

RATIONALE OF FINANCIAL STABILITY IN SOUTH AFRICA: CONSTRUCTING A FINANCIAL STRESS INDEX

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Abstract: *The need for financial stability became apparent after the devastating events of the 2008 financial crisis. It was around this time that central banks around the world started to construct and implement scientific methods to assess financial stability. This research gives a comprehensive understanding of financial stability and makes use of scientific methodology by constructing the financial stress index for South Africa from periods 2006 through 2015 to predict and attain financial stability. After the 2008 global financial crisis, South African policymakers have put in place some policies and tools to enhance financial stability. To complement these policies, a new financial framework was developed, that is, the twin peaks model to continuously gather data and assess financial stability on a continuous basis. To put this framework into practice the financial stress indicator or index acted as a single comprehensive tool to measure and monitor stability. Included in this index are indicators that capture the different dimensions of the banking sector. The results gathered from this index contribute to the understanding of financial stability and how it is measured. It was found that the volatility or patterns of the financial stress index could be used as predictions and early warning tools for policymakers or the Central Bank to step in and contain potential risks. Moreover, from the empirical data collected the financial stability policies in South Africa are effective, as the financial stability index after the period of crises remained stable.*

Keywords: financial stability, financial regulation, financial stress index, South Africa

JEL classification: D81, G01, G28.

1. Introduction

It has been difficult to gain consensus among researchers as to what financial stability really is. Some researchers define financial stability through identifying financial instability while others suggest that it is the ability of financial systems to resolve systemic risk. Financial stability could be seen as the ability of the financial system to facilitate efficient allocation of economic resources in pursuit of enabling the performance of an economy through economic growth, wealth accumulation, and ultimately social prosperity (Schinasi, 2011). What this means is that the financial system is the backbone of the economic flow of activity, which oils the smooth running of households and firms' operations. Financial stability is to ensure that the circular flow runs steadily, without any drastic shocks along the way. To achieve financial stability, it is necessary to prevent financial problems from becoming systemic as they pose a serious threat to the efficient functioning of the economic system (Allen and

* Cite as:

Mabeba, M., 2024. Rationale of Financial Stability in South Africa: Constructing a Financial Stress Index. *Oradea Journal of Business and Economics*, 9(1), pp. 133-143. <http://doi.org/10.47535/1991ojbe188>.

Wood, 2006). The importance of financial stability became more apparent after the shocking consequences of the global financial crisis of 2008.

Looking back into the pre-crisis period, this will reveal that before the 2008 financial crisis the mandate for monetary policy was to balance an acceptable level of inflation and employment (Oosterloo and de Haan, 2004). At that time policy makers, were concerned about balancing an acceptable level of inflation and employment. There were no significant efforts made to measure financial stability. Banking crises currently were predominantly non-existent, and the role of the central banks was bank supervision and liquidity provision. In such a world, financial stability was not seen as a major concern and the responsibility of the central bank for financial stability was limited.

The aftermath of the 2008 crises renewed the role of Central Banks. This new role was first recognized when the central bank in the United States stepped in after the crisis to get a grip on the situation (Silva et al., 2017). The Central bank provided emergency liquidity support to institutions and markets under strain, directed, and regulated troubled institutions. This period sought the awakening of governments in many countries of the world to take necessary measures to reinforce the financial stability mandates of central banks and give additional regulatory powers to these institutions. Although central banks retain their key role as liquidity, providers, and managers, today they are additionally responsible to keep the risk of system-wide financial disruption acceptably low by identifying and quantifying sources of risk. For example, poor credit standards, or leveraged asset booms and their impacts on an economy (Drehmann et al., 2011). The new role of the central bank also included constant supervision and a formal system of sound loan lending standards that will allow the bank to guard against imprudent risk-taking in the banking sector (Oosterloo and de Haan, 2004). The idea, here, is to manage risk to an acceptable level.

