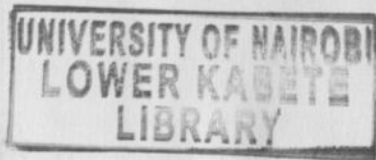


**A SURVEY OF THE EXTENT OF IMPLEMENTATION OF FASEL II BANKING
REGULATIONS BY COMMERCIAL BANKS IN KENYA**

MARY MULILI



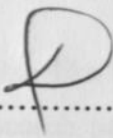
**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE AWARD OF MASTER OF BUSINESS
ADMINISTRATION DEGREE, THE UNIVERSITY OF NAIROBI**

2011

DECLARATION

STUDENT'S DECLARATION

This proposal is my original work and has not been presented for a degree in any other university.

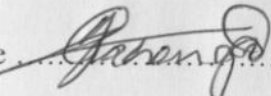
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D61/P/9070/2004

SUPERVISOR'S DECLARATION

This research proposal has been submitted for examination with my approval as the candidate's University Supervisor.

Signature:  Date: 16-11-2011

Mr. Lishenga

ACKNOWLEDGEMENT

I thank the Almighty God for His guidance and providence which enabled me to undertake this proposal that was too involving in terms of time and resources.

I wish to express my sincere appreciation to my family for their understanding and support during the project.

Lastly, I would also like to express my sincere thanks to the supervisors for having agreed to supervise this research paper and their patience in reading the drafts and for their guidance, without which the research would not have been a reality.

ABSTRACT

The aim of this research was to document the extent of compliance with Basel II Banking Regulations by commercial banks in Kenya and to relate the extent of compliance with Basel II Banking Regulations in Commercial Banks in Kenya to the banks' characteristics. A census survey research design was applied to carry out the study. The target population was 2 managers from each Commercial Bank and the data collected using semi structured survey questionnaires.

The analysis of the data was quantitative in nature and done with the help a computer program that is; the Statistical Package for Social Scientists (SPSS). The study had an adequate response rate of 72.73%. The study shows that Base II regulations are moderately implemented in the commercial banks. There is evidence that a high percentage of the banks have programmes in the implementations of Base II regulations. The strong responsibilities given to regulators by Basel II have a great impact in the adoption of the Base II regulation in banking high technicality in Basel II have moderate impact and a drawback of lending to emerging market banks had also a moderate impact on the banks. Basel II's reliance upon rating agencies to value risks caused unfavorable implications to banks to moderate extent. A few responders felt that Basel II causes banks to function in a way that is procyclical to the business cycle and that it cut off Kenyan banks from most international capital in a little extent. The study reveals that Basel Accords are moderately significant in the Commercial Banks though some commercial banks operating in Kenya have not fully complied with the Base II Banking regulations.

It is recommended to carry out studies to investigate the influence of Base II Regulations in the other related sector for instance in the financial institutions.

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CHAPTER ONE

1.0 Introduction

The chapter discusses in brief the inception of the Basel Accord and its transformation from Basel I to Basel II. It further focuses on the effects of these banking regulations in the banking industry.

1.1 Background of the study

More than a decade has passed since the Basel Committee on Banking Supervision, a division of the Bank for International Settlements (BIS) introduced its 1988 Capital Accord (Basel I), which was adopted by more than 100 countries around the world (BCBS, 2001). Since then, the business of banking, risk management practices, supervisory approaches, and financial markets have undergone a significant transformation. According to Klaus (2001) various bank crises have occurred that were due to several factors, namely the under-capitalization of banks, vague risk management techniques and deficits in banking supervision. The Basel Committee has been working on a completely new capital accord since 1996.

According to (Hitchins et al., 2001) the problem with the Basel Accord was that it rewarded risky lending since it required banks to set aside the same amount of capital against loans to shaky borrowers as against those with better credits (The Economist, 2000). Apart from the fact that capital requirements were just reasonably related to a bank's risk taking, the credit exposure requirement was the same regardless of the credit rating of the borrower (Saidenberg and Schuermann, 2003). Furthermore, the capital requirement for credit exposure often depended on the exposure's legal form – for instance, an on-balance sheet loan was generally subject to a higher capital requirement than that of an off-balance sheet to the same borrower, even though such differentiation could be insignificant owing to financial engineering (Saidenberg and Schuermann, 2003). The subjectivity revolving round such requirements provided loopholes whereby banks could manipulate decisions in such a way as to attain the minimal level of capital requirement without justification for a corresponding level of risk-related activities being

undertaken by the banks. As well as insensitivity to risk – attributing from the fact that Basel I was not responsive and did not adapt easily to new banking activities and risk management techniques, another problem which resulted from Basel I was the reluctance of banks to invest in better risk management systems (Saidenberg and Schuermann, 2003, p. 5). Given this insensitivity to risk, it is not only difficult to see how regulators are able to gauge accurately the level of risk inherent in activities undertaken by the bank, it would also complicate the task of alleviating the problem of systemic risk which is one of the two principal objectives of financial regulation.

In January 2001, the Basel Committee published revised and updated drafts of its earlier proposals in June 1999 to reform the 1988 Basel Capital Accord. A revised framework known as Basel II consists of three pillars namely: capital adequacy requirements, centralized supervision and market discipline and these pillars constitute the basis of the reform of the Basel Accord (Decamps et al., 2002). As well as linking capital to credit ratings by agencies such as Moody's and Standard and Poor's, banks' internal credit-ratings are also to be used as determinants of how much capital they should set aside (The Economist, 2000). Basel II aims to improve measures of capital adequacy (Pillar 1), promote greater risk management practices whereby banks are required to continually assess internal risks relative to capital (through Pillar 2) particularly with regards to credit risk. The reforms also aim to develop the Accord into a more universal framework for use by national banking supervisors. On November 15, 2005, the Basel Committee on Banking Supervision issued an updated version of Basel II (updated version of the International Convergence of Capital Measurements and Capital Standards: A Revised Framework) and also an updated version of the Capital Accord to incorporate market risks (BIS, 2006). A "post-Enron" directive had been passed in 2002 (The Economist, 2002a). The directive aims towards a more effective oversight of financial groups which combine banking, insurance and other activities which had not been adequately covered and accounted for by the EU regulation in operation at that time (The Economist, 2002a). As well as its main aim being the reduction of risk, it aims to ensure adequate capitalisation of financial conglomerates by banning practices which inflate a firm's capital base (The Economist, 2002a).

The risk adjusted backing of credit exposures with recourse equity (regulatory capital) is one of the key issues in the New Basel Capital Accord. The Basel II affects banks and customers equally. It has brought significant changes to the banking industry which include; the introduction of ratings as the basis for risk assessment and calculation of regulatory capital; and the assessment of credit costs based on the degree of risk.

Where the new accord has been successfully adopted, banks achieve greater risk sensitivity in capital requirements, and maintain the overall level of capital in the banking system. The new accord also provides the banks with a modest incentive for them to move to the internal ratings based approaches. Firms focused on competing effectively are already incorporating many elements of the Basel II requirements into their risk and capital management practices as a way to drive improved growth and profitability. They are finding that adopting new methodologies for credit and capital management leads to numerous business management benefits that far outweigh the costs – providing they pick the right implementation strategy and recognize the central importance of an economic capital framework (Gottschalk and Sodre, 2005).

In June 2004, the Basel Committee on Banking Supervision published its new Basel II framework for bank capital adequacy, also known as the New Basel Capital Accord. The document, a culmination of five years of work by banking regulators and financial industry working groups, was designed to replace the 1988 Basel Accord and set standards for many aspects of bank risk management over the next decade (though the Basel Committee and local regulators continue to work to fine-tune and determine implementation procedures for the new rules). It is not only banks required to comply with Basel II that are affected by the standards set out in the new Accord. In the United States, for example, where smaller banks have no immediate requirement to become Basel II compliant, many institutions are being told by their local regulators that they must develop and use a dual credit rating system as a key component of a more robust risk differentiation process (Financial Stability Institute, 2006).

According to Gottschalk and Sodre, (2005) the specific aim of Basel II is to make each bank's regulatory minimum capital requirement much more responsive to the economic risks that the

bank is actually incurring, compared to the broad brush formulas of Basel I. More broadly, the architects of the new capital Accord have tried to give banks a strong incentive to employ the most advanced risk measurement techniques in an attempt to replicate the best-practice standards for risk management in the global banking industry. Basel II addresses a wider range of risks, bank products and risk mitigants than Basel I, and allows banks to choose from a menu of increasingly sophisticated approaches to measuring risk.

1.2 Statement of the Problem

The international banking environment has become potentially riskier because of the recent developments in financial services and products which have changed the way banks do their day to day business. Imposing minimum capital adequacy regulations is one way of fostering stability in the global banking system. A number of countries have started to implement the new capital adequacy rules (Basel II) following the worldwide consensus among central bankers that bank's capital levels should be regulated to enhance global financial stability. For the successful implementation of Basel II, proper planning; devoting bank resources and making necessary legislative amendments are prerequisites for incorporating Basel II into the regulatory framework for any country. The current global financial turmoil continues to pose a threat to the effectiveness of the Basel II rules which are aimed at achieving global financial stability (YETIS, 2008).

In Kenya banks are regulated by central bank of Kenya which ensures that Kenyan banks comply with the local and international laws and policies. Kenya is becoming an important financial centre, well positioned to provide global services through the international offices of its banks and the presence of international banks. This provides the justification for the need for Basel II to be incorporated in the regulatory system of Kenya banking sector. Given the different stages of Basel II implementation globally as well as concerns over its impact on the banking system, there is need for research on the implementation issues in Kenyan banks implementing or yet to implement it. Key implementation issues include; the extent of implementation, challenges faced by banks and national supervisors, banking infrastructure (whether it will be able to cope), and

impact on bank lending and credit growth (especially for marginalised groups such as emerging small businesses) (McCAW, 2008).

Some of the studies done on Basel II include that of Jacobsohn (2004). He analyzed the effect of Basel II on the South African banking system through possible changes in the way in which a bank's business are conducted. The study focused on the impact of pillar 1 and did not cover the impacts of pillars 2 and 3. The study concluded that large South African banks will become takeover targets because of their large exposures in the retail and mortgage markets due to intensified competition. Banks will change the way they conduct their business (i.e. market segments and product offerings) as a result of the implementation of Basel II (Jacobsohn, 2004:102-104). Cumming and Nel (2005) also conducted a preliminary assessment of the likely effects of the new accord for South African banks. The main preliminary finding of this study was that the South African banking sector had shifted towards low risk assets over the period and the implementation of Basel II would probably increase the credit lines to investment grade borrowers (Cumming and Nel, 2005:655). The two studies were conducted before the full implementation of the new accord. Thus their findings are based on the perceived impacts of such implementation on the South African banking sector.

