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IMPLICATIONS OF THE GLOBAL FINANCIAL CRISIS FOR FINANCIAL REGULATION IN SOUTH AFRICA

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by

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under the supervision

of

Professor C van Heerden

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Abstract

The Global Financial Crisis occurred in 2008, and although a large number of regulations have been put in place since then, a future global financial crisis is possible due to the cyclical nature of markets, which will have an effect on South Africa. I address the causes of the 2008 Global Financial Crisis, which occurred amongst other reasons due to a credit bubble that manifested itself through the real estate market in the United States. It occurred because of rapid financial innovation, too little regulation, and a deterioration in lending standards, causing a boom or rapid expansion in the worldwide credit market.

Subsequent regulatory reform to curb this lending has been enacted in order to limit future risk. These are the international standards of Basel III, the United States Dodd-Frank Act, and the recent Financial Services Regulation Act in South Africa, which aims to identify and stringently regulate “Too Big To Fail” financial institutions in the context of the new South African Twin Peaks approach that seeks to preserve and strengthen financial stability, safety and soundness and market discipline within South African financial institutions.

The South African financial system was partly protected from the fallout of the crisis due to the implementation of the National Credit Act prior to the crisis which reigned in the extension of reckless credit, ring fenced banks, and regulate the exposure to foreign assets as well as conservative and prudent management at South African banks.

It is envisaged that the implementation of new legislation in South Africa, such as the Financial Sector Regulation Act, will ensure additional resilience to the South African financial system to withstand financial problems. These financial problems are looming on the horizon: another credit bubble with global repercussions is possible because the free market system remains prone to crisis, and large mountains of nonperforming loans still exist throughout the developed world, as well as a huge amount of debt and structural problems in the Chinese real estate market.

However stronger regulation and supervision aimed at problems with underwriting practices and lenders' risk management has been implemented in many economies of the world including South Africa subsequent to the 2008 Global Financial Crisis in order to better protect the global economy against such a crisis, ensuring the future resilience of financial systems.

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Quotations

"…when experience is not retained, as among savages, infancy is perpetual. Those who cannot remember the past are condemned to repeat it."[1]

"We had been on the brink, but we had not fallen."[2]

"The legitimate object of government is to do for the people what needs to be done, but which they cannot, by individual effort, do at all, or do so well, for themselves."[3]

"It ain't what you know that gets you in trouble; it's what you know for sure that just isn't so."[4]

"… the best response to the housing bubble would have been regulatory, not monetary. Stronger regulation and supervision aimed at problems with underwriting practices and lenders' risk management would have been a more effective and surgical approach to constraining the housing bubble than a general increase in interest rates."[5]

[1] Santayana G *The Life of Reason* (1905) 92.
[2] Paulson HM *Inside the race to stop the collapse of the global financial system* September (2013) Grand Central Publishing New York 434.
[3] Basher RP (ed) *The Collected Works of Abraham Lincoln* Volume II "Fragment on Government" (1854) Abraham Lincoln Association Springfield Illinois 221.
[4] McKay A *The Big Short* (2015) based on Lewis M *The Big Short: Inside the Doomsday Machine* (2010) WW Norton & Company New York about the financial crisis of 2007-2008, and also based on Sorkin AR *Too Big to Fail: The Inside Story of How Wall Street and Washington Fought to Save the Financial System* (2009) Viking Press New York.
[5] Bernanke B former Chairman of the Federal Reserve "Monetary Policy and the Housing Bubble" a speech given at the annual meeting of the American Economic Association in Atlanta Georgia 3 January 2010.

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I am profoundly grateful for Professor Corlia van Heerden's assistance in broadening my view and understanding in the field of banking and bankruptcy and for allowing me to research this fascinating topic.

Abbreviations, acronyms and definitions

D-SIBs	Domestic Systemically Important Banks of a specific country.
EU	European Union, a bloc of 12 European nations.
FSB	Financial Stability Board, an international body that monitors and makes recommendations about the global financial system.
FSCA	Financial Sector Conduct Authority.
FSOC	Financial Stability Oversight Committee.
GDP	Gross Domestic Product is a monetary measure of the market value of all final goods and services produced in a year.
GFC	Global Financial Crisis of 2008.
G-SIBs	The Global list of Systemically Important Banks.
IMF	International Monetary Fund.
NCA	National Credit Act 34 of 2005.
RSA	Republic of South Africa.
SARB	RSA Reserve Bank.
SEC	USA Securities and Exchange Commission which protects investors from fraud in financial markets.
SIFI	Systemically Important Financial Institution.
TBTF	"Too Big To Fail" banks and financial institutions.
US	United States of America.

Chapter 1

The 2008 Global Financial Crisis

1.1 Introduction and history

Greenspan states that the 2008 Global Financial Crisis (hereinafter GFC) was a record post war collapse of economic activity and a historically unprecedented breakdown in the ability of financial markets to operate.[6] The 2008 GFC was the biggest market meltdown in living memory since the Great Depression and nearly broke the global financial system.[7] It could easily have equated to or exceeded the Great Depression if it was not for unprecedented (bail-out) interventions by governments.[8]

The trigger of the 2008 Global Recession was the bursting of the real estate bubble in the United States of America (hereinafter US) and experts fear a similar situation in China could prove catastrophic for still struggling economies and banking systems in the world today.[9] As pointed out by Lastra, the GFC was the combined result of loose monetary policy, macroeconomic imbalances, uncontrolled financial innovation and misaligned incentives, triggered by the collapse of the subprime mortgage lending market in the US.[10] During the crisis, the bundling of poor quality debt passed off as high quality debt by financial institutions, caused the solvency of financial institutions to be questioned and possibly fail, in other words it led to those institutions becoming insolvent or bankrupt.[11] Films, such as *The Big Short* and *Too Big to Fail*, largely blame the financial crisis on the greed of US Bankers and their peers in the City of London.[12]

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[6] Greenspan A *The Map and the Territory: Risk, Human Nature, and the future of forecasting* The Penguin Press New York 2013 261.
[7] "Global debt: The new bubble" *The Corner Financial website of the Spanish magazine Consejeros.* Available online http://thecorner.eu/world-economy/global-greek-imbalances/44253/ accessed 3 May 2016.
[8] Paulson HM *Inside the race to stop the collapse of the global financial system* (2013) Grand Central Publishing New York 436.
[9] "Ghost cities in China lying deserted" *Daily Mail Reporter*. 18 December 2010.
[10] Lastra RM *Cross-Border Bank Insolvency* (2011) Oxford University Press New York 2.
[11] Claessens S and Kodres L "The Regulatory Responses to the Global Financial Crisis: Some Uncomfortable Questions" *IMF Working Paper*. Research Department and Institute for Capacity Development 7. Available online https://www.imf.org/external/pubs/ft/wp/2014/wp1446.pdf accessed 18 June 2016.
[12] McKay A *The Big Short* (2015) is based on Lewis M *The Big Short: Inside the Doomsday Machine* (2010) WW Norton & Company New York about the financial crisis of 2007-2008, and also based on Sorkin AR *Too Big to Fail: The Inside Story of How Wall Street and Washington Fought to Save the Financial System* (2009) Viking Press New York. *Too Big to Fail* (2011) an American television drama on HBO (Home Box Office) also based on Sorkin AR *Too Big to Fail: The Inside Story of How Wall Street and Washington Fought to Save the Financial System* (2009) Viking Press New York.

The 2008 GFC raised questions about the very nature of capitalism. As alluded to by Soros, it seems that the market is not an infallibly self-correcting mechanism where unfettered competition engenders perfect knowledge that leads inexorably towards equilibrium.[13] Apparently the laws that govern this free-market system of capitalism were not sufficient to stop the 2008 financial crisis.[14] Foroohar aptly remarks that finance is supposed to play a supporting role to business but instead it has moved to the centre of the economy in the midst of the financial crisis.[15]

Furthermore, the US, which authored the GFC, has overtly pro-debtor bankruptcy laws which has contributed to the credit industry boom – Hunter states that the burdens of bankruptcy has never been laid heavily on the debtor in the US, and their pragmatic and compassionate policies have contributed to the creation of the largest and most successful economy in the world.[16]

There has been several previous such economic crisis, although arguably not as comprehensive in scope: the Depression of 1920-21, the Great Depression of the 1929-33,[17] the Oil Price Surge of 1973, the Asian Debt Crisis of 1997-1998, the Dot-Comstock bubble in 2000.[18] A vast amount of research has been done on the GFC to try and find out which components of the crisis made it inevitable and what changes to laws need to be made in order to prevent a repeat thereof, although some authors believe we have still not learnt the key lessons to fix a vulnerable financial system.[19]

Massive stimulus measures, new laws and regulations, have been put in place since 2008 to fend off a future financial crisis. These stimuli measures injected huge amounts of liquidity into the market, which implies debt that became available at very low interest rates. This expansionary monetary policy has inflated the value of financial assets exponentially.[20] Even

[13] Soros G *The New Paradigm for Financial Markets: The Credit Crisis of 2008 and What it Means* (2008) Public Affairs Books New York 2.
[14] Foroohar R "Saving Capitalism: Commentary on the book by R Foroohar: Makers and Takers". *Time Magazine* 23 May 2016 24.
[15] Foroohar R "Saving Capitalism: Commentary on the book by R Foroohar: Makers and Takers". *Time Magazine* 23 May 2016 27.
[16] Hunter M "The Nature and Functions of a Rescue Culture"(1999) *Journal of Business Law* 518. The US is the origin of the "Fresh Start"principle.
[17] Grant J *"The depression fixed by doing nothing"* The Wall Street Journal 3-4 January 2015 C3.
[18] Foroohar R "Made in China: The next Global Recession" *Time Magazine* 25 January 2016 30.
[19] See footnote 7.
[20] See footnote 7.

though authorities are continuously putting in more regulations and constraints on banks and other intermediaries, crisis are bound to recur due to greed and speculation which is part of human nature and also due to the pro-cyclical nature of financial markets that sees these markets going through boom cycles followed upon by bust cycles.[21]

1.2 Hypothesis

The hypothesis that will form the basis of this study is that a global financial crisis is bound to reoccur, based on repeated crises of the past, the cyclical nature of markets and slow legislative response to new financial product innovations. Such a future global financial crisis will have a negative impact on South Africa hence there exists a need to put more measures in place to prevent a crisis from imploding the South African financial market. If a future crisis cannot be averted, a response is needed to at least mitigate the effects of such crisis on the South African financial system.