The financial system is always in a state of flux and so fluctuations are not always seen as something bad (Schinasi, 2011). The aim of financial stability is not to achieve the complete eradication of all financial problems. This is mainly because of two reasons (Cukierman, 2013). Firstly, it is not possible to have a dynamic financial system that would avoid volatility and turbulence and be capable enough to manage uncertainties and risks involved in financial services. Secondly, it would be undesirable or economically inefficient to adopt measures that will be overly protective of market stability and overly constraining of risk-taking. This may affect economic efficiency significantly and create a moral hazard of even greater risk-taking. The idea of financial stability is to attain a stable financial environment without any major spill overs to economic efficiency, growth, and performance of an economy (Schinasi, 2011).

To elaborate further, the financial system is not expected to return to its original position after a disturbance as any other Newtonian equilibrium but rather it is allowed to vary if financial variables are able to perform their essential functions. For example, investment, savings, lending, borrowing, wealth accumulation, and growth. The financial system does not have a fixed point at which it exists and thus exists in a continuum (Schinasi, 2011). Once the financial system is disrupted to an extent that some of its key elements fail to perform its facilitative and efficiency-enhancing role, this may be a problem and pose a threat to economic growth (Cukierman, 2013). The alternative here is to take a forward-looking approach, continually analyse trends of key indicators, and swiftly step in once the indicators sight a potential problem.

The goals of this research are to investigate and analyse the financial stability framework and practices of the South African Reserve Bank (SARB), and to analyse the recent trends in financial stability in South Africa based on the financial stress index (FSI).

The methods and procedures undertaken for the research are to analyse the literature on the new financial stability measures and policies that have been implemented in South Africa post the 2008 global crisis. Once secondary research has been carried out, the research will progress onto primary research or imperial evidence of financial stability in South Africa. To

carry out the imperial work two steps are taken. The first step is to identify variables in the research and the next step is to collect data on the identified indicator. The data is collected by making use of databases like Tomson DataStream and McGregor. Quarterly data over a period of nine years is collected. By plugging the collected data into a formula, the research can create a financial stress index over a period of nine years. This will allow the research to assess how well the new financial stability policy is implemented in South Africa.

The research takes a historic perspective to realize the financial stability issues of an unregulated financial system. It then realizes the importance of financial stability and defines financial stability and key concepts to get a thorough understanding of financial stability. The research then progresses onto the financial stability framework in South Africa and highlights some key policies that South Africa has put in place to maintain financial stability and anticipate potential financial risk.

2. Literature Review

2.1. Rationale of Financial Stability

Financial stability refers to a financial system that is resilient to systemic shocks, facilitates efficient financial intermediation and mitigates the macroeconomic costs of disruptions in such a way that confidence in the system is maintained (SARB, 2015).

Financial stability is the efficient allocation of economic resources through smooth savings and investment processes that enhance economic growth (Schinasi, 2011). Financial stability is affected by both exogenous and endogenous factors. Shocks and surprises are not the only components that pose a threat to the financial system, also disorderly adjustment of imbalances can cause financial instability. For example, there could be a misperception of expectation of future returns that could subsequently miss-price future price (Schinasi, 2011). Inefficient allocation of capital and mispricing of risk can cause vulnerabilities and imbalances thus threaten financial stability (Peukert, 2010). Financial stability is to protect the economy from financial crises and enabling a financial system so that it limits and addresses emergence of imbalances before they constitute a threat to stability. This may be received by self-corrective, market disciplining mechanisms that can create resilience and that can endogenously prevent development of system-wide risk (Peukert, 2010). Forces are allowed to resolve potential problems but there is room for intervention through liquidity injections.

A *financial system* is a system that allows the transfer of money through the savers to investors. The financial system comprises of three broad closely related concepts (Schinasi, 2011). These are financial intermediaries, financial markets, and the financial infrastructure. Financial intermediaries are financial institutes that pool funds and reallocate funds for different uses. Financial institutions are not simply limited to banking services; they include a variety of institutes, such as, hedge funds, pension funds, non-financial hybrids, that provide a range of different services. Financial markets are markets that directly serve investors and savers through the direct buying and selling of equities and bonds. Finally, the financial infrastructure, comprises of clearance, payments, and settlement systems, and regulatory, supervisory and surveillance infrastructure (Schinasi, 2011). Furthermore, private, and public persons who participate in the financial market are an essential part of the financial infrastructure (Allen and Wood, 2006). The key concepts identified here are important to grasp and monitor their activities for understanding how well a financial system works and how well they are performing.

