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AN OVERVIEW OF THE CURRENT FINANCIAL CRISIS AND ITS IMPACT ON THE SOUTH AFRICAN FINANCIAL SECTOR¹

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THE CURRENT INTERNATIONAL FINANCIAL CRISIS has had a drastic effect on the world economy and affects people all around the globe. This financial and economic crisis has been the worst since the Great Depression in the 1930s and has challenged the orthodox economic thinking of our time. It is now evident that many questionable practices were taking place in the financial system in recent years and all it took was the inevitable bursting of the housing bubble in the United States (US) to trigger a financial crash. Problems in the US credit market spread through both local and foreign banks that invested in the now worthless securitised mortgages (“toxic assets”). They either were forced into bankruptcy, mergers with bigger banks or sought central bank aid to survive. Panic set in, and soon even healthy banks were under pressure as financial institutions, distrustful of the solvency of each other, were reluctant to participate in normal day-to-day inter-bank transactions. It was inevitable that a financial crisis of this magnitude would spread to the real economy. With financial markets unable to perform adequately, economic activity drastically dropped as funds could no longer be channelled to productive investment opportunities.

It was initially thought that the developing world would be largely unaffected by the crisis due to its less sophisticated financial sector and therefore the non-presence of the “toxic assets” afflicting banks in developed countries. This however has not been the case. In South Africa the financial crisis soon impacted severely on a number of sectors, especially the export-oriented sectors (mining and manufacturing) and the economy is currently in a recession (South African Reserve Bank, 2009). However, the cause of the recession in South Africa is more to do with the indirect effects of falling world demand and the near collapse of global trade than with direct problems in the financial sector.

This poses the question: why has South Africa, with a relatively sophisticated financial system and which was experiencing a property boom much like the US, been able to escape the direct effects of the crisis? This research is aimed to answer this question by examining South Africa’s financial sector. What follows in section 1 is an examination of existing literature which highlights the effect the crisis has had on South Africa, and on similar developing countries. In order to understand how the crisis got so bad in the developed world, section 2 lays down the widely accepted explanation of the events that caused the crisis in the US. Section 3 provides the research method of the paper. Section 4 explains why the South African financial sector could have been vulnerable to the financial crisis and section 5 explains why despite this it has been largely insulated from the problems experienced in developed countries financial sectors. Lastly, section 6 provides some concluding thoughts as well as limitations of the research. This research is important because it aids the understanding of a very complex topic and will help to understand how the South African financial sector had remained strong in the face of highly adverse global conditions and how in the light of recent global experience the regulatory aspect can be improved still further.

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1. REVIEW OF LITERATURE ON THE EFFECTS OF THE CRISIS ON THE FINANCIAL SECTORS OF DEVELOPING COUNTRIES AND SOUTH AFRICA

A number of organisations and authors have examined the effect that the crisis has had on developing countries and they have generally found similar results. The Overseas Development Institute (ODI, 2009) examined the effect that the crisis has had on Benin, Ghana, Kenya, Nigeria, Uganda, Zambia, Bolivia, Bangladesh, Indonesia and Cambodia. The countries were examined by forty Overseas Development Institute researchers and the study looked at the main transmission belts (trade, private capital flows, remittances, aid) through which the crisis has affected developing countries (ODI, 2009). It is however, the findings with regard to the financial sector of these economies, which are pertinent to this literature review. It was found that the different types of private financial institutions have been affected differently. There was a large fall in Portfolio investment in 2008 in most countries (ODI, 2009). In some cases, there was a change to large net capital outflows and a considerable fall in equity markets in 2008 and into 2009. Evidence was found of increased tightening credit conditions for bank lending in three of the countries (ODI, 2009). It was found that Foreign Direct Investment (FDI) has been affected less, but this depends on the country. FDI fell during 2008, and there was a clear deterioration in comparison to record increases experienced in Africa in the previous two years (ODI, 2009). There was however little discussion in this study on the effect that the crisis had on the banking sectors of the countries studied.

McCarthy (2009) studied the impact that the crisis has had on Sub-Saharan economies. McCarthy (2009) believes the financial crisis has decreased lending to Sub-Saharan economies and this is harming the countries because they depend on foreign resources to maintain macroeconomic stability and fund investment driven economic growth. The findings were generally similar to that of the ODI, however it is stated that while falls in portfolio investment were not important for most Sub-Saharan economies, their decline could be a significant factor for South Africa. In addition, McCarthy (2009) specifically mentioned that the crisis is adversely affecting commercial lending and notably trade finance. The credit crunch is placing large restraints on global trade flows, which is reducing the amount of trade and decreasing economic growth in export-oriented economies like South Africa.

