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The Role of Banking Sector during the Global Financial Crisis of 2007 and 2008

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Abstract- This paper mainly focuses on the trends and bank behaviors during the global financial crisis. This paper criticizes banking sector during the financial crisis. Based on our deep analysis throughout the paper, funding and risk taking behaviour that can be found are the bank trends and behavior that had been practiced during the global crisis. This paper also focuses on the bank behavior and the financial market. The finding of the paper is the incongruity between the short-term funding and long-term funds had built up more liquidity risks. The study also finds the bank behavior that well-capitalized banks may react less to yield shocks and their profits could be less sensitive to the business fluctuations, as their portfolio decisions may vary from those taken by less promoted banks.

***Index Terms*-** Crisis, Bank Behavior, Liquidity Risk

I. Introduction

The 2007-09 Global financial crisis led economies worldwide to a recession which is considered to be the highest after the one called “Great depression” in the 1930s. The panic of the banking sector caused by the credit crash which reached its peak in the mid-2007 followed up by the collapse of nonprime mortgages and many another type of securitized products are considered to be the most obvious catalyzer of the global financial crisis.

In any economy, banks are considered to be one of the most important players as they significantly contribute to the development of the economy through the facilitation of business activities of the economy (Temizsoy et al. 2015). Banks allow Business to invest beyond their ability to by providing credit in short and long term period. They also contribute to the affordability of household to purchase some of their needed asset, home for example, without saving the entire cost of the asset.

The effectiveness of the banking sector plays an important role in the growth sustainability of any nation. In result of that and as we mentioned earlier, banks contribute an essential role toward to progress of any modern economy, not only in terms of turnover but also as the primary financier of the national economy. However, as banks do significantly contribute to the development of the economy of any country, if not relatively regulated, they can also lead to recession of any economy into a severe recession as we experienced during 2007-09 Global Financial crisis.

The main goal of this study is to reveal the changes and trends in the banking system behavior during the recent global financial crisis (2007-09). The work is organized as follows. The first part will highlight the key trends in banks’ behavior during the 2007-09 global financial crisis. The second part will detail the funding and risk taking the behaviour of the banks during the period of recent crisis. The third part will focus on the type of banks which perform well during the global financial crisis and lastly the criticisms of banking sector behavior during the crisis.

Trends and Bank Behaviors during the Global Financial Crisis.

Following the great recession, US economy experienced 70 years of relative calm in a period which the economists described as the great moderation. It was not a period of free crisis, but losses were relatively very small, very moderate compared to the losses shown in the great depression. This is an important element because it led people to almost blindly believe that we were living in a calmer period with the less risky financial environment. People were having jobs, revenues and a huge amount of savings. In addition to that, people had the strong believe that home price will constantly continue to rise and so they can borrow a large amount relative to their income in order to invest in the real state. Similarly, issuers of home mortgage also had the same feeling that they could issue a large portion of mortgage loan because that was backed by what banks expected to be a rising value of that financial asset. This led banks to get into what is called “Moral Hazard” and in the result of that, the financial system experienced a huge boom in borrowing relative to income.

Banking sector and Global Financial Crisis: the Criticisms

During the global financial crisis, one of the bad side of the crisis was the imbalance between those profiting from excessive risk-taking in good times which are banks, and those who suffering the costs of that behavior in bad times (Corsetti et al. 2006). This phenomenon is called “The Moral Hazard”. In this part of the assignment, we will explain in more details how the moral hazard contributed to the worldwide financial crisis.

Before the onset of the global financial crisis, one of the examples of moral hazard that contributes to the crisis was the financial institution’s expectation that government will not let them fail due to the systematic risk that could spread to the rest of the economy. Through financial innovation instruments such as Mortgage back securities (MBS), Asset back securities (ABS), Collateralized debt obligation (CDOs), the bank got involved in a high-risk investment which was practically so complex, inherently non-transparent. These instruments were also not correctly priced, and not sold on markets and are not liquid. According to the Securities Industry and Financial Markets