Systemic risk is the threat of a possible collapse of the financial system; it is a risk of an event that may cause a loss of real economic value or confidence such that it may have some serious adverse effects on the economy (Taylor, 2010). Systemic risk may be an event that arise suddenly and unexpectedly, or it could be built up over time due to inappropriate

policy responses (Taylor, 2010). Real economic effect of systemic risk mainly emerges from disruption to payment systems, credit flows and through destructions of asset values (Taylor, 2010).

To prevent potential problems from materializing a *financial stability framework* requires a continuous process of monitoring and information gathering on macroeconomic conditions, financial markets, financial institutes, and financial infrastructure (Silva et al., 2017). As, the real economy is linked to the financial system (Schinasi, 2011). The process will be more useful and successful if there is a linkage between economic and financial dimensions. The framework involves a continuous process of gathering information, monitoring and assessment (Silva et al., 2017). The process requires a comprehensive and analytical approach. There is a need to develop measurement technique for detecting growing imbalances and calibrating risk and vulnerabilities to keep up to par with important monitoring phases (Silva et al., 2017). The approach also involves the process of supervision, surveillance, and regulation of financial and economic actors. Supervisory processes could be enhanced through the knowledge about the economy's position in the business and credit cycle and the overall performance of markets. The reason for this is that the macro economy and the market provide the background to which performance of individual institutes should be assessed. Finally, the purpose of information gathering is to assess if the financial system is performing its main functions well enough to be within the corridor of financial stability (Silva et al., 2017).

2.2. Financial Stability Policies in South Africa

Now that key components that comprehensively described financial stability are realized, the next step towards this research is to look at some of the policies implemented after 2008 to attain financial stability. To complement these policies the financial stability mandate in South Africa was assessed. This section looks at some policies that the SARB has implemented to achieve financial soundness and then makes use of empirical work, by constructing and evaluating the financial stress index to measure and assess financial stability in South Africa. The empirical work will serve as a guide to see how the new mandate is implemented thus far and investigate whether the FSI is an efficient tool to measure financial stability.

The passing of the Bank Amendment Act legislature was attempting to conform to international standards and best practices. The bill follows the International Monetary Fund (IMF) recommendations for the improvement of financial stability in SA (SARB, 2015). As suggested in the Financial Sector Assessment Program (FSAP) the bill dictated that the power of the curator of the bank should be clarified. It also recognizes that to achieve the FSP objectives fixing banks' problems speedily is critical in minimizing the loss of confidence in the banking sector. The Bill thus realizes the importance of guarding the economy against the economic cost associated with bank failure (SARB, 2015).

The National Credit Act that was initially passed in 2005 sets out of which the legal framework for the extension of credit (SARB, 2015). The legislature relies upon two pillars the first is to ensure the provision of credit on a sustainable basis and the other is to restrict unaffordable credit lending. In January, the Act was revised, and the National Credit Regulator (NCR) suggested guidelines for interpretation and implementation of this law, attention was given to the implementation and application of the duplum rule in this Act. The initial duplum rule limits the accumulation of interest to the principal debt amount. The idea of the initial duplum rule was to protect borrowers from potential exploitation by creditors who may allow relentless accumulation of interest (SARB, 2015). The new proposal to enhance this law is to maintain the original duplum rule but additionally mandate clarity on the rules in distinct ways for agreement regarded by the NCA. Hence, the law is applied more broadly and extensively to other creditor agencies like debt counsellors, debt collectors, and payment distribution agents (SARB, 2015). These creditors are also

mandated to limit interest accumulation to the principal amount of debt. The essence of this is to provide greater consumer protection and to make creditors vary about their risk so they could enforce their rights in a meticulous manner.