Kohr (2009) believes that developing countries are feeling the effect of the global financial and economic crisis through two mechanisms, trade and finance. In terms of finance, developing countries have been experiencing a rapid decline of bank loans, and he warns that firms in developing countries may not easily be able to rollover the many hundreds of billions of dollars of foreign loans falling due in 2009. In addition, as was argued by the ODI, portfolio investment into developing countries has reversed, resulting in some countries in unexpected large capital outflows. Net capital flows to emerging markets fell from \$929 billion to \$466 billion between 2007 and 2008 and are expected to fall further to \$165 billion in 2009 (Kohr, 2009). In addition, Kohr (2009) states that FDI is swiftly declining due to problems in accessing credit and a fall in economic growth. Lastly, financing trade has also been hit by risk aversion due to the crisis, and is placing pressure on trade flows.

The African Development Bank Group (2009) released a working paper on the effect the crisis has had on African countries. It states that African financial systems are generally undeveloped and are dominated by the banking sector. African financial institutions conduct few off-balance sheet operations and therefore there is little associated risk, which is why African banking sectors have been largely unaffected (African Development Bank Group, 2009). However, for Egypt and Nigeria, two of Africa's more liquid financial markets, the contagion effects were enlarged by over-valuation of stock prices and limited diversification of stocks before the crisis (African Development Bank Group, 2009).

While much has been written about the effect the financial crisis has had on developing countries and on Africa, little has been said on how it has specifically affected the South African financial sector. However, the South African Reserve Bank (SARB) published a Financial Stability Report in March 2009, the objective of which is to help promote a stable

financial sector in this country. The report states that the South African financial sector has decreased in size and investor confidence has dropped since the start of the financial crisis (South African Reserve Bank, 2009). It concludes that this country's banks have largely weathered the storm of the financial crisis due to little excessive risk taking, their use of a relatively conservative banking model, upholding high levels of capital, using relatively high lending standards, and having limited activity outside of this continent (South African Reserve Bank, 2009). However, it acknowledges that banking activity in South Africa has decreased since the onset of the crisis

2. AN OVERVIEW OF THE CAUSES OF THE INTERNATIONAL FINANCIAL CRISIS

(a) Macroeconomic Overview

In order to understand the breakdown that occurred in the banking and equity markets in the US, it is important to understand the global macroeconomic climate that existed prior to the crisis. The financial regime that existed at the time of the crisis had been in place since the mid-1970s, and was based on neo-liberal principles. Neo-liberalism supported the view that governments should liberalise, privatise, and deregulate markets (Wade, 2008: 5). Since 1970 and especially 2000, there has been a steady decline in the performance of the most important players (the US, Japan and Germany) in the world economy (Brenner, 2009: 1). For most of this time, the US has been spending beyond its means in an attempt to maintain economic growth. This resulted in a huge current account deficit, which was allowed to persist by investment in dollar-based securities by high saving countries, most notably Japan and China (Murphy, 2006: 39). There have always been warnings of the perils of continuous deficits, however the neoliberal capitalist framework allowed these deficits to continue, leading to a series of unsustainable asset price bubbles.

The real estate bubble that had been expanding for ten years and which set off the crisis, should be recognized in terms of the succession of asset price bubbles that occurred in the 1990s. According to Brenner (2009: 2), since the 1970s there has been insufficient aggregate demand, and during this time state authorities have tried to deal with this problem by increasing public then private borrowing. By the beginning of the 1990s, governments in the US and Europe attempted to decrease public debt; however what resulted was an increase in private deficits (Brenner, 2009: 2). The result has been the emergence of a world economy, which has been dependant upon state nurtured bubbles, which ultimately burst. According to Wade (2008: 7) after the crises that occurred in East Asia in the late 1990s, there was debate about the need for a 'new financial architecture' to replace neoliberalism. However when it was apparent that the US and Europe would not be affected by the crises, the debate faded away (Wade, 2008: 7). If those in positions to do something had heeded the warning of the East Asian Crises, steps could have been taken to prevent many of the events that led to the housing bubble, its bursting, and the resulting financial crisis, discussed below.

(b) Securitisation and Subprime bonds

As stated above, in the relative short term, the root of the financial crisis was in the real estate market. This had been the case in previous credit crunches, such as in the US in 1990-1992 and the Japanese banking crisis in 1990-1999. However, in this case one big difference is securitisation (Udell, 2009: 117). Securitisation involves the grouping together of residential mortgages into pools against which securities (called mortgage backed securities) are issued into the public bond market (Udell, 2009: 118). These securities can then be cut up into different groups based on their maturity or credit quality, making the asset liquid. This innovation lowered mortgage rates to a level below what would have otherwise been possible and by moving securitised mortgages from banks balance sheets, enabled mortgage lending on a scale, which would otherwise have not been possible.