Association (SIFMA), there was $7.4 trillion worth of MBSs outstanding in the first quarter of 2008, more than double the amount outstanding in 2001 (Mishkin 1992). However, talking about moral hazard, even though banks were considered to be the ones who were taking the advantage of, the evidence saw that banks also relatively lost a huge amount of money. It does not really make a whole lot of sense to have the bad Behaviour by insiders and then to have the insiders get slammed as well. And that is exactly what we saw during the crash. Even before the collapses of Lehman Brothers, it appears to be the case that the insiders or banks, the ones who are supposed to be taking advantage of, and misleading these gullible homeowners, were, in fact, themselves losing a tremendous amount of money. Here is just some summary statistics on losses during the crisis. You can see that the institutions are losing multiples of billions of dollars. Citigroup losing 42.9 billion, UBS 38.2 billion, Merrill Lynch 37.1 billion. Here we see, in total, 20 institutions that lost, each one of them more than six billion dollars during the financial crisis (figure 1).

Bad behaviours evidences	
Institutions	Losses (Billion of dollards)
Citigroup	42.9
UBS	38.2
Merril Lynch	37.1
HSBC	19.5
IKB Deutsche	15.9
Roayl Bank of Scotland	15.2
Bank of America	15.1
Morgan Stanley	14.1
JPMorgan Chase	9.8
Credit Suisse	9.6
Washington Mutual	9.1
Credit Agricole	8.3
Lehman Brothers	8.2
Deutsche Bank	7.6
Wachovie	7.0
HBOS	7.0
Beyerische Landesbank	6.7
Fortis	6.6
Canadian Imperial	6.5
Barclays	6.3

Figure 1. Bank behavior evidences (Adopted from Foote et al. 2012)

Therefore, when the crash of the U.S nonprime mortgages spread across the financial markets in the summer of 2007, U.S banks were not the only financial institution the experience losses. The French Bank BNP Paribas on August 9, 2007, announced that the bank is practically unable to value exactly what the nonprime securities are worth in their funds based on the fact that risk-averse investors stopped refinancing maturing ABCP.

According to (Temizsoy et al. 2015) during the crisis, the increase of unpredictability of credit risk led banks to reserve more liquidity rather than making them available in the interbank market. Because of the high level of risk in the financial system, banks prevent themselves from lending to business. Money market in many developed countries come a freeze and banks were forced also to borrow from central banks.

The loans to large borrowers dramatically dropped by 47% during the highest period of the 2007-09 of the crisis (fourth quarter of 2008) in direct comparison to the prior quarter, and by 79% compare to the peak of the crisis (second quarter of 2007). Lending to real investment sectors such as working capital and CAPEX fell by 14% in the last quarter of 2008. After the collapse of Lehman Brothers in September 2008, banks experienced a run by short-term bank creditors which made difficult for the bank to roll over their short-term debt (Coleman &Feler 2015).

It is found that low leverage and lower returns were almost settled by the well-performing banks before or beginning the crisis. There were some differences in banking principles all over the countries where it was generally uncorrelated with the banks' performance during the crisis and except those large banks from countries with lots of limitations on the actions of banks performed better and reduced their loans. They actually focus on how those banks that performed really good during the global crisis (Beltratti&Stulz 2012).

According to (Beltratti&Stulz 2012), the relation between some factors (lax rule, inadequate capital, unnecessary reliance on short-term financing) and the performance on stock return of large banks during the crisis was operated, where it was defined for the large banks with the assets of almost $50 billion in 2006. Andrea Beltratti and Rene M. Stulz also found some solid evidence that banks that mostly relied on the deposits for their financing in 2006 managed better during the crisis. It is found that large banks which had lower leverage performed better at the end of 2006. During their study, it is expected that banks with better governance have performed better. It is commonly believed that insiders who have remarkable ownership strict their motivation with the interests of shareholders. Some limited evidence shows that shareholder controlling higher ownership of banks performed better. Andrea B. and M. Stulz also found that bank activities were more controlled in the large banks worldwide ached less from the disaster but no evidence exists that these kinds of restrictions made those banks less risky before the economic fall when risk measurement was used.

A study conducted by (Berger &Bouwman 2013) observed that there were pointedly high equity and low leverage in the well-performing banks at the end of 2006. The same research also highlighted that traditional banks actually performed better. Many theories suggest that the improvement of capital goes to the survival probability of banks.

