

Global Financial Crisis: Exploring the Special Role of U.S. Banks and Regulations

Nabila Nisha*

Abstract

Financial markets have suffered the greatest dislocation following the truly seismic significance of the global financial crisis. Regulators argue that the banking sector played a particularly special role in triggering the causes of the subprime debacle, thereby leading to the occurrence of the global financial crisis. Banks previously functioned as only a financial intermediary, but certain developments in the international banking sector like deregulation, technological progress, consolidation and competition, securitisation and financial innovation, resulted in banks being involved in subprime lending activities and hence, a reason behind the financial turmoil. The aim of this paper is to scrutinise the special role of banks in the global financial crisis and to stress on the need for increased regulation and their implications on the banking sector. The current study will thus contribute to the examination of the salient features of the global financial crisis and provide regulatory suggestions for the banking sector and the government as a whole.

Keyword: Global Financial Crisis, Subprime Mortgages, Securitisation, Banking Sector, Bank Regulations, Basel III

Introduction

Global financial crisis is the most debated issue in recent times, where various speculations have been made regarding the roots of this crisis. It has been referred to as the greatest regulatory failure in modern history by researchers like Arnold (2009) and Buckley and Arner (2011). In fact, it is a crisis which has spread across a

broad front. From a financial crisis it has become a general economic crisis, an employment crisis and in many countries, it has produced a social crisis and in turn, a political crisis (Rudd, 2009).

Considerable research has identified several contributing factors that led to the creation of the global financial crisis. The classic explanation of financial crises, going back hundreds of years, is that they are caused by excesses - frequently monetary excesses - which lead to a boom and an inevitable bust. Even in the global financial crisis, there was a housing boom and bust, which in turn led to the financial turmoil in the United States and other countries. However, it was the subprime debacle which eventually triggered the global financial crisis (The Economist, 2013).

Subprime mortgages were initiated to provide the less creditworthy an opportunity to purchase homes. In fact, the term subprime refers to the credit quality of particular borrowers, who pose a greater risk of loan default owing to their weak credit histories (Wallison, 2011). The subprime mortgage market was created through deregulation, along with various developments in the international banking sector which prompted the growth of subprime lending and also triggered the crisis in subprime market, ultimately leading to the global financial crisis.

There have been numerous past studies like Crotty (2009), Claessens, Laeven, IganandDell'Araccia(2010), Kolb (2010), Buckley and Arner (2011), Helleiner (2011) and such others which argue that banks played a special role in the generation of this global financial crisis owing to the various financial activities of the banking sector in an economy and the lack of proper government regulations over those activities. As such, it is imperative to critically

* Lecturer, Department of Accounting & Finance, School of Business and Economics, North South University, Bangladesh.
Email: nabila.nisha@northsouth.edu

assess the reasons behind the global financial crisis and the role of the banking sector in the entire debacle.

To pursue this purpose, this paper analyses the special role of banks in an economy and the developments in the international banking sector, particularly focusing on the subprime lending activities of the banks. In addition, this paper also highlights specific regulations that can help to avoid any such financial crises in the near future. Therefore, the current study has both theoretical and practical implications. Theoretically, this paper contributes to the understanding of the salient features of the global financial crisis and on the basis of which, regulatory suggestions are made to the international banking sector and the government for practical applications. For instance, banks globally can encourage investments in gold, bonds or treasury securities which will definitely be a safer alternative than the housing or stock market. In addition, the government can consider investing in long-term infrastructure projects to boost the economy that has been hardly hit by the global financial crisis and may consider giving cash handouts to taxpayers and tax breaks to small businesses to reduce the need for borrowing and lending, particularly in the U.S. economy.

Role of Banks as a Financial Intermediary

Banks can be defined as financial intermediaries between borrowers and lenders and their “specialness” can accordingly be traced to this role, where they accept deposits and direct those deposits into different lending activities. As a byproduct, banks participate in the payment system and offers liquidity to the customers as well. Banks also play a pivotal role in the macro-economy of a country and share a special relationship with central bank because they tend to create money (Heffernan, 2005). In the process, banks help the financial system in the clearing and settlement of transactions and provide finance to small and medium-sized enterprises (Bikker & Bos, 2008). Furthermore, banks provide financial products that are beneficial for consumers and businesses and contribute to the development and growth of economies and effective performance of a country’s monetary policy (Benston, 2004).

To be precise, the characteristics that make banks special are varied. For instance, banks issue money in the form of bank notes, cheques, coins, etc. to undertake transaction

services and act as intermediaries between borrowers and lenders. On the other hand, banks are often cited as the primary source of credit and liquidity for all classes and size of financial and non-financial institutions. Banks also help operate the monetary policy and payment system efficiently and thus promote smooth operation of the financial markets.