The next development, the subprime mortgage, turned out to be a disaster. A subprime mortgage is any "mortgage that is issued to a borrower who has a weaker credit profile than a prime borrower" (Udell, 2009: 118). In the new millennium, there was a dramatic increase

in the amount of sub-prime loans with adjustable mortgage rates, where there would be an artificially low fixed rate for the first two or three years, after which the rate jumped and became tied to a fixed index (Ashcraft & Scheurmann, 2008: 5). These mortgages encouraged people who could not really afford to take out mortgages to do so due to the low short-term interest rates. Because subprime mortgages were of low quality, as the second part of the decade came, many borrowers who took these loans started to default on their payments.

(c) Rating Agencies

A small number of rating agencies (i.e. Standard and Poor's, Moody's, and Fitch) rate most complex financial instruments. These agencies played a very important role, as their ratings determine the risk weighting of a large range of assets on banks' balance sheets.

Rating agencies face the problem of asymmetric information. In this case, they are unable to ascertain all the information related to complex financial instruments as this information was only known by the originators of the underlying loan and the borrowers (Buiter, 2008: 8). In addition, there are difficulties arising from rating complex structures, which are created by grouping assets together, cutting up the assets and combining these cut up parts to form new complex assets (Buiter, 2008: 8).

Another problem related to rating agencies is that they only measure default risk. Even without default risk, market risk or price risk can be substantial (Buiter, 2008: 9). For example, liquidity risk is a source of price risk and so long as liquidity risk does not change into insolvency risk, this risk is not reflected in the rating provided by the agencies (Buiter, 2008: 9). This resulted in many buyers of securitised loans misunderstanding the ratings given to assets.

A third aspect confounding the problem associated with rating agencies is that they have multiple conflicts of interest. According to Buiter (2008: 9), these agencies are the only example of an industry in which the appraiser is paid by the seller instead of the buyer, even though it is the buyer who will make more use of the information and has the greater lack of information. In addition, the agencies sell many products, which provide advisory and consulting services to the same customers to whom they sell the ratings. This may even consist of providing advice to a client on how to construct and structure a security so as to obtain the highest possible rating, and then later rate the security themselves (Buiter, 2008: 9). Moreover, the complex nature of some of the structured financial instruments, which they have to evaluate, makes them impossible to understand without working very closely with the designers of the structured products (Buiter, 2008: 9). Often the models, which are created to analyse the default risk of a product, will be models that are designed by the clients.

All of the points that are raised above show that ratings given by rating agencies cannot be fully trusted and that investors' large, almost complete, reliance on ratings is somewhat misplaced. Indeed in this situation, the rating agencies gave a high a rating to subprime mortgage backed securities despite their low quality and investors (including foreign banks) bought them thinking their risk was low.

(d) Marked-to-market Valuation and Basel Capital Adequacy Requirements

According to Buiter (2008: 11) leverage is strongly procyclical in nature for financial intermediaries that operate mainly through the capital markets. Assets, which are valued at a marked-to-market basis means, have to be valued at the price that would be received for them if they were sold immediately. Therefore, after the market for subprime bonds had dried up financial intermediaries had to give them a value of close to zero on their balance sheets. This would lead to changes in net worth due to changes in the prices of assets and leverage would therefore be countercyclical and systematically destabilising (Buiter, 2008: 11).

Basel capital adequacy requirements increased the problem of the procyclical behaviour of leverage. Banks were required to hold a specific minimum proportion of their risk weighed assets as capital (Buiter, 2008: 11). As a result, banks can hold a smaller stock of assets when an economy is booming than when it is slumping, which reinforces the

procyclical behaviour of leverage (Buiter, 2008: 11). Marked-to-market valuation and Basel capital adequacy requirements contributed to banks such as Lehman Brothers filing for bankruptcy in September 2008.

(e) More on Basel II

As early as 2001, Danielsson *et al.* were sounding warnings about the Basel II accord. In their view, Basel II (at the time proposal) was unable to address many important problems in the international regulatory system and even could create new problems (Danielsson *et al.*, 2001: 4). It was highlighted that Basel II regulations do not take into account the fact that risk is endogenous and that Value-at-Risk can destabilise an economy and result in otherwise preventable crashes (Danielsson *et al.*, 2001: 3). In addition, the econometric models, which are utilised to predict risk, give results, which underestimate risk and are inconsistent. This underestimation of risk became evident with the onset of the current crisis. Rating agencies again were given too much importance by Basel II. It gave a large reliance on rating agencies for the standard approach to credit risk, which as discussed earlier was not a good idea (Danielsson *et al.*, 2001: 3). Rating agencies were unregulated and the quality of the ratings they give is generally unobservable. Moreover, Basel II did not take into account that modelling operational risk is impossible given the availability of current technology and resources (Danielsson *et al.*, 2001: 3). Again, it was argued that financial regulation is inherently procyclical in nature. Danielsson *et al.* (2001:4) argued even at this early stage of Basel II that it would in fact increase the probability of a systemic crisis, not prevent it.