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 include prime mortgage customers, well-rated entities, high-quality liquidity portfolios, collateralized and hedged exposures and small and medium-sized businesses. However some of the possible disadvantages include higher credit risk individuals, uncollateralized credit and specialized lending. Depending on its current risk management processes, size, customers, portfolio, and market, a particular bank is likely to experience varying effects of Basel II. Basel II requires that the bank uses Use "one-size-fits-all" regulatory capital approach in its operations (VON, 2008).

With the implementation of Basel II the banks experiences various effects. Some of the effects of Basel II to the banks include the need to implement risk framework tying regulatory capital to economic risks, need to choose credit and operational risk approaches (Pillar I), need to gather, store, and analyze wide array of new data, and need to embed new/enhanced practices across the organization. On the other hand, implementation of Basel II poses various challenges to the banks. These challenges include the need to interpret new regulations and understand the effects on business, the banks has to manage change to risk culture, the bank has also to secure and maintain board and senior management sponsorship, the banks faces new expectations from regulators, rating agencies, and customers, the banks is required to consider whether to target certain customers/products or eliminate others, the bank also has to determine what to do with surplus capital (VON, 2008).

To comply with the Accord, banks are making significant and fundamental investments to improve their internal risk processes, data infrastructure, and analytical capabilities (Basel, 2004). As a result, Basel II compliance programs offer a rare opportunity to rethink the way banks approach risk measurement, and to look again at how risk measures can be integrated with each other and with management's approach to running the business. However, if Basel II compliance opens up many strategic opportunities to leverage improved data standards and risk management practices, it also offers many implementation challenges (Gottschalk and Sodre, 2005).

The CBK has been keenly following developments leading up to the adoption and implementation of the new capital framework through participation in regional and international supervisory fora. More specifically, Basel II has been a key agenda of the Monetary Affairs Committee (MAC) of the East African Community. MAC, which was formed in 1997 consists of the Central Banks of Kenya, Tanzania and Uganda and from 2007 also incorporated the Central Banks of Rwanda and Burundi. It is noteworthy that CBK has made considerable progress in fulfilling the prerequisites of Basel II and it is now appropriate to begin engaging the banking sector on the new capital framework. Further, a strong banking sector is essential to fulfill the national development aspirations encapsulated in Kenya's current development blueprint, Vision 2030.

Under the Vision, the banking sector is expected to play a catalytic role in mobilizing the substantial resources required to push Kenya to "new frontiers" of development. The Vision also seeks to transform Kenya into a "financial services hub" for the Eastern Africa Region. This will in turn require the formulation of a "world class" enabling legal and regulatory framework. In the current supervisory context, "world class" is set by the Basel Committee and it is anticipated that Basel II will in the near term become the global supervisory standard. From the previous studies, there is scanty empirical literature on the extent of implementation of Basel II banking regulations by commercial banks in Kenya. Informed by this knowledge gap the researcher sought to establish the extent of implementation of Basel II banking regulations by commercial banks in Kenya.

1.3 Study Objectives

1. To document the extent of compliance with Basel II Banking Regulations by commercial banks in Kenya
2. To relate the extent of compliance with Basel II Banking Regulations in commercial banks in Kenya to bank characteristics

1.4 Research Questions

1. What is the extent of compliance with Basel II Banking Regulations by commercial banks in Kenya?
2. What is the relationship between the extent of compliance with Basel II Banking Regulations in commercial banks in Kenya and bank characteristics?

1.5 Importance of the Study

This study will be of importance to commercial banks in Kenya as their plight in implementation of Basel II Banking Regulations will be highlighted. The findings and recommendations of this study will inform decision making for best practices by commercial banks in Kenya. The regulator, policy makers and other stakeholders will also benefit from this study's findings. An assessment of programmes in implementation of Basel II Banking Regulations will inform the way forward in an effort to streamline the banking industry.

The bank customers will also benefit from this study's findings since improved services will be good news to them. The national economy will also benefit from the findings of this study since it also relies heavily on sound banking industry. The international economy and banking industry will also find this study's findings valuable since the findings will inform insights on how local and multinational banks can operate more effectively and efficiently.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter presents a review of literature on Basel Accords. The chapter introduces Basel Accords and how they have evolved over time. This chapter will examine the scope, implementation, and criticism of Basel Accords.

2.2 Background of Basel I and II

The Basel Accords are some of the most influential and misunderstood agreements in modern international finance. Drafted in 1988 and 2004, Basel I and II have ushered in a new era of international banking cooperation. Through quantitative and technical benchmarks, both accords have helped harmonize banking supervision, regulation, and capital adequacy standards across the eleven countries of the Basel Group and many other emerging market economies. On the other hand, the very strength of both accords their quantitative and technical focus limits the understanding of these agreements within policy circles, causing them to be misinterpreted and misused in many of the world's political economies. Moreover, even when the Basel accords have been applied accurately and fully, neither agreement has secured long-term stability within a country's banking sector. Therefore, a full understanding of the rules, intentions, and shortcomings of Basel I and II is essential to assessing their impact on the international financial system (Bank for International Settlements, 2001).

2.3 The Basel Committee

Both Basel I and II are products of the Basel Committee a group of eleven nations, that, after the messy 1974 liquidation of the Cologne-based Bank Herstatt, decided to form a cooperative council to harmonize banking standards and regulations within and between all member states. Their goal, as stated in the Founding Document of the Basel Committee, is to "...extend regulatory coverage, promote adequate banking supervision, and ensure that no foreign banking

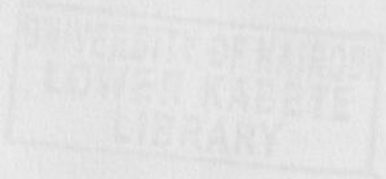
establishment can escape supervision” (Basel, 2006). To achieve this goal, France, Germany, Italy, Japan, the Netherlands, Sweden, Switzerland, the United Kingdom, the United States, and Luxembourg agreed in Basel, Switzerland to form a quarterly committee comprising of each country’s central banker and lead bank supervisory authority. At each meeting, the authorities of each country are authorized to discuss the status of the international banking system and propose common standards that can assist the Committee in achieving its goals, but as the Founding Document clearly states, the Basel Committee cannot enact legally binding banking standards. Therefore, it is up to the member states themselves to implement and enforce the recommendations of the Basel Committee.

2.3.1 Basel I

Soon after the creation of the Basel Committee, its eleven member states (known as the G-10) began to discuss a formal standard to ensure the proper capitalization of internationally active banks. During the 1970s and 80s, some international banks were able to “skirt” regulatory authorities by exploiting the inherent geographical limits of national banking legislation. Moreover, internationally active banks also encouraged a regulatory “race to the bottom,” where they would relocate to countries with less strict regulations. With the end of the petrodollar boom and the ensuing banking crises of the early 1980s, this desire for a common banking capitalization standard came to the forefront of the agendas of the Basel Committee’s member states. Six years of deliberations followed; in July of 1988, the G-10 (plus Spain) came to a final agreement: The International Convergence of Capital Measurements and Capital Standards, known informally as “Basel I” (Basel, 2006).

2.3.2 Scope

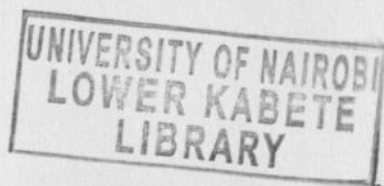
It should first be noted that Basel I was created to promote the harmonization of regulatory and capital adequacy standards only within the member states of the Basel Committee. All the states of the G-10 are considered developed markets by most (if not all) international organizations, and therefore, the standards set forth in Basel I are tailored to banks operating within such markets. The agreement expressly states that it is not intended for emerging market economies,



and due to the unique risks and regulatory concerns in these economies, should not be seen as the “optimal” emerging market banking reform. In sum, because Basel I gives considerable regulatory leeway to state central banks, views domestic currency and debt as the most reliable and favorable financial instruments, sees FDIC-style depositor insurance as risk-abating, and uses a “maximum” level of risk to calculate its capital requirements that is only appropriate for developed economies, its implementation could create a false sense of security within an emerging economy’s financial sector while creating new, less obvious risks for its banks (Bank for International Settlements, 2006).

Secondly, it should also be noted that Basel I was written only to provide adequate capital to guard against risk in the creditworthiness of a bank’s loanbook. It does not mandate capital to guard against risks such as fluctuations in a nation’s currency, changes in interest rates, and general macroeconomic downturns. Due to the great variability of these risks across countries, the Basel Committee decided not to draft general rules on these risks it left these to be evaluated on a case-by-case basis within the G10 member states. Thirdly, Basel I overtly states that it only proposes minimum capital requirements for internationally active banks, and invites sovereign authorities and central banks alike to be more conservative in their banking regulations. Moreover, it warns its readers that capital adequacy ratios cannot be viewed in isolation and as the ultimate arbiters of a bank’s solvency (Bank for International Settlements, 2001).

The Basel I Accord divides itself into four “pillars.” The first, known as The Constituents of Capital, defines both what types of on-hand capital are counted as a bank’s reserves and how much of each type of reserve capital a bank can hold. The accord divides capital reserves into two tiers. Capital in the first tier, known as “Tier 1 Capital,” consists of only two types of funds—disclosed cash reserves and other capital paid for by the sale of bank equity, i.e. stock and preferred shares. Tier 2 Capital is a bit more ambiguously defined. This capital can include reserves created to cover potential loan losses, holdings of subordinated debt, hybrid debt/equity instrument holdings, and potential gains from the sale of assets purchased through the sale of bank stock. To follow the Basel Accord, banks must hold the same quantity (in dollar terms) of Tier 1 and Tier 2 capital (Bank for International Settlements, 2001).



The second “pillar” of the Basel I Accord, Risk Weighting, creates a comprehensive system to risk weight a bank’s assets, or in other words, its loan-book. Five risk categories encompass all assets on a bank’s balance sheet. The first category weights assets at 0%, effectively characterizing these assets as “riskless.” Such “riskless” assets are defined by Basel I as cash held by a bank, sovereign debt held and funded in domestic currency, all OECD debt, and other claims on OECD central governments. The second risk category weights assets at 20%, showing that instruments in this category are of low risk. Securities in this category include multilateral development bank debt, bank debt created by banks incorporated in the OECD, non-OECD bank debt with a maturity of less than one year, cash items in collection, and loans guaranteed by OECD public sector entities. The third, “moderate risk” category only includes one type of asset—residential mortgages—and weights these assets at 50%. The fourth, “high risk” category is weighted at 100% of an asset’s value, and includes a bank’s claims on the private sector, non-OECD bank debt with a maturity of more than one year, claims on non-OECD dollar-denominated debt or Eurobonds, equity assets held by the bank, and all other assets. The fifth, “variable” category encompasses claims on domestic public sector entities, which can be valued at 0, 10, 20, or 50% depending on the central bank’s discretion (Balin, 2008).