These special functions of the banks as financial intermediaries were further accentuated following a number of developments in the international banking sector across the world. Many of these developments have been directly or indirectly related to the global financial crisis over time, particularly to the rise of the subprime lending activities of the banks. This paper thus highlights some of major developments of the banking sector that can demonstrate the role of banks in the global financial crisis.

Developments in the International Banking Sector

Deregulation

To increase home ownership among the low-income and less creditworthy groups, U.S. government deregulated the Community Reinvestment Act (CRA) and adopted an affordable-housing mission. This decision of the government had an impact on the functions of all U.S. mortgage-lending banks. Mortgage-lending banks had to reduce lending standards to comply with this mission and these affordable mortgages were then purchased by government-sponsored enterprises Fannie Mae and Freddie Mac (Congleton, 2009).

Low lending standards made house purchase possible for those who were previously not considered as sufficiently creditworthy to qualify for a mortgage (Hull, 2009), thus leading to a boom in the U.S. house prices. With interest rates being sharply lowered, banks engaged in more subprime lending because potential return still existed even if borrowers defaulted.

Deregulation then liberalised bank structures by removing branch restrictions and by allowing domestic and international affiliations between banks and other non-bank financial institutions through the Gramm-Leach-Bliley Act. Government also removed fixed mortgage interest rates and introduced diverse mortgages like

adjustable-rate mortgages. Such lax regulations intensified competition and allowed banks to offer more subprime loans, even at teaser rates. However, in the process banks overlooked the risk assessment of subprime borrowers and gradually the subprime market was turning risky.

When the U.S. Securities and Exchange Commission allowed five large investment banks, namely Lehman Brothers, Bear Stearns, Goldman Sachs, Morgan Stanley, and Merrill Lynch, to increase leverage and Basel Committee permitted self-regulation of the shadow institutions and derivatives, underwriting standards were reduced. As significant amounts of assets and liabilities could be moved off-balance sheet to complex legal entities like structured investment vehicles (SIVs), risk management became more inconsistent and quality of subprime loans deteriorated. So, when interest rates were increased by banks and house prices declined unexpectedly, massive defaults and huge losses occurred - leading to a crisis in the subprime market.

Technological Progress

Improvements in technology greatly accelerated the loan approval process of banks and expanded loan origination considerably through the development of automated underwriting systems (AUSs) that used scoring models to measure the credit risk of mortgages (Pafenberg, 2010). AUSs reduced origination cost and simplified documentation for the low-risk borrowers, as a result of which, mortgage credit was extended to more subprime borrowers by the banks but without any risk assessment. Widespread use of AUSs expanded the subprime market, but overreliance lowered underwriting quality and lack of comprehension made lenders underestimate the credit risks of these subprime mortgages.

Improved technologies greatly amplified the risks involved in subprime loans, making the market vulnerable to external shocks. The sudden decline in house prices combined with increased interest rates by the banks thus collapsed the subprime market, by incurring huge losses as subprime borrowers defaulted largely.

Consolidation and Competition

Deregulation induced massive consolidation within the U.S. financial services industry, when Gramm-Leach-Bliley Act favoured the trend of universal banking by

allowing domestic and international mergers between commercial banks, investment banks, securities firms and insurance companies. This, combined with economies of scale achieved through the exploitation of new technologies, resulted in the formation of a 'dominant group of large complex financial institutions (LCFIs) in the U.S. (Wilmarth, 2009).

Consolidation intensified competition between banks, between banks and other financial institutions and between banks and the overall financial sector in U.S., as they created fewer but more competitive players (Chortareas, Girardone & Ventouri, 2010). Therefore, to achieve a dominant position in financial markets LCFIs competed directly with investment banks in securitizing loans and in underwriting or investing in subprime market. They created massive debt burdens by extending huge volume of high-risk mortgage loans to subprime borrowers and soon became the leading private-sector catalysts in the subprime market. Due to their size and complexity, they were also allowed by the Bank for International Settlements to measure their own risk and set their own capital requirements.

Competitive environment and lack of regulation prompted LCFIs to neglect risk assessments to provide more subprime loans, and they even resorted to predatory lending to earn higher returns. In the process, LCFIs undertook excessive risks and made the subprime market vulnerable to external market and liquidity shocks. Subprime market thus collapsed when rise in interest rates and the sudden bust in house prices led to large defaults by the subprime borrowers and incurred enormous losses for the investors and originators, particularly the LCFIs. In fact, they were the epicenter of the crisis as five large US investment banks were insolvent, taken over by other companies or bailed-out by the U.S. government.

Subprime debacle then led to the global financial crisis, since many financial conglomerates pursued similar strategies like reckless subprime lending and securitisation. This exposed banks and other financial institutions to common financial risks, leading to a significant rise in systemic risk in the global financial markets and the overall banking sector.

