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THE TWIN PEAKS MODEL:
A CRITICAL ANALYSIS OF ITS EFFECTIVENESS IN SOUTH AFRICA

by

ASTON MOODLEY

Thesis submitted in fulfilment of the requirements for the degree

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in the

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UNIVERSITY OF THE WITWATERSRAND

Supervisor: Professor K. Ojah

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DECLARATION

I, Aston Moodley declare that this is my own work excerpt as indicated in the reference and acknowledgements. It is being submitted for the degree of Master of Management in Finance and Investments at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at any other institute of Higher Education.

_____ _____

Signature of candidate Date

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ABSTRACT

The Global Financial Crises of 2008, revealed many gaps in the regulatory structures of some of the leading countries in the world. This study is designed to assess the effectiveness of the Twin Peaks Regulatory model, in order to address South Africa's need for regulatory reform. Research papers, journal articles, reports, conference documents, policy documents and other secondary data resources were reviewed, analysed and critiqued to gain an understanding of the model and how it is likely to suit South Africa, as a developing country.

The Twin Peaks Model has been adopted and effectively implemented by international counterparts over the past 20 years. Australia was the first to implement it successfully, followed by the Netherlands, New Zealand, Belgium and The United Kingdom. These countries adopted and adapted the Twin Peaks Model to fit their financial regulatory reform needs. Focussing on these countries, it is shown that the Twin Peaks Model was variously adjusted by each country to suit their specific regulatory requirements. South Africa will therefore also have to adapt the model to their identified needs.

Based on the above findings, this research recommends that South Africa reforms their current financial regulatory model and adapt it to incorporate the Twin Peaks Model. This can be done by incorporating the National Credit Regulator along with the Prudential Authority and Financial Sector Conduct Authority. Furthermore, comparatively this study shows that there are many adaptations to the Twin Peaks Model's architectural structure and there is no one fixed conventional model. This reality allows for flexibility around the structural design, operational independence and regulatory coordination.

Key Words: Central Bank, Global Financial Crises, Market Conduct Regulator, Prudential Authority, The Twin Peaks Model

LIST OF ACRONYMS

1) **ACCC**- Australian Competition and Consumer Commission
2) **AFIC**- Australian Financial Institutions Commission
3) **AFM**- Authority for Financial Markets
4) **APRA**- Australian Prudential Regulation Authority
5) **ASC**- Australian Securities Commission
6) **ASIC**- Australian Securities and Investments Commission
7) **Authorised Deposit**-Taking Institutions
8) **BoE**- Bank of England
9) **CFR**- Council of Financial Regulators
10) **CoFI**- Conduct of Financial Institutions
11) **DNB**- De Nederlandsche Bank
12) **DTI**- Department of Trade and Industry
13) **ECB**- European Central Bank
14) **EU**- European Union
15) **FCA**- Financial Conduct Authority
16) **FMA**- Financial Markets Authority
17) **FPC**- Financial Policy Committee
18) **FSA**- Financial Services Act
19) **FSB**- Financial Services Board
20) **FSC**- Financial Stability Committee
21) **FSCA**- Financial Sector Conduct Authority
22) **FSMA**- Financial Services and Markets Authority

23) **FSP's**- Financial Service Providers

24) **FSR**- Financial Sector Regulation

25) **FSRA**- Financial Sector Regulation Act

26) **G30**- Group of Thirty

27) **GDP**- Gross Domestic Product

28) **GFC**- Global Financial Crisis

29) **GNI**- Gross National Income

30) **HM** Treasury- Her Majesty's Treasury

31) **ISC**- Insurance Superannuation Commission

32) **JCFSB**- Joint Committee on the draft Financial Services Bill

33) **JSC**- Joint Supervisory Committee

34) **JSE**- Johannesburg Stock Exchange

35) **LC**- Liaison Committee

36) **MoE**- Memorandum of Understanding

37) **MvF**- Ministerie van Financien

38) **NBB**- National Bank of Belgium

39) **NCR**- National Credit Regulator

40) **OECD**- The Organisation for Economic Co-operation and Development

41) **PA**- Prudential Authority

42) **PR**- Prudential Regulation

43) **PRA**- Prudential Regulatory Authority

44) **PSB**- Payment System Board

45) **PVK**- Pension and Insurance Supervisor

46) **RBA**- Reserve Bank of Australia

47) **RBNZ**- Reserve Bank of New Zealand

48) **RFT**- Council of Financial Supervisors

49) **SA**- South Africa

50) **SARB**- South African Reserve Bank

51) **SDA**- Secondary Data Analysis

52) **SIB**- Securities Investment Board

53) **SIFI's**- Systemically Important Financial Institutions

54) **SSA**- State Supervisory Authorities

55) **TCF**- *Treating Customers Fairly*

56) **UK**- United Kingdom

57) **USA**- United States of America

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CHAPTER 1
INTRODUCTION AND BACKGROUND

1.1 BACKGROUND

As defined by Botha and Makina (2011), the Twin Peaks Model of financial regulation in South Africa, is a financial regulatory model that has been adopted from the original concept by Michael Taylor. It comprises of three large peaks and some smaller "hills". The three large peaks will essentially comprise of the South African Reserve Bank (SARB), Financial Sector Conduct Authority (FSCA) and National Credit Regulator (NCR).

According to the Financial Services Board (FSB), the introduction of the Twin Peaks Model of financial sector regulation will restructure the country's current financial regulators and create a prudential regulator, which will be known as the Prudential Authority (PA). The PA will be imbedded in the SARB. Furthermore, the current financial regulator, the FSB will be transformed into a dedicated financial market conduct regulator, which will be known as The Financial Sector Conduct Authority (FSCA).