The third “pillar,” A Target Standard Ratio, unites the first and second pillars of the Basel I Accord. It sets a universal standard whereby 8% of a bank’s risk-weighted assets must be covered by Tier 1 and Tier 2 capital reserves. Moreover, Tier 1 capital must cover 4% of a bank’s risk-weighted assets. This ratio is seen as “minimally adequate” to protect against credit risk in deposit insurance-backed international banks in all Basel Committee member states.

The fourth “pillar,” Transitional and Implementing Agreements, sets the stage for the implementation of the Basel Accords. Each country’s central bank is requested to create strong surveillance and enforcement mechanisms to ensure the Basel Accords are followed, and “transition weights” are given so that Basel Committee banks can adapt over a four-year period to the standards of the accord (Bank for International Settlements, 2001).

2.3.3 Implementation of Basel I Regulations

Basel I's adaptation and implementation occurred rather smoothly in the Basel Committee states. With the exception of Japan (which, due to the severity of its banking crisis in the late 1980s, could not immediately adopt Basel I's recommendations), all Basel Committee members implemented Basel I's recommendations including the 8% capital adequacy target by the end of 1992. Japan later harmonized its policies with those of Basel I in 1996. Although they were not intended to be included in the Basel I framework, other emerging market economies also adopted its recommendations. In contrast to the pointed warnings written into Basel I against implementation in industrializing countries, the adoption of Basel I standards was seen by large investment banks as a sign of regulatory strength and financial stability in emerging markets, causing capital-hungry states such as Mexico to assuage to Basel I in order to receive cheaper bank financing. By 1999, nearly all countries, including China, Russia, and India, had at least on paper implemented the Basel Accord (Bank for International Settlements, 2001).

2.3.5 Criticisms of Basel I Regulations

Criticism of Basel I come from four primary sources. One vein of criticism concentrates on perceived omissions in the Accord. Because Basel I only covers credit risk and only targets G-10 countries, Basel I is seen as too narrow in its scope to ensure adequate financial stability in the international financial system. Also, Basel I's omission of market discipline is seen to limit the accord's ability to influence countries and banks to follow its guidelines. The second group of criticisms deals with the way in which Basel I was publicized and implemented by banking authorities. The inability of these authorities to translate Basel I's recommendations properly into "layman's terms" and the strong desire to enact its terms quickly caused regulators to over-generalize and oversell the terms of Basel I to the G-10's public. This, in turn, created the misguided view that Basel I was the primary and last accord a country needed to implement to achieve banking sector stability. While G-10 regulators saw this result as rather benign because they already had most of the known regulatory foundations for long-term growth in place, they

did not realize that the “oversale” of Basel I would influence large private banks in such a way that they would begin to demand that emerging market economies follow Basel I (Balin, 2008).

The third group critical of Basel I concentrates on the misaligned incentives the Accord gives to banks. Due to the wide breath and absoluteness of Basel I’s risk weightings, banks have found ways to “wiggle” around Basel I’s standards to put more risk on their loan-books than what was intended by the framers of the Basel Accord. This is done through two primary vectors. In the first strategy, banks securitize their corporate loans and sell off the least risky securitized assets. By “splicing” the least risky bank loans from its loan-book, a bank makes its assets more risky in de facto terms, but, in the de jure terms of Basel I, the risk weight given to the bank’s corporate loans does not change. Moreover, the money gained through this securitization can be added to a bank’s asset reserves, allowing it to give out even more risky loans. This method called “cherry picking” creates banks that, on paper, are properly protecting themselves against credit risk, but in reality are taking on quantities of risk far greater than what Basel I intended (Bank for International Settlements, 2001).

The second method through which banks can cosmetically maintain a low risk profile under Basel I while taking on increasing amounts of risk is through the sale and resale of short-run non-OECD bank debt. Because short-run bank debt created by non-OECD banks is weighted at 20% and long-run debt in this category is weighted at 100%, banks can “swap” their long-term debt holdings for a string of short-run debt instruments. Therefore, the risk associated with holding longer-term debt namely, the risk of default in volatile emerging markets remains, while the bank’s risk weighting is reduced (Balin, 2008).

The final source of Basel I’s criticisms relate to its application to emerging markets. Although Basel I was never intended to be implemented in emerging market economies, its application to these economies under the pressure of the international business and policy communities created foreseen and unforeseen distortions within the banking sectors of industrializing economies. Firstly, as highlighted in the Basel Accord itself, Basel I’s high degree of regulatory leeway, view of domestic currency and debt as the most reliable and favorable of asset instruments, and

perception of FDIC-style depositor insurance as risk-abating had significant negative effects within emerging economies. In countries subject to high currency fluctuation and sovereign default risks, the Basel I accord actually made loan-books riskier by encouraging the movement of both bank and sovereign debt holdings from OECD sources to higher-yielding domestic sources. Next, FDIC-style deposit insurance, combined with lax regulation on what assets fall under Basel I's risk weightings, caused emerging market regulators to underestimate the credit default risks of a bank's assets. This, in turn, created system-wide defaults within emerging market banking sectors when it became obvious that all banks had taken on excessive risk and when it was revealed that the country's central bank had the capital on hand to bail out some of the banking sector, but not enough to bail out the whole of the sector (Balin, 2008).

In addition to the foreseen drawbacks of Basel I in emerging markets, several unforeseen effects of Basel I also served to make the accord less desirable for industrializing economies. The first unforeseen consequence of Basel I is a side-effect of the way it risk-weights bank debt: because short-run non OECD bank debt is risk-weighted at a lower relative riskiness than long-term debt, Basel I has encouraged international investors to move from holding long-run emerging market bank debt to holding short-run developing market instruments. This has amplified the risk of "hot money" in emerging markets and has created more volatile emerging market currency fluctuations. The second unforeseen effect of Basel I emerge from the difference between the risk weightings of sovereign and private debt. Because emerging market sovereign debt is seen as less risky than private debt, Basel I has created a scenario where the private sector is "squeezed out" of many banks' emerging market lending portfolios. This "squeezing" magnifies recessions in emerging markets, and moreover, amplifies the costs of a sovereign default because domestic banks more readily accept sovereign debt, causing banks to "double up" on the higher-yielding debt typically disbursed by a sovereign in the months leading up to a default. Finally, the lack of deep and liquid capital markets in emerging markets make capital adequacy ratios less reliable in emerging economies. Because the prices of stock and debt held by a bank are often incorrectly valued on illiquid emerging market exchanges, the risk-weightings of such instruments and the inclusion of these instruments in the calculation of a bank's capital adequacy

ratio oftentimes causes emerging market banks to show wildly incorrect capital adequacy positions (Balin, 2008).

2.4 Basel II

In response to the banking crises of the 1990s and the aforementioned criticisms of Basel I, the Basel Committee decided in 1999 to propose a new, more comprehensive capital adequacy accord. This accord, known formally as A Revised Framework on International Convergence of Capital Measurement and Capital Standards and informally as “Basel II” greatly expands the scope, technicality, and depth of the original Basel Accord. While maintaining the “pillar” framework of Basel I, each pillar is greatly expanded in Basel II to cover new approaches to credit risk, adapt to the securitization of bank assets, cover market, operational, and interest rate risk, and incorporate market-based surveillance and regulation (Basel II, 2008).

2.4.1 Pillar I

The first “pillar,” known again as Minimum Capital Requirements, shows the greatest amount of expansion since Basel I. In response to Basel I’s critics, Basel II creates a more sensitive measurement of a bank’s risk-weighted assets and tries to eliminate the loopholes in Basel I that allow banks to take on additional risk while cosmetically assuaging to minimum capital adequacy requirements. Its first mandate is to broaden the scope of regulation to include assets of the holding company of an internationally active bank. This is done to avoid the risk that a bank will “hide” risk-taking by transferring its assets to other subsidiaries and also to incorporate the financial health of the entire firm in the calculation of capital requirements for its subsidiary bank (Financial Stability Institute, 2006).

2.4.1.1 Credit Risk the Standardized Approach

Next, the first “pillar” provides three methodologies to rate the riskiness of a bank’s assets. The first of these methodologies, the “standardized” approach, extends the approach to capital weights used in Basel I to include market-based rating agencies. Sovereign claims, instead of being discounted according to the participation of the sovereign in the OECD, are now

discounted according to the credit rating assigned to a sovereign's debt by an "authorized" rating institution if debt is rated from AAA to AAA-, it is assigned a 0% weight; if it is rated from A+ to A-, it is assigned a 20% weight; if it is rated from BBB+ to BBB-, it receives a 50% weight; if it is rated from BB+ to BB-, it receives a 100% weight; and if it is rated below B-, it receives a 150% weight. Unrated debt is weighted at 100%. If debt is denominated and funded in local currency, regulators can also assign a lower weight to its relative riskiness (Financial Stability Institute, 2006).

For bank debt, authorities can choose between two risk weighting options. In the first option, authorities can risk-weight this type of debt at one step less favorable than the debt of the bank's sovereign government. For example, if a sovereign's debt were rated as A+, the risk weight of the banks under its jurisdiction would be 50%. Risk is capped at 100% if the sovereign's rating is below BB+ or unrated. The other option for the risk-weighting of bank debt follows a similar external credit assessment as sovereign bonds, where AAA to AAA- debt is weighted at 20%, A+ to BBB- debt is weighted at 50%, BB+ to BB- debt is weighted at 100%, and debt rated below B- is risk-weighted at 150%. Unrated debt is weighted at 50%. Short-term bank claims with maturities of less than three months are weighted at one step lower than a sovereign bond, where BB+ debt is given a 50% weight instead of a 100% value (Financial Stability Institute, 2006).

In the "standard" approach, corporate debt is weighted in the same manner as bank debt, except the 100% category is extended to include all debt that is rated between BBB+ and BB-. All debt rated below BB- is weighted at 150%; unrated debt is risk-weighted at 100%. Home mortgages are, in addition, risk-weighted at 35%, while corporate mortgages are weighted at 100% (Financial Stability Institute, 2006).