1.3 Research Objectives

This study will be looking broadly at the current legislative environment in the most prominent economies of the world that can initiate another financial crisis, namely the US, European Union and China. Thereafter it will consider South African legislation and the implementation in South Africa of guidelines by the international standard setting Basel Committee as well as the new Twin Peaks model of financial regulation, in order to make observations on the likely impact of a future crisis on South Africa.

1.4 Methodology

The research in this dissertation will be conducted mainly via review of legislation, policy documents and academic contributions.

1.5 Chapter Lay-out

Chapter One contains the background to the dissertation. Chapter Two will probe into the causes of the GFC and the new regulatory paradigm that subsequently emerged. It also

[21] Lastra RM *Cross-Border Bank Insolvency* (2011) Oxford University Press New York 2.

considers financial reforms in the US especially in the context of Systemically Important Financial Institutions (SIFIs). Chapter 3 probes into vulnerabilities of the Chinese financial system. Chapter Four will address regulatory reform in South Africa post the 2008 GFC and Chapter 5 will contain concluding remarks on the research topic.

Chapter 2

The causes of the 2008 Global Financial Crisis and the new regulatory paradigm post GFC

2.1 Introduction

Due to the Dot-Com stock market bubble that burst around 2000, the US eased monetary policy aggressively and moved interest rates to very low levels.[22] This encouraged the search for higher yields and relaxing of lending standards, which made loans to clients with a riskier credit history, called subprime loans, more common.[23]

The crisis therefore started with subprime lending in the USA, where mortgage loans were given to clients with a poor credit history, who had difficulty in maintaining repayments.[24] Lenders bundled these subprime loans and sold them through the process of securitization, as packages rated as AAA by rating agencies.[25] These were then sold to investment banks who did not know the underlying content of these toxic securities, jeopardising the entire mortgage industry, and triggering the GFC of 2008.[26]

According to multiple sources, there were numerous and various causes for the 2008 GFC.[27] The exact causes are still being debated but it is clear that the crisis had multiple and interlinked causes.[28] The GFC was the combined result of loose monetary policy, excessive

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[22] Mohan R "Global Financial Crisis: Causes, Impact, Policy Responses and Lessons" 2009 Working Paper *Stanford University* Stanford CA USA 407 Available online http://scid.stanford.edu/sites/default/files/publications/407wp.pdf accessed 19 May 2016. An AAA-rated bond has an exceptional degree of creditworthiness and can easily meet its financial commitments. The ratings agencies Standard & Poor's (S&P) and Fitch Ratings use the AAA to identify bonds with the highest credit quality, while Moody's uses AAA as the top credit rating.
[23] *Ibid.*
[24] Lastra RM *Cross-Border Bank Insolvency* (2011) Oxford University Press New York 2.
[25] See footnote 22.
[26] "*A safer financial sector to serve South Africa better*" 2011 National Treasury Policy Document Republic of South Africa 23 February 2011 9. Available online http://www.treasury.gov.za/twinpeaks/20131211%20-%20Item%202%20A%20safer%20financial%20sector%20to%20serve%20South%20Africa%20better.pdf accessed 12 May 2016.
[27] Lastra RM & Wood G "The Crisis of 2007-2009: Nature, Causes, and Reactions" *Journal of International Economic Law* 2010 13 3 531-550. Available online http://jiel.oxfordjournals.org.uplib.idm.oclc.org/content/13/3/531.full.pdf+html?sid=d13051d6-9087-4865-a892-e7d0c5f344b7 accessed 18 July 2016.
[28] Verick S & Islam I *"The Great Recession of 2008-2009: Causes, Consequences and Policy Responses"* Insitute for the study of labour (IZA), Germany. Available online http://ftp.iza.org/dp4934.pdf accessed 18 June 2016.

leverage, inappropriate risk management systems, bad lending practices together with uncontrolled financial innovation, "Too Big To Fail" (hereinafter TBTF) policies, inadequate supervision, macro-economic imbalances and misaligned incentives which promoted lending to clients with a poor credit history.[29]

Lenders increasingly repackaged mortgage loans from clients with a poorer and poorer credit history, into securities with inflated ratings, which they sold around the world, without buyers (for example investment banks) being aware of the underlying toxicity of these opaque and highly complex financial products, jeopardising the entire mortgage industry.[30] This easy credit to poor quality credit history households, caused the housing market, which has been considered as always stable, to boom as house prices started rising rapidly.[31]

Due to these rising house prices consumers were able to refinance their mortgages against this growth, which resulted in even more liquidity entering the market causing a housing bubble, as people started withdrawing large amounts of money from their home loans. The rising house values facilitated additional credit extension as households could now more easily borrow even more money on their home loans due to their rising value.[32] A "housing bubble" is defined as a run-up in housing prices fuelled by demand, speculation and the belief that recent history is an infallible forecast of the future, which means the price was no longer a reflection of its underlying value.[33] Asset bubbles such as the housing bubble make people feel richer than they really are, until the bubble bursts.[34]

The most common cause of the 2008 GFC therefore was the occurrence of a credit boom or rapid financial expansion because of deterioration in lending.[35] The result was rapid asset price appreciation, where houses, a common asset of households, rose at more than 10% per

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[29] Lastra RM & Wood G "The Crisis of 2007-2009: Nature, Causes, and Reactions" *Journal of International Economic Law* 2010 13 3 531-550. Available online http://jiel.oxfordjournals.org.uplib.idm.oclc.org/content/13/3/531.full.pdf+html?sid=d13051d6-9087-4865-a892-e7d0c5f344b7 accessed 18 July 2016. Lastra RM *Cross-Border Bank Insolvency* (2011) Oxford University Press New York 2.
[30] See footnote 26.
[31] The US policy at the time that everyone should be able to afford housing and the extending of credit to uncreditworthy clients, was the cause of the crisis.
[32] Claessens S and Kodres L *"The Regulatory Responses to the Global Financial Crisis: Some Uncomfortable Questions"* IMF Working Paper. Research Department and Institute for Capacity Development 6. Available online https://www.imf.org/external/pubs/ft/wp/2014/wp1446.pdf accessed 18 June 2016.
[33] Investopedia. Available online http://www.investopedia.com accessed 25 May 2016.
[34] See footnote 21.
[35] See footnote 32.

year from 2003 to 2008 in the US and even higher in some other countries.[36] The complex repackaging of mortgages from clients with weak credit history, where the financial institutions that owned the debt was unable to properly asses risks and therefore know their true value, however caused the solvency of financial institutions to be questioned.[37]

When this bubble burst in 2008, a sharp drop in prices resulted, causing house prices to drop below their outstanding mortgage debt, resulting in financing companies no longer being able to recover this debt, leaving many large financial institutions unable to discharge all their liabilities when they fell due, and pushing them into a state of financial distress and ultimately, insolvency.[38]

This financial crisis peaked when Lehman Brothers, the fourth-largest investment bank in the US with $600 billion in assets and 25,000 employees, filed for bankruptcy on 15 September 2008, the largest bankruptcy filing in US history, which caused global panic and uncertainty.[39] Allowing Lehman Brothers to fail, turned mild financial trouble into a global financial crisis as financial institutions became unwilling to lend money to each other causing the liquidity in interbank funding to dry up.[40] The contagion spread from the financial sector in the US to international markets, where it eventually impacted both advanced and emerging market economies.[41]

2.2 The international regulatory response to the GFC

An international regulatory response to financial risk has been in development since the 1980s. The first international prudential regulatory agreement was the Basel Accord of 1988 (Basel I), setup by the international Basel committee to limit credit risk, but in time Basel I

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[36] *Ibid.*

[37] Claessens S and Kodres L *"The Regulatory Responses to the Global Financial Crisis: Some Uncomfortable Questions"* IMF Working Paper. Research Department and Institute for Capacity Development 7. Available online https://www.imf.org/external/pubs/ft/wp/2014/wp1446.pdf accessed 18 June 2016. The nature of Insolvency is the inability to discharge all liabilities when they fall due as per Fletcher *The Law of Insolvency* (2017) Sweet & Maxwell Ltd London 1.

[38] Fletcher *The Law of Insolvency* (2017) Fifth edition Sweet & Maxwell Ltd London 1.

[39] See footnone 26.

[40] Mishkin FS "Over the cliff: From the subprime to the Global Financial Crisis" Working Paper Series *National Bureau of Economic Research* Massachusetts Avenue Cambridge December 2010 5. Available online http://www.nber.org/papers/w16609.pdf accessed 19 May 2016.

[41] See footnote 23.

was not considered sufficiently risk sensitive.[42] In 2004, a revised Basel Accord (Basel II) was agreed to, which expanded Basel I to include market risk, by requiring banks to implement an internal supervisory review of capital adequacy and requiring additional disclosure to strengthen market discipline.[43] Basel II was still in the process of being implemented across the world when the financial crisis occurred in 2008.

The GFC shook the regulatory landscape and left regulators across the globe scurrying for ways in which to mitigate the effects of the GFC and to prevent a similar future crisis. The regulatory radar zoomed in on systemic risk as the greatest threat to financial stability.