(f) Financial Sector Reward Structures

The presence of asymmetric information in the banking system leads to the principal-agent problem. The principal-agent problem arises because managers of financial institutions (the agents) may act in their own interests instead of the interest of the stockholders/owners (the principals) because the managers have different incentives than the stockholders/owners (Mishkin, 2007: 192). In the US financial sector, the existence of especially large bonuses which provide perverse incentives towards excessive risk taking (Buiter, 2008: 11). These bonuses encourage managers to make decisions, which are driven by short-term personal gain as opposed to the long-term well being of the firm. The principal agent problem in the financial sector is an example of moral hazard and results from asymmetric information.

(g) Global Deregulation

As stated earlier, deregulation in all markets including financial markets is an important part of the Neo-Liberal capitalist framework in place at the time of the financial crisis. According to Buiter (2008: 14), the main problem relating to regulation is the spatial nature of financial markets. This is because regulations are enforced on a national basis but financial markets are not bound by national borders. Deregulation normally results in thriving financial sector, which creates jobs and wealth and encourages investments (Buiter, 2008: 14). Regulators therefore try to set less restrictive regulations to attract more financial businesses to their jurisdiction, which has resulted in less stringent regulations being employed almost everywhere (Buiter, 2008: 14). According to Udell (2009: 120), the main change in deregulation in the US was the repeal of the Glass-Steagall Act of 1933, which had separated commercial banking from investment banking. The Graham-Leach-Bliley Act of 1999 allowed combining these two aspects to create “universal banks” which were potentially less risky than stand-alone commercial or investment banks. It is now generally accepted that this deregulation actually increased risk and helped cause the current financial crisis.

(h) Banks and Liquidity Creation

Once uncertainty arose in the US financial sector many depositors who were unsure about how safe their money was in banks attempted to withdraw their money. The Diamond-Dybvig model is very useful in understanding this phenomenon. This model shows how a mismatch of liquidity can lead to runs on banks, as was the case in this crisis. According to Diamond and Dybvig, banks make loans, which cannot be sold quickly at a high price at the same time as taking short-term deposits, which allow withdrawals to be taken out at anytime

(Diamond, 2007: 189). This means that if a situation arises when a lot of depositors all attempt to withdraw at once, as was the case in 2008 when the public lost their faith in banks, bank runs can occur (Diamond, 2007: 199). The presence of asymmetric information in the banking sector leads to depositors not knowing the state of their banks' balance sheet and therefore fearing the worst, trying to withdraw all their money (Mishkin, 2007: 207). This can lead to bank panic in which even healthy banks go under because fear of losing deposits has caused mass withdrawals to spread from bank to bank. The failure of a large number of banks in a small time period means that there is a further loss of information availability in financial markets and a direct loss of banks' financial intermediation (Mishkin, 2007: 207). In addition, during this time interest rates generally rise which increases adverse selection and moral hazard in credit markets, which leads to an even greater decrease in lending and economic activity (Mishkin, 2007: 207). These are events, which occurred roughly a year ago in financial sectors around the world.

3. METHOD OF RESEARCH

Having discussed what caused the financial crisis, which evolved in the US, it will be easier to examine how the financial crisis affected South Africa's financial sector. This paper assesses trends, which have occurred in the South African financial sector in order to understand two issues. Firstly, how South Africa's financial sector could have been vulnerable to financial crisis similar to that recently experienced by much of the developed world. Secondly, while despite being comparatively well developed, South Africa's financial sector has managed to escape relatively unscathed.

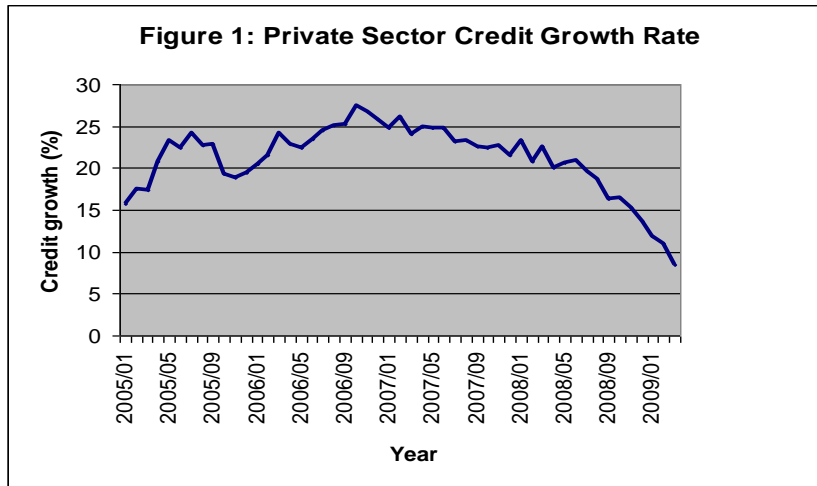
In order to do this data has been collected from a number of sources. Firstly, time series data was collected from the SARB's Quarterly Bulletin of Statistics. Data from the SARB's Quarterly Bulletin of Statistics was collected from between as far back as 1998 and 2009 in order to understand trends that have been occurring. In addition, data from the 2008 (published in 2009) Bank Supervision Report of the SARB's the Bank Supervision Department was used to examine South Africa's banking sector. Data from ABSA's (2009) quarterly Housing Review was also used to examine what has been happening in South Africa's real estate sector. The Ernst & Young Financial Sector Confidence Index was also used to help understand developments in the financial sector. The Last source of data used in this paper was found in International Monetary Fund publications. Data from all of these sources was used as indicators of the state of South Africa's financial sector.