2.4.1.2 Credit Risk—the Internal Ratings Based Approaches

Beyond the "standardized" approach, Basel II proposes and incentivizes two alternate approaches toward risk-weighting capital, each known as an Internal Ratings Based Approach, or IRB. These approaches encourage banks to create their own internal systems to rate risk with the

help of regulators. By forcing banks to “scale up” their risk-weighted reserves by 6% if they use the standardized approach, the Basel Committee offers banks the possibility of lower reserve holdings and thus higher profitability if they adopt these internal approaches (Global Risk Regulator, 2006).

The first internal ratings based approach is known as the Foundation IRB. In this approach, banks, with the approval of regulators, can develop probability of default models that provide in-house risk weightings for their loan-books. Regulators provide the “assumptions” in these models, namely the probability of loss of each type of asset, the exposure of a bank to an at-risk asset at the time of its default, and the maturity risk associated with each type of asset (Global Risk Regulator, 2006).

The second internal ratings based approach, Advanced IRB, is essentially the same as Foundation IRB, except for one important difference: the banks themselves rather than regulators determine the assumptions of proprietary credit default models. Therefore, only the largest banks with the most complex modes can use this standard.

Both IRB approaches give regulators and bankers significant benefits. Firstly, they encourage banks to take on customers of all types with lower probabilities of default by allowing these customers lower risk weightings. These low risk weightings translate into lower reserve requirements, and ultimately, higher profitability for a bank. Also, the IRB approaches allow banks to engage in self-surveillance: excessive risk-taking will force them to hold more cash on hand, causing banks to become unprofitable. Moreover, if a bank does become illiquid, regulators will be less apt to close the bank if it followed “standard” Basel II procedures. For regulators, self-surveillance also decreases the costs of regulation and potential legal battles with banks. Furthermore, the “tailoring” of risk weights allows additional capital to be channeled to the private sector because public debt is no longer “more trusted” by assumption, banks will be more apt to lend to private sources. This, in turn, increases the depth of the banking sector in a country’s economy, and in sum, encourages economic growth. “Pocr” risks can no longer hide

under a rather arbitrary risk “category,” preventing the tendency of banks to “wiggle” risks around category-based weights (Jones, 2000).

2.4.1.3 Operational Risk

Secondly, Basel II extends its scope into the assessment of and protection against operational risks. To calculate the reserves needed to adequately guard against failures in internal processes, the decision making of individuals, equipment, and other external events, Basel II proposes three mutually exclusive methods. The first method, known as the Basic Indicator Approach, recommends that banks hold capital equal to fifteen percent of the average gross income earned by a bank in the past three years. Regulators are allowed to adjust the 15% number according to their risk assessment of each bank (Jones, 2000).

The second method, known as the Standardized Approach, divides a bank by its business lines to determine the amount of cash it must have on hand to protect itself against operational risk. Each line is weighted by its relative size within the company to create the percentage of assets the bank must hold. The third method, the Advanced Measurement Approach, is much less arbitrary than its rival methodologies. On the other hand, it is much more demanding for regulators and banks alike: it allows banks to develop their own reserve calculations for operational risks. Regulators, of course, must approve the final results of these models. This approach, much like the IRB approaches shown in the last section, is an attempt to bring market discipline and self-surveillance into banking legislation and a move to eliminate “wiggle room” where banks obey regulations in rule but not in spirit (Santos, 2008).

2.4.1.4 Market Risk

The last risk evaluated in Pillar I of the Basel II accords attempts to quantify the reserves needed to be held by banks due to market risk, i.e. the risk of loss due to movements in asset prices. In its evaluation of market risk, Basel II makes a clear distinction between fixed income and other products such as equity, commodity, and foreign exchange vehicles and also separates the two principal risks that contribute to overall market risk: interest rate and volatility risk. For fixed

income assets, a proprietary risk measurement called “value at risk” (VAR) is first proposed alongside the lines of the IRB approaches and the Advanced Measurement Approach; banks can develop their own calculations to determine the reserves needed to protect against interest rate and volatility risk for fixed income assets on a position-by-position basis however the regulators must approve of such an action (Santos, 2008).

For banks that cannot or chose not to adopt VAR models to protect their fixed income assets against volatility or interest rate risk, Basel II recommends two separate risk protection methodologies. For interest rate risk the risk that interest rates may fluctuate and decrease the value of a fixed-income asset reserve recommendations are tied to the maturity of the asset. To guard against the volatility risk of fixed income assets, Basel II recommends risk weightings tied to the credit risk ratings given to underlying bank assets. For assets rated by credit-rating agencies as AAA to AA-, a 0% weighting is assigned, while for A+ to BBB rated fixed income instruments, a 0.25% weighting is given. Furthermore, for instruments receiving a BB+ to B-rating, an 8% weight is assigned, and for instruments rated below B-, a 12% weight is allowed. Unrated assets are given an 8% risk weighting. For the final calculation of the total amount of reserves needed to protect against market risk for fixed income instruments, the value of each fixed income asset is multiplied against both risk weightings and then summed alongside all other fixed income assets (Financial Stability Institute, 2006).

Basel II’s risk weightings for all other market-based asset such as stocks, commodities, currencies, and hybrid instruments is based on a second, separate group of methodologies. It would be exhaustive to provide a full summary of the methods used for the calculation of reserves needed to protect against market risks, but this paper will provide a short summary of the three main types of rating methodologies used to rate these assets. The first group of methodologies is called The Simplified Approach, and uses systems similar to the “bucket” approaches used in non-VAR fixed income reserve calculations. This group looks to divide assets by type, maturity, volatility, and origin, and assign a risk weights along a spectrum of values, from 2.25% for the least risky assets to 100% for the most risky assets (Financial Stability Institute, 2006).

The second group of methodologies for assigning the reserves needed to protect against market risk inherent in stock, currency, commodities, and other holdings is called Scenario Analysis. Here, risk weights are not grouped according to the cosmetic features of an asset; instead, risk weights are allocated according to the possible scenarios assets may face in each country's markets. This approach, while much more complex than the Simplified Approach, is much less conservative and therefore more profitable for a bank (Santos, 2008).

The final methodological group outlined in Basel II that calculates the reserves needed to guard against market risk is known as the Internal Model Approach, or IMA. Along the lines of the VAR and IRB approaches, this methodology group encourages banks to develop their own internal models to calculate a stock, currency, or commodity's market risk on a case-by-case basis. On average, the IMA is seen to be the most complex, least conservative, and most profitable of the approaches toward market risk modeling (Ferry, 2005).

2.4.1.5 Total Capital Adequacy

Once a bank has calculated the reserves it needs on hand to guard against operational and market risk and has adjusted its asset base according to credit risk, it can calculate the on-hand capital reserves it needs to achieve "capital adequacy" as defined by Basel II. Because of the wide range of methodologies used by banks and the diversity of bank loan-books, Basel II allows a great deal of variation in its calculated reserve requirements. Additionally, no change is given to both the requirement that Tier 2 capital reserves must be equal to the amount of Tier 1 capital reserves and the 8% reserve requirement for credit-default capital adequacy, making these two regulations applicable in Basel II. In sum, a bank's needed reserves for "capital adequacy" is calculated as follows:

$$\text{Reserves} = .08 * \text{Risk Weighted Assets} + \text{Operational Risk Reserves} + \text{Market Risk Reserves}$$

2.4.2 Pillars II and III

Pillars II and III are much less complex and lengthy than Pillar I—they only occupy 40 of the 350 pages of the Basel II Accord. Pillar II primarily addresses regulator-bank interaction,

extending the rights of the regulator in bank supervision and dissolution. Regulators are given the power to oversee the internal risk evaluation regimes proposed in Pillar I and change them to the simpler, more conservative “bucket-based” approaches if they deem a bank unable to manage its credit, market, and operational risks independently. Regulators can also review a bank’s capital assessment policy when they see fit, and are given the mandate to hold senior management responsible if a bank misrepresents its risk positioning. Moreover, banks are charged with drafting their own risk profiles, and if this reporting is not done, authorities have the right to penalize the at-fault bank (Balin, 2008).

Two additional mandates also widen the breath of regulator power in Basel II. Firstly, regulators are allowed to create a “buffer” capital requirement in addition to the minimum capital requirements as calculated in Pillar I if banks are seen to be “skirting” around the capital adequacy goals of the accord. Secondly, to avoid a repeat of the financial crises in countries like Korea and China, banking supervisors are urged to mandate early action if capital reserves fall below minimum levels and are given significant authority by way of Basel II’s recommendations to prescribe rapid remedial action for banks in such a situation (Basel II, 2008).

The Pillar III aims at increasing market discipline within a country’s banking sector. In sum, disclosures of a bank’s capital and risk-taking positions that were once only available to regulators are recommended to be released to the general public in the Basel II Accord. Statistics such as the aggregate amounts of surplus capital (both Tier 1 and Tier 2) held by a bank, risk-weighted capital adequacy ratios, reserve requirements for credit, market, and operational risk, and a full description (with assumptions) of the risk mitigation approaches of a bank are recommended for quarterly release to the general public under Basel II’s standards. With this action, Basel II hopes to empower shareholders to enforce discipline in the risk-taking and reserve-holding methods of banks, where banks seen to hold too few reserves and take on too much risk are punished by their own shareholders for doing so (Basel II, 2008).

2.4.3 Implementation of Basel II Regulations

After its drafting in 1999, Basel II underwent seven years of deliberation and two revisions one in September and another in November of 2005 before a final agreement was agreed upon by all G-10 nations and representatives from Spain in July 2006. Over the course of the Accord's deliberation, the size of the agreement ballooned to 347 pages a far cry from the 37 pages of the original Basel accord. This was due to the addition at the behest of the United States, Japan, and Britain of internal risk evaluation and self-surveillance standards for banks. Another major sticking point in the negotiations over the Basel II accord was the scope of the agreement: most European Union countries wanted the Accord to apply to all banks, while the U.S., Canada, and Great Britain wanted it to apply only to large international banks. In the end, this second bloc won out (Cornford, 2005).

Alongside the final draft of Basel II in 2006, all the G-10 countries, including the United States, pledged to implement Basel II in full by its target enactment date of December 2008. While progress to this goal is uneven, all G-10 countries have approved their strategies for harmonization with Basel II and had mandated its implementation by late 2008. Outside the G-10, 95 countries accounting for 36% of world GDP have announced their intention to adopt Basel II by 2015. Including the G-10, Basel II is on target to cover approximately 77% of the world's GDP and 70% of its population (Cornford, 2005; 10).