The introduction and implementation of the Twin Peaks Model in South Africa will have two fundamental objectives:

- to strengthen South Africa's approach to consumer protection and market conduct in financial services, and
- to create a more resilient and stable financial system.

According to Godwin (2017), The Organisation for Economic Co-operation and Development (OECD) Countries changed their financial regulatory architecture based on factors such as the growing complexity of financial products, increased challenges of regulation for financial conglomerates and the effects of the Global Financial Crisis (GFC) 2007/2008. It thus became imperative to engage in regulatory reform. One of the solutions suggested for solving the financial market regulation failure and investigating shadow banking issues, was moving towards the Twin Peaks Model of financial regulation. Schumlow (2017) favours the Twin Peaks Model of financial regulation which was first proposed by Michael Taylor in the United Kingdom (UK) in 1995. It was used to address two major problems in the UK, where there were too many regulators with their own jurisdiction, which confused consumers. This model was pioneered in Australia in 1997, and later reaffirmed by Godwin (2017:15) that "the ultimate aim was to separate financial regulation into two broad functions: Market conduct

regulation which includes consumer protection and Prudential Regulation (PR), where each function had a separate regulator". A major guiding principle in the Twin Peaks Model is ensuring intense, intrusive and effective supervision by the new regulatory regime. This is prominent in the draft Market Conduct Policy document, which is an adjunct to the National Treasury 2011-document.

In accordance with the 2014 National Treasury draft Market Conduct Policy, market participants that finance, exist only to serve the broader community and economy. However, the report states that consumers are inadequately protected in South Africa. The report thus emphasised that the management of financial systems must be one of the main focal points of consideration. The Twin Peaks Model was explored and selected as the best fit model for future financial regulation in South Africa.

As highlighted by Van Hengel, Hilbers and Schoenmaker (2013), the purpose of this model in the UK (Europe) was to include a peak that would protect consumers and deter the basis of market misconduct. The second issue was to address the 'blurring of boundaries' between types of financial entities, for example where banks and merchant banks were combining insurers and security trading activities (Schumlow, 2017). After the model was adopted in the UK in 1995, Australia followed in 1997. Since then, this model has also been adopted in other countries, namely Netherlands, Belgium, New Zealand and South Africa and it is being considered by the United States of America (Godwin, Howse & Ramsay, 2017). This study looked at the effectiveness of the Twin Peaks Model in South Africa by comparing its effectiveness in other countries that have adopted The Twin Peaks financial regulation model.

1.2 AN OVERVIEW OF THE TWIN PEAKS MODEL IN SOUTH AFRICA

Proposal for the Twin Peaks (Regulatory) Model commenced in 2011 in South Africa (SA), starting with the publication of a policy document by the South African National Treasury. This policy document provided an outline of the financial sector and the guidelines needed for regulatory reform in South Africa (Schumlow, 2017). One of the reasons the cabinet approved the adoption of the Twin Peaks Model, was the global economic crises, as an aftermath of the sub-prime disaster in the United States of America (USA).

The most unique feature of the South African model is that it imposes a financial stability mandate on the SARB and removes bank regulation from the FSB (Van Heerden & Van Niekerk, 2017). The PA's primary purpose will be to promote and enhance the safety and

soundness of regulated financial institutions, while the FSCA will be tasked with protecting financial customers through supervising market conduct. Structures will be in place to ensure proper co-ordination between the two authorities and other regulators.

1.3 MOTIVATION FOR THIS STUDY

According to Schumlow (2017), a large percentage of the South African population has limited access to finance, limited education, limited ownership of assets and suffer under a substantial disparity of wealth. South Africa has a population of roughly 55 million, of which 40 million, ranging between the ages of 16-64, are economically active. One quarter of this number is in fact unemployed. More than two and half million adults are still illiterate. South Africa's Gini Coefficient during 2010-2015, a measurement of wealth disparity amongst the country's population, ranked last out of 143 countries. The Gini Coefficient is a measure of statistical dispersion intended to represent the income or wealth distribution of a nation's residents, and is the most commonly used measurement of inequality. Using the Palma Ratio, South Africa was still ranked last at 143. The Palma ratio is a measure of inequality. It is the ratio of the richest 10% of the population's share of Gross National Income (GNI) divided by the poorest 40%'s share (Wikipedia, n.d.).

Using the Quintile ratio, which is another measure of the inequality of income distribution, South Africa was ranked second last at 45 out of 46 countries. These factors are critical when dealing with low level inclusions for South Africa. This allows for malicious and deceitful opportunities from Financial Service Providers (FSP's) to take advantage of the large number of uneducated financial consumers in South Africa. Thus, consumer protection and prevention of market misconduct is necessary (Schumlow, 2017).

As highlighted by Van Heerden and Van Niekerk (2017), the main aim was to minimise potential conflict and regulatory arbitrage and to provide better protection for financial consumers. The FSB will be replaced by the FSCA which is a different juristic person and will be separate from the PA, overseeing market conduct of all financial institutions, including all banks. NCR will operate independently as a credit market regulator. Collaboration and cooperation is mandatory between these three peaks, is essential for the success of the Twin Peaks Model.