Securitisation

As banks gave loans to high-risk borrowers, they undertook heavy risks and largely tied up liquidity. To

increase liquidity and to shift these risks from the banking sector to other parts of the financial system, banks engaged in securitisation.

Securitisation enabled originators to transfer their mortgages to a special-purpose vehicle (SPV), a specialised institution that accumulated these individual mortgages into a pool to issue new securities like mortgage-backed securities (MBSs). Originators also re-securitised the securitised assets to create more complex securities like collateralised debt obligations (CDOs) and transferred risks to SPV through credit derivatives like credit default swaps (CDSs). These securities were then sold to investors in the global financial markets as an investment product, enabling originators to transfer the mortgage rights and related credit risks to the investors. In the process, securitisation also removed risky loans off the books and transformed illiquid mortgages into liquid obligations (Reiss, 2010). This reduced the regulatory capital requirements and made originators look solvent, increasing fund availability for more subprime lending.

Due to securitisation, originators focused more on processing mortgage transactions and underestimated the risks of the subprime loans by overlooking its credit quality. This triggered a crisis in subprime market, when unexpected decline in house prices and rise in interest rates resulted in large loan defaults and incurred huge losses. As securitisation had spread subprime debt to global financial markets as well, subprime crisis consequently led to the global financial crisis.

Financial Innovation

Financial innovation refers to the ongoing development of complex financial products that can transform the risk, return, and liquidity characteristics of financial portfolios in the banking sector (Rixtel & Criado, 2010). It is claimed to be risky, as it created increasingly complex securities particularly in subprime market.

Financial innovation assisted originators to obtain financing and circumvent capital regulations by creating new classes of securities through securitisation like mortgage-backed securities (MBSs), which were created from a pool of prime and subprime loans and asset-backed securities (ABSs), which consisted of various loans and mortgages as underlying assets. The rampant rise in subprime lending developed more complex securities like

collateralised debt obligations (CDOs) by re-securitising the existing MBSs or ABSs. To hedge the risk exposure of these securities, shadow institutions further introduced credit enhancements like credit default swaps (CDSs).

These securities were increasingly sold to global financial markets, as they received AAA ratings by the credit rating agencies and offered comparatively high returns, despite having subprime loans as underlying assets (Goodhart, 2009). Moreover, absence of a regulated market and sufficient capital requirements made actual risk associated with these securities incomprehensible and amplified the subprime market risk.

Such excessive risks resulted in large defaults and enormous losses and consequently a collapse of the subprime market, when interest rates were increased by the banks and house prices suddenly declined. As global financial markets also traded in these securities, subprime debacle eventually resulted in global financial crisis.

To summarise, it was deregulation which had set the stage for subprime lending by liberalizing various restrictions on mortgage rates and bank structures, thereby encouraging banks to reduce lending standards. This created a boom in U.S. house market and combined with low interest rates that created more capacity, a high return potential was evident from subprime lending. Profit motive and self-regulation of mortgage-lenders reduced their incentives for the proper risk assessment of subprime loans and the emerging technological progress of automated underwriting systems and credit-scoring models helped banks to further undermine underwriting quality and underestimate the risks involved.

Deregulation coupled with technological progress also encouraged consolidation on a large scale and intensified competition in domestic and international financial markets. To achieve a dominant position, universal and investment banks started pursuing reckless subprime lending, securitisation and even predatory lending to earn huge returns. Risk and illiquidity were rising excessively in subprime market and to generate returns it was necessary to raise liquidity and distribute these risks to other parts of the financial system.

The development of securitisation freed up capital and facilitated this risk distribution, as it sold the complex subprime-based securities created through financial innovations to investors around the world as

an investment product. However, a sudden bust of the house price bubble and an increase in interest rates led to massive defaults and huge losses for the universal banks, financial institutions and investors who originated and invested in subprime loans. The crisis in subprime market heightened risk and declined the demands for securitised products, resulting in credit shortages. This shortage was effectively combined with the spread of subprime debt to the global markets through widespread consolidation and securitisation and consequently the subprime debacle resulted in the global financial crisis.

It can therefore be argued that banks engaging in subprime lending following the developments in the international banking sector were the primary triggering cause behind the occurrence of the global financial crisis.

Subprime Lending Activities of Banks

Initially, banks had engaged in subprime lending to comply with government's mission of affordable-housing for the low-income and less creditworthy groups. They reduced lending standards and made house purchase feasible, particularly for those borrowers who had weak credit histories. This resulted in a boom in the real estate market and along with the low interest rates imposed by government, banks were able to finance larger amounts of subprime borrowing since rising house prices assured high returns even if borrowers defaulted. A strong incentive for banks to engage in subprime lending was therefore to derive higher returns from subprime loans, in order to achieve the shareholder value maximisation objective.