Since the global financial crisis of 2008, there has been a greater need for reforms in the hedge fund sector as shadow banking was a contributor to the crisis. South Africa, to be consistent with global standards has embarked on a process to expand the scope of regulations and oversights upon hedge funds (SARB, 2015). In the 2015 budget speech, the minister of finance announced that hedge fund businesses would be regarded as a collective investment scheme. To be consistent with international best practices retail and quantified hedge funds are to be regulated, however greater emphasis is given to the tightening of regulation on retail hedge funds to protect consumers. The proposal of regulation in both types of hedge funds allocates duties of managers, they are responsible for advantage, liquidity, collateral, and monthly reporting to the Registrar of Collective Investment Schemes (SARB, 2015). Additionally, one of the critical aspects of this scheme is the disclosure of information to investors and stipulates exposure limits for permitted asset classes. The practices behind this proposal will ensure oversight of these institutes and guard against any systemic risk formation in the financial sector.

Unlike the United States which took serious actions upon financial stability only after the financial crisis of 2008, South Africa had already made plans to implement a financial stability mandate in 2007 (National Treasury, 2014). The mandate currently was still at its infancy stage but was able to somewhat protect the economy from the wrath of the global financial meltdown. The lessons learned from the crisis of 2008 were extended to the financial regulatory regime, which further developed the initial financial mandate by 2009. The work culminated with the release of the policy document, "a safer financial sector to serve South Africa better", in 2011 (National Treasury, 2014). This marked the need for assessing the structures and characteristics of the South African financial sector to detect gaps and weaknesses and take necessary measures to reform the regulatory system in the financial sector. From the assessment, it was realized that although the financial sector was resilient to the financial crises of 2008 there was a need to strengthen regulation in the financial sector. South Africa in line with international best practices decided to implement the twin peaks model.

The twin peaks model was already implemented by Europe and Australia and is sought as a comprehensive and complete system for financial sector regulation (National Treasury, 2014). The model aims to protect financial customers and the economy by safeguarding funds and ensuring that they are protected against the risk of institutional failure in the financial sector. The name twin peaks come from the nature of the framework that has two objectives first, to strengthen the approach to market conduct regulation, and second to create a more resilient financial system that gives equal attention to prudential and market conduct supervision. This is achieved by allocating dedicated authorities responsible for each of the objectives; in this case, the two goals are split between the central bank and the Financial Stability Board (FSB) in South Africa.

The financial stability framework allocates the central bank a leading role in financial stability by becoming the systemic regulator for the South African financial system (FRRSC, 2013). For instance, the bank is a systemic regulator who oversees systemic risk that may arise from financial infrastructure. The reason for allocating this role to the central bank is its accessibility to emergency liquidity and the ability to respond to macroeconomic development. On the other hand, the Financial Service Board (FSB) in South Africa holds accountability for the supervision of non-bank financial institutions, security market activities, and the national credit regulation, to regulate consumer credit by all credit providers (FRRSC, 2013). The key financial market infrastructure is decided by the central bank whereas the FSB is the market conduct regulator with limited prudential regulation responsibility (National Treasury, 2014). Essentially, to prevent potential problems from

materializing a financial stability framework requires a continuous process of monitoring and information gathering on macroeconomic conditions, financial markets, financial institutes, and financial infrastructure to predict and assess risk.

3. Methodology

3.1. Financial Stress indicator

Culminating the effectiveness of the policies proposed by South African policy makers relies on how the financial stress index (FSI) reads. The FSI is an essential tool to gather information on macro-economic conditions, financial markets, financial instruments, and financial infrastructure to predict and assess risk is the financial stress indicator or index (FSI). One of the policy tools the SARB recognized to adhere to financial stability is the use of a financial stress index to detect possible stress in the financial sector (SARB, 2015). The financial stability index in South Africa makes use of five broad indicators as a base to create an index to quantify vulnerability in the financial system. The index on its own is recognized to be an inadequate tool to guard against financial stability; however, it is an efficient measure for policy makers to analyse developments in the financial stress in various parts of the financial system. The FSI is recognized as being a good single indicator to forecast stability (SARB, 2015). A consistently high financial stability index suggests a deterioration of financial stability in the financial sector. Currently there are various indicators used to construct the financial index worldwide, however, the indicators adapted by South Africa to create the financial stability index are derived from financial markets that are sought to be an important source of bank lending. These indicators include the market for credit, funding, equity, foreign exchange, and real estate.