As envisaged by Van Niekerk and Van Heerden (2017:154-162), for the Twin Peaks Model to work effectively in South Africa, the original concept by Michael Taylor had to be modified,

hence the Third Peak of the NCR was proposed. The NCR was mandated to overlook lending and report to the Department of Trade and Industry (DTI). The SARB was positioned as an impeccable regulator for banks and the FSB was supervised insurance regulation and supervision as well as supervise fund managers and exchanges and the Johannesburg Stock Exchange (JSE). Due to these silo structures, financial regulation in South Africa were fragmented, susceptible to regulatory arbitrage. With multiple cracks in the system, that commercial banks were susceptible to, because of being solely regulated by the SARB, the 'blurred lines' effect became prevalent between the NCR and Competition Commission.

The primary aim was to impose better protective measures for financial consumers by reducing conflict and regulatory arbitrage. A detailed policy entitled "Implementing a Twin Peaks Model of financial regulation in South Africa, The Roadmap" corroborates this process and implementation. Thus, the NCR will operate independently as a credit regulator.

In summary the key problem(s) pertaining to the need for financial regulation in South Africa are: Financial regulation irregularities such as financial misconduct from FSP's are a major problem. Consumer protection and national credit regulation became a real cause of concern as more and more consumers are being taken advantage of due to their lack of financial knowledge and acumen. Credit providers are issuing credit to consumers that do not qualify, which was one of the main issues that led to the Global Financial Crisis in 2008. The current financial regulatory model in South Africa has blurred boundaries in terms of the regulators assigned to govern different industries giving rise to unethical behavior in the financial industry. This has opened loopholes for the persistence of financial regulatory arbitrage which needs to be looked at critically in order to provide better financial reform in South Africa. It is against this backdrop that this study was conducted.

1.4 OBJECTIVES OF THE STUDY

To analyse The Twin Peaks financial regulatory model in terms of:

1. Its effectiveness in other countries, such as Australia, Netherlands and the United Kingdom where the model has been adequately implemented; with a brief view on New Zealand and Belgium.
2. Its effectiveness in South Africa: By taking a critical look on the effectiveness of the Twin Peaks Model compared to its predecessors in South Africa.

3. Investigating the advantages and disadvantages of the Twin Peaks Model to ensure it will resolve all the challenges of financial reform and consumer misconduct in terms of the financial regulation and regulators in South Africa.
4. To attempt to resolve regulatory issues in South Africa with the adoption and design of the Twin Peaks Model.

1.5 RESEARCH QUESTIONS

This thesis aims to address the following research questions:

1. What economic problem will persist, if the Twin Peaks Model was not the financial regulatory architecture of South Africa?
2. How would the Twin Peaks Model resolve the problem(s) for which it was evolved?
3. Is it the right solution for the South African regulatory problem?

1.6 SIGNIFICANCE OF THE STUDY

The study aims to look at the Twin Peaks Model in terms of other countries' successes and failures. It considered whether these can be successfully replicated with the necessary adjustments specific to the South African financial regulatory environment.

The supposed benefits of this research are firstly that in the aftermath of the GFC 2007/2008, any model of financial system regulation that has the potential to create a greater degree of financial system stability is worth investigating. Of the four models currently in use internationally, the Twin Peaks Model is widely regarded as the best suited to this task. Consequently, a clear and balanced account of the strengths and weaknesses inherent in the model, it is hoped, will facilitate debate on, and understanding of the model, for academics and policymakers alike.

1.7 OVERVIEW OF RESEARCH METHODOLOGY

The study adopted a secondary data analysis (SDA) approach, including analysis of relevant journal articles, books and papers. It investigated the effectiveness of the model and the successes or failures in other countries and compared this data to what can be replicated and adjusted for the success of financial regulation in South Africa. The relevant literature review is followed by an analysis to determine whether this could be the right solution for South Africa's regulatory problems, in terms of consumer protection, regulatory arbitrage and credit regulation.

1.8 OUTLINE OF THE STUDY

The thesis commenced by presenting a background and an overview of the Twin Peaks Model in South Africa. It then highlighted the motivation and objectives as well as the significance of the research. The research methodology and outline of the study is conceptual as this model is currently in the process of being implemented, therefore no methodology is presented.

The introduction to the study is followed by a literature review in Chapter 2. A critical look at how the Twin Peaks Model has been applied in other countries, the successes and failures of its implementation and the lessons learned are presented in Chapter 3. Based on these findings, a contrast analysis and testing for effectiveness are written up in Chapter 4. It also includes a proposal on the way forward on The Twin Peaks as financial regulatory model in South Africa, focusing on the core objectives of this study. The conclusions and recommendations based on the outcomes of the analysis constitute Chapter 5.

CHAPTER 2
OVERVIEW OF FINANCIAL REGULATION, FOCUSING ON THE TWIN PEAKS MODEL OF FIANCIAL REGULATION

2.1 INTRODUCTION

The chapter begins by explaining the Twin Peaks Model from an elementary level, followed by details pertaining to its origin. Next, as is the case with any model under discussion, it is then critiqued by presenting arguments in support of, as well as against its applicability to the financial sector in a given economy. For instance, some scepticism exists on the applicability and relevance of the Twin Peaks Model due to a lack of standardised reporting processes and procedures, and the possible conflict of interest in the objectives outlined by its regulatory framework.

The Twin Peaks regulatory model has previously been applied with marked success, particularly in developed economies. Different countries, however, obtained mixed results pertaining to its effectiveness on account of different views on the roll out of the regulatory bodies (the two peaks). Finally, the chapter presents the success of the application of the model by these developed economies providing a basis for establishing the effectiveness in adopting it in the South African financial sector.