The Basel Committee responded to the GFC by issuing Basel III, which is the latest "instalment" in the international framework the Committee setup. Basel III was released in 2010 and acknowledges the shortcomings of Basel I and Basel II, by increasing the quality and quantity of capital required, establishing additional capital buffers, introducing a leverage ratio, managing counterparty risks and establishing a minimum liquidity buffer that can be available immediately after a market problem occurs. The recognition of the risk attached to TBTF financial institutions has translated into the identification, designation and increased regulation of Systemically Important Financial Institutions (hereinafter SIFIs), in order to create more resilient banks.[44] Basel III looks at ways of enhancing the quantity and the quality of regulation, such as rules preventing excessive leverage at a national and international level.[45]

In the US, the legislative response to the Great Depression of the 1930s was the US Glass-Steagall Act of 1933. The legislative response to the financial crisis of 2007/08 was the voluminous Wall Street Reform and Consumer Protection Act of 2009 (also referred to as the Dodd-Frank Act).[46] The Dodd-Frank Act inter alia regulates the financial industry by having established the Consumer Financial Protection Bureau to protect consumers from toxic

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[42] Goodspeed I "Cost of regulatory compliance in the aftermath of the Global Financial Crisis" *Financial Markets Journal* (2016) 23. The author, Goodspeed I, is the Governor of the South African Institute of Financial Markets. Available online http://financialmarketsjournal.co.za/cost-of-regulatory-compliance-in-the-aftermath-of-the-global-financial-crisis/ accessed 23 May 2016.
[43] De Jager J The Financial System, Banking & The Central Bank LLM Presentation 23 August 2016 University of Pretoria.
[44] *Ibid.*
[45] Lastra RM & Wood G "The Crisis of 2007-2009: Nature, Causes, and Reactions" *Journal of International Economic Law* 2010 13 3 547. Available online http://jiel.oxfordjournals.org.uplib.idm.oclc.org/content/13/3/531.full.pdf+html?sid=d13051d6-9087-4865-a892-e7d0c5f344b7 accessed 18 July 2016.
[46] See footnote 44.

financial products, it regulates firms based on their significance in the financial system, requiring those who issue securities to retain capital reserves commensurate to a prescribed percentage of credit risk, and it regulates credit rating agencies that assess the quality of securities for sale, in order to ensure that a crisis such as the financial crisis of 2008 is prevented.[47]

Much emphasis is placed on the identification of certain financial institutions as TBTF and subjecting them to more stringent regulation in order to prevent a future global financial crisis. TBTF originally referred to the biggest banks in the US (Goldman Sachs, Morgan Stanley, Bank of America, Citigroup and JP Morgan) which are so vital to the US economy due their size, interconnectedness, lack of substitutability, global or cross-jurisdictional activity, and complexity that it would be a national and even also global, disaster if they went bankrupt.[48] Dodd-Frank therefore makes provision for the identification and designation of these financial institutions as SIFIs, whose failure could have significant systemic impacts, and would be subjected to enhanced regulatory oversight.[49]

Financial institutions designated as SIFIs need to adhere to stricter requirements on capital and liquidity than other non-SIFIs. These higher capital requirements imposed on SIFIs, limit how much they can borrow, which can in turn lower their potential profitability. But, as Tracy points out, these stricter regulations are justified because SIFIs pose an outsize risk to the financial stability of the broader economy.[50] SIFIs are also required to go through yearly stress tests and must have an orderly liquidation plan to indicate how the complex and interconnected SIFI will be resolved in case of insolvency.[51]

Bank and non-bank SIFIs are measured differently. Bank SIFI designation is based on the objective measure of asset size of $50 billion in US. Non-bank SIFI designation is done by

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[47] Khademian AM *"The Financial Crisis: A Retrospective."* USA Public Administration Review. 2011 71 6 843.

[48] Lastra RM *Cross-Border Bank Insolvency* (2011) Oxford University Press New York 2. TBTF has also been referred to as too interconnected to fail, too complex to fail, too many to fail.

[49] Greenspan *A The Map and the Territory: Risk, Human Nature, and the future of forecasting* The Penguin Press New York 2013 263.

[50] Tracy R "What you need to know about SIFIs*"* *The Wall Street Journal* 30 March 2016. Available online: http://blogs.wsj.com/briefly/2016/03/30/what-you-need-to-know-about-sifis-the-short-answer/ accessed 7 October 2016.

[51] See footnote 21. A bank stress test is an analysis conducted under unfavourable economic circumstances, which is designed to determine whether a bank has enough capital to withstand the impact of adverse developments. An orderly liquidation plan in terms of the Dodd-Frank Act, provides for a process to quickly and efficiently liquidate a large and complex financial company that is close to failing as an alternative to bankruptcy.

the Dodd-Frank Act's Financial Stability Oversight Council (hereinafter the FSOC), which was established in 2010, with the statutory purpose to identify risks to financial stability that could arise from the material financial distress or failure, or ongoing activities, of non-bank financial companies.[52] Under Section 113 of the Dodd-Frank Act,[53] the FSOC is authorised to determine that a non-bank financial company's material financial distress — or the nature, scope, size, scale, concentration, interconnectedness, or mix of its activities could pose a threat to the US financial stability.[54] To address potential risks to U.S. financial stability, the Dodd-Frank Act authorises the FSOC to determine that certain non-bank financial companies shall be supervised by the Board of Governors of the Federal Reserve System (Board of Governors) and be subject to enhanced prudential standards.[55]

Section 113 provides as follows:[56] A non-bank financial company will be supervised by the US Board of Governors and subject to enhanced prudential standards, if determined by the FSOC, who is required to consider the following ten statutory factors:[57]

1) the extent of the leverage of the company;

2) the extent and nature of the off-balance-sheet exposures of the company;

3) the extent and nature of the transactions and relationships of the company with other significant non-bank financial companies and significant bank holding companies;

4) the importance of the company as a source of credit for households, businesses, and State and local governments and as a source of liquidity for the United States financial system;

5) the importance of the company as a source of credit for low-income, minority, or underserved communities, and the impact that the failure of such company would have on the availability of credit in such communities;

6) the extent to which assets are managed rather than owned by the company, and the extent to which ownership of assets under management is diffuse;

7) the nature, scope, size, scale, concentration, interconnectedness, and mix of the activities of the company;

8) the degree to which the company is already regulated by one or more primary financial regulatory agencies;

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[52] US department of the treasury website. Available online https://www.treasury.gov/initiatives/fsoc/designations/Pages/default.aspx accessed 5 June 2016.

[53] Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) section 111, 12 U.S.C. 5321.

[54] See footnote 52.

[55] *Ibid.*

[56] Dodd-Frank Act 2010 section 113.

[57] *Ibid.*

9) the amount and nature of the financial assets of the company; and

10) the amount and types of the liabilities of the company, including the degree of reliance on short-term funding.

Wemberly explains that the FSOC groups the ten statutory considerations into six categories, namely:

1) size,

2) interconnectedness,

3) substitutability,

4) leverage,

5) liquidity risk and maturity mismatch,

6) and existing regulatory scrutiny.

The FSOC then evaluates according to these six categories. However it is to be noted that the FSOC's analytical process has been criticised as complicated, vague, redundant and reliant on subjective judgments of regulators.[58]

Companies that are designated as SIFIs have an opportunity to appeal the decision. Once a determination is made and the company is notified, affected companies have 30 days to respond and request a review hearing to dispute the proposed SIFI designation. The non-bank financial company may request, in writing, an opportunity for a written or oral hearing before the FSOC to contest the proposed determination. The FSOC has a further 60 days to reach a final determination of SIFI status. The process encompasses six phases namely screening and consideration, notice of consideration, written notice, hearing, final determination, re-evaluation and rescission.[59]

Section 113(h) of the Dodd-Frank Act however limits legal challenges to whether the final determination made under this section was arbitrary and capricious.[60] The institution who is aggrieved by the designation can challenge the designation in federal court.[61] For example

[58] Wemberly J "SIFI designation of Insurance Companies – How Game Theory Illustrates the FSOC's Faulty Conception of Systemic Risk 2014-2015" *Review of Banking & Financial Law* 2014-2015 Vol 34 347.

[59] SIFI designation and its potential impact on non-bank financial companies A roadmap for nonbank financial companies through the new world of systemically important financial institution designation Deloitte Center for Regulatory Strategies. 2014 6.

[60] Dodd-Frank Act 2010 section 113(h).

[61] Financial Stability Oversight Council "*Basis for the financial stability oversight council's final determination regarding Metlife, Inc.*" 18 December 2014. Available online https://www.treasury.gov/initiatives/fsoc/designations/Documents/MetLife%20Public%20Basis.pdf accessed 28 October 2016.

MetLife, a large financial conglomerate and the largest life insurer in the US, challenged their SIFI designation in federal court and on 30 March 2016 the judge ruled in MetLife's favour and rescinded the FSOC's designation of the company as a SIFI. The reason for overturning the designation was the FSOC's failure to adequately assess MetLife's vulnerability to severe financial distress and the potential economic impact of the designation. The Department of Justice on behalf of FSOC has however appealed the federal court's decision and the case is now under consideration with the US Court of Appeals.[62]

Dodd-Frank has also attracted a significant amount of criticism, such as that it requires bureaucrats to write thousands of pages of new legislation to regulate the financial industry, creating "regulatory sprawl". Too many regulations "gums up the system" dubbed "kludgeocracy" and it has been argued by some that Dodd-Frank "micromanages bank's balance sheets rather than imposing exacting but simple capital standards".[63] Nevertheless this does not detract from the fact that the U.S, as author of the 2008 GFC, at least through Dodd-Frank tried to make up for its previous laxness on the financial regulatory front.

It should, however, be noted that the regulatory landscape in the US has been shaken up since the 2016 presidential elections and this may have some severe repercussions for financial regulation in the US and its ability to ward off future financial crises should they arise. The current President of the US, Donald J Trump, has ordered a review of the Dodd-Frank law.[64] He promised to repeal all or parts of the Dodd-Frank act during his election campaign, and to make changes to the American Consumer Financial Protection Bureau.[65]

He also promised a review of the Glass-Steagall Act, which separated commercial and investment banks in 1933 after the 1929 stock market crash, commercial bank failure and the Great Depression. The Glass-Steagall Act was repealed in 1999 at the insistence of the big banks, and seen by some as the cause of the GFC. The Glass-Steagall Act provided protection due to the fact that investment banks could not take deposits while being allowed

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62 "Information regarding MetLife's SIFI designation." *Metlife*. Available online https://www.metlife.com/sifiupdate/index.html accessed 30 October 2016.

