Basel Accords, Bank Capital and Portfolio Risk Behavior

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By

Samina Riaz, Venus Khim-Sen Liew
and Rossazana Ab. Rahim

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THIS BOOK IS DEDICATED TO MY PARENTS
FOR THEIR ENDLESS LOVE, FAITH, UNBIASED SUPPORT
AND CONSTANT ENCOURAGEMENT

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PREFACE

With the endorsement of the Basel III contracts on the supervision of the banking industry, management of the capital buffers throughout the business cycle attained crucial importance for the reinforcement of financial stability in the banking system. This study is different from previous studies since it focuses specifically on the developing country and evolves a conclusion in answering the important questions on how undercapitalized banks and banks with low and high capital buffers adjust capital and portfolio risk due to regulatory pressure. As such, a plethora of literature shows that the bank capital buffer and the business cycle do not have a consensus on their relationship. Therefore, this study also addresses the question: how do banks adjust buffer capital and portfolio risk in business cycle fluctuations? This topic is still debatable and cannot be simply answered. However, assistance is extended towards financial analysts as well as managers, to comprehend the dynamic nature inherent to the underlying assumptions of capital and risk adjustments and the cyclical behavior of the capital buffer.

I cannot forget the support throughout my research study. First and foremost, I would like to thank Allah (SWT) for giving me His blessings in terms of health, strength, patience and perseverance to work on this book. I am deeply indebted to my co-authors, Dr. Venus Khim-Sen Liew and Dr. Rossazana Bt Ab Rahim for their professional guidance, valuable suggestions and constructive comments, which are very beneficial for the research process and subsequently led to the completion of this study. I would also like to thank my parents, family members and friends for their fullest support and encouragement, never failing to lift my spirits throughout the course of this research.

Dr. Samina Riaz

CHAPTER ONE

INTRODUCTION

The role of capital in the banking system is a crucial one because it helps in preserving a safe and sound financial environment. When banks maintain a sufficient amount of capital, it adds to their credibility by rendering them capable of meeting their obligations. In this connection, the banking industry introduced a mechanism to set minimum capital standards for all international banks in the 1990s under the Basel accord. The risk-based capital standards called the Basel capital accords, which were issued by the Basel Committee on Banking Supervision (BCBS) – founded through the support of the Bank for international settlements (BIS), initially made their way into the G10 countries at the end of 1992.

After that, upon receiving worldwide recognition, all international banking regulations started focusing on the Basel capital accords (Bichsel & Blum, 2004; Kleff & Weber, 2008). The BCBS sufficiently concentrates on banking sector regulations because of the important role that banks play in maintaining economic growth as well as economic failures. Moreover, banks in the member countries are also compelled to apply the capital standards set by the BCBS. Due to the aforementioned reasons, the Basel accords have eventually become a means to stabilize and restructure financial systems (Rime, 2001). With the passage of time, banks were gradually becoming progressively active for international competition with contemporary banks in other jurisdictions. Thus, regulatory bodies tried to provide equal opportunities and advantages to all the banks through the implementation of Basel minimum capital requirements (Heid, Porath & Stolz, 2004). As mentioned earlier, the Basel capital accord was first initiated in 1988 to regulate international banks and require them to maintain a minimum of 8% capital to risk-weighted assets ratio (BCBS, 1988). As a result, a second accord was launched by the BCBS in 2004 because the Basel I accord was considered insufficient. Under the Basel II accord, three fundamental concepts were projected because of the presence of greater risk related to the calculation of the regulatory capital ratio (BCBS, 2006). The repercussions of the global financial crises of 2007-2008 had obviously increased the apprehensions regarding a sufficient and

requisite holding of minimum capital requirements (MCR) set by the Basel II Accord in many countries. The situation led to an increase in the dependency of a capital buffer on business cycle fluctuations and as a result, many falsifications within the Basel II capital requirements were disclosed. Moreover, further viable needs for a better and stronger framework were also pointed out. In order to take the financial downturn into consideration, the Basel III framework was launched by the BCBS in 2010 in an attempt to make the banking system more robust (BCBS, 2010; Busun & Kasman, 2015; Maji & De, 2015). As the Basel III contract was endorsed to supervise the banking industry, the management of the capital buffer throughout the business cycle also becomes crucially important so that the financial stability of the banking system could be reinforced.