To generate high returns, banks started offering subprime loans on teaser rates when limitations on mortgage interest rates were relaxed through deregulation, replacing fixed-rate mortgages by new and exotic mortgages like adjustable-rate mortgages, interest-only mortgages, etc. Additionally, when banks were exposed to a greater degree of consolidation and competition through deregulation of branch restrictions and formation of financial conglomerates, they engaged in more subprime lending to compete with the conglomerates and to achieve a dominant position in the market. This is because subprime lending generated significant short-term returns for the banks from the high interest rates and fees related to these loans.

Due to their low credit score, borrowers had to pay a variety of high fees to obtain a subprime loan like

appraisal and processing fees, otherwise known as junk fees. Banks further charged the borrowers a high interest rate to compensate for the risks attached to these loans. Given the large numbers of highly interested borrowers, banks thus earned huge returns from these subprime loans and duly maximised their shareholder value. Banks also applied credit-scoring models and automated underwriting systems to greatly accelerate the loan approval process and reduced lending cost, therefore providing more subprime loans and deriving higher returns.

When the U.S. Securities and Exchange Commission (SEC) allowed five large investment banks to increase their leverage, banks gained more momentum because they could mask their high leverage and continue generating high returns by transferring risky securities off their balance sheet into complex structured investment vehicles (SIVs). Thus, lax regulations combined with the self-regulation of banks and the shadow banking system prompted more subprime lending, increased banks' returns and banks continued to maximise their shareholder value in the process.

However, excessive risks were built up in the subprime market in this process of generating high returns. Banks exploited the lack of regulation on leverage and tied up more liquidity in subprime loans to earn high returns, ignoring the risk level attached to these loans. High competition in the banking sector even made some banks undertake several predatory tactics and they considerably reduced lending standards to earn higher returns. In the return-generating process, banks overlooked the appropriate review and documentation of the subprime borrowers and indulged in unregulated off-balance sheet activities, which aggravated the risk of banks and the subprime market. Moreover, these risks increased banks' capital requirements, thereby reducing their capacity to lend more subprime loans and earn high returns.

Thus, the need to mitigate risks, generate more liquidity, meet capital requirements and mostly to continue generating high returns to maximise shareholder value provided banks with strong incentives to securitize many of the subprime loans they had originated.

Securitisation allowed banks to transfer their mortgages to a special-purpose vehicle (SPV), a specialised institution that accumulated individual mortgages into a pool and then using this pool issued new securities like mortgage-backed securities (MBSs) to sell to other investors. It

also facilitated the re-securitisation of securitised assets into more complex securities like collateralised debt obligations (CDOs) and allowed the transfer of risks to SPV through derivative contracts like credit defaults swaps (CDSs).

Securitisation allowed banks to transfer much of the credit risks associated with subprime loans to SPV, which distributed risks across various tranches and then sold the new securities to different investors around the world. The transfer of mortgage loans to SPV, in fact, qualified as a true sale, as it monetised the assets and freed up capital that banks had tied up in the loans (Martin, 2010). This created excess liquidity for the banks to originate new loans and by selling the mortgages to the securitisation process at a profit banks derived another means of maximizing their return and shareholder value (Kolb, 2010).

Securitisation, in fact, improved the liquidity and return of banks without additional balance sheet financing by transforming illiquid mortgages into liquid obligations that could be readily traded in the secondary market (Mehta & Fung, 2004). It also reduced the number of assets on the banks' balance sheet by removing risky loans off their books, thereby significantly reducing their regulatory capital requirements and creating more loan capacity for the banks. Securitisation therefore provided a low-cost way of raising additional finance (Casu, Girardone & Molyneux, 2006) and this was a major incentive for banks as the availability of longer-term funds allowed them to engage more in subprime lending and earn huge returns from the process.

Securitisation prompted the return-generating incentives of banks in such a way that banks started originating loans without paying attention to its credit quality, as they knew that even bad loans could be passed through the securitisation process. Moreover, the consequent decline in the quality of subprime loans did not affect banks' shareholder value as the boom in the housing market ensured a consistently high return from the mortgage sale.

Market conditions soon changed when government increased interest rates and borrowers who took loans on teaser rates found their mortgage payments rising substantially. Since they already had weak credit histories, defaults occurred on a large scale. Banks instinctively planned to cash their returns by selling the mortgages at high prices, but a setback occurred when at the same time there was an unexpected bust in the house market

(Friedman, 2011). House prices declined dramatically and the mortgages on which banks had lent huge subprime loans ceased to generate a positive return for the banks because their inconsistent risk management had largely deteriorated the subprime mortgage quality. Banks counted on liquid assets derived from the housing market to generate capital for loan purposes but the decline in house prices lowered their fund availability as well. Banks thus incurred enormous losses and their shareholder value was adversely affected, as rising defaults triggered a crisis in the subprime market.