63 "Too much federal regulation has piled up in America" The Economist Available online http://www.economist.com/news/united-states/21717838-republicans-and-democrats-have-been-equally-culpable-adding-rulebook-too-much accessed 4 March 2017.

64 Sink J and Dexheimer E "Trump order review of Dodd-Frank" 3 February 2017. Available online https://www.bloomberg.com/news/articles/2017-02-03/trump-to-halt-obama-fiduciary-rule-order-review-of-dodd-frank accessed on 12 September 2017.

65 *Ibid.*

to invest in the riskier non-governmental and non-investment grade securities, while commercial banks taking deposits, could not invest in these riskier investments, ensuring the protection of capital availability in the system. The review of this act will attempt to place some level of division between commercial and investment banks again.[66]

The other aspect that deserves mention is that the US Consumer Financial Protection Bureau may also possibly be found unconstitutional.[67] The reason for this is that detractors say that the framework of the Bureau is unconstitutional because it concentrates too much power in a single-director structure, which is accountable to neither the US President nor the US Congress, although it receives automatic funding directly from the Federal Reserve, instead of through the annual congressional appropriations process.

Due to regulatory relief promised by the Trump administration, the value of the dollar is increasing against the world's currencies, which will impact on the risk-taking capabilities of banks and investors as it is likely that a well-executed effort to cut too much red tape will bring economic gains.[68] However as the 2008 GFC has taught us – excessive risk-taking which results from greedily pursuing economic gains in profitable cycles often signals that a bit ahead of the "good times" there lurks the possibility of economic downturn and whether the US will be sufficiently prepared to deal with another crisis remains to be seen.

2.3 Conclusion

Although there have been many previous financial crises in the world, the 2008 Financial Crisis was the biggest in living memory and almost brought down the entire US financial system, and impacted on financial markets around the world. As indicated the Crisis was underpinned by various factors amongst others toxic financial products, uncontrolled mortgage securitization, bad lending practices, incorrect rating of debt by rating agencies and human psychology (greed and speculation).[69]

After the GFC, a new regulatory paradigm emerged with the pursuit of financial stability as core objective. The international community moved to protect the global financial system by

[66] Pressler J "*On Wall Street, A Bipolar Diagnosis"* New York Magazine 14 November 2016 26.
[67] See footnote 63.
[68] Thomas L "Surge in dollar provokes jitters in emerging markets around the world" *The New York Times* December 2016 Business Day B1 8.
[69] Greenspan A *The Map and the Territory: Risk, Human Nature, and the future of forecasting* (2013) The Penguin Press New York 17.

inter alia identifying SIFIs and try to prevent their failure or limiting the fallout of the failure of SIFIs. In other words, this regulatory reform aimed to reduce the probability of failure of SIFIs and to ensure that if they do fail, they can do so without taking down the rest of the system.[70] This move towards more stringent regulation of SIFIs gained significant momentum in the US, notorious for its large collection of complex financial conglomerates, where the post-Crisis Dodd-Frank creates the legislative framework for such increased regulation. However the new American president Donald J Trump appears to have an aversion to government regulation and it appears likely that vital parts of Dodd-Frank may be discarded and that a Glass–Steagall separation between investment and commercial banks may be on the table somewhere in the future hence one will have to wait and see how these changes will impact on the resilience of the US financial system.

[70] Liner E "*Understanding SIFIs: What Makes an Institution Systemically Important?"* 6 November 2016.

Chapter 3

Future financial crisis concerns

3.1 Introduction

It goes without saying that a future financial crisis could severely damage the global economy. In this chapter various aspects are discussed which may cause a future financial crisis. Firstly I take a look at China, where the financial system has grown very large, with less comprehensive regulation than that of the US, in a very short space of time. Furthermore, there remain global imbalances in the forms of existing bad debt still in the financial system following the GFC. Differences in laws and regulatory systems between countries make it difficult to resolve these imbalances, which imply certain regions or countries remain more prone to a financial crisis than others.

3.2 The effect of property law changes in China.

It is necessary to consider the importance and relevance of the Chinese economy, because the South African economy has been growing more dependent on China over the years. Financial instability and systemic risks in China can therefore very likely impact on South Africa's financial stability. According to the International Monetary Fund (IMF), if there is a one percent drop in China's domestic investment growth, it correlates to a 0.6 percent drop in exports for sub-Saharan African countries, which means a financial crisis in China, will have strong repercussions for South Africa.[71]

A current concerning aspect is that China's property market has complicated structural problems. It has been argued that China does not understand the residential feature of property accurately, which has resulted in many residential properties being built for speculation, but which are not inhabited. Excessive building has resulted in a massive oversupply of housing and ghost towns.[72] China currently has 13 million empty homes and is

[71] Rotberg R *"China's economic slowdown threatens African progress"*. Finweek 5 November 2015 26.
[72] "Ghost towns" refer to homes and public buildings that are deserted and abandoned years after their construction as ordinary people are unable to afford them.

adding another 2 million per year.[73] Suburbs worth billions are packed with empty houses, museums, office towers, administrative centres, sports facilities and theatres, with no cars and no signs of life.[74] Unsustainable prices and excess inventory coexist. This presents a flurry of risks and asset bubbles, and therefore implies systemic financial risk, which can only be resolved with improved financial oversight.[75]

Another problematic aspect is that China is adapting to a more free-market situation that they know less well.[76] This is new territory for China. Before 2007, most land in China was owned collectively or by the state. In 2007, China passed the Property Law of the People's Republic of China which codified property rights.[77] Section 39 of the Property Law of the People’s Republic of China, gives the owner the right to possess, utilize, dispose of and obtain profits from real property. This right must comply with social morality and cannot harm the rights of others nor public interests.[78]

Strict capital controls restrict Chinese investors from looking abroad, and therefore investment in property is one of the few investment options available to the Chinese population.[79] This is fuelling a boom in investor buying, and astronomical economic growth. A further unintended consequence is divorces becoming more common in the city of Shenzhen, China, because individuals or married couples are limited to two properties. Upon divorce, each person can buy an additional investment property.[80]

Houses can be owned but not the land on which the property is built. Land is leased on 20 to 70 year contracts, which causes a decrease in value closer to the end of the lease, as homeowners need to pay for the renewal of leases shorter than 70 years. This shows an uncomfortable familiarity with the run-up to the 2008 financial crisis.[81]

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[73] “Ghost cities in China lying deserted.” *Daily Mail Reporter* 18 December 2010. Available online http://www.dailymail.co.uk/news/article-1339536/Ghost-towns-China-Satellite-images-cities-lying-completely-deserted.html#ixzz44wQI1uxO accessed 24 May 2016.
[74] *Ibid.*
[75] Bin W *“China’s small towns struggle to fill homes”*The Boston Globe Business C5 30 December 2016
[76] Foroohar R “Made in China: The next Global Recession” *Time Magazine* 25 January 2016 31.
[77] The Property Rights Law of the People’s Republic of China, adopted at the 5th Session of the 10th National People's Congress of the People’s Republic of China on March 16, 2007, promulgated and came into effect on October 1, 2007.
[78] The Property Law of the People's Republic of China section 7.
[79] Heistein P *“A poorer China is bad news for everyone”* The Star Business Report 2 June 2016 14.
[80] Hewitt D *“China’s Real Estate Conundrum: The Big Property Bubble vs. Ghost Towns”* International Business Times 19 April 2016.
[81] Heistein P *“A poorer China is bad news for everyone”* The Star Business Report 2 June 2016 14.

This is also one of the reasons why China recently changed their 20 year old only child policy to allow parents to have more than one child. According to the Chinese Academy of Social Sciences, the country's real estate bubble is getting worse, with property prices in major cities heavily overvalued.[82] The warning lights are on: the current debt bubble in China has grown at about three times the rate that the 2008 US subprime bubble did, and it also has its origins in property, with a more dysfunctional financial system than the US.[83] The stimulus measures taken since 2008 to fend off a future financial crisis, has fuelled increases in real estate prices in China.[84] There is now a glut of real estate development in China due to the massive boom in construction in the last decade.[85]

New policy measures are being adopted by the Chinese government all the time to ease the bubble.[86] Local authorities have restricted purchases by non-residents, boosted down-payment requirements, and restricted the number of dwellings that a household can own. The President of China, Xi Jinping, has stated that houses are built to be inhabited, not for speculation, but the popular faith in real estate as an investment is undimmed.[87] Regulations on loans where tightened in 2013 to increased down payments to 30 percent to cool the overpriced market. But this has caused prices to fall too quickly, and therefore the government reduced the down payment for first-time home buyers again to 20 percent in 2015, which can be spread in instalments over 3 years with no interest, causing grey market lending and a re-emergence of the rapid increase in prices.[88]

This back-and-forth policy changes results in lower levels of trust in China's Communist Party.[89] Still, China has millions of square meters of unsold properties and real estate is now a drag on the Chinese economy where it once was a driver of economic growth. Because China is a command economy, and the normal market forces are not at play, China now has a lot of the wrong type of properties in the wrong places, for example high-end real estate in factory towns where more affordable places to live are required. China's unsold housing

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[82] Chinese Academy of Social Sciences (CASS) is an institution directly under the State Council and the highest academic research organization in the fields of philosophy and social sciences in China. http://casseng.cssn.cn/
[83] Foroohar R "Made in China: The next Global Recession" *Time Magazine* 25 January 2016 30.
[84] *Ibid.*
[85] *Ibid.*
[86] See footnote 7.
[87] *"China Money Funnelled to Far-Flung Homes Flags Bubble Trouble"* 26 May 2017. Available online https://www.bloomberg.com/news/articles/2017-05-25/chinese-money-funneled-to-far-flung-homes-heralds-bubble-trouble accessed 17 May 2017.
[88] See footnote 80.
[89] See footnote 80.

stock is also not the right type of real estate for the masses. The idea was to get people to move into cities to boost domestic demand, but that has not happened.[90]