With the introduction of the new regime, the maintenance of excess capital above the regulatory minimum requirement for compensatory utilization during a crisis became essential for all the banks. As per the new rule, a counter-cyclical capital buffer was created within a range of 0-2.5% of common equity, so that the bubbles of lending could be weakened. The objective of the counter-cyclical capital buffer regime was to restrict the growth of loans during a credit boom. Moreover, the counter-cyclical capital buffer management always allowed banks to ensure the availability of an adequate capital buffer (Drehmann, Borio, Gambacorta, Jimenez & Trucharte, 2010; Francis & Osborne, 2012; Shim, 2013). The prevalence of MCR is primarily founded on the notion that banks could often end up being involved in a moral hazard behavior. Insufficiently-priced deposit insurance and information asymmetries shield the banks from disciplined control of depositors, with an advantage of decreasing capital and increasing asset risk by banks (Merton, 1977; Heid et al., 2004). The moral hazard theory subjugates the theoretical work focusing on the effect of capital requirements on the risk appetite of banks. In accordance with the theory of moral hazard, bank managers avoid taking risk-reduction measures in the presence of a mispriced deposit insurance arrangement. As a result, risky projects that have a higher return are opted for by bank managers and this malpractice, in turn, leads to the banks' solvency being compromised in the long run. Thus, the theoretical reason to regulate capital is for the purpose of neutralizing the risk-shifting incentives that occur because of deposit insurance.

The first strand of researchers, including Pyle (1971) and Hart and Jaffee (1974) used the portfolio approach, which comprehensively tends to explain that banks are rightly considered to be "utility maximizing units". Within such a model, mean-variance analysis is carried out to compare the

portfolio choice of banks, both with and without capital regulations. Koehn and Santomero (1980) demonstrated that when higher leverage ratios are introduced, banks tend to shift their portfolio to assets, which are riskier. Similarly, Kim and Santomero (1988) also suggested a solution for such a scenario. They proposed that regulators must make accurate measures of risk, while calculating the solvency ratio. Following the research work of Koehn and Santomero (1988), Rochet (1992) further explored and discovered that capital regulations rely on the status of banks, whether they are value-maximizing or utility-maximizing. In the case of value-maximizing banks capital regulations provide no guarantee for the bank, when it comes to taking risks. While, capital regulations play a significant role in the case of a utility-maximizing bank, if usage of various weights while calculating ratios is equivalent to the systematic risks associated with assets.

The second strand of the literature attempted to shed light on the option models. Furlong and Keeley (1989) and Keeley and Furlong (1990) had developed several frameworks related to the above-mentioned theory. These frameworks provide options leading to higher capital requirements which reduce the incentives for value-maximizing banks to raise their assets risk, which is quite contrary to the earlier conclusion. The utility-maximizing model was well criticized in earlier studies for not being viably appropriate. The main criticism of this framework stressed that it neither characterizes the investment opportunities of banks, set through the omissions of option value of deposit insurance nor characterizes the probability of the bank's failure. However, arguments given in favor of option models were, to some extent, undermined by Gennottee and Pyle (1991). In accordance with this study, the assumptions regarding banks' investment in zero net present value assets were accordingly relaxed. It was established that there are certain situations when an increased MCR results in raising asset portfolio risk (Hussain & Hassan, 2005; Majid & De, 2015). In cases when adjustment costs are found to be absent in capital ratios, it will never be possible for banks to hold more than the minimum capital needed by regulators. However, adjustments in capital ratio and portfolio risks may incur a lot of costs. Consequently, banks may not be in adequate situations to do so immediately, because of the costs of adjustments and/or non-liquid markets. According to the buffer theory, if banks approach the regulatory minimum capital ratio, then adequate incentives to boost capital reduce the risk so that costs of regulations incurred in breach of capital requirements are avoided (Rime, 2001). Consequently, the surplus capital, more precisely termed as a "capital buffer", is taken as a preferred option for banks. Then a possibility of