4. AN EXAMINATION OF WHY SOUTH AFRICA'S FINANCIAL SECTOR MAY HAVE BEEN VULNERABLE TO A FINANCIAL CRISIS

The following section looks at why the South African financial sector could have been vulnerable to a financial crisis, and then section 4 examines why the South African financial sector was able to escape relatively unscathed.

(a) South Africa's Lending Boom

In the period leading up to the international financial crisis, South Africa was experiencing a lending boom in which credit was relatively easy to find for potential borrowers. This was also the case in the US in the period leading up to the crisis, as well as in all the emerging economies, which experienced financial crises in the 1990s (Mishkin, 1999: 11). According to the SARB (2009), total amount of credit extended to the private sector roughly doubled between the beginning of 2005 and mid-2008. In addition, as shown in figure 1, the total amount of credit extended to the private sector increased from about 15% in 2005 to just over 26% in early 2007. According to Mishkin (1999, 13) lending booms are common in economies before they experience financial crises. This is usually because along with increased lending comes increased risk taking. Indeed excessive risk taking was occurring in the US in the period leading up to the crisis, partly due to deregulation and partly because financial sector reward structures were encouraging moral hazard problems.



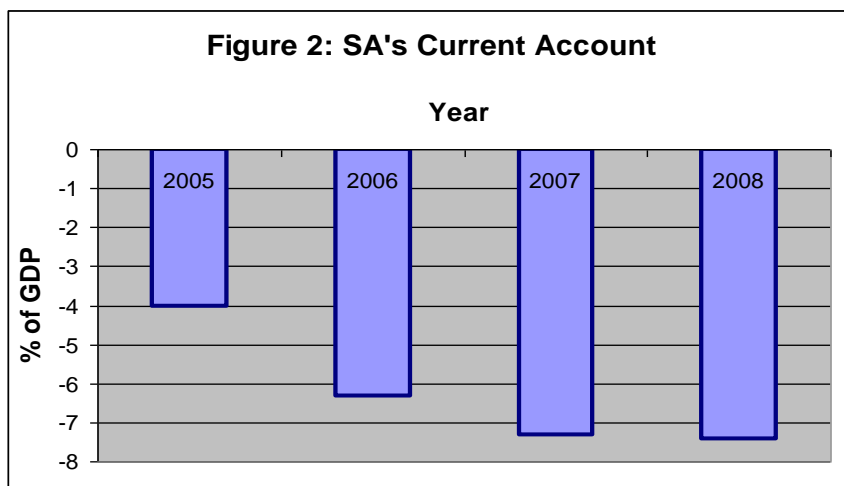
(Data Source: SARB Quarterly Bulletin of Statistics, 2005-2009)

(b) The existence of a Housing Boom

As discussed earlier, the US had a boom in the housing sector in the period leading up to the crisis. The falling of housing prices was an important catalyst in creating the crisis. South Africa had also experienced a very rapid rise in housing prices. According to ABSA's quarterly Housing Review the real prices of houses increased by an average of 18,5% on an annual year-on-year basis between 2003 and 2006, then slowed slightly in 2007, and then decreased by 7% in 2008 (ABSA, 2009: 7). In addition, mortgage advances increased steadily between 2003 and 2008, reaching a peak increase of 30,4% in 2006 (ABSA, 2009: 7). Furthermore household debt to disposable income increased from 52,4% in 2003 to over 70% between 2006 and 2008 (ABSA, 2009: 7). This appears to be a similar situation to that of the US before it experienced its crisis where rising house prices made people believe that they had experienced an increase in wealth, which encouraged household to borrow more and experience a larger proportion of debt to disposable income.