3.2. Estimating the Financial Stability Indicator for South Africa

Creating a financial stress index involves many methodological choices; however, the FSI in South Africa is formulated as an aggregated index that involves a two-level construction (SARB, 2015). The first is the normalization of data, and the second is the processes that make use of weightings across indicators. The first dilemma is to choose an appropriate method to attach weightings to the data collected. The choice is then between using economic analysis to attach weightings to the variables in the index or making use of equal weightings. The disparity between the two methods was small and therefore, for this research, the equal weighting method is used. To aggregate the variables into a single index it is necessary to normalize each indicator. This is to transform variables to eliminate disparity in units of measurement among variables as well as indexing with respect to a tranquil period (SARB, 2015). The method of normalization used for this paper is empirical normalization. This method transforms values of data collected to range from 0 to 1, where 1 represent the weakest value of the indicator. The formula used for normalization is:

$$Z_{i,j} = \frac{x_{i,j} - \min_j(x_{i,j})}{\max_j(x_{i,j} - \min_j[x_{i,j}])} \quad (1)$$

, where $x_{i,j}$ is the value of the indicator in the tranquil time in question and $\max(x_{i,j})$ and $\min(x_{i,j})$ represent the respective worst and best values of each indicator. Finally, $Z_{i,j}$ represents the normalized value of the indicator.

The next step is to identify the various variables needed to form this index. An average financial stability index used in South Africa makes use of 11 indicators, however in this paper 9 indicators were used because of inadequacy of data encountered in the research. The different indicators aim to realize different dimensions of financial stability. These

indicators are divided into four subgroups as depicted in *Table 1*. The subgroups are the Funding, Equity, Foreign exchange, and real estate markets.

Table 1. Financial Stress Variables

Markets	Variables	Comment
Funding	<ol style="list-style-type: none"> 1. Government Bond Spread 2. Interbank liquidity spread 3. Cost of Borrowing 4. Treasury Yield Spread 	<ul style="list-style-type: none"> • The 10-year non-government bonds yield (OTHI) less government bond yield (GOVI) • JIBAR less yields on 3-month Treasury bills (TBs) • Repo less the yields on 3-month TBs • Moving average of 3-month TBs minus yield on 10-year bonds
Equity	<ol style="list-style-type: none"> 1. CMAX60: All-share Index 	<ul style="list-style-type: none"> • The extent to which the All-share Index has dropped over a year before
Foreign Exchange	<ol style="list-style-type: none"> 1. US dollar/rand volatility index 2. Euro/rand volatility index 3. Sovereign bond spread 	<ul style="list-style-type: none"> • Uncertainty in value of rand relative to US Dollars • Uncertainty in value of rand relative to euro • South African bond yield minus US bond yield
Real Estate	<ol style="list-style-type: none"> 1. CMAX: ABSA House Price Index 	<ul style="list-style-type: none"> • The extent to which property prices in the real ABSA House Price Index have deteriorated in the past year

Source: SARB, 2015

The sub-group funding serves to measure financial vulnerability. In this sub-group, government bond spread, interbank liquidity spread, cost of borrowing, and Treasury yield spread are included. The interbank liquidity spread tries to explain the estimated risk that banks pose to each other. Briefly, this subgroup measures financial volatility. The next subgroup is Equity; a standard equity subgroup holds the all-share index and the volatility index (VIX). This research tried to make use of data that was before, during, and after the crises. However, as the collection of data for the volatility index in South Africa only began in 2008, the volatility index indicator was not included. The All-share index was thus used as a proxy to describe the equity sector in SA. The reason why the all-share index is considered a financial stability variable in South Africa is that there is volatility in share prices, and it is important to realize that this volatility does not become systemic. The next subgroup is the foreign exchange; this is a macroeconomic indicator, which measures the volatility of the rand. Included in this sub-group are three indicators, the US dollar/rand volatility index, Euro/Rand volatility index, and the sovereign bond spread. Briefly this subgroup realizes the impact of international factors on financial stability. Finally, the last subgroup is real estate. The sub-group real estate measures the volatility in tangible assets. On average, this subgroup holds indicators like Amalgamated Banks of South Africa (ABSA) house price index and the commercial real property price index. Due to inadequacy of data, this research paper only looks at the ABSA house price index and uses it as a proxy of the real estate. The purpose of including the real estate sector in the development of the FSI in South Africa has not been explicitly explained by the reserve bank, however if one reads between the lines the real estate sector might have been added because it played a significant role in the global crisis of 2008.