regulatory pressure on capital requirements will be obviously reduced, for the most part, when the capital ratio apparently tends to be excessively more volatile in nature (Myers & Majluf, 1984; Milne & Whalley, 2001). Simultaneously, banks continue to rebuild their capital, in order to achieve and reach their optimum levels and risk aversion of banks deviates towards the lower side when capital is increased, and provides opportunities for optimum risk levels to take a rising trend, as well. When both targeted and actual assets risks attain equally parallel levels, banks obtain a certain position to increase both risks, as well as capital, to such high points so that optimum capital levels are obtained. Hence, in its first stage, banks attempt to increase their capital and also try to lower the risks after increase in the regulatory minimum levels. Eventually, as soon as the adjustments are made and banks rebuild their capital up to a certain level at a later stage, both risks and capital are increased accordingly (Milne & Whalley, 2001). However, banks with poor capital attempt to take more risks for higher expected returns when approaching the regulatory minimum capital ratio (Rime, 2001). Thus, within theoretical reasoning for capital regulations investigation of the capital and portfolio risk adjustment of banks is taken as the first broad objective of the study.

The banks tend to maintain the requisite capital to secure themselves from future losses, which could probably incur at any time. When the entire financial system faces a stressful period of post credit boom, the credit flow in the economy provides a helping hand to some extent. However, when credit risks in lending become materialized, it could be attributed to capital shocks, and often assumed to be related with the business cycle. Hence, during the times of an economic downturn, when counterparts are more diverted towards down-gradation, a rise in the anticipated credit risk is clearly seen and during the times of economic boost, it shows an opposing trend. A relatively high correlation exists between credit risks and fluctuating aspects, which occur in the business cycle from time to time (Curry, Fissel & Hanweck, 2008). For instance, Allen, Delong and Saunders (2004) found out that whenever the quality of credit tends to degenerate and create very high possibilities of making the borrowers real defaulters during the recession period. Similarly, Curry et al. (2008) argued that during any recession period the possibility of default risks increases. But opposing the fact, when the economy starts to recover from the shocks, it inclines to start expanding, whereas default risks automatically show downward trends. In various instances in the relevant literature on the subject, the behavior of credit risks is apparently counter-cyclical, i.e., during a business cycle, credit risk moves in the opposing direction (Ayuso, Perez & Saurina, 2004; Stolz, 2007; Haubrich, 2015;

Castro, Estrada & Martinez-Pages, 2016). Consequently, objectives of banks' behavior regarding capital are more inclined to variations at different stages within the business cycle, and also depend on banks' own financial conditions (Ayuso, et al., 2004).

For further clarification, if supposing the banks are forward-looking ones, then numerous chances of expansion in their loan portfolio emerge, when there is any economic upturn. In such situations, there is also an expectation from the banks to make attempts to be able to build up their capital. The excessive capital will obviously prove to be a protective measure against any credit risks. The main reason for building up excess capital during an economic boom is to acquire an increase in portfolio risks during such times (Crockett, 2001). The built-up capital provides assistance to banks to lessen their surplus credit growth when unstable and deviating economic situations arise. Banks use the capital buffers in times of huge credit losses during economic downturns. If banks have enough capital buffers to fight against economic downturn, then the lending activities may still continue as restrictions are not too hard. An increase in the capital buffer apparently makes the performance of banks easier and at the same time, also more cost-efficient. Such similar financial advantages are not made properly available when economic depressions still exist all around. Therefore, capital of banks is anticipated to show a pro-cyclical behavior if banks are forward-looking ones. On the contrary, during economic upturns, banks might be in a position to make expansions in their loan portfolios without lowering their capital. More precisely, some banks may also underestimate the probable risks that they might face during economic expansions. Hence, when the economy is being expanded, very thin chances emerge to show that risks will materialize instantaneously (Heid et al., 2004; Stolz, 2007).