The deflation of the subprime bubble required banks to increase their capital in response to the increased risk. Banks could not securitise their subprime loans to raise capital because the mortgages had little or no value following the decline in house prices and the downgrade of securitised products by the rating agencies had reduced investors' demand for such securities (Jacobs, 2010). The complexity and opaqueness of the securitisation process made it difficult to sort out the claims of the securitised products, as the new securities did not have a direct claim on any specific loan or credit. Banks were thus stuck with an enormous amount of toxic mortgages and the inability to sell these assets through securitisation impaired their returns, lowered asset values on their books and evidently reduced banks' capital (Swan, 2009). Banks could not raise capital from the market also because lower capital and the spread of toxic mortgages had reduced interbank lending, hence freezing the credit markets. Consequently, low capital availability along with the inability to securitize existing mortgages constrained lending and reduced banks' returns, declining their shareholder value.

Subprime crisis and the credit crunch would have remained confined to the banking sector, but securitisation shifted the credit risk of subprime loans to other parts of the financial system (Pezzuto, 2010). Banks engaged in securitisation to diversify the subprime risks and the risks seemed to disappear from one party to another. However, the underlying systematic risk remained but the incentive to earn higher returns and maximise shareholder value made banks lose sight of the real risks of the underlying loans and they continued lending subprime loans and securitising mortgages (Friedman, 2011). These securitised products were eventually sold to investors all around the world and as a result, subprime debt spread to the global financial markets as well. Thus, the subprime crisis characterised by the securitisation mechanism

resulted in the global financial crisis and banks indeed played a special role to trigger this crisis.

Regulations for the International Banking Sector

The specialness of banks indicates their critical role in the economy and since the banks played a crucial role in the global financial crisis as well, banks today are more intensely regulated than any other sectors. The most important rationale for regulating banks is to address concerns over the safety and stability of financial institutions and the financial sector as a whole and to protect consumers and investors. However, according to Matthews and Thompson (2005), consumers are prone to exploitation from the monopolistic behavior of banks to a large extent. Moreover, the special nature of financial products and the lack of knowledge of depositors about bank risks also pose the need for consumer protection. As a result, bank regulation becomes imperative in any economy.

As the banking operations of different banks are fairly similar, any financial stress emerging in one bank may indicate that other banks are collectively exposed to the same risk (Bikker & Bos, 2008). Thus, the banking sector is vulnerable to contagion; that is, a run on one bank may generate runs on other banks and bring about serious financial instability (Chortareas *et al.*, 2010). Heavy interbank lending, cross participation and incomplete knowledge about banks due to lack of transparency are reasons for contagion too, as stated by Heffernan (2005) and Bikker and Bos (2008). The presence of contagion in banking leads to the creation of systematic risk, which means that any run on a bank will spread across the financial system, leading to widespread bank runs and a possible collapse of the banking system. An extensive collapse will result in the loss of intermediation, money transmission, and liquidity services offered by banks (Pezzuto, 2010). Financial vulnerability can thus provoke a loss of confidence in banks and prevent banks from pursuing their macroeconomic role perfectly.

On the whole, bank failures can create significant negative externalities or social costs, as well as private costs of failure (Heffernan, 2005). So, a chief rationale for regulating banks is to prevent bank failures and to ensure a safe and stable banking system.

The two major international bank failures in 1974 thus led to the formation of a standing committee of banksupervisory and authorities known as the Basel Committee on Bank Supervision (BCBS) (Heffernan, 2005). They developed a set of recommendations on banking laws and regulations, referred to as the Basel Accords. The main purpose of these banking supervision accords is to consider regulatory issues related to the activities of international banks in member countries.

In 1988, the Basel Committee introduced the first Basel Accord, Basel I. The purpose of Basel I was to strengthen the stability of the international banking system and to establish a fair and consistent banking system to decrease competitive inequality among international banks. Basel I marked the beginning of a new style for supervision and regulation of banks, since it established a single set of capital adequacy standards for international banks. It required banks to set aside a minimum capital based on the Basel risk-assets ratio (Matthews & Thompson, 2005).