The only major country outside the G-10 that has not announced its intentions to adopt Basel II's standards is China: it asserts that its own domestic regulation and the adoption of Basel I standards will be sufficient to ensure the stability of its banking system. On the other hand, recent reports show a reversal in this decision and a target date of 2011 for implementation among a select few Chinese banks, so there is a distinct possibility that even China will join most of the world in adopting Basel II ("Chinese Banks to Test Waters...", 1). In addition, it must be noted that because Basel II covers the subsidiaries of G-10 banks, many emerging markets will see de facto implementation of Basel II in 2008. Argentina, for example, has a banking sector

with a large foreign bank presence approximately 48% of all bank capitalization and will therefore see the effects of Basel II much sooner than its formal implementation date of 2013.

2.4.4 Criticisms Related to Emerging Market Economies

The principle criticism of Basel II in terms of emerging market economies is that, once again, the Basel Committee has expressly stated that its recommendations are for its G-10 member states and not for developing economies. In parallel to the creation of Basel II, the Basel Committee created a set of standards for emerging market economies called Core Principles for Effective Banking Supervision that were drafted in 1997, completed in 1999, and later revised in 2006. Although these standards are tailored to the needs of emerging market economies, their broadness and relative obscurity in the policymaking community have limited their impact upon international banking. Because multilateral institutions, international rating agencies, and large banks alike see the Basel Accords as the proper standard for banking regulation throughout the world's economies, critics charge that the "splicing" of emerging market bank policy into a less publicized and precise standard effectively causes the needs of emerging market financial sectors to be ignored (Balin, 2008).

Given that Basel II is intended for G-10 economies, its regulations have several possible adverse effects on emerging market economies. Firstly, the strong responsibilities given to regulators and the great amount of regulatory variability allowed to banks in their calculation of loan-book reserves may overwhelm the regulatory systems of many emerging market economies. Because of the high technicality in Basel II and the inclusion of internal mechanisms in the measurement of risk, regulators will be forced to hire and hold highly skilled employees through the medium and long term. Unfortunately, the educational institutions needed to train such employees may not exist in a country, and many emerging market regulatory agencies do not have the budget to add costly high-skilled workers to their ranks. Therefore, central banks may become lax in their regulation of private banks, allowing them to control risk internally without proper oversight. This, in turn, incentivizes private banks to take on increasing risk, heightening the possibility of a system-wide banking collapse (Barth, et. al, 44). In rich countries, Basel II assures its readers

that market discipline would preclude such a scenario, but again, in emerging markets, markets may be so shallow and illiquid that banks could effectively take on excessive risk without a shareholder or creditor revolt.

Another possible side-effect of Basel II in emerging market economies is a drawback of lending to emerging market banks. This is due to two factors. Firstly, because only larger firms can afford to hire rating agencies to assess their debt, it is likely that many banks in emerging markets will not have their debt rated by Moody's, S&P, or Fitch. Therefore, global banks will be least apt to loan to emerging market banks because such loans will have to be matched with larger capital reserve requirements than those made to larger, rated banks. Secondly, even if an emerging market bank is able to afford the services of an international rating agency, experience has shown that the uncertainty surrounding differences in accounting practices and banking regulations causes rating agencies to assign unduly unfavorable bond ratings to banks in industrializing states (Barth, et. al., 71). Simply put, a rating agency would rather "cover its underside" with a low rating than make a major personnel investment in an emerging economy.

More generally, Basel II's reliance upon rating agencies to value risks may cause unfavorable implications in industrialized and industrializing markets alike. Firstly, because most small borrowers cannot afford the services of rating agencies, banks will tend to lose diversification on their loan-books, causing them to be more exposed to sectoral shocks, and especially economic shocks that adversely affect larger banks and corporations. Secondly, because banks and corporations can choose the rating agency they employ, they may bring about a "race to the bottom" among the world's three large rating agencies where business is given to the agency that assigns a firm the best rating possible. Therefore, over time, a bank's risk exposure will tend to enlarge, even as, on paper, it retains the same amount of credit, operational, and market risk (Balin, 2008).

Next, Basel II is criticized for its retention of the "sovereign ceiling" in its estimation of bank asset risk. Although this standard is weakened by the availability of other options through which emerging market assets can be valued, the Standardized Approach still permits regulators to

arbitrarily rate bank debt as less creditworthy than the debt of the bank's sovereign authority. Because many emerging market sovereigns have dubious debt histories, emerging market banks are unduly penalized by Basel II because their debt ratings and therefore risk weightings are mandated to be "one step" less favorable than that of their sovereign government. Thus, large international banks will likely limit loans to highly solvent, low-risk banks in emerging markets because they are forced to take on large capital reserves to extend such loans (Balin, 2008).

Finally, one additional criticism of Basel II will affect both emerging and industrialized economies. With the addition of internal risk measurements in the calculation of a bank's capital reserves, Basel II may cause banks to function in a way that is procyclical to the business cycle. Because risk weights are based on expectations of future economic performance, banks will tend to withdraw credit in times before and during a recession and extend additional credit once a recovery is underway. Although this method protects banks against additional economic risk, it is well known in the financial community that economic forecasters tend to exaggerate their predictions during periods of growth and recession alike. Therefore, the expectations-based movement of credit will tend to amplify recessions and perhaps spur inflation during periods of high economic growth (Barth *et al.*, 2006).

2.5 The role of bank supervisors in maintaining adequate bank capital

The importance of risk management derives from the objectives of financial regulation. The problem of systemic risk constitutes part of the embodiment of the rationale for financial regulation (Davies, 1998). Regulators impose liquidity monitoring measures on banks to meet specified minimum levels of withdrawals. However, such measures are precautionary against short-term cash flow problems rather than a situation of panic outburst (Gleeson, 2006). The level of confidence reposed in the public by the financial community is what sustains banks in modern times and this is strengthened by external checks which is given by credit agencies through scrutiny of published accounts and by bank regulation through prudential supervision (Gleeson, 2006).

Prudential regulation however, is not the only way in which some regulators take interest in the financial management of authorized firms. There is also the principle of ensuring that a firm operates with required minimum level of capital in order to reduce the consequences of failure (Gleeson, 2006, p. 181). As a result, the focus on the solvency and safety and soundness of financial institutions and minimum capital requirement are often regarded as synonymous (Gleeson, 2006, p. 181).

High profile failures such as those of Franklin National Bank, Banco Ambrosiano, BCCI, Barings and others have highlighted the need for effective consolidated supervision and close monitoring of activities on a transnational basis (Singh, 2007). Barings focused on multi functional banking since it was fraud in the securities division which led to the collapse of the bank as a whole. The concept of "lead regulation" developed independently from "consolidated supervision" to manage the regulatory chain which was in place to supervise multi-authorized groups of institutions across various business forms (Singh, 2007, p. 106). The issue relating to Barings as well as highlighting the problems and gaps which existed with prudential banking supervision, poor regulation and supervision of multi function firms also highlighted the misleading problem of relying on the capital adequacy ratio as the sole source of determining a financial institution's well-being.

2.5.1 Capital adequacy

Capital adequacy constitutes one of the foundations of prudential supervision (BIS, 2002). In most countries there are minimum capital requirements for the establishment of new banks and capital adequacy tests are a regular element in ongoing supervision (BIS, 2002). In the consultative package "The New Basel Capital Accord" issued by the Basel Committee in January 2001, the Basel Committee proposed a capital adequacy framework based on three complementary pillars: minimum capital requirements, a supervisory review process and market discipline. Capital adequacy is a term used to describe the adequacy of a bank's aggregate capital in relation to the risks which arise from its assets, its off balance sheet transactions, its dealing operations and all other risks associated with its business (Hitchins *et al.*, 2001). The aim is for a

bank to have enough capital in relation to its risks to absorb the highest foreseeable amount of loss and still give allowance in which to realize assets, raise new capital or arrange for disposition of its business (Hitchins *et al.*, 2001).

Statutory requirements govern the minimum amount of capital which a bank must have (Hitchins *et al.*, 2001). These have been established by UK and European legislation and from internationally agreed recommendations of the Basel Committee on Banking Supervision (Hitchins *et al.*, 2001). In the UK, the Financial Services Authority (FSA)'s approach to the calculation of the capital base and the capital ratios and the assessment of capital adequacy are set out in chapters of the FSA's Interim Prudential Sourcebook for Banks (IPRU (BANK); Hitchins *et al.*, 2001). This was supplemented by the FSA's policy statement "Individual Capital Ratios for Banks". This has been replaced by the Integrated Prudential Sourcebook. In addition, at the international level, the Basel Committee has issued far-reaching proposals to refine and develop the current approach.

According to the drafters of the Basel Core Principles, "Banking, by its nature, entails a wide array of risks. Banking supervisors need to understand these risks and be satisfied that banks are adequately measuring and managing them" (Quiroz Rendon, 2007). The Core Principles attempt to address the main risks encountered by banks in Principle Six which states that banking supervisors should set prudent and appropriate minimum capital adequacy requirements for all banks (Quiroz Rendon, 2007, pp. 10-11). Capital is very vital in its role as it contains risk in a banking firm, protects deposits and equalises competition amongst banks (Quiroz Rendon, 2007, pp. 10-11). During the early 1980s, increasing international competition and losses on loans resulted in concerns about decreased capital levels in international banks (Quiroz Rendon, 2007, pp. 10-11). This instigated consultations between the Basel Committees and supervisory authorities in order to establish a common approach to capital measurements and standards for banks (Quiroz Rendon, 2007, pp. 10-11).

However, these capital measurements were usually, but not always, determined by banking supervisors based on disclosed items in the balance sheet which had been apportioned according

to judgments concerning their underlying risks (Power, 2003). The complaints which resulted from this mode of calculation related not only to its arbitrary nature, but also to the fact that it did not discriminate adequately between risk profiles of specific banks or between risks within a single bank (Power, 2003, p. 5). Furthermore, some banks felt that they were at a competitive disadvantage as a result of the regulation (Power, 2003). The ensuing section discusses measures developed by the Basel Committee to address the flaws inherent in the 1988 Basel Capital Accord. These measures were developed with the consideration for the first time, of the calculation of regulatory capital partly based on the risk models and systems of the individual banks (Power, 2003). However, as the following section will also reveal, criticisms still emanate from the new framework (Basel II).