The downside is that China now has an epic debt bubble with its roots in real estate about three times the size of the 2008 financial crisis.[91] China's debt risks have been increasing for a number of years due to slower growth and high debt, which is considered a contingent liability risk for the government, and therefore ratings agencies have been gradually downgrading China's sovereign risk (the latest downgrade was on 26 May 2017 by Moody's) citing rising debt, falling currency reserves and uncertainty over authorities' ability to carry out reforms.[92] Tackling China's real estate problems is probably a long and complex process, and it can only be hoped that it will not lead to a crisis.[93]

Considering that in China the government has a wide discretion in controlling markets, it appears that certain TBTF companies that are important to the state, will however be shielded by the government from creative destruction.[94]

3.3 Global imbalances

As indicated, a future financial crisis could turn the global economy on its head. Global imbalances between savings and investment are presented as a hidden problem that needs to be corrected with the appropriate laws.[95]

Banking insolvency laws differs across countries, and an orderly solution of a failed bank will encounter innumerable challenges and countless difficulties.[96] A clear and predictable legal framework should be in place to govern how a financial institution would be orderly reorganised or liquidated so that financial stability remains. There is no such international framework.[97] However, the Financial Stability Board in its Key Attributes of Effective

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[90] See footnote 80.
[91] See footnote 80.
[92] "China Hit by First Moody's Downgrade Since 1989 on Debt Risk" 24 May 2017 *Bloomberg*. Available online https://www.bloomberg.com/news/articles/2017-05-24/china-downgraded-to-a1-by-moody-s-on-worsening-debt-outlook accessed 26 May 2017.
[93] See footnote 80.
[94] Greenspan A *The Map and the Territory: Risk, Human Nature, and the future of forecasting* (2013) The Penguin Press New York 2013 266-267.
[95] See footnote 7.
[96] Lastra RM *Cross-Border Bank Insolvency* (2011) Oxford University Press New York xiii.
[97] *Ibid.*

Resolution Regimes has set out key features that would provide a yardstick for orderly and effective bank resolution.

Economic growth is now done by debt instead of profit.[98] The global economy is driven by debt instead of productive investment.[99] Developed countries now grow by borrowing more money rather than by productivity.[100] This debt growth is leading to inflation of financial assets, and if this level of supply is maintained and not reduced in the long term, another global bubble is a reality that can trigger another rapid fall in prices.[101]

As the financial crisis took many by surprise, the assets it impaired continue to reflect on the balance sheets of many banks. The European Union (hereinafter EU), a political and economic union of 28 member states that are located primarily in Europe, has €1.2-trillon of non-performing loans.[102] Andrea Enria, who is the chairman of the European Banking Authority, has suggested setting up a bloc-wide bad bank to manage these loans.[103] To do this, the bank's assets are divided into two categories, constituting a so-called "bad bank" and a "good bank".

The bad bank gets the illiquid, risky and troubled assets, including non-strategic assets. The good bank gets the good assets that represent the ongoing business of the core bank. While the good and bad assets are mixed, investors are uncertain about a bank's financial health, impairing its lending, borrowing, trade and capital raising ability. The bad-bank concept has been used with success in the past and has today become a valuable solution emanating from the financial crisis.[104] The European Commission has also started overhauling insolvency laws to develop the bloc's capital markets.[105]

Foorohar remarks that refocusing and rightsizing of the financial sector should have been done following the 2008 crisis, instead of the bail-outs which have been applied.[106] She

[98] See footnote 7.
[99] Foroohar R "Made in China: The next Global Recession" *Time Magazine* 25 January 2016 32.
[100] See footnote 7.
[101] See footnote 7.
[102] Glover J "EU regulator suggests a bank to house bad loans" *Business Day* 1 February 2007 4.
[103] *Ibid.*
[104] Gabriel Brenna G and Poppensieker T and Schneider S "Understanding the bad bank." December 2009 *McKinsey & Company*. Available online http://www.mckinsey.com/industries/financial-services/our-insights/understanding-the-bad-bank accessed 15 May 2017.
[105] Glover J "EU regulator suggests a bank to house bad loans"*Business Day* 1 February 2007 4.
[106] Foroohar R "Saving Capitalism: Commentary on the book by R Foroohar: Makers and Takers". *Time Magazine* 23 May 2016 28.

states that the current focus of companies on balancing-sheet engineering and the pursuit of short-term corporate profits over job creation should be changed for a better and more sustainable shared economic future.[107]

According to Foorohar the problem seems to be that debt is now used to grow company profits because the cost thereof is currently extremely low due to the lowering of global interest rates to unprecedented levels following the GFC - it is now cheaper to borrow money than paying tax.[108] A debt bubble is created because companies, that have cash on their balance sheets which they can use to employ and expand their business, rather take out debt because it is cheaper, fuelling a new debt bubble.[109] Debt is the lifeblood of finance, but ever faster rising debt can cause financial instability.[110]

Although the free market system is being used and was selected as the better system compared to competing models, Foroohar remarks that it unfortunately remains prone to crisis.[111] This is due to capitalism relying on private gains and private losses. The gain is the lure of wealth and the losses is the fear of bankruptcy. Banks and other significant financial institutions need to still have a credible fear of bankruptcy in order to play their proper role in the market economy, even if they are being identified as TBTF.[112] If banks succumb to the awareness that if they take foolish risks, for example due to being identified as TBTF by a regulator with a guaranteed government bailout (discussed in Chapter 4), they will not be subject to extreme punishment by markets, depriving funds from other more productive financial institutions.[113] Therefore they need to exhibit better market discipline and not take unnecessary risks.

3.4 Conclusion

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[107] *Ibid.*
[108] Foroohar R "Saving Capitalism: Commentary on the book by R Foroohar: Makers and Takers". *Time Magazine* 23 May 2016 27.
[109] *Ibid.*
[110] *Ibid.*
[111] Foroohar R "Made in China: The next Global Recession" *Time Magazine* 25 January 2016 32.
[112] Lastra RM & Wood G "The Crisis of 2007-2009: Nature, Causes, and Reactions" *Journal of International Economic Law* 2010 13 3 550. Available online http://jiel.oxfordjournals.org.uplib.idm.oclc.org/content/13/3/531.full.pdf+html?sid=d13051d6-9087-4865-a892-e7d0c5f344b7
[113] Greenspan A *The Map and the Territory: Risk, Human Nature, and the future of forecasting* (2013) The Penguin Press New York 261.

It has been illustrated that due to global imbalances, there are various risks to be considered that may trigger a future financial crisis. These include differences in insolvency laws, correcting past applied bail-outs following the GFC, no clear and predictable legal framework to reorganise bank debt, growth financed by debt, unnecessary risks due to being identified as TBTF, and the free market system not functioning optimally. China was identified as an exceptionally large risk due to its size and a large amount of debt accumulated in a short space of time on uninhabited properties, structural problems and regulatory differences where the normal market forces are not functioning in the same way as in the rest of the world.

Chapter 4

The South African perspective

4.1 The impact of the 2008 financial crisis on South Africa

South Africa weathered the 2008 GFC storm quite well, even though the Reserve Bank's powers with regard to financial stability were not spesifically couched within the parameters of an express statutory framework.[114] The SARB, as central bank, used its inflation-targeting framework, which entails the application of counter cyclical monetary policy by increasing and decreasing of the repo rate in order to limit the impact of the crisis, as well as the application of general prudent fiscal policy.[115]

South Africa was further more protected from the GFC due to various other factors: Firstly, by means of the National Credit Act[116] (hereinafterthe NCA),[117] that took effect in 2007 "to promote and advance the social and economic welfare of South Africans, promote a fair, transparent, competitive, sustainable, responsible, efficient, effective and accessible credit market and industry, and to protect consumers." [118] Secondly, the South African financial system was protected by means of conservative risk management at South African banks, and the introduction of the Basel II CapitalAccord in 2008.[119] Thirdly, the financial system was protected by regulation of exposure to foreign assets.[120] And lastly, protection was afforded by ring-fencing of banks in order to limit their exposure to possible distress of their parent

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[114] Van Niekerk G and Van Heerden C "Twin Peaks: the role of the South African central bank in promoting and maintaining financial stability" November 2017 *Tydskrif vir die hedendaagse Romeins-Hollandse Reg* 27.
[115] *Ibid.*
[116] Act 34 of 2005.
[117] "*A safer financial sector to serve South Africa better*" 2011 National Treasury Policy Document Republic of South Africa 23 February 2011 13. Available online http://www.treasury.gov.za/twinpeaks/20131211%20-%20Item%202%20A%20safer%20financial%20sector%20to%20serve%20South%20Africa%20better.pdf accessed 12 May 2016. Also see the preamble of the National Credit Act 34 of 2005.
[118] The National Credit Act 34 of 2005, preamble.
[119] "*A safer financial sector to serve South Africa better*" 2011 National Treasury Policy Document Republic of South Africa 23 February 2011 14. Available online http://www.treasury.gov.za/twinpeaks/20131211%20-%20Item%202%20A%20safer%20financial%20sector%20to%20serve%20South%20Africa%20better.pdf accessed 12 May 2016.
[120] *Ibid.*

company and to ensure high standards of corporate goverance and transparency.[121] Therefore South Africa's financial sector has proven to be generally resilient.[122]

4.2 Twin Peaks and the Financial Sector Regulation Act

As South Africa is a member of the G-20,[123] it has to observe and develop its financial market in line with the international financial markets, which led the South African Treasury to motivate a move away from the existing approach of silo financial regulation towards a Twin Peaks system of objectives-based financial regulation, as encapsulated in the Financial Sector Regulation Act.[124]

The Twin Peaks approach was first proposed by Michael Taylor in 1995, to improve financial supervision in the United Kingdom, due to radical financial innovation which the existing supervisory system had failed to keep pace with.[125] It is a regulatory system designed around the twin peaks of systemic protection and consumer protection, setting up two institutions, one to look at financial stability with adequate prudential measures, and the second to protect the consumer in terms of business regulation.[126] Although this original Twin Peaks model has only two peaks, the South African Twin Peaks model includes the SARB as the third peak with an express and comprehensive financial stability mandate as discussed under 4.3.[127] This reform of the approach to financial regulation in South Africa aims to ensure prudential oversight in order to promote institutional safety and soundness, as well as conduct oversight to ensure that products are appropriate and delivered in a fair and efficient way.[128]

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[121] *Ibid.*
[122] Twin Peaks in South Africa: Response and Explanatory Document. Accompanying the Second Draft of the Financial Sector Regulation Bill 2014 5. Available online https://jutalaw.co.za/media/filestore/2015/03/2014_12_12_Response_document.pdf accessed 27 May 2016.
[123] The G-20 is an international forum for the governments and central bank governors from 20 major economies. It was founded in 1999 with the aim of discussing policy issues pertaining to the promotion of international financial stability.
[124] Act 19 of 2017.
[125] Taylor M *Twin Peaks:A Regulatory Structure for the New Century* (1995) Centre for the Study of Financial Innovation London 1.
[126] *Ibid.*
[127] Van Niekerk G and Van Heerden C "Twin Peaks: the role of the South African central bank in promoting and maintaining financial stability", November 2017 *Tydskrif vir die hedendaagse Romeins-Hollandse Reg* 8.
[128] The Financial Sector Regulation Act 2017 preamble.