However, Basel I was criticised on several grounds, even with all its amendments. These criticisms like simplistic risk-weightings, one-size-fits-all approach, and such others led to the creation of a new Basel Accord, known as Basel II, which was implemented in 2007. The purpose of Basel II was to ensure more risk-sensitive capital adequacy assessment, encourage banks to improve their risk management processes and promote thorough and transparent reporting. According to Heffernan (2005), Basel II was based on a three-pillar concept, namely Pillar 1, Pillar 2, and Pillar 3. Pillar 1 revised the measurement of risk assets ratio and included new measurements for credit, market and operational risk; while Pillar 2 focused on the role of supervisors in the review of banks by encouraging banks to develop internal methods to assess capital and to establish capital targets consistent with the banks' risk profile and internal control methods. Pillar 3, on the other hand, aimed to maintain market discipline and required banks to disclose their methods for computing capital adequacy, assessment of risk, credit risk mitigation techniques, etc. Despite several criticisms like pro-cyclicality and increasing systemic risk for banks, Basel II is known for its contribution of knowledge about the nature and measurement of risk in banking and the way it increased the sensitivity of bankers and regulators to risk management practices (Kaufman, 2003).

The 2008 Global Financial Crisis further enlightened the shortcomings of the Basel II Accords and initiated the need for a new regulatory framework. This led to the development of a series of regulatory proposals by the Basel Committee on Banking Supervision, known as Basel III. Basel III is the third of the Basel Accords and represents a comprehensive set of reform measures. The aim of these measures is to strengthen the regulation, supervision and risk management of the banking sector in order to improve their ability to absorb shocks that arises from financial and economic stress (Bank for International Settlements, 2010). Basel III entails five main changes from the previous set of Basel II Accords.

Raising the Quality, Consistency and Transparency of the Capital Base

Basel III proposes to alter the form of Tier 1 capital which included common shares and disclosed reserves under Basel II. Now it will include common shares and retained earnings only. It also plans to harmonise Tier 2 capital instruments and eliminate Tier 3 capital which consisted of short-term subordinated debt. To ensure better absorption of losses by the banks, Basel III intends to increase the Tier 1 capital requirement ratio to 6%, as the Basel II ratio of 4% was inadequate to endure the colossal loss of the crisis.

Introduction of A Leverage Ratio

The process of securitisation in Basel II enabled banks to increase their leverage by reducing their capital requirements. Basel III thus proposes to introduce a leverage ratio as a supplementary measure to the Basel II risk-based framework. It will help to control the build-up of excessive leverage in the banking system and introduce additional safeguards against model risk and measurement error.

Enhancing Risk Coverage

In Basel II, risk-weighted assets were used by banks to measure risk and capital requirements. Basel III proposes to extend these calculations and include a set of credit risks that caused significant losses through the crisis. It will also comprise the measurement, management and supervision of operational risk.

Measures to Dampen Pro-cyclicality

Banks under Basel II had a pro-cyclical nature, that is, the tendency to lend more as economies boom and vice-versa. Basel III plans to reduce this by imposing increased supervisory review, counter-cyclical buffers, a new calculation methodology for risk-weighted assets and a modified credit-provisioning methodology (The Actuary, 2010).

Introduction of Global Liquidity Standard

While Basel II focused more on capital ratios and requirements, Basel III plans to introduce a 30-day liquidity coverage ratio requirement, supported by a longer-term structural liquidity ratio (The Actuary, 2010). This means that banks must hold a minimum size of liquid assets portfolio in order to cover short periods of liquidity stress. Basel III also propose to include a net stable funding ratio to address funding mismatches and provide incentives for banks to use stable sources to fund their activities.

With these proposed changes, Basel III is argued to further strengthen the resilience of the banking sector and introduce an international framework for liquidity risk measurement and monitoring of the banks (Hemscott, 2010). The minimum capital requirements proposed by Basel III will ensure that banks have enough capital on hand to continue lending even in a weak economy and thus avoid any form of crisis (Bank for International Settlements, 2010). Also, it will increase the quality of capital, resulting in a more loss-absorbing capacity for the banks and will further reduce any disruptions of the financial systems.

Similarly, the minimum liquidity standards will enable banks to maintain a short-term control on potential liquidity disruptions and will encourage banks to use stable funding sources.

Basel III thus provides a combination of capital and liquidity standards to help promote financial stability and prevent banking crisis. However, these regulations will result in tighter credit conditions for smaller financial institutions and medium-sized companies. Lending will be restricted and borrowing costs will increase, as banks will raise their capital ratios (Hemscott, 2010). Country risk information will become more prominent for companies

that deal with foreign counterparties. Companies will be encouraged to use less secure instruments as Basel III proposals affect trade financing too.

Additionally, Basel III provisions do not concern any non-bank financial institutions like hedge funds and insurance firms, resulting in a key setback since these institutions may aggravate risks in the future, being a major credit provider (Repullo & Salas, 2011). Another drawback is its regulatory arbitrage and a lengthy phase-in period. Adoption of tighter regulations due to regulatory arbitrage can represent potential additional cost for banks and companies. In contrast, alonger time frame can weaken the minimum standard requirements of the Basel III proposal. On the positive side, higher levels of capital and a global liquidity framework will substantially reduce the probability and severity of banking crises and promote financial stability. Basel III will thus make a difference but at a cost of higher credit costs, reduced financing and a slow rate of economic growth.