First, a set of theories highlights the character of capital as a barrier to grip surprises to incomes while several theories advise that the capital structure of banks also influences its

portfolio, screening, and monitoring choices. If they are fixed, then this obstacle process instantly indicates that more capital may increase the existence of probability. Second, other theories focus on the incentive effects of capital. It contains some concepts related to monitoring and screening, and asset substitution ethical threat (Berger &Bouwman 2013).

It is broadly recognized that the development of the crisis may also depend on the limitations in the corporate governance of banks. There is also a real evidence on the positive impact of good governance on bank performance, they hypothesize that the power of corporate governance is replicated in bank performance during the financial crisis. Specifically, they got three mechanisms such as developed market valuations, greater profitability, and less negative stock returns by this time (Beltratti&Stulz 2009). The relationship between risk taking factors and corporate governance would suggest that having solid governance attributes in banks may take a high risk (Beltratti&Stulz 2009).

According to Beltratti&Stulz (2009), no evidence exists to those banks who had better governance and performed better when the measurement of governance was operated with the data used in the well-known Corporate Governance. Bank productivity and statement of financial position were significantly important factors of performance during the crisis than bank regulation and governance at the end of 2006. Banks with the advanced Tier 1 capital ratio in 2006 and huge deposits usually performed better during the crisis.

This analysis reveals that the substantial variation in the ability of banks to sustain lending remained during the financial crisis, and this ability is determined by the strength of their balance sheets. There are three main results in the research. First, the heavy reliance of banks on the funding from market caused liquidity shocks during the crisis and started reducing their supply of credit maximum than other banks. This effect may grip measuring exposure to the shock in the market based on funding and a difficult measure of essential liquidity.

Second, this effect was disposed of by bank capitalization in both the quantity and the quality of capital mattered. The disclosed banks to shocks with a good capital held more tangible common equity and decreased lending less as much as possible than other disclosed banks to shocks. Third, capital and structural liquidity are linked with some complementarities in the higher structural liquidity, in which there are benefits for lending only for well-capitalized banks (Kapan&Minoiu 2013).

Cull et al. (2013) also found that developing countries like China, Brazil, and India systemically recovered quickly from the crisis by generating interest in the potential modifying role that these banks could play during periods of financial suffering. From the Vienna, Initiative where

foreign banks joined together and which is called a public-private partnership among multinational banks, global financial institutions, and European governments, foreign banks were supposed to have financial support in return for commitments. They actually sustain their skills and preserve their subsidiaries effectively which is capitalized in affected host countries. Hence, they were stable lenders than those who did not have loan growth rates in domestic banks by the end of 2009.

Bank Behaviour during the 2007-09 Global Financial Crisis: Funding and Risk-taking

In this part, we will focus on the important changes in the bank behavior during the global financial crisis from the viewpoints of funding and risk taking the behavior of banks. Banks use a variety kinds of financial instruments, from both retail and wholesale sources of funding. Retail banks fund sources include primary customer deposits, mainly from household sectors while the wholesale banks source the funds from the private markets used in addition to customer deposits to finance the bank operations (IMF 2012) cited in (Adrian and Gabriele 2013).

Moreover, the main sources of wholesale funding include interbank loans, short-term debt instruments, reports, commercial paper (CP), and certificates of deposits which are in short-term in nature i.e. money market instruments. Also, sound deposit institutions like wholesale banks can issue long-term securities as well as access liquidity from the central bank, as the lender of the last resort (Adrian and Gabriele 2013).

To shape this section, the study discusses the funding Behavior of banks followed by the risk taking the behavior of banks during the recent global financial crisis.

A. Funding Behaviour of Banks during Global Financial Crisis

In the last two past decades, the structure of bank funding has changed due to numerous structural advances, in which these changes emerged as a result of changes to the supervisory and regulatory framework. These reasons include the strong interconnection of financial markets and banks, globalization of financial markets, rapid growth of investment banking activities in both investment banks and universal banks which commanded an increasing reliance (Borio 2009).