2.6 Proposals to update the Basel capital framework

The problem with the Basel Accord was that it rewarded risky lending since it required banks to set aside the same amount of capital against loans to shaky borrowers as against those with better credits (*The Economist*, 2000). Apart from the fact that capital requirements were just reasonably related to a bank's risk taking, the credit exposure requirement was the same regardless of the credit rating of the borrower (Saidenberg and Schuermann, 2003). Furthermore, the capital requirement for credit exposure often depended on the exposure's legal form for instance, an on-balance sheet loan was generally subject to a higher capital requirement than that of an off-balance sheet to the same borrower, even though such differentiation could be insignificant owing to financial engineering (Saidenberg and Schuermann, 2003). The subjectivity revolving round such requirements provided loopholes whereby banks could manipulate decisions in such a way as to attain the minimal level of capital requirement without justification for a corresponding level of risk-related activities being undertaken by the banks. As well as insensitivity to risk – attributing from the fact that Basel I was not responsive and did not adapt easily to new banking activities and risk management techniques, another problem which resulted from Basel I was the reluctance of banks to invest in better risk management systems (Saidenberg and Schuermann, 2003, p. 5). Given this insensitivity to risk, it is not only difficult to see how regulators are able to gauge accurately the level of risk inherent in activities

undertaken by the bank, it would also complicate the task of alleviating the problem of systemic risk – one of the two principal objectives of financial regulation.

In January 2001, the Basel Committee published revised and updated drafts of its earlier proposals in June 1999 to reform the 1988 Basel Capital Accord. A revised framework known as Basel II consists of three pillars namely: capital adequacy requirements, centralized supervision and market discipline and these pillars constitute the basis of the reform of the Basel Accord (Decamps *et al.*, 2002). As well as linking capital to credit ratings by agencies such as Moody's and Standard and Poor's, banks' internal credit-ratings are also to be used as determinants of how much capital they should set aside (*The Economist*, 2000). Basel II aims to improve measures of capital adequacy (Pillar 1), promote greater risk management practices whereby banks are required to continually assess internal risks relative to capital (through Pillar 2) particularly with regards to credit risk. The reforms also aim to develop the Accord into a more universal framework for use by national banking supervisors.

On November 15, 2005, the Basel Committee on Banking Supervision issued an updated version of Basel II (updated version of the International Convergence of Capital Measurements and Capital Standards: A Revised Framework) and also an updated version of the Capital Accord to incorporate market risks (BIS, 2006). A “post-Enron” directive had been passed in 2002 (*The Economist*, 2002a). The directive aims towards a more effective oversight of financial groups which combine banking, insurance and other activities which had not been adequately covered and accounted for by the EU regulation in operation at that time (*The Economist*, 2002a). As well as its main aim being the reduction of risk, it aims to ensure adequate capitalisation of financial conglomerates by banning practices which inflate a firm's capital base (*The Economist*, 2002a). The deadline for implementation of the directive was January 2005 (*The Economist*, 2002a).

Pillar 1 is based on more risk-sensitive capital requirements. While the definition of capital and the minimum capital coefficient of 8 per cent are to remain unchanged, the existing risk categories of credit risk and market risk have been supplemented by a third risk category, namely, operational risk. This will have to be corroborated by capital.

In response to the deficiency of Basel 1, and given the fact that the measurement of minimum capital requirements is based on a general assessment of risk dispersion in the banking sector which does not correspond in every case to the specific circumstances of individual institutions, credit institutions will be required to retain more capital than that stipulated for the minimum capital requirements if their individual risk situation so demands. In addition to adapting to market developments, the revision of regulatory capital also aims to consider risk differentiation at the individual banks. Standard and advanced risk measurement methods should provide banks with an incentive to continuously refine their internal risk management methodologies within the various risk categories.

Pillar 2 namely supervisory review consists of four principles (Alexander, 2004). Principle 1 states that banks should have a means of determining their overall capital adequacy in relation to their risk profile and also a plan for sustaining their capital levels and that these processes require board and senior management oversight, sound capital assessment, a comprehensive risk management system, monitoring and review, internal control review. Principle 2 states that supervisors should review and evaluate banks' internal capital adequacy determinants and plans and also their ability to monitor and ensure compliance with regulatory capital ratios. Supervisors should also take necessary supervisory action if they are not satisfied with the outcome of this process. Pillar 2 could also include the combination of on-site examinations or inspections; off-site review; discussions with bank management and review of external auditors' work (as long as it sufficiently focuses on necessary capital matters) and periodic reporting (Alexander, 2004). Principle 3 states that supervisors should require banks to operate above the minimum regulatory capital ratio and also that banks hold capital in excess of the minimum. Principle 4 states that supervisors should act at an early stage to prevent capital from falling below stipulated minimum levels.

Risk cycles are usually pro-cyclical due to misperception by banks and markets about how risks move over the period (*The Economist*, 2002b). There has been worry that the new Basel Accord on banks' capital standards could worsen this misperception by banks and markets danger being that from 2006, banks would have to adjust their minimum capital requirements over time to

align with changes in measured risk (*The Economist*, 2002b). As a result, banks' internal risk assessment would vary more than it should over the course of the cycle (*The Economist*, 2002b).

Pro cyclical problems were revealed following the collapse of Northern Rock where it was highlighted that it was complying with Basel capital requirements and had excess capital on the eve of its crash (Cociuba, 2009b). Another problem identified with Northern Rock was that it had high leverage – relying heavily on debt to finance its assets (Cociuba, 2009b).

In response to Basel II's shortcoming and since capital regulation contributes to the degree of economic downturns, a complement of the rules on bank capital with rules on liquidity and leverage is proposed by Cociuba as a means of addressing the inadequacy of risk based capital measures in promoting the stability of the financial system (House of Commons Treasury Committee, 2008). Furthermore, counter cyclical regulatory mechanisms have been proposed to address pro cyclical problems which have not been addressed by Basel II (Brunnermeier *et al.*, 2009).

Other criticisms directed towards Basel 2 include supervisory discretion that this could result to regulatory capture, that it is excessively risk sensitive, that its capital formula is too prescriptive and complex and that it is not well-suited for 90 per cent of the world's population (Alexander, 2004). Further, even though Basel 2, which is embodied in EU legislation, sets out what should be considered under Pillars 2 and 3, it does not provide directions to authorities of member states regarding what steps are to be taken in the cases involving non compliance (Mayes and Wood, 2008). Such matters are to be decided at national level (Mayes and Wood, 2008).

Pillar 2 of the New Basel Accord (Basel 2) however recognizes the vital role played by supervisors in the maintenance of adequate bank capitalization (BIS, 2004). With differences in legal and regulatory structures in different jurisdictions, the Basel Committee is conscious of the need to maintain adequate flexibility in the application of Pillar 2 in different jurisdictions (BIS, 2004). The Committee's intention in creating Pillar 2 was to promote and support a more thorough process aimed at internationally active banks to determine the actual capital held and to

make this process subject to a more focused supervisory review than may have been the case (BIS, 2004). Pillar 2, both in its first principle and in the consideration of several more specific risks, makes it clear that the prime responsibility is on banks to make this determination, taking account of their circumstances (BIS, 2004). While there are linkages between Pillars 1 and 2, the Committee sees clear differences between the two (BIS, 2004). Pillar 1 represents the minimum regulatory requirement whereas Pillar 2 expressly recognizes that banks face risks not included under Pillar 1 (such as interest rate risks in the banking book and uncertainties in measuring operational risks) and that many banks choose to operate at capital levels which are above those required under Pillar 1 (BIS, 2004).

Pillar 2 therefore expresses the Committee's intention that internationally active banks should operate above the Pillar 1 minimum (BIS, 2004). This principle plays a vital role in the overall Capital Accord, and Pillar 2 provides considerable flexibility as to how that is achieved (BIS, 2004). The transparency requirements (Pillar 3) are not only designed to facilitate a complementary use of market mechanisms for prudential purposes but also bolster the minimum capital requirements (Pillar 1) and the supervisory review process (Pillar 2). This derives from the assumption that well informed market participants will reward a risk-conscious management strategy and effective risk control by credit institutions in their investment and credit decisions and will correspondingly penalise riskier behaviour. Hence a greater incentive to monitor and efficiently manage risks should be stimulated within credit institutions.

Having discussed the regulatory flaws in the Basel 1988 Accord, namely the fact that it was not risk-sensitive and the efforts of the Basel Committee in recognizing the calculation of regulatory capital which is premised partly on the risk models and systems of the individual banks, a shift from a wide command-and-control style of bank supervision to one whereby banks are still required to regulate capital, albeit according to their own models can be illustrated.

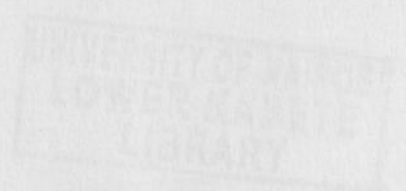
2.7 Meta-risk regulation

Regulation is often perceived as consisting of command and control strategies whereby the regulator imposes detailed rules with which the regulator monitors compliance (Gray and Hamilton, 2006). However, this type of regulatory strategy draws firms into regulatory processes and attempts to both influence and make use of firms internal risk management and control strategies (Gray and Hamilton, 2006). As a result, supervision is not so much about the simple monitoring of firms' compliance with regulatory rules but more about evaluating and monitoring firms' awareness of the risks created by their business and of their internal controls (Gray and Hamilton, 2006).

Meta-risk regulation concerns the risk management of internal risk and being able to use the firms' own internal risk management systems to achieve regulatory objectives (Gray and Hamilton, 2006, p. 37). The Basel II Capital Accord provides an example of the operation of meta regulation in that bank capitalization is not to be imposed externally by regulators but will be determined by a bank's own internal risk management models provided these models are considered by regulators to be adequate (Gray and Hamilton, 2006, p. 37). One major advantage of meta-risk regulation is that whilst Basel II builds in a second pillar of a supervisory review process which requires regulators to ensure the soundness of banks' internal risk rating processes, it has been suggested that there is scope for bank "gaming and manipulation" of ratings as regulators at best, have information that is not as much as that of banks whilst banks have access to private risk-relevant information that can be excluded from the rating system presented to regulators (Gray and Hamilton, 2006, p. 39).

2.8 Basel II Regulation recent initiatives

On February 21, 2008, a paper "Liquidity risk: management and supervisory challenges", was issued by the Basel Committee on Banking Supervision (BCBS; Gadanez, 2008, p. 84). Responding to the market turmoil which commenced in mid-2007, the Committee's Working



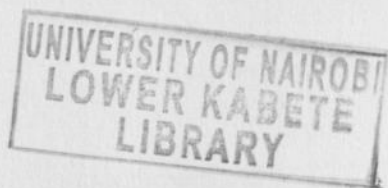
Group made observations on the strengths and weaknesses of liquidity risk management whenever confronted with crisis (Gadanecz, 2008).