Conclusion

Regulation of banks can also take the form of deposit insurance, mergers, lifeboat rescues, etc. Often, regulators bail out key banks in order to prevent runs and systemic failure of the banking system. These banks are regarded as too-big-to-fail – that is, regulators believe these banks to be of such national or international importance that a collapse could provoke a major run, have a widespread impact on bank customers and lenders or be the cause of lost business in an economy. They further believe that the failure of these banks will be a devastating threat to any nations' financial stability.

However, these special treatments or regulations for banks have a disadvantage. Besides diverting government resources away from other activities, too much regulation on banks can create moral hazard problems (Bail & Litan, 2009). For example, the too-big-to-fail institutions might take on greater risks once they know that regulators will rescue them. These institutions will thus gain an edge over smaller banks and bank supervisors may not monitor their activities because ultimately they will be rescued as they are “special to the economy (Baker, 2010). On the other hand, regulation in the form of deposit insurance creates a safety net for banks and some banks might continue to take greater risks, knowing that the worst outcome they will face is merger. Thus, extensive regulation to defend

the specialness of banks can heighten moral hazard problems.

In spite of the costs of regulation, the special role that banks play in an economy implies that banks should be regulated to protect consumers and investors and to ensure the safety and stability of the financial system. Particularly, the stress on regulation should be implied more so that the lack of regulation in the banking sector does not lead to another financial crisis in the world economy.

References

- Arnold, P. J. (2009). Global financial crisis: The challenge to accounting research. *Accounting, Organizations and Society*, 34(6-7), 803-809.
- Bail, M. N., & Litan, R. E. (2009). *Regulating and Resolving Institutions Considered “Too Big to Fail”*. Retrieved from http://www.law.yale.edu/documents/pdf/Alumni_Affairs/Litan_too_big_to_fail.pdf
- Baker, D. (2010). *Too Big To Fail and the Real World*. Retrieved from http://www.huffingtonpost.com/dean-baker/too-big-to-fail-and-the-r_b_551178.html
- Bank for International Settlements. (2010). *Bank for International Settlements: Basel III - Towards a Safer Financial System*. Retrieved from http://www.aciforex.org/docs/marketttopics/20100922_Bank_for_International_Settlements.pdf
- Bank for International Settlements. (2010). *International Regulatory Framework for Banks (Basel III)*. Retrieved from <http://www.bis.org/bcbs/basel3.htm>
- Benston, G. J. (2004). What's Special About Banks?. *The Financial Review*. Retrieved from <http://business.highbeam.com/435402/article-1G1-114168849/special-banks>
- Bikker, J. A., & Bos, J. W. B. (2008). Regulation of the banking firm (1st ed.). *Bank Performance: A Theoretical and Empirical Framework for the Analysis of Profitability, Competition and Efficiency* (pp.16-17). New York: Routledge.
- Buckley, R. P., & Arner, D. W. (2011). From crisis to crisis: The global financial system and regulatory failure. *Kluwer Law International, 2011*, University of Hong Kong Faculty of Law Research Paper No. 2012/002.
- Casu, B., Girardone, C., & Molyneux, P. (2006). Managing banks (1st ed.). *Introduction to Banking* (pp.252). England: Pearson Education Limited.