2.2 FINANCIAL REGULATION AND THE ORIGINS OF THE TWIN PEAKS REGULATORY MODEL

As alluded to by Herring and Santomero (2000), financial regulation is defined as the systems and processes put into place to protect the economy and against systemic risk, by governing and subjecting financial institutions to restrictions and guidelines. Systemic risk is primarily focused on but not limited to banks, thereby playing a significant role in the economy.

Claudio Borio (2011) elaborated on the concept as having two fundamental regulatory approaches, i.e. macro-prudential approach and micro-prudential approach. He further differentiates the two approaches as the macro-prudential approach “limits financial system wide distress; avoids output of GDP costs; seen as dependant on collective behaviour, aka endogenous and in terms of system wide risk utilises a top-down method.” He then perceives the micro-prudential approach to, “limit distress to individual institutions, consumer protection which is seen as independent of individual agent’s behaviour, aka exogenous and terms of risk of individual institutions, utilising the bottom-up method.”

Historically, The Twin Peaks regulatory system has evolved over time. Regulatory bodies across the world had to change the approach to the regulation of financial institutions in line with the ever-changing operating environment. Schoenmaker (2013:35) states that regulation is "the process of producing rules and legislation underlying the framework for supervising the activity of financial institutions". Godwin (2017:151) stipulates that "some of the main factors necessitating and driving regulatory reform for many economies are the growing complexity of financial products, the increasing challenge of regulating large financial conglomerates, and the consequences of the Global Financial Crisis." One of the leading regulatory trends has been an attempt to move towards The Twin Peaks regulatory model for the financial regulation of financial institutions.

It is worthwhile to start by unravelling the meaning and origin of the concept "Twin Peaks." The idea of Twin Peaks has gained widespread use and popularity within the software engineering sector as software engineers endeavoured to develop solutions to complex business processes. According to Heyman, Yskout, Scanariato, Schmidt and Yu (2011) the specifications to most business process requirements are regarded independently from the rest of the software engineering processes. Empirical evidence shows that the requirements cannot be specified in isolation and simply passed on to the designers and implementers of the system for the formulation of a solution. Heyman *et al*. (2011) proposed that by contrast, the requirement specifications, which describe the problem, and the architectural design which shapes the solution are concurrently done iteratively, therefore the problem and solution are kept separate. This process of developing both the requirements and the software architecture is known as the Twin Peaks Model. Figure 1 displays an original representation of The Twin Peaks in the software engineering industry.

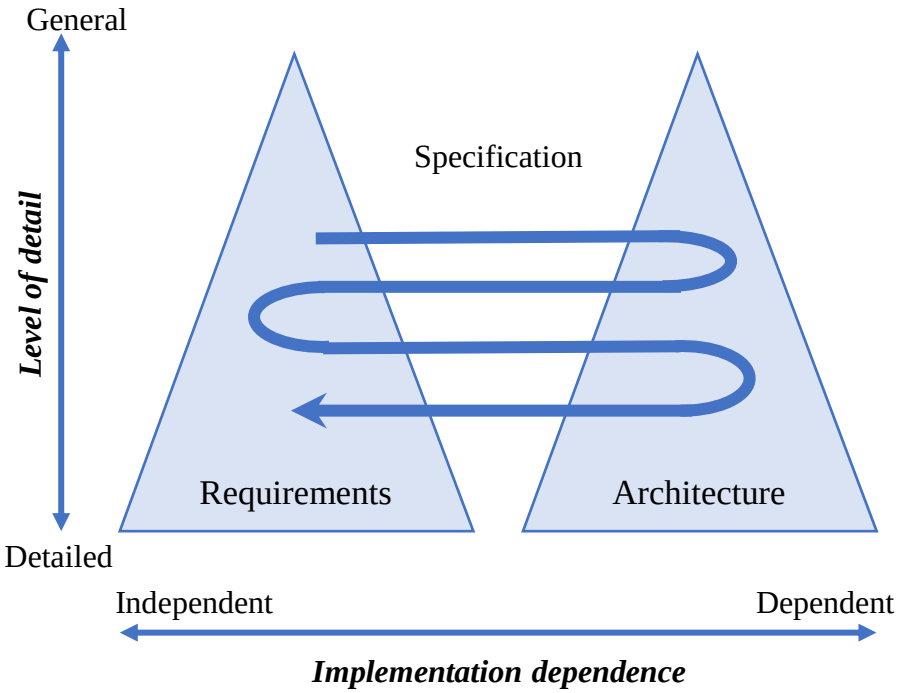


Figure 1: The original Twin Peaks Model

Source: Heyman *et al*. (2011:168)

As shown in Figure 1, the process providing the specific details or requirements of the problem in the Twin Peaks Model, continuously moves back and forth between the requirements and architectural peaks. In this way it remains closely in touch with the decisions made in the other peak. The scope of this research needs no further focus on this process as the model is only analysed in the context of the financial services industry.

The Twin Peaks concept was originally introduced in the financial services in Australia during 1998, in response to the recommendations of the Wallis Inquiry[1] (Schumlow, 2015:4). However, the original proposal to adopt The Twin Peaks regulatory model was suggested in 1995, by an Englishman, Michael Taylor. Van Niekerk and Van Heerden (2017:638) stated that in Taylor's mind the regulation of financial services should be done for two primary objectives, namely systematic protection and consumer protection. Systematic protection refers to the protection of the stability and integrity of the financial sector system. Consumer protection, on the other hand, is to safeguard the interests of individual depositors, investors and policy-holders. The proposal itself sought to react to the 'blurring of the boundaries' event

[1] The Wallis Inquiry recommended the establishment of the Corporations and Financial Services Commission (CFSC) and the creation of the Australian Prudential Regulation Commission (APRC).

in the UK's financial services industry. This simply refers to the drawing of lines between a given economy's industries based on factors that include deregulation, globalisation, fundamental changes in science and the information technology environment (Nicholls & Jasinski, 1995:1). Although this definition explains the concept of the 'blurring of boundaries' to a greater extent, it does not provide a systematic framework explaining why firms engage in such activities or why and how the nature of crossing boundaries differs between firms.