We would not be shocked to see that when any economy starts facing a downturn, the banks become surrounded with very complicated situations to raise their capital due to very high costs and they have no option but to utilize their retained earnings to build up their capital, because returns are apparently at a very low level. These limitations may not make it possible for the banks to be able to continue with their lending activities and they are compelled to raise their capital by minimizing their risk-weighted assets. If such a situation arises, a counter-cyclical capital behavior is expected with the probability of having detrimental effects on the lending abilities of banks during downturns in business cycles. Consequently, the banks are not in a position to widen their credit but are forced to squeeze it to its lowest limits, and as a result, showing additional contributions

towards the economy when under more serious downturns, contrarily in a positive manner. These scenarios eventually cause some damage and may gradually sabotage the stability and sustainability within the banking sector, which in turn, attributes to create a vicious circle. Keeping in view the various aspects of this context, the second objective of our current study is investigating the impact of business cycle fluctuations on capital adjustments and portfolio risks to comprehensively reveal whether capital behavior of banks is pro-cyclical or counter-cyclical over the business cycles. The issues pertaining to this topic are still under debate and far from being simply answered. However, assistance is extended towards financial analysts as well as managers, to comprehend the dynamic nature inherent to the underlying assumptions of capital and risk adjustments and the cyclical behavior of capital.

For the alignment of the regulatory capital requirement to match with international standards, the framework of capital and risk-weighted assets was introduced in Pakistan with the aim to adequately strengthen the capital and solvency in the banks. The State Bank of Pakistan (SBP) initially allowed all banks to maintain a minimum capital requirement (MCR) of Rs 500 million and not less than 8% of the capital to risk-weighted assets (CRWA) ratio, also known as the capital adequacy ratio (CAR). Thus, the banks were advised to enforce the system of risk-weighted capital, to be made effective from December 31, 1997 (State Bank of Pakistan, 1990-2000). When the Basel II Accord was introduced internationally, Pakistan also announced a road map for its implementation accordingly on March 31, 2005. As per SBP instructions, all other banks were advised to maintain MCR (net of losses) at Rs 10 billion with the CAR at 10%, to be aligned with the risk profile of banks by the end of December 31, 2013. By the same date the SBP instructed the Basel III Accord to become effective and fully implementable by December 31, 2019 in a phased manner. As per instructions from the Basel III Accord, MCR must stand at Rs 10 billion. However, the CAR requirement is 10% in addition to a leverage ratio of 3% and a 2.5% capital conservation buffer. Since the CAR requirements will be increased gradually to 12.5% by December 31, 2019, banks are striving hard to meet the SBP regulations, whereas few banks are still under-capitalized (Zaidi, 2012). Moreover, the International Monetary Fund (IMF) report with regard to the 8th review pertaining to the economic performance of Pakistan indicates that risk to banks is from the structure of their loan/investment portfolio. However, still five small banks are operating below MCR of Rs 10 billion. Although the SBP has formulated a couple of strategies to bring these banks to the levels of regulatory compliance, the report is still not

satisfactory. However, one bank deals with the raising of its equity by the end of 2015, while others suggested privatizing the affected banks by June 2016. To report more precisely, these five banks represent about 1.4% of the entire assets in the banking sector (International Monetary Fund Report, 2015). These non-compliant banks obviously face various repercussions. Thus, some of the restrictions, like accepting deposits and lending to cancellation of license are repercussions, imposed on such non-compliance banks. Although the risk profile of the Pakistani banking sector showed rising trends from 2003 up to 2018 (see Figure 1.1).