- Chortareas, G. E., Girardone, C., & Ventouri, A. (2010). *Bank Supervision, Regulation and Efficiency: Evidence from the European Union*. Retrieved from http://wolpertinger.bangor.ac.uk/wolpertinger2010/papers/ChortareasGirardoneVentouri_Wolpertinger2010%20AS5P3.pdf
- Claessens, S., Laeven, L., Igan, D., & Dell'Ariccia, G. (2010). Lessons and policy implications from the global financial crisis. International Monetary Fund Working Paper, WP/10/44. Retrieved from <https://www.imf.org/external/pubs/cat/longres.aspx?sk=23637.0>
- Congleton, R. D. (2009). On the political economy of the financial crisis and bailout of 2008-2009. *Public Choice*, 140, 287-317.
- Crotty, J. (2009). Structural causes of the global financial crisis: A critical assessment of the new financial architecture. *Cambridge Journal of Economics*, 33(4), 563-580.
- Friedman, J. (2011). Capitalism and the crisis: Bankers, bonuses, ideology and insurance. In J. Friedman (Eds.). *What Caused the Financial Crisis* (pp.3). Pennsylvania: University of Pennsylvania Press.
- Goodhart, C. A. E. (2009). The background to the 2007 financial crisis. *The Regulatory Response to the Financial Crisis* (pp.17). UK: Edward Elgar Publishing Limited.
- Heffernan, S. A. (2005). *Modern Banking*. Chichester: John Wiley & Sons Ltd.
- Helleiner, E. (2011). Understanding the 2007-2008 global financial crisis: Lessons for scholars of International Political Economy. *Annual Review of Political Science*, 14, 67-87.
- Hemscott. (2010). *Basel III: Too Little, Too Lenient, Too Late?*. Retrieved from <http://www.hemscott.com/news/comment-archive/item.do?id=109411>
- Hull, J.C. (2009). ABSs, CDOs, and the credit crunch of 2007 (2nd ed.). *Risk Management and Financial Institutions* (pp.333). Upper Saddle River, N.J.: Pearson Education.
- Jacobs, B.I. (2010). Tumbling tower of Babel: Subprime securitization and the credit crisis. In R.W. Kolb (Eds.). *Lessons from the Financial Crisis: Causes, Consequences and Our Economic Future* (pp.227). Hoboken, N.J.: John Wiley and Sons, Inc.
- Kaufman, G.G. (2003). *Basel II: The Roar That Moused*. Retrieved from http://www.federalreserve.gov/SECRS/2003/November/20031105/R-1154/R-1154_3_1.pdf
- Kolb, R.W. (2010). Incentives in the originate-to-distribute model of mortgage production. In R.W. Kolb (Eds.). *Lessons from the Financial Crisis: Causes, Consequences and Our Economic Future* (pp.212). Hoboken, N.J.: John Wiley and Sons, Inc.
- Martin, J. D. (2010). A primer on the role of securitization in the credit market crisis of 2007. In R.W. Kolb (Eds.). *Lessons from the Financial Crisis: Causes, Consequences and Our Economic Future* (pp.201). Hoboken, N.J.: John Wiley and Sons, Inc.
- Matthews, K., & Thompson, J. (2005). Bank regulation. *Economics of Banking* (pp.187-189, 196-201). Chichester: John Wiley & Sons Ltd.
- Mehta, D., & Fung, H. (2004). Asset and liability management (1st ed.). *International Bank Management* (pp.265). Australia: Blackwell Publishing Ltd.
- Pafenberg, F. (2010). The single-family mortgage industry in the internet era: Technology developments and market structure. In R.W. Kolb (Eds.). *Lessons from the Financial Crisis: Causes, Consequences and Our Economic Future* (pp.163). Hoboken, N.J.: John Wiley and Sons, Inc.
- Pezzuto, I. (2010). Miraculous financial engineering or legacy assets?. In R.W. Kolb (Eds.). *Lessons from the Financial Crisis: Causes, Consequences and Our Economic Future* (pp.120). Hoboken, N.J.: John Wiley and Sons, Inc.
- Reiss, D.J. (2010). Rating agencies: Facilitators of predatory lending in the subprime market. In R.W. Kolb (Eds.). *Lessons from the Financial Crisis: Causes, Consequences and Our Economic Future* (pp.194). Hoboken, N.J.: John Wiley and Sons, Inc.
- Repullo, R., & Salas, J. S. (2011). The Countercyclical Capital Buffer of Basel III: A Critical Assessment. CEPR Discussion Paper No. DP8304. Retrieved from <ftp://ftp.cemfi.es/pdf/papers/repullo/Repullo-Saurina%20Final%20R.pdf>
- Rixtel, A.V., & Criado, S. (2010). The contribution of structured finance to the financial crisis: An introductory overview. In R.W. Kolb (Eds.). *Lessons from the Financial Crisis: Causes, Consequences and Our Economic Future* (pp.239). Hoboken, N.J.: John Wiley and Sons, Inc.
- Rudd, K. (2009). The global financial crisis. *The Monthly Australian Politics, Society & Culture*, February 2009, 20-29.
- Swan, P. L. (2009). The political economy of the subprime crisis: Why subprime was so attractive to its creators. *European Journal of Political Economy*, 25(1), 124-132.

- The Actuary. (2010). *Banking - Basel III Made Simple*. Retrieved from <http://www.theactuary.org.uk/874965>
- The Economist. (2013). *The Origins of the Financial Crisis*. Retrieved from <http://www.economist.com/news/schoolsbrief/21584534-effects-financial-crisis-are-still-being-felt-five-years-article>
- Wallison, P. J. (2011). Housing initiatives and other policy factors. In J. Friedman (Eds.). *What Caused the Financial Crisis* (pp.172). Pennsylvania: University of Pennsylvania Press.
- Wilmarth, A. E. (2009). The dark side of universal banking: Financial conglomerates and the origins of the subprime financial crisis. *Connecticut Law Review*, 41(4), 963-1050.