On April 11, 2008, the report delivered by the Financial Stability Forum (FSF), highlighted five recommendations for enhancing the resilience of markets and financial institutions. The five points include: strengthening prudential oversight of capital liquidity and risk management, improving transparency and valuation procedures, implementing changes to the role and uses of credit ratings; and fortifying the authorities' responsiveness to risks. On the April 16 2008, the Basel Committee unveiled some procedures which are aimed at making the banking system more resilient to shocks, namely, (BIS, 2008). The enhancement of different aspects of Basel II whilst at the same time observing the need for timely implementation of the Basel II framework; the consolidation of global sound practice standards for managing liquidity risk; stimulating efforts to strengthen banks' risk management and supervisory practices and; improving market discipline through better disclosure and valuation procedures.

As Basel II is just being implemented in most Basel Committee member countries, the importance of its implementation, since it reflects the types of risks banks are confronted with in an ever increasing market oriented intermediation process, has been emphasised (Gadanecz, 2008, p. 82). Furthermore, some measures aimed at helping to ensure sufficient capital, incorporate off-balance sheet exposures more effectively and improve regulatory capital incentives will be introduced by the BCBS (Gadanecz, 2008, p. 82). The BCBS is mandated to issue sound practice standards for the management and supervision of liquidity risk (Gadanecz, 2008, p. 84).

2.9 Conclusion

While a full summary of this review would be exhaustive, some stylized facts should be assessed before it concludes. One very important fact to assess is the achievements and limitations of each Basel Accord. The first Basel Accord, Basel I, was a groundbreaking accord in its time, and did much to promote regulatory harmony and the growth of international banking across the borders of the G-10 and the world alike. On the other hand, its limited scope and rather general language



gives banks excessive leeway in their interpretation of its rules, and, in the end, allows financial institutions to take improper risks and hold unduly low capital reserves. Basel II, on the other hand, seeks to extend the breath and precision of Basel I, bringing in factors such as market and operational risk, market-based discipline and surveillance, and regulatory mandates. On the other hand, in the words of Evan Hawke, the U.S. Comptroller of the Currency during George W. Bush Administration, Basel II is “complex beyond reason” (Jones, 37), extending to nearly four hundred pages without indices, and, in total, encompassing nearly one thousands pages of regulation.

The drawbacks of both accords, interestingly enough, are remarkably similar. Put simply, both effectively ignore the implications of their rules on emerging market banks. Although each states that its positions are not recommended for application in emerging market economies, the use of Basel I and II by most private and public organizations as truly international banking standards predicates the inclusion of emerging markets in each accord. The failure of this inclusion has put emerging markets in an awkward position—they can adopt Basel I and II, receive international capital flows, face excessive risk-taking and an overwhelmed central bank, or they can be cut off from most international capital. Therefore, it is highly beneficial to the safety and stability of the international financial system and moreover, the international economy to include emerging market economies in future revisions of the Basel Accords.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction

This chapter covers the methods and procedures that were followed to achieve the set objectives of this study. The research design is described in this chapter as well as the population of the study. Data collection procedure and instruments are also outlined and the chapter ends with a description of how data analysis was carried out.

3.2 Research Design

The research design that was used for this study is a census survey. This design is preferred given the small population that the study focused on. There are 42 commercial banks in Kenya according to Central Bank of Kenya (2010). A census survey was therefore economical and to yield the desired results as it was all inclusive.

3.3 Target population

The target population of this study was the commercial banks in Kenya. Commercial banks in Kenya have had an experience with Basel II banking regulations and thus provided an insight into the extent of the implementation of Basel II. There are 44 commercial banks in Kenya and all of them were considered in the study.

3.4 Sampling and sample size

This study used purposive sampling to obtain finance managers as respondents at the bank level. This method was used owing to important information that finance managers have in regard to Basel II banking regulations. The respondents for this study included 2 managers in each of the 44 commercial banks making a sample size of 88 respondents.

3.5 Data collection

This study used primary data. Questionnaire was used to obtain the information needed for this study. The questionnaire was a semi-structured whereby many questions were open ended and very few closed ended. Due to the tight schedule of bank finance managers who were the respondents of this study, drop-and-pick-later method was applied to administer the questionnaires. This gave them ample time to go through the questionnaire and improve on the response rate.

3.6 Data analysis

Kothari (2004) defines statistics as a discipline that provides the tools of analysis in research and one which refers to facts, information or data and to a system of data collection and analysis. Both qualitative and quantitative data were collected. Quantitative data was analyzed using Statistical Package for Social Sciences (SPSS). This involved computation of frequencies, standard deviation and percentages on closed ended questions. To measure the extent of various variables of the study the study used Likert Scales. The analyzed data was mainly presented in tables and prose.

Implementation of Basel II Banking Regulations

The study was done on the extent of implementation of Basel II regulations in the banks in Kenya. The findings show that all the regulations are implemented in all the banks as detailed in the table below.

Extent of implementation of Basel II Banking Regulations

	Frequency	Valid Percent	Cumulative Percent
Valid yes	50	100.0	100.0

CHAPTER FOUR: ANALYSIS AND PRESENTATIONS OF FINDINGS

4.1 Introduction

This chapter discusses the interpretation and presentation of the findings. The purpose of the study was to investigate The Extent of Implementation of Base II Banking Regulations by Commercial Banks in Kenya. The data collection was done using semi structured questionnaire. The target population of this study will be the commercial banks in Kenya. The respondents for this study were 2 managers from each of the 44 commercial banks making a total of 88 respondents. This chapter presents the major findings and results of the survey and discussion on those findings.

4.2 Response rate

There were 88 respondents expected to fill the questionnaire. Only 64 of them were accessed. This means that the response rate was 72.73 %. According to Babbi: (2002) any response of 50% and above is adequate for analysis. Therefore the analysis was done using the data collected from the 64 participants.

4.3 Extent of implementation of Basel II Banking Regulations

An investigation was done on the extent of implementation of Base II regulations in the commercial banks in Kenya. The findings show that all the regulations are implemented in all the commercial banks as distributed in the table below.

Table 4. 1: Extent of implementation of Basel II Banking Regulations

	Frequency	Valid Percent	Cumulative Percent
Valid yes	64	100.0	100.0

The respondents were asked to indicate the extent at which their respective banks implemented Basel II banking Regulations. This was rated in a scale of 1-5 whereby 1=no extent at all, 2=little extent, 3=moderate extent, 4=great extent and 5= very great extent. The findings shows that Base II regulations were moderately implemented (M=3.1719, SD=1.07725).

From the findings, it was clearly observed that the entire respondents agreed with the fact that banks in emerging markets should implement Basel II regulations in their banking business services. This was given by the response of (64) 100%. 29% of the managers indicated that the Base II regulations are greatly implemented in their banks, 45% showed that Base II regulations were moderately implemented, 15.9% showed little extent while 10.1% indicated that Base II regulations were very greatly implemented. The study therefore reveals that Base II regulations are moderately implemented in most of the commercial banks in Kenya.

Table 4. 2: Implementation of Basel II Regulations in Emerging Markets

		Frequency	Valid Percent	Cumulative Percent
Valid	Little extent	23	15.9	35.9
	Moderate extent	16	45	60.9
	Great extent	16	29	85.9
	Very great extent	9	10.1	100
	Total	64	100	

4.3.1 Areas of Basel II Banking Regulations

The researcher needed to investigate on the areas of banking business where the respondents thought that their banks have really succeeded as a result of implementation of Basel II Banking Regulations. The responses were summarized in table below.

Table 4. 3: Areas of Basel II Banking Regulations

	Mean	S. Deviation
Credit risk	3.7813	1.03078
Operational risk	2.9063	0.7912
Market risk	3.1094	0.79915
Total Capital Adequacy	3.3594	0.87952

From the findings the Base II regulations have enabled the banks to a moderate extent in management of the Credit risk ($M=3.7813$, $SD=1.03078$), Operational risk were reduced to a little extent ($M=2.9063$, $SD=0.7912$), Market risk were minimized to moderate extent ($M=3.1094$, $SD=0.79915$, and the Total Capital Adequacy attained at moderate extent ($M=3.3594$, $SD=0.87952$). the study shows that Base II Regulations have moderately influenced the banks' operations.

4.4 Factors Affecting the Implementation of Basel II Banking Regulations

There are some factors related to Base II regulations that influence their implantation in the commercial banks. The study needed to investigate their impact when the banks attempt to implement them. The findings are tabulated below.

Table 4. 4: Factors Affecting the Implementation of Basel II Banking Regulations

Factor	Mean	S. Deviation
Strong responsibilities given to regulators by Basel II	4.0156	0.99988
High technicality in Basel II	3.8906	0.875
A drawback of lending to emerging market banks	3.2344	0.95522
Basel II's reliance upon rating agencies to value risks causes unfavorable implications to banks	3.5	0.92582
Basel II causes banks to function in a way that is procyclical to the business cycle	2.5156	0.68989
Basel II cut off Kenyan banks from most international capital	2.8125	0.61399
The fact that Basel Accords are not meant for emerging market banks	2.0938	0.93806

The impacts of the above tabulated factors were analyzed in a likert scale of 1-5 whereby 1=no extent at all, 2=little extent, 3=moderate extent, 4=great extent and 5= very great extent. The results shows that the strong responsibilities given to regulators by Basel II had a great impact in the attempt to adopt the Base II regulation in banking (M=4.0156, SD=0.99988), high technicality in Basel II had moderate impact (M=3.8906, SD=0.875), a drawback of lending to emerging market banks had moderate impact (M=3.2344, SD=0.95522).

Basel II's reliance upon rating agencies to value risks caused unfavorable implications to banks to moderate extent (M=3.5, SD=0.92582). A few respondent felt that Basel II causes banks to function in a way that is procyclical to the business cycle (M=2.5156, SD=0.68989) and that it cuts off Kenyan banks from most international capital in a little extent (M=2.8125, SD=0.61399). Only very few respondent indicated that Basel Accords are not meant for emerging market banks (M=3.0938, SD=0.93806).

4.5 Basel II Banking Regulations Programmes in Commercial Banks

The investigation on the presence of programmes in the implementation of Base II Banking Regulations had a very high response rate of 84.4% of the respondents who stated that their respective banks already had set active programmes in the implementation of the Base II regulations. Only few of banks 15.6% had no programmes in place.

Table 4. 5: Basel II Banking Regulations Programmes in Commercial Banks

		Frequency	Percent	Valid Percent	Cumulative Percent
	yes	54	84.4	84.4	84.4
	No	10	15.6	15.6	100
	Total	64	100	100	

4.5.1 Success of the Programmes in Base II Implementation

The effectiveness and success of the programmes in the implementation of Base II Regulations in banking were determined by the rate given by the respondents as show in the table below.