The variables in *Table 1* are normalized during the construction of the FSI. The normalized indicators were then split into their respective subgroups. Equation (2) to (5) explains how each indicator was combined into their respective subgroup.

$$\text{Funding, } F_j = \frac{\sum_{i=1}^4 F_{ij}}{4} \quad (2)$$

$$\text{Equity, } E_j = \frac{\sum_{i=1}^1 E_{ij}}{1} \quad (3)$$

$$\text{Foreign Exchange, } FX_j = \frac{\sum_{i=1}^3 FX_{ij}}{4} \quad (4)$$

$$\text{Real Estate, } R_j = \frac{\sum_{i=1}^1 R_{ij}}{5} \quad (5)$$

Finally, to get the financial stress index the equations (2) to (5) are combined into one equation and the method of equal weights are applied and assigned to each indicator and the sub indicators are weighted, respectively. The weighted sub-index is combined, and their sum is divided by the number of indicators used in the research. This equation is represented below:

$$\text{Financial Stress Indicator} = \frac{4F_j + 1E_j + 3FX_j + 1R_j}{9} \quad (6)$$

The number of indicators in constructing the FSI influence the sub-group weightings. Reflecting on equation (6) the Funding subsection is the heavily weighted subsection. It could be assumed that this is the most important subgroup with regards to financial stability in South Africa. The Foreign subsection received the second highest weightings. Finally, the Real Estate and Equity received equal weightings. Essentially the weightings of each subsection reflect which subgroup is riskier. Therefore, the sub-group with the highest number of indicators has greater impact in the determination of the composite index.

4. Findings

4.1. Construction of Financial Stress Indicator from 2006 to 2015

The data collection process is carried out by making use of databases like Thomson DataStream and McGregor. The data collected is then used in the construction of the financial stress indicator (FSI). In this paper, the FSI is constructed using quarterly data from March 2006 (quarter one) through December 2015 (quarter four). Therefore, the data was collected over the period of 10 years. The FSI constructed during this time periods closely tracks financial stability in the South African Banking sector. By analysing *Figure 1*, one will realize that the financial stress indicator correlates with the financial crisis. In *Figure 1* the periods from 2006 through 2007, the financial stability index was low, but steadily rising. In 2008 there was a sharp rise in FSI that reached its peak in quarter one of 2009, thus the time when the financial crisis occurred. The policies implemented by South African policy makers started to gain momentum and the FSI started to fall. By the first quarter of 2010, the FSI was stable through quarter three of 2013. Finally, by 2014 through 2015 quarter two the level of stress started to rise.