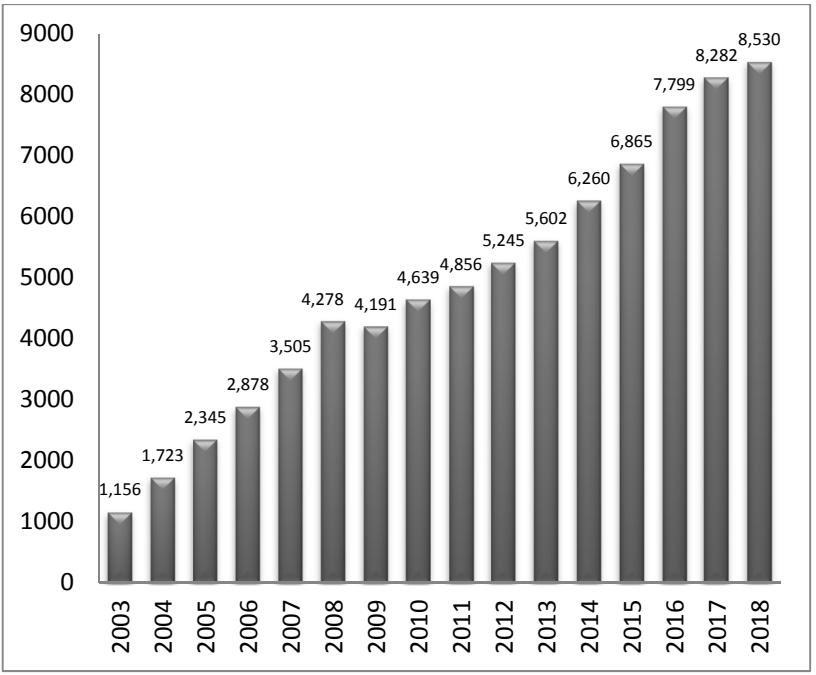

Figure 1: Risk-weighted Assets (in Billion Rupees)
Source: State Bank of Pakistan

The global financial crisis in 2007-2008 placed Pakistan with some of the most adversely affected countries, because prices of global commodities had dominated in disturbing the fundamentals of macroeconomics. Since the rising imbalances in macroeconomics along with prevalent global commodities' hiking prices, high inflationary pressures had undoubtedly witnessed an unprecedented increase in food products, as well as core

prices surprisingly sky-rocketing and astonishingly creating new records in this regard. Overall inflation was 8.7% in 2007 but gradually went up to 23.3% in December 2008 (State Bank of Pakistan, 2008-09). The Pakistan government as well as its Central bank clearly identified the defects and diverted towards taking some measures in an attempt to resolve these challenges.

Moreover, keeping in view the increased pressures which had been imposed by demands due to general inflation and price-hikes, the monetary policy had to be further tightened by the Central bank for similar compliance with other countries, which were facing similar pressures. Although Pakistan faced domestic financial crises, as well as, international economic challenges, Pakistan's financial sector resisted nearly all global financial pressure and no direct influence was evinced, but instead, strong resilience was demonstrated by the sector (State Bank of Pakistan, 2014).

As the risk-weighted assets were gradually elevating towards a rising trend, the banking sector faced the biggest challenge pertaining to a heavy burden of non-performing loans. As a result, the quality of the asset portfolio deteriorated and continued to prove a threatening factor for the capital base of the banking system (Zaidi, 2012). NPLs were estimated to be at Rs 199 billion in 2004 but suddenly showed surprising growth of nearly 200% in 2014 to stand at Rs 604 billion (State Bank of Pakistan, 2014). The global financial crisis in 2007-2008 led to decelerate economic activities suddenly and assumedly becoming the most fundamental reason for the impairment of the quality of a bank's loan portfolio in the asset portfolio. In a situation when risk-weighted assets are on the rise in the asset portfolio, banks tend to perform internal consolidation progressively in such a way that its quality improved instead of the distributing of credit. Moreover, the presence of a high level of NPLs, compelled the banks to increase their provision for loss in loans that decreases the banks' revenue and lessens the funds required for making new lending. The corporate sector also faced many hardships when the loans were cut back, because of greater problems in terms of expansion of working capital. Moreover, due to this, the chances of the corporate sector resuming normal operations or a growing trend are hampered (Stiglitz, 2001). When the decline causes some variation in the quality of the asset portfolio; the banks are compelled to increase the volume of their financing as the regulatory capital requirement increases. This rising practice of financing by banks apparently shows a unique experience in the presence of changes seen in the financing portfolio towards less risky weighted assets by diversifying their financing portfolios into government securities. This practice