Several definitions of The Twin Peaks regulatory model exist. For the purpose of this research the definition by Schumlow (2015) has been adopted. He presented the model in terms of its objectives and what it seeks to address, based on the recommendations that required following it as a prescriptive framework. The Twin Peaks regulatory model fulfils the four broad objectives of financial regulation, namely the protection of consumers, ensuring the solvency and soundness of financial institutions, the promotion of fairness, efficiency and transparency in financial markets, and the promotion of a stable financial sector system (Botha & Makina, 2011:27). According to Schumlow (2015), the model is made up of two peak regulators, with the first regulator intended to achieve financial system stability while the other regulator is intended for addressing market conduct and consumer protection issues. Whilst The Twin Peaks regulation has evolved over time, it remains recognisable by the two focal points, called peaks, which feature in a significant number of countries around the world (Vivian, 2016). Vivian (2016) suggested that the two peaks refer to the two areas covered by the regulatory framework, namely the prudential regulation and the financial sustainability regulation. In this regard, the prudential regulation focuses on the financial sustainability of financial institutions and is by far the oldest regulatory concern. On the other hand, the financial sustainability regulatory system being the more recent, emerged during the mid-1980s and is concerned with market conduct regulation. However, Vivian (2016) noted that a black box still exists on what market conduct is, what it intends to achieve, how it should be achieved and what it is supposed to achieve. There appear, thus, to be a lack of clarity on how these dimensions of market conduct are to be implemented to ensure that it is fully understood as a principle. Nevertheless, this research discusses market conduct from the perspective of the relationship between financial institutions and their clients.

Market conduct is characterised by catch phrases such as *Treating Customers Fairly* (TCF). It can consequently be viewed as closely related to the relationship between financial institutions and their customers. However, since the beginning of time, this relationship has been regulated by contract and the law of contract. Accordingly, there seems to be a lack of clarity on how

market conduct can operate in harmony with the law of contract. It is widely believed that one may almost certainly destroy the other leading to the phenomenon of Gresham's Law – the bad will drive out, or destroy the good.

2.3 CORE DEBATES BETWEEN THE DIFFERENT INSTITUTIONAL SYSTEMS OF FINANCIAL REGULATION

Han (2017) explained market regulation as having four major aspects, namely macro-prudential supervision, micro-prudential regulation, competition policy and consumer protection. Each aspect has a vital and unique role to play in rectifying market failures, including market misconduct, anti-competitive behaviour and systemic risk (Masciandaro & Quintyn, 2011).

Regulatory mandates should lead the selection of regulatory architecture. Wymeersch (2007) proposed the main questions as how many structures would be in charge of the many different entities and how the central bank will fit into this structure. Han (2017) summed up the institutional systems of financial regulation as relative to the different degrees of integration as presented in Table 1.

Table 1 Four different approaches to financial regulation pre- Global Financial Crisis

Approach	Core feature	Major shortcomings	Example
Institutional approach	Regulators are divided according to legal status of financial institutions	• Potential regulatory arbitrary • Overlapping and inconsistency • Challenges from cooperation and information sharing • Lack of overall perspective specifically for mitigating systemic risk	China Greece India Mexico
Functional approach	Regulators based on sectional differences between banking, securities and insurance	• Blurred boundaries of financial services and products • Competition among multiple regulators	Brazil France Italy Spain
Integrated approach	Single universal regulator controls all sectors of financial services business	• Potential failure from one single point through unbalanced regulation • Internal communication	Singapore Japan UK
Twin Peaks	Regulation by objective: two separate regulators responsible for prudential regulation and conduct-of-business regulation, respectively	• Potential tension between prudential regulation, systemic stability and consumer protection • Challenges from cooperation and information sharing	Australia Netherlands

Source: Han, (2017)

The institutional and functional approaches were looked at sector by sector and its dissimilarities. The integrated approach and the Twin Peaks Model, on the other hand, were looked at by business sector dissimilarities. By looking at all four approaches it can be evaluated that the Twin Peaks Model and the fully integrated model made contributions towards solving the challenges associated with sector-based regulators and systemic stability (Han, 2017). It was further debated that these two approaches were more advanced than the predecessor models. They demonstrated superior structural upgrades of a conglomerate of financial markets, which led to the conclusion to combine prudential regulation and replace the mandate with that of the central bank (Meleky & Podipiera, 2012).

By trying to achieve integration at different degrees, reference can be made to the unified model, which a single model principle in charge of all financial conglomerate and their lines of business operations. This is different to semi-integrated the Twin Peaks Model. It allows for flexibility of separating the prudential regulation and business conduct regulation (Cihak & Podipiera, 2012). The key objectives of the business conduct regulation are to facilitate the operational harmony of the financial markets and to encourage confidence in the financial market, by protecting and putting consumers first (Her Majesty's (HM) Treasury, 2011). Table 2 compared prudential regulation to business conduct regulation.