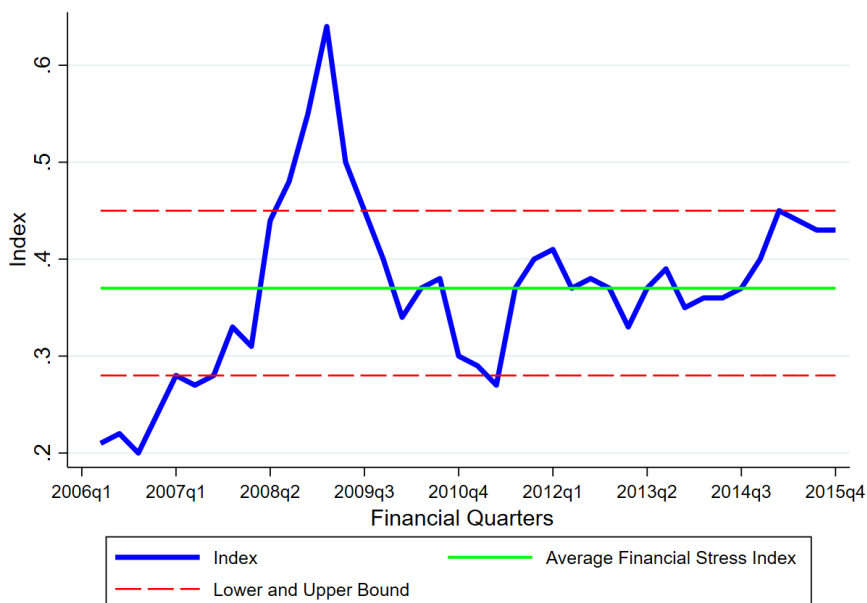


Figure 1. Aggregate Financial Stress Index for South Africa, 2006-2015

Source: Author's analysis/processing based on own data

4.2. Interpretation of Results

To get a deeper understanding of what this all means, the research moves on to find a mean for the FSI. A mean was derived for the indicator. It was found that the mean value of the indicators was 0.37. The FSI is mean reverting and therefore the stress levels above or below the mean are of greater concern. Reflected in *Figure 1*, the South African Reserve Bank was able to mostly, keep the FSI on its mean, holding the period of the crisis's constant. With reference to *Figure 1*, it appears that from 2010 to 2013 SARB was able to somewhat keep the economy at its mean FSI and thus the economy was stable during this period. From 2014 onwards the FSI deviated from its mean, this might be a concern for South African policy makers. This deviation of the FSI from the mean suggests a departure from the expected value.

This research took an additional step in the construction of the FSI and to get better comparisons proposed and added a band, an upper and a lower limit for the financial stress index. A standard financial stress index does not hold such boundaries. This was a suggestion that this research makes to detect a range at which the financial system is allowed to fluctuate, without posing a serious problem to financial stability. To find the band, the research found the standard deviation of the data. From such a calculation, the standard deviation is realized to be at 0.08. The figure derived from the standard deviation is added to the mean FSI value to get an upper bound and to get the value of the lower bound the standard deviation is subtracted from the mean FSI value. The value of the upper bound is thus 0.45 and the lower bound value is 0.28. Holding this band, the FSI for South Africa from the year 2010 to 2015 is stable, as it is within the created band. The purpose of the band is that in a financial system, fluctuations are not always seen as something bad, that is, the financial system, as identified in the problem statement does not necessarily have to be in equilibrium as it can vary. Thus, the financial system may only be in a serious problem if the FSI was below or above the bound and therefore signal for potential risk.

5. Conclusion

It was realized that the two major financial events, that is, the Great Depression and the 2008 Financial Crises were a consequence of unscrupulous behaviour of financial institutes (Gospodarchuk and Suchkova, 2019). This kind of behaviour was tolerated merely because there were no regulations in place to contain the financial system or any tools to measure financial stability. To support this claim, it was found that the United States remained calm and stable in the financial sector when there was regulatory legislature in place to guide the financial system. Once these regulations were removed the economy, for example, moved towards destabilization and ultimately experienced a collapse of the financial system in 2008. It was the global financial meltdown of 2008 in the United States that surged a need for financial regulation and measurement of financial stability worldwide. Considering these developments, the South African policymakers enhanced its policies with financial stability tools in response to the 2008 global financial crisis. From developing a financial framework called the twin peak model, the financial stress index became a comprehensive tool that measure and monitor financial stability. The index includes indicators that capture different dimensions of the banking sector. The findings from the index contribute to the understanding of financial stability and how it is measured. This study found that the volatility of the financial stress index can be useful in identifying potential risk emanating from the financial markets. The empirical results show that, in response to the global financial crisis of 2008, financial stability policies of South Africa were effective during the sample period until 2015 because the index was within the band created in this research. It may be fairly concluded that the new direction in implementation of financial stability policy is a progressive path that South Africa has taken and has allowed the South African Reserve Bank to scientifically track the stability of the financial system.

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Bio-note

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