discourages the growth of financing in the private sector that ultimately causes a slowdown effect in growth trends in economic activities (Ayub, 2013). Thus, our study will obviously place a real impact on banks to implement viable decisions on optimal capital and risk levels.

Significance of the Study

The general purpose of this study is to investigate the capital and portfolio risk behavior of Pakistani banks and to examine the impact of regulatory pressure and business cycle fluctuations on capital and portfolio risk during the period of 2004-2017. This research study intends to make several contributions to the literature. The findings will also provide important and interesting information to policy makers, and financial analysts dealing with various types of banks in Pakistan. It would also be helpful to comprehend the responses of banks towards capital regulation so that regulations could be designed in such a way so as to satisfy the objectives of the regulators in a much better approach.

The first and foremost contribution of this research is an attempt to guide policy makers and assist financial planners to make visionary plans for implementation in accordance with the most favorable and viable decisions on optimal capital and risk levels, since this research will evolve a conclusion in answering the important question as to how banks adjust capital and portfolio risk. The results obviously unfold the reasons as to why under-capitalized banks are unable to raise their capital. The undue regulatory pressure is the most vital constraint. On the other hand, it is clearly observed that non-performing loans of high stratum are increasing asset portfolio risk. The quality of assets is not only consequential of risks behavior, but also an influencing factor on the risk taken by the bank.

The second contribution of this research will be concluded with a reasonable answer as to how banks adjust capital and portfolio risk in the business cycle fluctuations. The policy makers will seize an opportunity to devise strategic plans accordingly if the bank is shortsighted or a forward-looking bank. In accordance with the capital buffer theory, there is positive dependence of optimum capital on asset portfolio risk. In case the assets risk is higher, banks must have a higher capital so that it can have full insurance if the regulatory minimum is violated. The credit risk primarily drives assets risk because traditionally loans are part of banks' most crucial assets category. This system is spread to such an extent that during a business cycle, if the credit risk is facing fluctuations, then fluctuation is also witnessed in optimum capital levels. For those forward-

looking banks, capital behaves in an anticipated manner. For instance, throughout the upturns of a business cycle when banks are in the process of expanding their lending, there is a tendency for potential risks to increase. Consequently, banks also have to raise their capital, keeping in view their sustainability in very stable positions, so as to tactfully face any growing risks. In a similar manner, when risks materialize during the downturns of a business cycle, banks could draw on the increased capital. In this way, it is expected that capital might undergo pro-cyclical fluctuations during the business cycle when banks are of the forward-looking type. This study also discovered that capital in banks fluctuates pro-cyclically, indicating that their capital grows when the economic conditions improve. This is to say more precisely that while accounting for rising credit risks during upward trends of the business cycle, banks have to increase their capital, when they experience upturns in the business cycle (Milne & Whalley, 2001). The results again indicate that banks in Pakistan tend to increase their capital in order to meet the minimum capital requirement in the upturn to materialize the credit risk in the downturn. The results further reveal that business cycle fluctuations have a pro-cyclical impact on portfolio risk adjustments. The significant pro-cyclical behavior of risk-weighted assets may be due to the increase in portfolio risk in upturns.