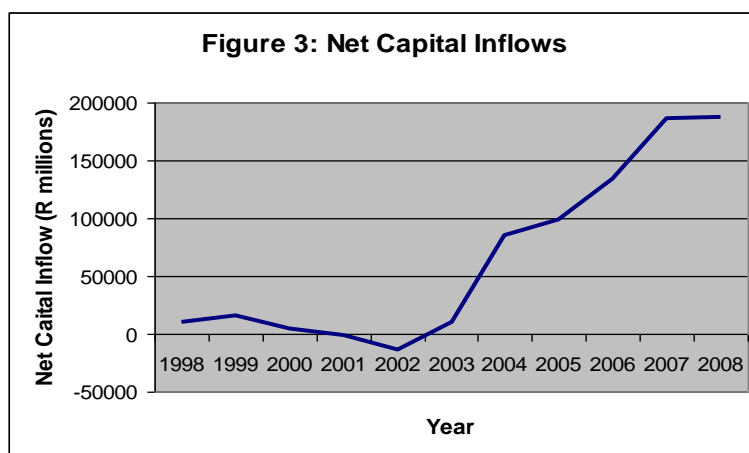
(c) Current Account Deficits and Capital Inflows

South Africa also had a large current account deficit (exported goods and services minus imported goods and services) in the period before the international crisis as can be seen in figure 3. An important aspect of the US economy is that in the last few decades it has been experiencing persistent large current account deficits, which have been viewed as potentially harmful. In addition, Mishkin's (1999: 10) study of the financial crises in the developing economies of East Asia and Mexico in the 1990s, shows that the crisis countries did have, for the most part, significant current account deficits between 3% and 8% of GDP. Figure 2 shows that South Africa's current account deficit as a percentage of GDP was about 4% in 2005, 6% in 2006 and over 7% in 2007 and 2008.



(Data Source: International Monetary Fund, 2009)

In addition to current account deficits, South Africa was experiencing large amounts of capital inflows prior to the international financial crisis. Again, this is consistent with both the US before its recent financial crisis and the developing economies crises of the 1990s. Figure 3 shows the net capital inflows for South Africa and this graph shows that capital inflows were relatively insignificant up until the end of 2003 after which they increased rapidly. By 2007 net capital inflows were R186,216 million, which is relatively high at about 9% of the GDP at the time.



(Data Source: SARB Quarterly Bulletin of Statistics, 1998-2008)

Large capital inflows can be dangerous in times of financial uncertainty because if investors lose confidence in the country, there can be a large reversal and capital will flow out of the country causing the financial system to crash.

(d) Uncertainty about the Financial System

The last factor, which made South Africa's financial sector vulnerable, was the level of uncertainty and lack of confidence in the economy in the recent past. The Ernst & Young Financial Sector Confidence Index is a useful measure of the level of confidence in the South African economy. It measures financial sector confidence by using an unweighted average of confidence in retail banking, investment banking, investment management and life insurance (Ernst & Young, 2009: 6). The Ernst & Young Financial Sector Confidence Index is compiled by questioning a selected range of businesses on how confident they are on prevailing financial and business conditions, with 0 showing an extreme lack in confidence and 100 showing extreme confidence. In the period leading up to the international financial

crisis, the Ernst & Young Financial Sector Confidence Index was relatively high, at a range between 90 and 100 from the beginning of 2004 until the end of 2007, which showed a high level of confidence (Ernst & Young, 2009: 12). It then fell throughout 2008, reaching a level of 47 and 40 in the last quarter on 2008 and the first quarter of 2009 respectively (Ernst & Young, 2009: 12). A striking decrease in confidence and increase in uncertainty increases the likelihood of a financial crash because it increases the difficulty lenders face to screen out good credit risks from bad ones due to asymmetric information (Mishkin, 1999: 8). Due to this lessened ability of financial institutions to solve the problems of adverse selection and moral hazard, they reduce their lending which leads to a reduction in investment and aggregate economic activity. Uncertainty and eventually panic, played a devastating role in the financial crisis in the US and other developed countries, and indeed uncertainty and a lack of confidence certainly crept its way into the South African Market.

5. AN EXAMINATION OF WHY SOUTH AFRICA'S FINANCIAL SECTOR MANAGED TO ESCAPE RELATIVELY UNSCATED

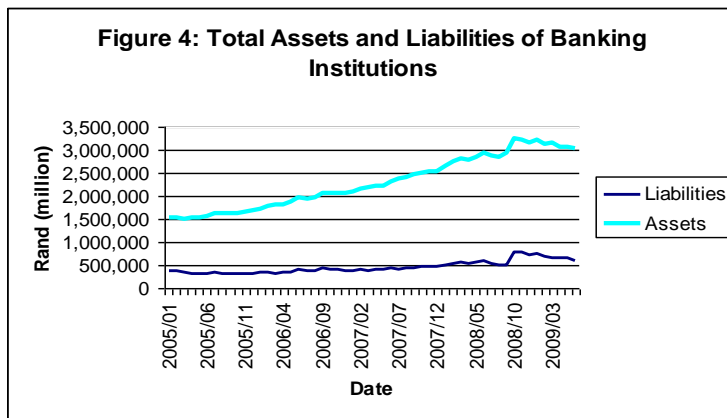
As discussed above, the South African economy had a number of factors, which could have made it susceptible to a financial crisis similar to that experienced in the US and much of the developed world. However, South Africa did not participate as much in the financial liberalisation, which had taken place across most places in the world. At the core of the financial sector is the banking sector, and the South African banking sector weathered the storm due to stricter regulation and exchange controls. The factors, which allowed the relatively well-developed financial sector to remain somewhat unharmed, are discussed below.