4.3 The SARB and financial stability

The South African Reserve Bank (hereinafter SARB), is one of the oldest central banks in the world, incepted in 1921.[129] Since 1989 the primary objective of the SARB has been the protection of the value of the currency in the interest of balanced and sustainable economic growth.[130] Further recognition was given to this primary objective of the SARB when it was entrenched in section 224 of the Constitution of South Africa[131], stating that in the pursuit of this primary objective the SARB must “perform its functions independently and without fear, favour or prejudice”.[132]

The Financial Sector Regulation Act now amends section 3 of the Reserve Bank Act to include financial stability as additional objective of the SARB and sets out the framework for the exercise of this express financial stability mandate by the SARB.[133] In terms of the Financial Sector Regulation Act, financial stability entails that:[134]

a) …financial institutions generally provide financial products and financial services without interruption;
b) are capable of continuing to provide financial products and financial services without interruption despite changes in economic circumstances; and
c) a general confidence in the ability of financial institutions to continue to provide financial products and financial services without interruption despite changes in economic circumstances.

The SARB will exercise its financial stability mandate by monitoring all risks, systemic and non-systemic smaller risks, by means of an assessment of the strengths and weaknesses of the financial system, and nature and extent of those risks including risks that systemic events will occur.[135] This financial stability mandate entails the establishment of a macro prudential (therefore systemwide) supervision framework in order to: identify systemic risks in the financial system, monitor and analyse market and other financial and economic factors that

[129] The SARB was established by the enactment of the Currency and Banking Act 31 of 1920.
[130] Section 3 of the Reserve Bank Act 90 of 1989.
[131] The Constitution of the Republic of South Africa, 1996.
[132] Section 3 of the South African Reserve Bank Act 90 of 1989; Section 224(1) of the Constitution of the Republic of South Africa. The Constitution was promulgated on 18 December 1996 and commenced on 4 February 1997.
[133] See Schedule 4 of the Financial Sector Regulation Act that deals with amendments to existing legislation.
[134] The Financial Sector Regulation Act Section 4. (All further references to sections in this chapter, chapter four, are to sections in the Financial Sector Regulation Act unless otherwise indicated.)
[135] Van Niekerk G and Van Heerden C “Twin Peaks: the role of the South African central bank in promoting and maintaining financial stability”, November 2017 *Tydskrif vir die hedendaagse Romeins-Hollandse Reg* 14.

may increase systemic risks that can result in a systemic crisis; formulate and implement appropriate policies and assess their impact; and deal with SIFIs to limit tax-payer bailout for failing financial institutions.[136]

Therefore the SARB will have the additional responsibility for protecting and enhancing financial stability, and if a systemic event has occurred or is imminent, for restoring or maintaining financial stability in South Africa.[137] When fulfilling its responsibility regarding financial stability the SARB must act within policy framework agreed between Minister of Finance and the Governor of SARB; it may utilise any power vested in it as South Africa's central bank or conferred on it in terms of Financial Sector Regulation Act or other legislation, and must have regard to, amongst others, the roles and functions of other organs of state.[138]

As part of its financial stability mandate as set out in the Financial Sector Regulation Act the SARB must conduct a bi–annual review to look at the financial stability in the period under review, and will also be obliged to make an assessment of threats to financial stability in the next 12 months.[139] The financial stability review will therefore entail both a current and forward looking assessment.[140]

The execution of the SARB'S financial stability mandate hinges largely on the mandated co-operation and co-operation by other organs of state as well as the other financial regulators that operate in the financial system, namely the Prudential Authority, the Financial Sector Conduct Authority, the National Credit Regulator and the Financial Intelligence Centre. This collaboration and cooperation is facilitated by sections 17 to 19 of the Financial Sector Regulation Act that also enables the SARB to issue directives to the financial sector regulators aimed at:

a) supporting the restructuring, resolution or winding-up of any financial institution;
b) preventing or reducing the spread of risk, weakness or disruption through the financial system; or

[136] Twin Peaks in South Africa: Response and Explanatory Document. Accompanying the Second Draft of the Financial Sector Regulation Bill 2014 7. Available online https://jutalaw.co.za/media/filestore/2015/03/2014_12_12_Response_document.pdf accessed 27 May 2016.
[137] Section 11.
[138] Section 9(2).
[139] Section 13.
[140] Van Niekerk G and Van Heerden C "Twin Peaks: the role of the South African central bank in promoting and maintaining financial stability", November 2017 *Tydskrif vir die hedendaagse Romeins-Hollandse Reg* 16.

c) increasing the resilience of financial institutions to risk, weakness or disruption.[141]

It is also to be noted that in the objectives of the Prudential Authority and the Financial Sector Conduct Authority respectively it is stated that they must assist the SARB in maintaining financial stability.[142]

Also instrumental in enabling the SARB to exercise its financial stability mandate is the Financial Stability Oversight Committee (FSOC), established in terms of section 20 of the Financial Sector Regulation Act. The FSOC will support the SARB when it exercises its functions in relation to financial stability; and facilitate co-operation and collaboration, and co-ordination of action between the financial sector regulators and SARB in the context of financial stability.[143] Further support will also be provided by the Financial Sector Contingency Forum (FSCF) established in terms of section 25 of the Financial Sector Regulation Act. The primary objective of the FSCF is to assist the FSOC with the identification of potential risks that systemic events will occur and the coordination of appropriate plans, mechanisms and structures to mitigate those risks.[144]

4.4 SIFI identification in South Africa and tightening regulation

According to Taylor, the supervision of the safety and soundness of financial institutions by a single agency tasked with prudential supervision will ensure the financial soundness of all major financial institutions as a whole from disruption.[145] For this purpose major financial institutions need to be identified as systemically important so that they can be properly monitored and also subjected to higher prudential requirements based on the risk that they pose to the financial system.

For the purposes of the Financial Sector Regulation Act, a Systemically Important Financial Institution (SIFI) is a bank, insurance company, or other financial institution whose failure might trigger a financial crisis.[146] The Basel Committee, has identified factors for assessing whether a financial institution is systemically important: its size, its complexity, its

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[141] Section 18(2)(b).
[142] Section 33(c) and section 57(c) respectively.
[143] Section 20(2).
[144] Section 25(2).
[145] Taylor M *Twin Peaks: A Regulatory Structure for the New Century* (1995) Centre for the Study of Financial Innovation London 4.
[146] Oxford Dictionary. Available online https://en.oxforddictionaries.com accessed 18 August 2016.

interconnectedness, the lack of readily available substitutes for the financial infrastructure it provides, and its global (cross-jurisdictional) activity. In some cases, the assessments of experts, independent of the indicators, will be able to move an institution into the SIFI category or remove it from SIFI status.[147]

De Jager remarks that in the past, the frameworks of central banks have not been fully conducive in the pursuit of financial stability and sometimes failed to promote systemically robust procedures in rapidly evolving financial markets.[148] The Financial Sector Regulation Act now seeks to address the risk posed by SIFIs spesifically in the context of financial stability, by providing the SARB with the power to designate an institution as a SIFI and to request the Prudential Authority to impose more stringent regulatory standards on such a SIFI.

4.5 Regulation of SIFIs in terms of the Financial Sector Regulation Act

4.5.1 SIFI designation

The Governor of the SARB has the power to designate a financial institution as a SIFI. The Governor must first consult with the Financial Stability Oversight Committee to decide whether the specific financial institution must be designated as a SIFI.[149] If the Governor and the Financial Stability Oversight Committee agree on the designation the Governor will then inform the financial institution of the decision to designate it as a SIFI and the financial institution will be given a reasonable time period to make submissions regarding such designation.[150] If a systemic event has occurred or is imminent the Governor can do this designation without complying, or without complying fully, with this process but the institution will then be allowed to make submissions after the designation.[151] It must also be noted that section 29 of the Financial Sector Regulation Act expressly provides that

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[147] "Core principles for effective banking supervision" *Basel Committee on Banking Supervision.* Bank for International Settlements 2012 5. Available online http://www.bis.org/publ/bcbs213.pdf accessed 17 October 2016.
[148] De Jager J "The South African Reserve Bank: Blowing winds of change" 2013 25 *South African Mercantile Law Journal* 494.
[149] Section 29(2)(a).
[150] Section 29(2)(b).
[151] A Systemic event is defined in section 1 as "an event or circumstance including one that occurs or arises outside the Republic, that may reasonably be expected to have a substantial adverse effect on the financial system or on economic activity in the Republic, including an event or circumstance that leads to a loss of confidence that operators of, or participants in, payment systems, settlement systems or financial markets, or financial institutions, are able to continue to provide financial products."

designation as a SIFI does not guarantee that the SIFI will be bailed –out by Government if it runs into financial distress.[152]

In deciding whether to designate a SIFI, the Reserve Bank Governor must take into account the following as a minimum:[153]

a) Size.
b) Complexity of financial institution and its business affairs.
c) Interconnectedness.
d) Readily available substitutes.
e) Recommendations by FSOC.
f) Submissions by or on behalf of institution.
g) Any other matters that may be prescribed by regulation.