Moreover, the study contributes to the existing literature by answering the question: how do banks adjust buffer capital and portfolio risk in business cycle fluctuations? The study concluded that the bank capital buffer fluctuates counter-cyclically and it may be due to the shortsightedness of banks or low loan demand during downturns. On the contrary, business cycle fluctuations have a pro-cyclical impact on portfolio risk adjustments and indicate that during an upturn rising loan demand increases bank risk.

The third integral part contributes comprehensively to finalize the findings of our results which are absolutely in line with the predictions stated in the capital buffer theory for banks with a low capital buffer and show that low capital buffer banks tend to adjust their capital requirement and risks pro-cyclically within the business cycle. Moreover, there is a two-way coordination between adjustments in capital and adjustments in risk. It refers to an adjustment in capital being negatively affected by the adjustments in portfolio risk and vice versa. The results further contribute that higher profitability may induce low capital buffer banks for risky investments and effect asset quality. The analyses of our findings also divert our attention towards another significant contribution, that high capital buffer banks adjust their capital counter-cyclically in the business

cycle whereas their portfolio risk is adjusted pro-cyclically. It indicates that during upturns capital is not accumulated. There is a two-way inverse relationship between adjustments in capital and adjustments in risk. However, it is quite apparent that in order to pursue higher profitability, banks with high capital buffer are also induced towards higher risky investments.

The fourth contribution of this study, to the best of our knowledge, discovers that banks have received comparatively less attention for assessment of effective capital regulations in risk-taking, specifically in developing countries, which have further crucial variations among banks. This calls for further research to clarify why the capital buffer of banks behaves in a cyclical manner. In this context, this study will fill the lacuna on the subject and add noticeably to the literature for the benefits of the stakeholders.

Organization of the Study

The study is organized into ten chapters. Chapter 1 provides an overview of the research and contains information on the research background being the motivational sources for carrying out the research. This chapter describes the overall picture of the area of research, provides its background with vital focus on the impact of regulatory pressure and business cycle fluctuation on the banks' capital and portfolio risk in Pakistan. It also identifies various issues and gaps which lead to problem statements, research questions and research objectives. Then, the significance of the study is highlighted in this chapter along with structural details for a comprehensive understanding of the motivation and direction for the research study. Chapter 2 explores the evolvements of the Basel capital accords and their implementation from the Basel I to Basel III Accords. Chapter 3 discusses the capital and portfolio risk assessment of Pakistani banks in terms of asset quality, solvency, liquidity and profitability during the period 2004-2017. All data have been provided by the State Bank of Pakistan. This chapter will provide the capital and portfolio risk behavior in the context of the real financial market of Pakistan. Chapter 4 reviews theories of capital and portfolio risk such as the theory of bank capital, Agency theory, Financial Intermediation theory, Moral Hazard theory and Capital Buffer theory. Chapter 5 covers the prior empirical evidences that are relevant to the scope of this study; such as studies on the impact of regulatory pressure on bank capital and portfolio risk, the effect of business cycle fluctuations on capital and portfolio risk,

the impact of bank liquidity, profitability, size, merger and investment on bank capital and portfolio risk as well as the impact of asset quality on risk decisions. Chapter 6 explains the research design and methodology used in the study. The chapter begins with an explanation on the research framework, definitions and measurements of variables, sources of data and the process adopted for data collection. The hypotheses development of each variable is also described. The chapter also presents regression models of the study, which have been conducted in order to answer the research questions. The answers will, of course, lead to achieve the objectives of the study. In Chapter 7, are the empirical results of the capital and portfolio risk analysis. Chapter 8 explains the empirical results of analysis of low and high capital buffer banks. Chapter 9 discusses the empirical results of the impact of the business cycle on bank capital buffer and portfolio risk analysis. The consistency and differences of the results in comparison with underpinning theories and prior empirical evidences are also elaborated for clear understanding. Chapter 10 concludes with the interesting results of the study, along with a conclusive summary. This chapter also highlights the contributions and implications of the study, and explains the limitations which must be noted. Further, suggestions in the subject areas for some possible information for future research are also presented herein.

