reasoning: "Assuming that the top 20 banks are either mandated to comply with or voluntarily opt in to Basel II, more than 75 percent of U.S. banking assets (as well as approximately 75 percent of residential mortgages) will fall in the Basel II realm. Close to 60 percent of U.S. commercial and industrial loans will be on the books of banks applying the advanced IRB. In other words, while the vast majority of U.S. banks will not be forced to adopt Basel II, Basel II will apply to the overwhelming majority of U.S. banking assets. Thus, changes in the economics for Basel II banks are likely to have a significant impact on

who is playing in these markets and the prices they demand, affecting all players in the market" (3, 5).

The greatest difficulty for smaller banks will be the cost of building and implementing an IT based structure that consolidates risk across the entire organization. This will require substantial time and talent as these systems will need continuous maintenance (7, 2). Lauren Bielski suggests smaller banks should wait until larger institutions have perfected the methodologies (8, 1). This should help minimize costs that would occur through errors in the system or in interpretation of the regulation. Regardless of when a bank with an option to abide by the new regulations decides to do so, the advantages are too great for an organization to pass up. Even a community bank cannot afford to fall too far behind its competitors as its survival depends on its ability to adapt in an ever changing industry.

NEW OPPORTUNITIES

Many institutions oppose change and rightfully so since change implies costs and more uncertainty. Yet an institution must analyze the big picture and understand that change breeds opportunity and through newly created opportunities an institution can attain competitive advantages by pioneering new products and services. The regulation should help a bank develop further understanding of itself as well as its competition and the business in general. Its indirect affect will be to inform and educate all individuals and businesses of the inner working of their bank.

Banks will benefit substantially as the regulation "provides a framework to look at your operations and make sure that you have the proper controls in place so that you can reduce and mitigate risk" (12, 2). By offering cost savings as an incentive, Basel II will

encourage banks to better manage risk which will allow for greater probability of survival. Via micro management a bank may discover new methods of conducting business that could lead to further cost reductions. A good handle on costs will better prepare an institution and insure long term stability. Banks may receive higher credit ratings by perfecting Basel II requirements. This could be used by the marketing team to attract new customers and talent and to motivate current employees to continue to reach for excellence.

EFFECTS ON CUSTOMERS

Customers may also be substantially affected by Basel II. Greater risk sensitivity will force banks to not lend to borrowers with declining credit quality. During a contracting economy corporate profitability suffers and companies need to borrow capital to fund new projects. Companies may enter the equity market to receive funds but declining profits will make it more expensive to borrow in a market where demand may be dwindling. Investors will not have as much income to put into the market and they will be skeptical of firms struggling to survive. Borrowing will be the best option, but banks will not be willing to lend to a risky customer (4, 4). Banks not lending to customers when they need it the most is a paradox that will put tension into the debt market.

BASEL III?

The Basel Committee encourages responses from the banking industry after publication of each proposal. Thus far, the concern with implementation has been overwhelming. America's Community Bankers argued that the new accord "does not meet the goals of promoting stability, ensuring competitive equality, and allowing for the

effective monitoring of capital levels" (5, 1). Since medium and small banks make up much of the industry the accord seems inadequate for the majority. Banks have also expressed concern over the complexity which is embedded in the proposal. Some believe it to be unnecessary since many banks do not see any cost advantages when they take setup and implementation costs into consideration. "An in depth analysis is required to assess a bank's preparedness" says Vijay Sharma, head of I-flex Consulting (2, 2). Preliminary procedures in implementing Basel II are expected to take several years for each institution. Adding to the industry's fears on complexity and lack of advantages is the continual change in the field. What if, by the time Basel II becomes fully operational, new developments and regulations make it irrelevant? These arguments combined with the costs associated with implementation make Basel II a cloudy dilemma and leave open the possibility of further revisions to the accord.

Whether another revision is added to the Accord is uncertain. What is undeniable, are the changes that Basel II will bring in the international banking community. The cost saving is a welcome cite but increased complexity and heavier regulations will no doubt stir arguments among practitioners. Basel II will force banks to become more specialized and update product offering based on new risk and profitability profiles. Although only the largest banks are required to abide by Basel II, smaller banks will be affected by having to become more competitive by finding new ways to reduce costs. Customers may not receive funds when they require them most yet there is a possibility that cost saving may be passed down. AS banks continue to shuffle in preparation for Basel II they must keep in mind the big picture and work together with regulators to ease the process.