(a) Regulations and the Banking Sector

As discussed earlier, the Basel II regulatory framework has been criticised because it is procyclical nature. However, it also had a number of useful regulatory aspects, which helped South Africa's banks when they adopted it in the beginning of 2008. Under Basel II, banks had to perform an internal capital-adequacy assessment and the SARB had to review and evaluate banks as part of its supervision (Bank Supervision Department, 2009: 20). This allowed South Africa's banks to remain well capitalised throughout the period of the international crisis. Before Basel II was implemented, there was already in place a system for stress testing in order to effectively manage risk. However with the implementation of Basel II banks had to formally adopt stress testing so as to increase sensitivity and scenario analysis so as to cover individual risk areas as well as the bank as a whole (Bank Supervision Department, 2009: 32). Stress testing improved the soundness of financial institutions in South Africa and reduced their risk of being susceptible to a financial crisis. In addition to general banking regulations, South Africa also had exchange controls, which limited the effect the crisis had. Exchange controls limited the amount of off-balance sheet activities of financial institutions making them less exposed to the harmful impact that toxic assets had on financial institutions in much of the developed world.

(b) Capital Adequacy and Profitability

The South African banking system was subjected to prudent regulations and therefore remained adequately capitalised and profitable though the international financial crisis period. The capital-adequacy ratio of the banking sector actually increased from 11,8% in the beginning of 2008 to 13 % at the end of the year, and the tier 1 capital-adequacy ratio increased from 8,9% at the end of 2008 to 10,2% at the end of the year (Bank Supervision Department, 2009: 1). Figure 4 below shows that both assets and liabilities grew throughout 2007 and 2008, with both experiencing a sudden increase towards the end of 2008 and then slowly decreasing afterwards. The banking sector also remained profitable, with the return on equity ratio increasing from 24,1% to 28,7% and the return on asset ratio increasing 1,39% to 1,62% throughout 2008 (Bank Supervision Department, 2009: 59).



(Data Source: SARB Quarterly Bulletin of Statistics, 2005-2009)

(c) Securitisation

As discussed earlier in this paper, securitisation played an important role in the international financial crisis because it complicated the nature of securitised assets and made it very hard to determine their quality. The Bank Supervision Department of SARB (2009: 4) undertook an independent review of the securitisation schemes which South African banks were involved with. The findings were that in this country securitisation schemes were significantly less complicated compared to those being adopted in the US and Europe and therefore the assets housed in South African Securitised assets were a lot more transparent (Bank Supervision Department, 2009: 4). In addition, assets involved in these schemes underwent credit approval processes akin to those applied to banks' own credit exposures. Furthermore, securitisation was not an important source of funding, with only 4% of funding being generated by top-tier South African Banks (Bank Supervision Department, 2009: 5). Because of this, South African financial institutions did not face the same experiences as those in the US, which invested highly in securitised assets, which were given high ratings by rating agencies because they were unable to determine the true value of the asset.

(d) Credit Risk and Impaired assets

Credit risk was an important indicator of financial instability during the financial crisis. Impaired advances places pressure on banks as they are loans on which the borrower has defaulted payment. During the course of 2008 total impaired advances increased from R47,6 billion to R87,3 billion, which is a 83,4% increase for the period (Bank Supervision Department, 2009: 66). There was an increase in the ratio of impaired advances to gross loans and advances during 2008 from 2,3% to 3,8% (Bank Supervision Department, 2009: 66). As was the case in the US, a significant part of these impaired advances occurred in the housing sector and, in particular, mortgage loans, however to a lesser extent in South Africa. Figure 6 below shows that the total amount of outstanding mortgage loans increased leading up to the crisis. The large increase in impaired assets and outstanding loans place strains on bank's balance sheets and capital requirements however, as discussed above banks managed to maintain satisfactory capital adequacy ratios.

6. CONCLUDING REMARKS

In synthesis of the above discussion, the current international financial crisis has left in its wake a great deal of destruction in financial and economic markets. Although the crisis originated in the US, it soon spread through much of the developed and developing world, drastically changing the current economic climate. The South African economy has a relatively sophisticated financial sector and was experiencing many of the same symptoms, which the US and other countries have had before they faced financial crises. Therefore, despite South Africa being largely shielded from the direct effects of the crisis, this relative

success should not stop both lessons from the international crisis being learned as well as analysing why the South African financial sector remained largely unscathed.

After studying the international story, the South African financial sector was examined and it was found that effective regulation, supervision and the presence of exchange controls were responsible for saving the financial system. South Africa's banking sector, at the core of the financial sector, was well regulated and supervised by the SARB, and therefore managed to remain a sound position throughout the international crisis.