Table 2 Prudential regulation versus business conduct regulation

	Regulatory instruments	**Regulatory objectives**
Prudential regulation	General: • Individual transactions • Self-dealing • Capital requirements • Entry restriction • Restriction on lending in particular areas • Interest rate restrictions • Deposit insurance • LOLR	A 'safe-and-sound' system
Conduct-of-business regulation	• Transparency • Disclosure • Suitability • Investor protection	Market confidence

Source: Han, (2017)

The Twin Peaks Model's main objective is the regulatory reform of the central bank. It regulates conglomerates of financial institutions with the core mandate of prudential and

market conduct regulation. Under the Twin Peaks Model, there is no hierarchy between the two main regulators which are the prudential regulator and business conduct regulator (Kremers & Schoenmaker, 2010). The core objectives of the Twin Peaks Model, according to Taylor (2009), include:

- Blurring of boundaries: this is the clear separation of the banking, securities and insurance sectors, needs to be corrected and replaced with a model that that has a functionally-focused structure as opposed to the sector-based regulatory system.
- Regulatory mandates: the objectives need to be clear and distinct without any chance of confusion, holding accountability for all objectives and mandates.
- The regulatory model must be relevant and subjective to the intended industry.

There are still controversies on the different methods and approaches to financial regulation. The major concern is, however, the way in which regulation is executed as that will influence the outcome on how beneficial and effective the regulatory model in question will be (Brown, 2010).

2.3.1 The dominant predecessor models versus the Twin Peaks Model of financial regulation

The reason for countries conforming to new regulatory structures, is mainly due to financial crises situations (Godwin *et al.* 2017) There are three major classifications of financial regulation models, namely the institutional, unified/super-regulator and the Twin Peaks Model inclusive of the functional model (Llewellyn, 2006).

Under the institutional model, banking, insurance and security institutions are governed by a specified specialist regulator assigned to that institution. The assigned regulator will govern all actions performed by the institution in question, regarding financial regulation, irrespective of where such actions take place. This is a single regulator approach Group of Thirty (G30, 2008). Taylor (1996) debated that a regulatory model that has no distinction or clear boundaries between banking, insurance and securities is an obsolete and inferior way of regulation.

According to Godwin *et al.* (2017), an operational approach follows similar traits under the institutional model. Taylor (1996) emphasised that using the operational approach, under the institutional model is not the most efficient way to supervise such financial systems. An operational model follows similar traits to the institutional model. As financial conglomerates grow so does all the intricacies, especially with financial institutions and their relative financial

goods (Llewellyn, 2006). Under the Unified model, one regulator is mandated to regulate two aspects, namely the prudential regulation and market conduct regulation. This is used to try and solve the downfalls of the institutional approach. This model was used by the UK before making the move to the Twin Peaks Model (Godwin *et al.* 2017). One of the biggest challenges with this model was the scepticism regarding one regulator supervising the prudential and market conduct regulation, with their unique and different cultures (Llewellyn, 2006). The other concern was that a single regulator might not be able to astutely prioritise what is mandated and have difficulty differentiating between the different financial conglomerates (Llewellyn, 2006).

The focal point of this research looks at the Twin Peaks Model. This model has two dominant regulatory functions: to supervise market conduct with a high focus on consumer protection and prudential regulation and market system stability. These functions will be allocated to individual regulators (Godwin *et al.* 2017) and will be adapted in a South African context to best fit South Africa's regulatory reform requirements.

2.4 ARGUMENTS FOR AND AGAINST THE USE OF THE TWIN PEAKS REGULATORY REFORM MODEL

Vibhuti Lalloo, Prudential Director of Ernst and Young Financial Services Africa (2018), suggests that The Twin-Peaks structure enables a holistic approach for supervising financial institutions. This results in more prudential requirements being added to the regulation of these corporations. Twin Peaks is considered beneficial to the entire financial services industry especially as South Africa is changing from a sector-based system (banking and insurance sectors are primarily being supervised by different regulators) to a more consolidated regulatory framework as shown in Figure 2.



Figure 2: The consolidated powers and enforcement of the new regulators within The Twin Peaks regulatory model
Source: Ernst and Young, (n.d.)

The consolidation of regulatory processes, shown in Figure 2, creates a platform that promotes regulatory consistency, leading to a reduction in the scope of potential regulatory arbitrage. In support, Schumlow (2015:4) presented the following arguments for applying a Twin Peaks regulatory model:

- Regulators can be more effective, with each having clear objectives that do not overlap;
- Regulators can, as a result, be more accountable and more focused;
- It creates checks and balances between agencies and their objectives;
- It allows each regulator to create its own culture that best suits its objectives; and
- It allows each regulator to acquire expertise specifically required to meet its objectives.

Thus, Schumlow (2017) suggested that the main advantage of implementing the Twin Peaks Model is the creation of a separation regulation between the prudential stability oversight and the market conduct and consumer protection, thereby ensuring that one peak does not dominate the other. The key pillars of The Twin Peaks system being implemented in South Africa are to

protect consumers and ensure fair treatment by financial institutions in terms of respect to market conduct, policy and law. Godwin (2017) added that the advantages of implementing The Twin Peaks Model are as follows:

- The two-peaks regulator is more likely to have dedicated objectives and clear mandates;
- There is a lower chance of one aspect of regulation dominating the other which solves the issue of fostering many cultures under one roof, which previously was an issue in the Super-Regulator Model;
- This Twin Peaks Model is designed to accommodate complexities that may arise in financial markets and conglomerates as posed in the Institutional model; and
- The Twin Peaks Model addresses the contentious issue of conflict of interest currently being experienced in the Unified Model.