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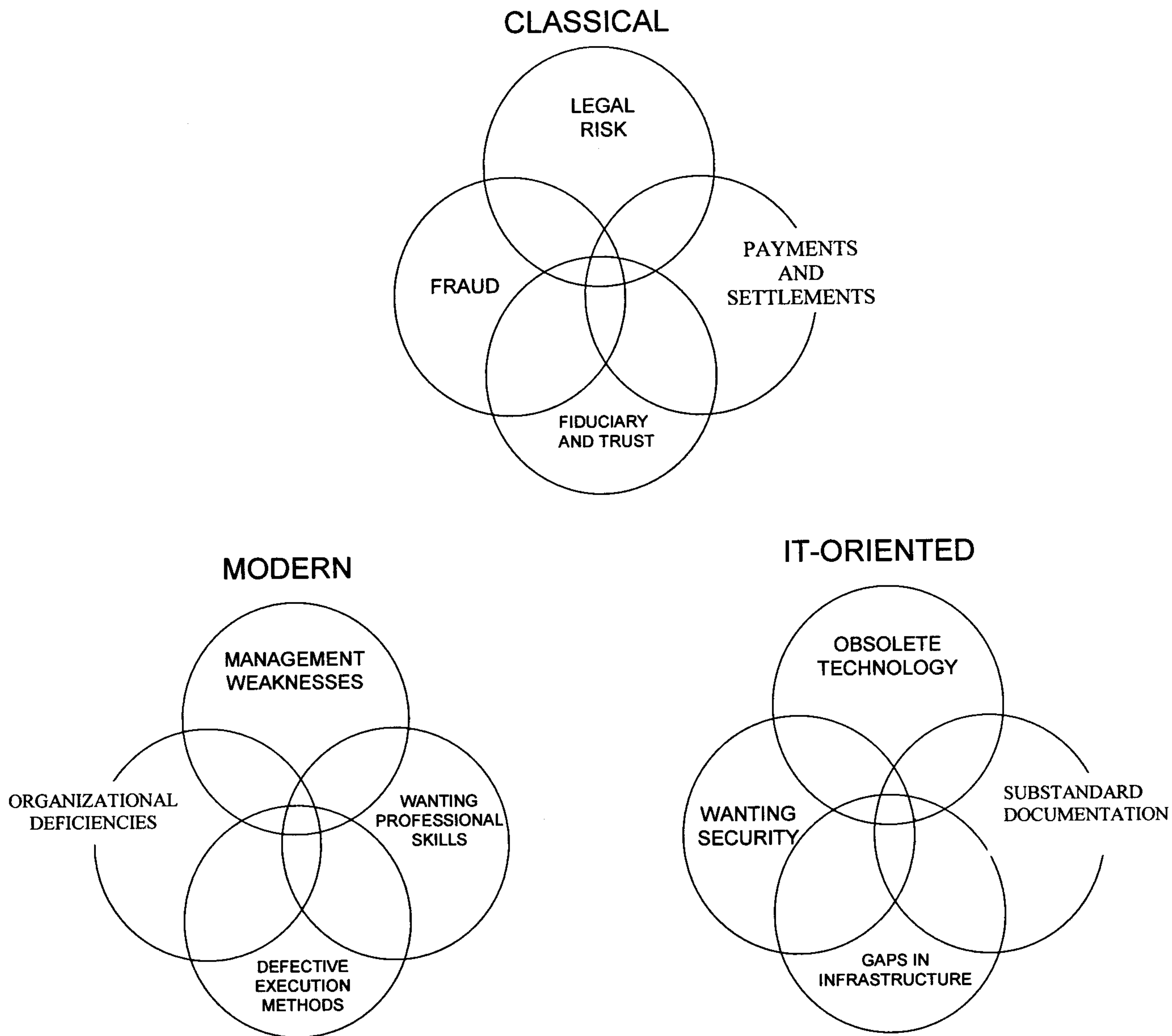
FIGURE 1*



* From Chorafas page 7