CHAPTER TWO

EVOLUTION OF THE BASEL CAPITAL ACCORDS

The Bank for International Settlements (BIS) serves the central bank in pursuing monetary and financial stabilities, encourages international cooperation in those areas and apparently acts as a bank for central banks. The BIS was established in May 1930, and is assumed to be one of the world's oldest international financial organizations. The regular meetings of the BIS are held every two months in Basel, with active participation of Governors and senior officials of members of central banks. These meetings provide all opportunities for participants to discuss the world economy and financial markets, besides an exchange of views on topical issues of central bank interest. The main outcomes of these meetings are participants' comprehension of betterment and development, challenges and visionary policies, which intend to affect various countries or markets around the world.

The Basel Committee on Banking Supervision (BCBS) is an international committee of banking supervisory authorities, which was established by the G10 countries' central bankers at the end of 1974 under the great auspices of (BIS), following the sudden collapse of Bankhaus Herstattin, Germany and Franklin National Bank, USA in 1974 (BIS, 2008; Engelen, 2005). The BCBS consists of senior representatives of bank supervisory authorities and central banks from Belgium, Canada, France, Germany, Italy, Japan, Luxembourg, the Netherlands, Spain, Sweden, Switzerland, the United Kingdom, and the United States. The main objective of the BCBS is to enhance clear understanding among all the key members of the G10 (Group of Ten). All these countries grouped together for consultation and co-operation on economic, monetary and financial matters (BIS, 2004).

The Basel Accord (Risk-based Capital Standards)

The role of capital is quite difficult to be overstated in preserving a secure and sound banking system. When banks maintain a sufficient amount of capital, they are able to ensure being capable of meeting their obligations

towards their creditors. Likewise, a sufficient amount of capital will create confidence and inspiration among depositors and other creditors to encourage them that such banks will repay their amount, even if some assets of banks lead them towards default (Larson, 2011). Eventually, the Basel Accord has thus emerged as a supporting factor to ensure a secure stability in financial systems and structures by using a set of rules, which is acceptable in all global financial hubs and allows for some scientific treatment for risk aversion. As part of the Basel Accord requirement, all banks had to face a number of minimum capital requirements. These firm rules are advantageous for the economy since they altogether cushion the banks' performance against losses that result from credit, operational and market risk exposures and also ensure the availability of capital within the economy throughout every business cycle (BIS 2004, Hassan Al-Tamimi, 2008). The limits allocated for banks with regard to capital also protect them against systemic risks (Amidu, 2007). The introduction of the Basel Accord in 1988, pertaining to minimum capital requirements, was adopted by the G10 group. The Accord has now spread around to many states and has been implemented in around 100 countries world-wide (Van Roy, 2008). Since 1988, the BCBS has issued three capital accords, known as Basel I, Basel II, and Basel III. Basel I was implemented by member countries in 1992, whereas Basel II is still being implemented in certain countries and as far as Basel III is concerned, it came into effect gradually from January 1, 2014 in most member countries.

Basel I

The BCBS initiated the Basel I Accord in 1988, with two very important and viable objectives from its time of inception. The first objective was to strengthen secure and sound stabilization in the international banking system and secondly, to create level playing fields among banks of international reputation by diminishing the existing means and ways of competitive inequality (BCBS, 1988). To achieve these requisite goals, a set of two tiers was selected in order to define capital in banks. The capital in Tier 1 is relevant to common stocks and other preferred stocks in perpetual terms, and retained earnings. The international banks were required to hold Tier 1 risk-weighted capital, at least to the level of up to 4%. Accordingly, capital in Tier 1 and Tier 2 are jointly defined as "fixed maturity preferred stock, subordinated debt and loan losses reserves with ratio of capital to risk-weighted assets (RWA) by 8%". Hence, the assets of banks are placed into different categories or more precisely termed as "buckets", within the range of 0%, 20%, 50%, and 100%, pertaining to