Van Heerden and Van Niekerk (2017) see the first step toward implementing The Twin Peaks regulatory model as being encapsulated in the Financial Sector Regulation (FSR) Act, which puts its regulatory architecture in place. The objective of the FSR Act is "to achieve a stable financial system that works in the best interest of financial customers and supports balanced and sustainable economic growth in South Africa" (Van Heerden & Van Niekerk, 2017). This is achieved by establishing, in conjunction with other financial sector laws, a regulatory and supervisory framework that promotes financial stability; safety and soundness of the financial institutions; the fair treatment and protection of financial customers; the efficiency and integrity of the financial system; prevention of financial crime; financial inclusion and confidence in the financial system.

The effective implementation and functioning of the Twin Peaks Model is highly dependent on the cooperation and collaboration between the various role players in the financial system, in particular amongst the three main regulators (three main peaks) in the South African Twin Peaks Model namely the SARB, FSCA and the NCR[2].

The transformation of the FSB to the FSCA is viewed as a mechanism to create a dedicated market conduct regulator. The primary goal is to make South Africa's approach to consumer protection and market conduct in financial services more robust and to create a more resilient

[2] The National Credit Regulator (NCR) was established under the National Credit Act No. 34 of 2005 (the Act) and oversees the regulation of the South African credit industry. It is mandated to carry out education and training programmes, research, policy development, registration of industry participants and investigation of complaints in the enforcement of the Act.

and stable financial system. The debate is, however, why South Africa should consider changing the current regulatory system, which according to many, is still effective. The change to Twin Peaks further burdens the taxpayers as the implementation costs amount to several billion Rand with no guarantee of success. Furthermore, the central bank will be expected to regulate both the insurance and banking sectors, creating possible regulatory complexities and overlaps. Some financial market experts even believe the proposed role of the model to provide a financial system that functions in the best interest of consumers and supports balanced and sustainable economic growth, to be misguided. They argue that in reality, the model negatively impacts economic growth. They explain that a regulatory system driven by both Twin Peaks and the FSR Act merely adds a huge financial burden to already cash-squeezed consumers due to an increase in the resultant high administrative costs required for the implementation. These costs are passed on to consumers through either increased fees or charges in an environment where fewer innovative products are now available. The implementation of The Twin Peaks regulatory system could also reduce the number of independent brokers who provide the necessary advice to consumers, particularly in complex financial products. Table 3 shows Ernst and Young's view on the main benefits and challenges presented by The Twin Peaks regulatory model.

Table 3 The main benefits and challenges of the Twin Peaks within the South African context

Benefits	Challenges
The focused remit of separate regulators should enable the strengthening of both prudential and market conduct supervision. This will include a more pre-emptive supervisory focus and a reduction in the potential of systemic risks crystallising within the financial system.	There will be a need for an organised separation of functions, clear division of responsibilities and coordination between regulators.
Regulated financial institutions will now have greater certainty as to who has authority over their activities.	Increased cost of regulatory compliance, including levies, additional reporting requirements and additional resources, may ultimately be borne by consumers.
Employee skills, competence and professional qualifications can be acquired in specific areas of specialisation, promoting excellence and creating job opportunities.	Short to medium term skills shortages, within the regulator structures and the financial industry, might cause challenges.
Improved access to financial services and a greater focus on consumer protection will result in better outcomes for consumers.	A possible lack of maturity in the framework to embed consumer protection, through appropriate rules, principles and guidance.

Source: Ernst and Young, (n.d.)

2.4.1 A critical analysis of advantages of the Twin Peaks Model

The Twin Peaks Model has numerous advantages, making it highly favoured as a regulatory model. One of these advantages is in the structure of the model. The two peaks each have their own distinct mandates and objectives, to which each regulator is astutely dedicated

(Wymeersch, 2007). Another advantage would be the reduced risk in regulation, pertaining to prudential regulation, which serves one of the most dominant key features of this model. Wymeersch (2007) further showed how regulatory culture, comprises of many aspects such as policies, attitudes and actions utilised by regulators to meet their mandates effectively. This prevents diversified cultures under one stream, avoiding conflict.

The third advantage is the flexibility of the model to be adapted it the current environment of intricate financial conglomerates and markets. This is well illustrated in the way the Netherlands have adapted the model to suit their specific needs. The last advantage is the ability of the model to overcome disputes that may arise in a unified regulatory model, as explained by Godwin *et al.* (2017).

> The evidence of the recent financial crisis suggests that mixing functions can contribute to a lack of focus on rising macro-prudential risk and difficulties in moving to a 'war footing' when that risk becomes substantial. In addition, the incentives are different. For example, consumer protection can be well served by keeping a bank open, while stability is well served by closing it (JCFSB, 2010).

2.4.2 A critical analysis of disadvantages of the Twin Peaks Model

There are, however, also some disadvantages attached to the Twin Peaks Model. The biggest concern is the possibility of creating blurred boundaries with double regulated institutions. To ensure clarity between the regulators consistency of legislation and structures must be a firm foundation (JCFSB, 2010). This was one of the issues the UK faced, according to the Financial Stability Board (2013).

Another major concern was the potential risk of poor coordination and cooperation between the regulators in charge. This could potentially lead inadequate sharing of information and coordination, if not supervised in the right manner (IMF, 2013). Considering how the Twin Peaks Model is modified and put into practice, Central Banks may have disputes between each other. Llewellyn (2006) explained that when a central bank oversees both prudential regulations and the monetary policy, there might be a high risk of easing monetary policy in an attempt to try and prevent systemic risks, in hard economic times. There may also be an overlap of internal information with the central bank, causing unnecessary synergies (Van Hengel *et al.* 2013). Even though these are manageable risks, they still need to be considered when implementing the model (New Zealand Treasury, 2010).