Table 4. 6: Success of the Programmes in Base II Implementation

		Frequency	Valid Percent	Cumulative Percent
Valid	Little extent	29	30.1	30.1
	Moderate extent	18	51	81.1
	Great extent	6	10.3	91.4
	Very great extent	5	8.6	100
	Total	58	100	
	Total	64		

From the findings, the success of the programmes in the implementation of Base II regulation has been realized to a little extent (30.1%) by the banks which have them ($M=2.9655$,

SD=0.87791). Other respondents showed moderate extent (51%), great extent (10.3%), while only (8.6%) which relatively low; felt that the programmes set for the implementation of the Base II were to a very great extent being successful.

4.6 Achievement drawn from Base II Regulations in Banking

The extent of achievement in the policies and processes of the banks in identifying, measuring, monitoring and controlling country risk and transfer risk in international lending and investment activities, and for maintaining adequate provisions and reserves against such risks was rated low and realized from (48.4%) of the respondents (M=2.8438, SD=1.01134). It was noted that (55.6%) banks which had in place policies and processes that accurately identify, measure, monitor and control market risks; moderately achieved in these areas (M=3.6667, SD=0.82305). the achievement of the Banks with a liquidity management strategy that took into account the risk profile of the institution, with prudent policies and processes to identify, measure, monitor and control liquidity risk, and to manage liquidity on a day-to-day basis was rated moderate (M=3.3594, SD=0.93209). It was noted that the banks' policies and processes in the implementation of Base II were to a great extent (39.1%) commensurate with the size and complexity of the bank (M=3.3281, SD=0.90947). Fifty percent (50%) of the Banks had to a little extent effective systems in place to identify, measure, monitor, and control interest rate risk in the banking book, including a well defined strategy approved by the board and implemented by senior management (M=2.7, SD=0.78762). the mean and standard deviations of the findings are as shown in the table below.

The findings on the achievement related to the implementation of the Base II Banking Regulations were as tabulated below.

Table 4. 7: Achievement drawn from Base II Regulations in Banking

	Mean	S. Deviation
Bank has adequate policies and processes for identifying, measuring, monitoring and controlling country risk and transfer risk in international lending and investment activities, and for maintaining adequate provisions and reserves against such risks	2.8438	1.01134
Bank has in place policies and processes that accurately identify, measure, monitor and control market risks	3.6667	0.82305
Bank has a liquidity management strategy that takes into account the risk profile of the institution, with prudent policies and processes to identify, measure, monitor and control liquidity risk, and to manage liquidity on a day-to-day basis.	3.3594	0.93209
Bank has in place risk management policies and processes to identify, assess, monitor, and control/mitigate operational risk. These policies and processes are commensurate with the size and complexity of the bank	3.3281	0.90947
Bank has effective systems in place to identify, measure, monitor, and control interest rate risk in the banking book, including a well defined strategy that has been approved by the board and implemented by senior management. These are appropriate to the	2.7	0.78762

4.7 Remedy of challenges in the adoption of Base II Regulations

Researcher also gathered the opinion on the solution for the challenges in the implementation of Basel II banking Regulations in commercial banks. Most of the respondents pointed out that a simplified accord for the emerging markets and Banks that are not internationally active; therefore a more realistic implementation timeline should be given in the local states for instance Kenya. Some suggested that it would be more important to train and have continued skills

development on the same among the people involved in the Basel II implementation in the emerging economies to manage risk. It was also suggested that CBK should provide guidance in the areas of national discretions. Other respondent felt that the Implementation of Basel II is expensive; emerging banks could come together to share data and other resources i.e. capital calculation system to enhance their performance in the global.

the variable that could be collected data. Self-administered structured questionnaire was used to collect the responses from the managers each of the commercial banks in Kenya. The findings were obtained through analysis.

showed an adequate response rate of 72.73% which according to Basore (2002) is very response in making an analysis of a study. The study shows that Basel II regulations were implemented in the commercial banks given by the Mean and Standard Deviation (M=1.717, SD=1.07723). The entire respondents (64) 100% agreed with the fact that emerging markets should implement Basel II regulations in their banking business. It was a great impacts of the Basel II in banking for instance in the management of Operational risk (M=2.9063, SD=0.7912), Market risk and in Total Capital risk were moderately influenced.

showed that the arising responsibilities given to regulators by Basel II had a great impact to adopt the Basel II regulation in banking. High volatility in Basel II had a great impact and a drawback of leading to emerging market banks had also a moderate impact. Basel II's reliance upon rating agencies to value risks caused unfavorable impact to influence expert. A few respondents felt that Basel II causes banks to accept that is pro-cyclical to the business cycle and that it cut off Kenyan banks from external capital in a little extent. Basel Accords are moderately significant in the emerging banks.

showed a response of 84.4% of the respondents who stated that their respective banks already had programmes in the implementation of the Basel II regulations of which 30.7% of the respondents were moderately successful. Only few of banks 15.6% had no programmes set for

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary

The study objectives to investigate the Extent of Implementation of Basel II Banking Regulations by Commercial Banks in Kenya were used to determine the variable that could be analyzed from the collected data. Self administered structured questionnaire was used to collect the data from the managers each of the commercial banks in Kenya. The findings were obtained by quantitative analysis.

The study had an adequate response rate of 72.73% which according to Babbie (2002) is very appropriate response in making an analysis of a study. The study shows that Base II regulations were moderately implemented in the commercial banks given by the Mean and Standard Deviation ($M=3.1719$, $SD=1.07725$). The entire respondents (64) 100% agreed with the fact that banks in emerging markets should implement Base II regulations in their banking business services. There was a great impacts of the Base II in banking for instance in the management of the Credit risk, Operational risk ($M=2.9063$, $SD=0.7912$), Market risk and in Total Capital Adequacy which were moderately influenced.

The results showed that the strong responsibilities given to regulators by Basel II had a great impact in the attempt to adopt the Base II regulation in banking, high technicality in Basel II had moderate impact and a drawback of lending to emerging market banks had also a moderate impact on the banks. Basel II's reliance upon rating agencies to value risks caused unfavorable implications to banks to moderate extent. A few respondents felt that Basel II causes banks to function in a way that is procyclical to the business cycle and that it cut off Kenyan banks from most international capital in a little extent. Bases Accords are moderately significant in the emerging market banks.

There was a response of 84.4% of the respondents who stated that their respective banks already had set active programmes in the implementation of the Base II regulations of which 30.1% of them were moderately successful. Only few of banks 15.6% had no programmes set for

implementation. Some of the suggestions to minimize the challenges in the implementation of Base II Regulations in banking were for instance that, simplified accord for the emerging markets and Banks that are not internationally active should be given a more realistic implementation timeline in the local states. There is importance to train and have continued skills development on the same among the people involved in the Base II implementation in the emerging economies to manage risk. It was also suggested that CBK should provide guidance in the areas of national discretions. Some of the respondents felt that Implementation of Basel II is expensive; emerging banks could come together to share data and other resources i.e. capital calculation system to enhance their performance in the global.

5.2 Conclusion

The aim of the study was to document the extent of compliance with Basel II Banking Regulations by commercial banks in Kenya and to relate the extent of compliance with Basel II Banking Regulations in commercial banks in Kenya to the bank characteristics. It was concluded that most the commercial banks operating in Kenya have not fully complied with the Base II Banking regulations. This is evidenced by the 15.6% of the respondents who indicated that their respective banks did not have any programmes set for the implementation of Base II Regulations in their Banking services. This was possibly because some of the felt that the process if relatively expensive, complexity of Base II accords, low skills in the implementation process and relatively low concern of the CBK. However the banks which have enforced effective programmes in the implementation of Base II Regulation were moderately successful. The success areas were mainly evidenced in identifying, measuring, monitoring and controlling transfer risk in international lending and investment activities; and liquidity management strategy.

5.3 Recommendations

- This study focused on the commercial banks as the study site. Other studies are important to be carried out to investigate the influence of Base II Regulations in the other related sector for instance in the financial institutions.

- There is need to study on the strategic measures in the adoption of Base II Regulations in various sectors
- More studies should be done to evaluate the challenges that influence the adoption of Base II Regulations in order to enhance their effectiveness and implementation in various institutions.

5.4 Limitations of the study

This study targets managers from all the commercial banks in Kenya. Some of the managers were not easily accessed due to their busy work schedules. This is the cause of the response rate that this study managed to attain. This also caused extra expenses on transport that increased the cost in data collection.

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Appendix I: Questionnaire

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What extent has your bank implemented Basel II banking regulations?

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not at all

very little

some

very much

APPENDICES

Appendix I: Questionnaire

Instructions

Kindly write or tick as appropriate in the spaces provided. Thank you.

Section B: Extent of implementation of Basel II Banking Regulations

1. Do you think banks in emerging markets like Kenya should implement Basel II banking Regulations?

Yes No

2. To what extent has your bank implemented Basel II banking Regulations?

Not at all

Little extent

Moderate extent

Great extent

Very great extent

3. Which of these areas would you say your bank have succeeded in implementing Basel II Banking Regulations?

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Credit risk					
Operational risk					
Market risk					
Total Capital Adequacy					
Others (specify)					

4. To what extent are the following factors affecting the implementation of Basel II banking Regulations?

Factor	Not at all	Little extent	Moderate extent	Great extent	Very great extent
Strong responsibilities given to regulators by Basel II					
High technicality in Basel II					
A drawback of lending to emerging market banks					
Basel II's reliance upon rating agencies to value risks causes unfavorable implications to banks					
Basel II causes banks to function in a way that is procyclical to the business cycle					
Basel II cut off Kenyan banks from most international capital					
The fact that Basel Accords are not meant for emerging market banks					

5. What do you think can be done to solve these challenges of implementation of Basel II banking Regulations?

.....
.....
.....

Section C: Characteristics of banks implementing Basel II Banking Regulations

6. Are there programmes in place for implementation of Basel II Banking Regulations?

Yes [] No []

7. If yes, kindly list them?

.....
.....
.....

8. If no, why?

.....
.....
.....

9. If yes in (q7) above, to what extent have these programmes been successful?

Not at all []

Little extent []

Moderate extent []

Great extent []

Very great extent []

10. To what extent has your bank achieved the following:

Item	Not at all	Little extent	Moderate extent	Great extent	Very great extent
Identifying, measuring, monitoring and controlling country risk and transfer risk in international lending and investment activities					
Policies and processes that accurately identify, measure, monitor and control market risks					
Liquidity management strategy					
Contingency plan for handling liquidity problems					
Risk management policies					
Effective systems to identify, measure, monitor, and control interest rate risk					

Thank you for participation.