However, the recent global financial crisis showed the dark side the wholesale funding (Altunbas et al. 2011). In terms of the impact of funding structure on bank risk, past literature showed the swiftly of funding amount at a relatively at a low cost but the 2007-09 global financial crisis showed that the wholesale financiers have low interest to conduct costly monitoring on the basis of cheap and noisy signals (Huang &Ratnovski 2011). As the market sources of funding deeply reliant on market perceptions, this can initiate doubting to wholesale investors and could further lead to the experience of Northern Rock Bank in the United Kingdom.

The bank funding has gone through unprecedented dislocations, due to the structural changes, during the 2007-2009 global financial crisis which acted as promoter for the major adjustment in the operation of banks and funding models which lead and reinforced by the following euro area crises (Adrian and Gabriele 2013). Moreover, the authors identified that financial markets were severely hassled even the sound depository institutions (banks) which struggle to access wholesale funding from the raise secured financing.

The Euro crises which followed the financial crises that emerged in the United States and European banks resulted in key changes in the funding segments of euro banks. The analysis shows that a number of factors were the key notions of the trend causes. First, funding support from the governments both in direct and indirect funding for stabilizing the funding situations of the banks during at height of the crisis. Second, the euro banks reduced their interbank unsecured liabilities and securities and

stepped toward using long-term securities of wholesale funding, especially covered bonds (Adrian and Gabriele 2013).

Thus, how banking funding and financial crises interconnected? It is tough to find a simple answer to this question. Borio (2009) explained that bank funding and financial crises are powerfully interconnected as faintness on the asset side of banks' financial position statement incline to cause funding problems. These funding problems bare increasing difficulties in the value of the principal assets resulting drops in asset prices and further resulting funding liquidity crises and solvency concerns.

Moreover, from the viewpoint of bank funding, banking crises augmented as banks' over confidence on a limited number of sources of financing. Imbalances in the balance sheet may develop into banking crises as the increasing diversification and complexity of funding instruments. According to Adrian and Gabriele:

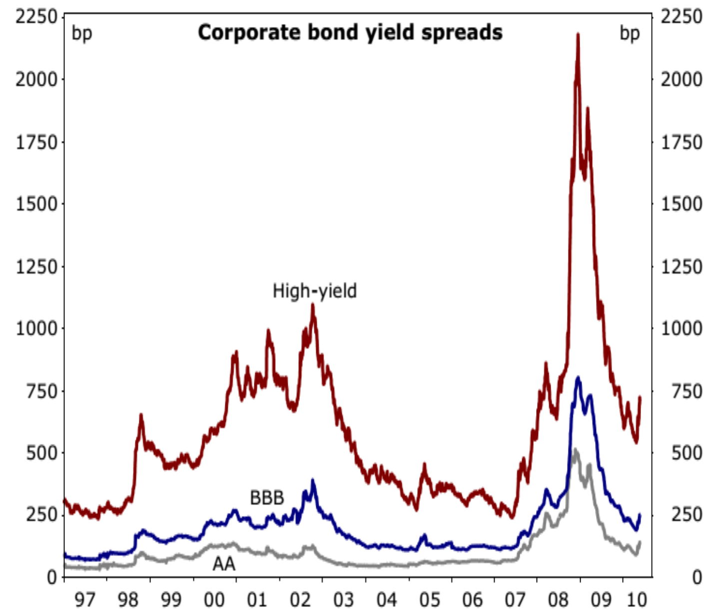
The 2007–09 global banking crisis showed the shortcomings of business models that depended disproportionately on short-term wholesale funding, such as those adopted by Northern Rock in the United Kingdom, Bear Stearns and Lehman Brothers in the United States (2013, p. 9).

B. Risk Taking Behaviour during Global Financial Crises

As the funding behavior of banks changes at the start of and during the period of the global financial crisis, the risk taking the behaviour of banks also changed significantly, particularly liquidity risks. There was a great mismatched between the increase in debt demand the and the increase of bank deposits which bring that banks try to find funds other sources of funds (Norgren 2010).