As indicated the Reserve Bank Governor may designate a financial institution as a SIFI regardless of whether a systemic event has occurred or is imminent; therefore a pre-emptive power is conferred on the Governor.[154] The financial institution may make submissions on the designation to the Governor within 30 days after being notified of the designation. The Governor must consider submissions and can revoke or confirm the designation.[155] The SIFI designation or revocation must be published.[156]

Once designated, SIFIs are subjected to increased regulation and oversight. To mitigate risk posed by the SIFI the SARB may impose the following requirements on SIFIs:[157]

a) Solvency measures and higher capital requirements (which will ensure a higher loss absorbency) and counter-cyclical capital buffers (which is money to be kept as a buffer for periods of excessive credit growth).
b) Leverage ratios, for example the debt to equity ratio of the firm should be better than that of non-SIFIs.
c) Liquidity, in other words the availability of liquid assets such as cash.
d) Organisational structure.
e) Risk management arrangements including guarantee requirements.

[152] Section 29(5).
[153] Section 29(3).
[154] Van Niekerk G and Van Heerden C "Twin Peaks: the role of the South African central bank in promoting and maintaining financial stability", November 2017 *Tydskrif vir die hedendaagse Romeins-Hollandse Reg* 17.
[155] Section 29.
[156] *Ibid*.
[157] Section 30.

f) Sectoral and geopolitical exposures; required statistical returns.
g) Drafting of recovery and resolution plans.[158]

Any other requirement in respect of a prudential standard may also be made.

4.5.2 SIFI opposition

If a financial institution wants to oppose the designation of a SIFI, the institution may make submissions on the designation to the Governor within 30 days after being notified of the designation.[159] The Governor must consider submissions and can revoke or confirm designation.[160] The SIFI designation or revocation must be published.[161]

None of the following steps may be taken against SIFIs without the concurrence of the Reserve Bank: [162]

a) Suspending, varying, amending or cancelling a license issued to that financial institution;
b) adopting a special resolution to wind up the financial institution voluntarily;
c) applying to a court for an order that the financial institution be wound up;
d) appointing an administrator, trustee or curator for the financial institution;
e) placing the financial institution under business rescue or adopting of a business rescue plan for the financial institution;
f) entering into an agreement for amalgamation or merger of the financial institution with a company; and
g) entering into a compromise arrangement with creditors of the financial institution.

4.6 South African implementation of Basel guidelines and standards

In chapter 1 of this dissertation, Basel I, II and III has already been mentioned, and one needs to now comment on the South African implementation thereof in order to more fully appreciate how compliance with Basel may aid in maintaining financial stability in South Africa. Under Basel III, setup in 2010, Banks now have to ensure their risk exposures are

[158] See footnote 61.
[159] Section 29(4).
[160] Section 29(6).
[161] Section 29(7).
[162] Section 31.

backed by a high quality capital base.[163] Basel III also contains rules against excessive leverage at a national and international level.[164] In total 29 core principles on effective banking supervision have been developed as a guideline for banks in order to increase banking resilience.[165]

A designation of Globally Systemically Important Banks (G-SIBs) is also made by The Basel Committee.[166] The Basel Committee's framework looks at five factors to select the G-SIBs, namely:

a) size,
b) interconnectedness,
c) cross-jurisdictional (global) activity,
d) complexity and
e) substitutability.

An equal weighting of 20% each is given to each indicator to identify G-SIBs. The rationale for this designation is to apply enhanced regulation to these systemically important banks and to limit their ability to trigger systemic disruptions in financial markets.[167]

South Africa does not have G-SIBs, but does have Domestic Systemic Important Banks (D-SIBs) which also pose systemic risks to the domestic and regional markets.[168] The identification of D-SIBs is done by the South African Reserve Bank, and is broadly based on the Basel Committee's G-SIB approach, but indicators and weightings have been adjusted in terms of national discretion to be aligned to the characteristics of the local financial sector. Banks designated as D-SIBS will therefore be subjected to enhanced prudential regulation in order to limit the risk of disruption to the financial system.[169]

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[163] See footnote 147.

[164] Lastra RM & Wood G "The Crisis of 2007-2009: Nature, Causes, and Reactions" *Journal of International Economic Law* 2010 13 3 550. Available online http://jiel.oxfordjournals.org.uplib.idm.oclc.org/content/13/3/531.full.pdf+html?sid=d13051d6-9087-4865-a892-e7d0c5f344b7 accessed 18 July 2016.

[165] "Core principles for effective banking supervision" *Basel Committee on Banking Supervision.* Bank for International Settlements 2012 1. Available online http://www.bis.org/publ/bcbs213.pdf accessed 17 October 2016.

[166] Liner E "Understanding SIFIs: What Makes an Institution Systemically Important?" 6 November 2016 *The third way*. Available online http://www.thirdway.org/report/understanding-sifis-what-makes-an-institution-systemically-important accessed 20 October 2016.

[167] *Ibid.*

[168] "The South African Reserve Bank Financial Stability Review" September 2013 2 *Reserve Bank of South Africa*. Available online https://www.resbank.co.za/Lists/News%20and%20Publications/Attachments/5961/FSR%20September%202013(1).pdf accessed 3 August 2017.

[169] *Ibid*.

South Africa's D-SIBs are weighted 20% for size, 10% for global activity which is considered less important, 20% of interconnectedness, 20% for substitutability, 10% for complexity (therefore considered generally less complex) and an additional unique indicator not applicable in the Basel Committee's G-SIB methodology indicators, measuring the impact on confidence within the financial sector/social impact, at a 20% weighting.[170] Once designated a D-SIB, a statutory capital ratio apply based on the score obtained. The total *capital ratio* requirements for *D-SIBs*, are stricter than the minimum 10.5% required by Basel III and include requirements for tier one capital and tier two capital (for example debenture bonds payable in 5 years) as well as total capital.[171] Tier one capital is a bank's core capital, whereas tier two capital is a bank's supplementary capital. A bank's total capital is calculated by adding its tier one and tier two capital together. Tier one capital measures a bank's financial health and is used when a bank must absorb losses without ceasing business operations.[172]

Each tier is also split into capital and unimpaired reserve funds.[173] Unimpaired reserve funds refer to funds obtained from actual earnings or by way of recoveries, premiums on preference shares or a surplus on the realisation of capital assets. Unimpaired assets also refers to a percentage of a reserve arising from compliance with financial reporting standards, or minority interests due to the consolidation of accounts, and which have been set aside as a general or special reserve.[174]

4.7 Other financial sector policies

Although a discussion thereof is beyond the scope of this dissertation, mention needs to be made that other South African financial sector policies that have been developed or are being developed to enhance market conduct regulation that will act in tandem with the prudential regulation that will be executed in the South African Twin Peaks model are: the Market

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[170] "The South African Reserve Bank Financial Stability Review" September 2013 32 *Reserve Bank of South Africa*. Available online https://www.resbank.co.za/Lists/News%20and%20Publications/Attachments/5961/FSR%20September%202013(1).pdf accessed 3 August 2017.
[171] "The South African Reserve Bank Financial Stability Review" September 2013 33-34 *Reserve Bank of South Africa*. Available online https://www.resbank.co.za/Lists/News%20and%20Publications/Attachments/5961/FSR%20September%202013(1).pdf accessed 3 August 2017.
[172] *Ibid.*
[173] The Banks Act 94 of 1990 section 70.
[174] The Banks Act 94 of 1990 section 1.

Conduct Policy Framework, the proposed Conduct of Financial Institutions Bill (COFI), the SAM framework that establishes a risk-based solvency regime for short- and long-term insurers, the Treating Customers Fairly (TCF) regulatory framework, retirement reform proposals, the Retail Distribution Review for advisory and intermediary services, amendments to the NCA and the introduction of regulations that specify, amongst others, affordability criteria for lending.[175]

4.8 Conclusion

Although South Africa's financial sector proved resilient in the past, South Africa has nevertheless heeded the lessons of the 2008 GFC and committed to reform its approach to financial regulation by adopting a Twin Peaks model of financial regulation. In this model the SARB, as central bank, is given an express financial stability mandate that will be exercised within the framework provide in the Financial Sector Regulation Act. Two dedicated regulators, the Prudential Authority and the Financial Sector Conduct Authority is established to attend to prudential regulation and market conduct regulation respectively and to assist the SARB in maintain financial stability in South Africa. Other financial regulators and organs of state are also mandated to co-operate and collaborate in order to assist in the maintenance of financial stability.

As part of the Twin Peaks approach, certain financial institutions whose failure might trigger a financial crisis will be identified as SIFIs due to their size, complexity, interconnectedness and other factors, and will attract regulatory compliance to minimise the likelihood of failure. South Africa also identified important banks as D-SIBs that are broadly based on the Basel Committee's G-SIB approach, for which capital ratio requirements have been established in order to ensure adequate capital is available in times of crisis.

The new Financial Sector Regulation Act will therefore ensure express cognisance of financial stability for South Africa. It will enhance general confidence in the continuance of providing financial services and products by financial institutions despite changes in economic circumstances. The Twin Peaks approach will therefore serve to preserve and strengthen financial safety and stability in the South African financial system.

[175] Goodspeed I "Cost of regulatory compliance in the aftermath of the Global Financial Crisis" *Financial Markets Journal* (2016) 23. Available online http://financialmarketsjournal.co.za/cost-of-regulatory-compliance-in-the-aftermath-of-the-global-financial-crisis/ accessed 23 May 2016.

Chapter 5

The reoccurrence of a financial crisis

5.1 Introduction

Janet Yellen, the US Federal Reserve CEO, states that due to a number of safeguards enacted in the wake of the 2008 GFC and subsequent Great Recession, we are now much safer insofar as the stability of the global financial system is concerned. Yellen does not believe another financial crisis is looming on the horizon and that we would probably not see another financial crisis in our lifetime.[176]

However, financial markets are governed primarily by a free market system which is sometimes prone to crisis, and the reoccurrence of a financial crisis could have a devastating effect on the global economy.[177]The fundamental ideal that the free market will optimally distribute opportunities among players seems to no longer be the case, and therefore regulation is needed. It also needs to be borne that financial markets are inherently cyclical and prone to booms and busts. This supports my hypothesis that a global financial crisis can reoccur.