A useful deduction from this to bear in mind is therefore that the orthodox neo-liberal macroeconomic system encouraging liberalising and deregulating markets seems to have been a root cause of the crisis. Most economists supported neo-liberalisation and would have criticised South Africa for having exchange controls and a high degree of regulation in its financial market, however it was these very mechanisms, which have prevented South Africa from going down with the ship as so many have. Therefore one of the most important aspects which needs to be considered is the role regulation needs to play in preventing a crisis like this from taking place in the future.

REFERENCES

- ABSA, 2009. *Housing Review: 1st Quarter 2009*. [online]. Available: <http://www.absa.co.za/absacoza/content.jsp?/Home/News-&Market-Information/Absa-Publications/Economic-Research/Property-Research>. [Accessed 1 September 2009].
- AFRICAN DEVELOPMENT BANK GROUP, 2009. *The Impact of the Global Financial and Economic Crisis on Africa*. [online]. Available: <http://www.afdb.org/en/topics-sectors/topics/financial-crisis/>. [Accessed 1 September 2009].
- BANK SUPERVISION DEPARTMENT (SARB), 2009. *Bank Supervision Report 2008*. Pretoria: South African Reserve Bank.
- ASHCRAFT, A. B., & SCHUERMAN, T. 2008. *Understanding the securitization of the subprime mortgage credit*, Philadelphia: Wharton Financial Institutions Centre.
- BRENNER, R., P., 2009. *Robert P. Brenner on the Crisis-Interview by Seongjin Jeong in The Hankyoreh*. [online]. Available: <http://brechtforum.org/robert-p-brenner-crisis>. [Accessed 12 August 2009].
- BUITER, W., 2008. *Lessons from the North Atlantic financial crisis*. The Role of Money Markets Conference, 29-30 May. Jointly organised by Colombia Business School and The Federal Reserve Bank of New York.
- DANIELSSON, J., EMBRECHTS, P., GOODHART, C., KEATING, C., MUENNICH, F., RENAULT, O., SHIN, S.S., 2001. An Academic Response to Basel II. *Financial Markets Group Special Paper*. No. 130.
- DIAMOND, D.W., 2007. Banks and Liquidity Creation: A Simple Exposition of the Diamond-Dybvig Model. *Federal Reserve Bank of Richmond Economic Quarterly*. 97, 2: 189-200.
- ERNST & YOUNG, 2009. *The Ernst & Young Financial Services Index: 2nd Quarter 2009*. [online]. Available: http://www.ber.ac.za/runtime/popcontentrun.aspx?PageIDRef=1824&documenttype=Ernst_and_Young_Financial_Services_Index. [Accessed 3 September 2009].
- KOHR, M., 2009. South's View on the Economics Crisis and Required Global Reform. *South Centre Bulletin*. April, 35: 2-11.
- INTERNATIONAL MONETARY FUND, 2009. *World Economic Outlook Database*. Washington DC.
- MCCARTHY, C., 2009. *The Global Financial and Economic Crisis and its Impact on Sub-Saharan Economies*. [online]. Available: http://www.tralac.org/cause_data/images/1694/TB012009GlobalCrisis20090401Fin.pdf. [Accessed 2 August 2009].
- MISHKIN, F. S., 1999. Global Financial Instability: Framework, Events, Issues. *Journal of Economic Perspectives* 13, 4: 3-20.
- MISHKIN, F. S., 2007. *The economics of Money, Banking and Financial Markets* (8e) Harlow, England: Addison-Wesley.

- MURPHEY, R., T., 2006. East Asia's Dollars. *New Left Review*. 40, July-August: 39-64.
- ODI, 2009. *The Global Financial crisis and Developing Countries*. [online]. Available: <http://www.odi.org.uk/resources/odi-working-papers.asp>. [Accessed 2 August 2009].
- ROMER, C.D., 2009. *Lessons from the Great Depression for Economic Recovery in 2009*. Brookings Institutions Conference, 9 March, Washington D.C..
- SOUTH AFRICAN RESERVE BANK, 1998-2009. *Quarterly Bulletin of Statistics*. Pretoria: South African Reserve Bank.
- SOUTH AFRICAN RESERVE BANK, 2009. *Financial Stability Review, March 2009*. [online]. Available: [http://www.reservebank.co.za/internet/Publication.nsf/LADV/C3918B0BE1201471422575AE002AED88/\\$File/FSR+March+2009+full+document.pdf](http://www.reservebank.co.za/internet/Publication.nsf/LADV/C3918B0BE1201471422575AE002AED88/$File/FSR+March+2009+full+document.pdf). [Accessed 12 August 2009].
- UDELL, G., 2009. Wall Street, Main Street, and a credit crunch: Thoughts on the current financial crisis. *Business Horizons*, 52: 117-125.
- WADE, R., 2008. Financial Regime Change. *New Left Review*. 53, September-October: 5-21.