Also, there was a mismatch between the short-term funding and long-term funds which increasingly built up more liquidity risks. Huang &Ratnovski (2011, p. 259) concluded that "these funds can create significant risks in ''modern" banks that hold mostly arm's length assets with readily available, but noisy, public signals on their values".

The changes in risk-taking behavior were not only limited to banks but also for other financial institutions like hedge funds and venture capitalist increase their leverage in order to increase the return on their capital (Norgren 2010). This was a result of a low-interest rate which made risk adverse investors uncomfortable. This latterly put investors to search for and invest high-risk investments or assets in order to get the higher return.



Source: Reuters Eco win. (Adopted from (Norgren 2010, p. 19))
Figure 2. Low risk premiums, 1997-2010.

Bank Behavior and Financial Market

The recent explanation of the "bank lending channel" focuses on the bank effects of reserve obligations on demand deposits, although no consideration is paid to bank equity, and the bank capital is inferred as an "irrelevant" balance-sheet. However, the link between bank behavior and financial market in these days has increased for the purpose of capital lending and it was newly that bank capital has been taken into account in the situation of the "bank lending channel" bank with weaker capital position greater depends on market founded and non-interest source of income restricted the loan supply.

Essentially, the cooperation between banks and financial market worsens the effect of money related to the economic situation on the incentive structure driving banks. In a precise, there should be stronger monitoring those financial factors that influence monetary transmission mechanism in particular in a period of crisis. The key finding of this strand of writing is that bank capital expands the ability to raise uninsured types of obligation and in this manner banks' capacity to limit the impact of a drop in the deposit on lending. However, bank capital can influence the impact of monetary changes on lending in two ways, both based on adverse selection problem that affects banks fundraising, the bank lending channel which relies on imperfection in the market for bank debt and the bank capital channel which concentrates on an imperfect market for bank equity.

Well-capitalized banks may react less to yield stuns furthermore their benefits could be less touchy to the business cycle, as their portfolio decisions may vary from those taken by less promoted banks. Gambacorta&Mistrulli (2004) stated that to assess the part of capital in bank lending had found that well-capitalized banks can better shield their lending from financial approach stuns. Lending choices of banks in connection to their capitalization are likewise addressed in others studies include (Jiménez et al. 2012), who watch that the worldwide money related emergency adversely influenced the lending action of

banks, particularly those with low capital and liquidity proportions.

Utilizing a disaggregate measure, Jiménez et al. (2012) affirmed that tier 1 bank capital (however not tier 2 bank capital) and retail or client stores decidedly influenced the consistent of lending during the financial crisis. In other words, interest fee cuts amid that the monetary emergency came about a gainful effect on the development of bank lending with no indication of pushing. This demonstrates that there is a nonstandard positive impact on bank lending, primarily through the impact of decreasing financing cost spread. In this regard, the literature indicates that the lending of low-capitalized banks experiences more money related fixing, however, their outcomes are not critical at routine qualities for the fundamental European nations. There is no convincing proof about the impacts of bank capital on the lending behavior in the financial crisis.

II. CONCLUSION

The key goalmouth of this study is to let slip the changes and tendencies of the banking sector behavior during the recent global financial crisis (2007-09). The study reveals that the behavior of banking sector had one of the primary ways and wherefores of recent global financial crisis. The study also revealed that the banking sector had gone through trends of changing behavior. At the center of heart for this study, the study identifies some the criticisms of banking sector since the start of the crisis.

Moreover, the study has identified that banks practice a different behavior in terms of funding and risk taking during the 2007-09 global financial crisis. In terms of bank funding, banking crises augmented as banks' over confidence on a limited number of sources of financing. Banks were only doing to source the fund from the wholesale trading. This brings imbalance in the balance sheet of the banks. In order words, banks were doing long term investments with short term sources of funds which create liquidity risks.

The study also identified that incongruity between the short-term funding and long-term funds had built up more liquidity risks. This brings that banks change their risk-taking behavior and invest high-risk investments to gain a higher return as a result of low-interest rates. Finally, the study looked the bank behavior and found that well-capitalized banks may react less to yield shocks and their profits could be less sensitive to the business fluctuations, as their portfolio decisions may vary from those taken by less promoted banks.

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