5.2 Balanced regulation

Unfortunately, as with the last GFC in 2008, regulation failed to keep pace with rapid innovations in markets, like increasing opaque and complex products, with disastrous consequences. Only once these institutions faced outright collapse, reforms were enacted.[178] Therefore regulators "responded" to the GFC instead of pro-actively putting mechanisms in place to prevent the crisis.

A market conduct regulator that does not have pro-active mechanisms in place might not be able to anticipate a crisis. Therefore prudent and pro-active regulatory measures are

[176] Graig V "Yellen: I 'don't believe' we'll see another financial crisis in our lifetime" *Fox Business* 27 June 2017 Available online http://www.foxbusiness.com/markets/2017/06/27/yellen-dont-believe-well-see-another-financial-crisis-in-our-lifetime.html accessed 28 June 2017.
[177] Foroohar R "Made in China: The next Global Recession" *Time Magazine* 25 January 2016 32.
[178] Paulson HM *Inside the race to stop the collapse of the global financial system* (2013) Grand Central Publishing New York 436.

necessary. But, too much regulation or too high capital requirements may stifle a company's ability to innovate and make profits, which in turn stimulates economic growth and creates jobs, which is sorely needed in South Africa. Therefore a fine balance is needed between adequate amounts of regulation versus too much regulation.

For this purpose, measures inter alia aimed at enhanced monitoring of systemic risk and supervision of SIFIs has been developed across the globe. More stringent reporting standards, additional capital, and recovery and resolution plans, also known as "living wills" have been imposed on SIFIs to enforce market discipline and facilitate orderly resolution, should it become necessary.[179]

5.3 South African financial regulation

Mathekga remarks that African countries in general are disproportionately negatively affected by global financial crises, while never enjoying the same returns from participating in the global economy due to internal challenges of governance.[180] Thabo Mbeki, the former president of South Africa from June 1999 to September 2008, stated recently that there is no willingness among global participants to fully evaluate the market system as a tool to attend to global inequality and the ills of society which is very prominent in Africa.[181] He remarked that Africa needs to be better integrated and have a say in the shaping of the global financial regulatory framework in order for meaningful change. He posed the question if Africa is a worthy participant in the global financial system or merely a passive recipient.[182]

However, South Africa, as a member of the G-20,[183] has an existing robust regulatory framework for the banking industry. South Africa has also pro-actively enacted the Financial Sector Regulation Act in order to augment the financial regulatory framework with the latest international financial stability requirements, to ensure general confidence in the continuance of providing financial services and products by financial institutions despite changes in economic circumstances,which will ensure institutional safety and soundness by also applying prudential oversight, to ensure that products are appropriate and delivered in a fair

[179] Financial Stability Board Key Attributes of Effective Resolution Regimes. Available online http://www.financialstabilityboard.org accessed on 29 September 2017.
[180] Mathekga R "Africa on fault line of capitalism" *Business Day* 10 November 2016 17.
[181] *Ibid.*
[182] *Ibid.*
[183] See footnote 123.

and efficient way.[184] In the new South African Twin Peaks model the three peaks, namely the Prudential Authority to ensure the soundness of the overall system, the Financial Sector Conduct Authority as the market regulator, and the SARB's overall stability mandate, will preserve and strengthen financial safety and stability.

The South African financial system was partly protected from the fallout of the GFC due to various factors as mentioned in Chapter 3.[185] The financial system will therefore again benefit from these measures of protection in a future crisis, but they should by no means be relied upon as a guarantee that South Africa will be fully able to avert a future crisis. Furthermore, South Africa is strongly placed to implement the reforms of the Basel framework as South African banks are already well capitalised in excess of the buffer requirements.[186] Also as a member of the G-20, general confidence in the continuing provision of financial services will be ensured by incorporating the latest international financial stability requirements into the country's laws, and as illustrated in chapter 3, the Financial Sector Regulation Act has gone a long way to address these.

5.4 Future risks

Various problems remain in the arena of financial regulation despite the spate of reforms in the context of financial regulation across the globe. The exact definition of financial stability is not clear and the FSOC's analytical process in the US for SIFI designation is critised as vague and arbitrary and invite the subjective judgments of regulators, and therefore may be unnecessarily designating certain firms as SIFIs.[187]

If a large, cross-border TBTF financial institution collapses, the ill consequences of such collapse should have been mitigated by the pro-active conduct of the market regulator having identified it as a Systemically Important Financial Institution in good time, and appropriate regulatory reform measures should be available to reduce the spread of the contagion with only limited use of taxpayer money to bail it out. But can we be sure that the market regulator will be pro-active enough to anticipate a crisis?

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[184] Twin Peaks in South Africa: Response and Explanatory Document. Accompanying the Second Draft of the Financial Sector Regulation Bill 2014 17. Available online https://jutalaw.co.za/media/filestore/2015/03/2014_12_12_Response_document.pdf accessed 27 May 2016.
[185] See footnote 117.
[186] See footnote 26.
[187] Wemberly J "SIFI designation of Insurance Companies – How Game Theory Illustrates the FSOC's Faulty Conception of Systemic Risk 2014-2015" *Review of Banking & Financial Law* 2014-2015 Vol 34 367.

Human psychology, in other words the egos and personalities of the management in the financial system also played a key role in the GFC. Human psychology cannot be easily measured. It is my submission that human psychology will therefore be a factor that will continue to influence markets in the future.[188]

The GFC, although it built up slowly, caused financial markets to deteriorate on a scale of magnitude within one day (on the day of Lehman liquidation). There would be no time for legislators to make changes to laws within one day. We therefore need to ensure it does not get that far. China's markets and legislation needs to be more tied in to the global legislation, in order for it not to topple the financial system.

The pace of legislative structural reforms in China and the USA, which has mostly only been implemented after a crisis occurred, will play a role in determining the likelihood of a future financial crisis, and have an influence on the stability of global financial markets.

5.5 Conclusion

Has society learnt their lessons from the GFC? As stated by Santayana in *The Life of Reason* as quoted in the introduction to this dissertation, we need to learn from past crises otherwise a crisis will be repeated. There were repeated examples of various financial crises in the past and markets are prone to constantly go through cycles. Current low long-term interest rates combined with high asset prices worldwide points to a bull market similar in some ways to the GFC and previous financial crises.

Constant market innovation, for example the currently proposed drastically lowering of the US corporate tax rate from 35% to a target of 15%, requires regulation to keep pace with the risks that may be posed by this and other new dynamics emerging all the time.[189] The regulatory system has however not always kept pace with financial innovation, and as stated by Henry Paulson, the secretary of the US Treasury at the time of the GFC, the regulatory system at the time was a "…a hopelessly out modelled patchwork quilt, built for another day

[188] Greenspan A *The Map and the Territory: Risk, Human Nature, and the future of forecasting* (2013) The Penguin Press New York 17.
[189] Davis JH and Rappeport A "Trump Is Said to Seek Cutting Corporate Tax Rate to 15 Percent" 24 April 2017 *The New York Times*. Available online https://www.nytimes.com/2017/04/24/us/politics/trump-corporate-tax-rate-15-percent.html accessed 12 October 2017.

and age. It is rife with duplication, gaping holes, and counterproductive competition among regulators."[190] Improvements have been made with many additional policy measures now available as discussed, and hopefully enough of this duplication and holes have been addressed post the GFC by regulators to ensure a future GFC will not re-occur. However one would have thought that society has learnt all their lessons, due to the severity of the Great Depression, the Dot-Com Bubble, the Asian Fianancial Crisis and the 2008 GFC, which have each in turn led to new legislation for the unique problems created.

China currently has a large amount of debt, which is increasing, and structural flaws in their housing market and references have been made to an asset bubble in this regard. That debt, on properties preferred as investments only, are mostly uninhabited properties. It would therefore be easy to let these properties go into foreclosure as these investors do not live in these properties. Should foreclosures start on China's empty investor properties, it could lead to insolvency of Strategically Important Financial Institutions. Why is the Bank of China therefore not on the list of TBTF institutions?

It is my submission that, based on the research in Chapter 3 regarding future crisis concerns, the next crisis will most likely be linked to the problems in China and spread faster in an environment with more complex financial products than we have today, and where laws to govern that additional complexity will struggle to keep up, as has been in the case in the past. South African households also have high indebtedness which poses a risk to the banking sector.

Will the additional capital requirements be adequate considering China's property bubble is three times the size of that of the United States subprime problem? No amount of capital can protect in the case of a GFC on this scale.[191]

The GFC has been analysed by many economists and law experts, to learn and make changes to the regulatory environment in order to protect against another GFC. Financial market innovators now collaborate more with legislators in the regulatory system on a global scale in order to enhanced stability. However, new innovative financial products should be reviewed

[190] Paulson HM *Inside the race to stop the collapse of the global financial system* (2013) Grand Central Publishing New York 440.

[191] Ciemniak R "China's trillion dollar housing market" 12 July 2016. Available online https://www.forbes.com/sites/robertciemniak/2016/07/12/a-trillion-dollar-market-chinas-housing-market-a-few-figures-to-think-about/#1b8f079b5362 accessed 12 June 2017.

regularly and more thoroughly in line with policy tools. The US is set on decreasing regulation under the Trump administration, but hopefully a good balance between policy tools and the free market system will be found in order to sustain the future resilience of financial markets over the long term, without a too severe downturn like the GFC.

In order to improve resilience, the best we can do is to ensure that banks have enough capital, by the implementation and constant revision of various supporting policy tools. Legislation changes has been made incrementally in different countries post GFC, which includes South Africa with the recent introduction of the Financial Sector Regulation Act, ensuring better resilience going forward. Only time will tell if these measures will be adequate.

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