2.5 THE ROLE OF CENTRAL BANKS IN THE IMPLEMENTATION OF TWIN PEAKS

A critical aspect to consider when implementing The Twin Peaks regulatory system, is the extent to which the central bank as the prudential authority should be involved (Restoy, 2018:2). In fact, it is extremely important to assign the appropriate role in supervisory models[3] to central banks. Masciandaro and Romelli (2017) proposed that the decision should go as far as exploring the best from three possible options, namely housing the prudential authority outside the central bank or setting it up as a subsidiary of the central bank or housing it inside the central bank premises. They suggested therefore that the level of involvement of the central bank in the Twin Peaks Model implementation should be clearly defined upfront.

Consequently, this implies performing a systematic review of the economics and politics of the central bank's involvement in a Twin Peaks regime. However, Restoy (2018) warned that the involvement of central banks in the supervisory system could also create conflict of objectives. The specific mandate to preserve banks' solvency – or financial stability more generally – may end up crowding out the fundamental objective of the monetary authority of pursuing price (or economic) stability, exposing the central bank to undesirable legal or reputational risks which can negatively affect its ability to effectively perform its core monetary policy function. Masciandaro and Romelli (2017), when viewing the relationship between monetary and supervision policies, distinguished between the positive and negative factors of having one regulator control both the monetary and supervisory functions. Table 4 shows how these two perspectives can be looked at.

Table 4 Central bank as prudential supervisor in the Twin Peaks Model: two view

Insourcing view	Outsourcing view
Information gains Human capital gains	Moral hazard risks Uncertainty risks Reputational risks Capture risks Bureaucratic overpower risks

Source: Masciandaro & Romelli, (2017)

[3] A supervisory model consists of the allocation of functions of mitigating systemic risks and the resolution of systemic-risk prone banks to different agencies. This includes defining the institutional features of each agency (such as independence and governance) and the possible coordination mechanisms among them.

These views are used as a means to justify the role of the central bank in what is known as insourcing and outsourcing. Insourcing refers to the supervisory role. They debated, in conjunction with the economic literature that having this degree of authority and power under one regulator, produces higher policy failure costs. However, they further argued that the central bank has more skilled and experienced staff to better handle supervisory matters. The bank would then be in a better position to act more efficiently as a supervisor in cohesion with the superior skill sets, they possess. Outsourcing, on the other hand, refers to moral hazard, uncertainty, reputation, capture and bureaucratic (MURCB) risks costs that comes about as a result of the central bank acting as a supervisor. These costs are treated as a detrimental factor when deciding whether to refrain from appointing a central banker within a Twin Peaks Model architect (Masciandaro & Romelli, 2017:1).

The pertinence of the central bank's monetary policy function is met with very little scepticism. The controversy begins when it comes to the central banks duties towards supervision. This is due to the events in 1997 when the Bank of England was relieved of its supervisory function, followed by Australia in 1998 and Ireland in 2003 (Goodhart & Schoenmaker, 1995).

Taylor (1995) gave a better perception of central bank supervision, by making a clear distinction between prudential regulation and business regulation under the Twin Peaks Model concept. One of the components of the model is made up of the prudential regulations which institutes as one of the "Peaks". This peak serves to create stability supervision which governs payment systems, banks and financial markets (Valev & Stoevsky, 2004).

The second peak of Taylor's (1995) Twin Peaks Model concept emphasises how business regulation which refers to customer protection, will control this aspect and envisage business rules and ethics by financial firms. His model further requires two different regulators to manage these functions separately. Due to a potential overlap between these two regulators, the model has not been administered into practice according to Goodhart (2001). Goodhart (2001) also showed how the USA's regulatory model was changed for this with the Federal Reserve Bank, which almost achieved the objective of prudential regulation. The other peak is handled by the Securities and Exchange Commission for business regulation or customer protection.

2.6 CASE STUDIES ON SELECTED COUTRIES OVERVIEWS OF THE TWIN PEAKS REGULATORY MODEL REFORM STRUCTURES

To assess the importance and adaptability of the Twin Peaks Model for financial reform in South Africa, countries where the model has been implemented were studied. These include Australia, the UK and the Netherlands.

2.6.1 Twin Peaks: Australia

According to the Wallis Inquiry, the Twin Peaks Model was pioneered in Australia in 1997 and implemented in 1998, after they have forsaken their sector-based model. The financial system was originally directed by government regulation and deregulation (Thomson & Abbott, 2000). Under this model the Authorised Deposit-Taking Institutions (ADIs) was responsible for the banking service sector and insurance intermediaries dealt directly with the consumer. The Reserve Bank of Australia (RBA) was created as the central bank, mandated to direct regulation over all banks in Australia (Hossain, 2009).

The other regulators for the different sectors consisted of the following:

- The Insurance Superannuation Commission (ISC) - for the 'commonwealth sector',
- The Australian Securities Commission (ASC) - to protect clients with regards to their investments,
- The Australian Competition and Consumer Commission (ACCC) - for policy irregularities and competition,
- State Supervisory Authorities (SSA) - approximately eight were created to monitor at state level,
- Australian Financial Institutions Commission (AFIC) - mandated to monitor building societies,
- The Council of Financial Regulators (CFR) - to ensure smooth continuous coordination amongst all regulators (Han, 2017).

Figure 3 presents an overview of Australia's sector-based regulators prior to the Wallis Inquiry. It was uncovered that financial market growth and development were compromised due to the unfair treatment and controls put into place over intermediaries. This was in an attempt to ascertain balance regarding competition, in the regulation of financial systems (Harper, 1997).

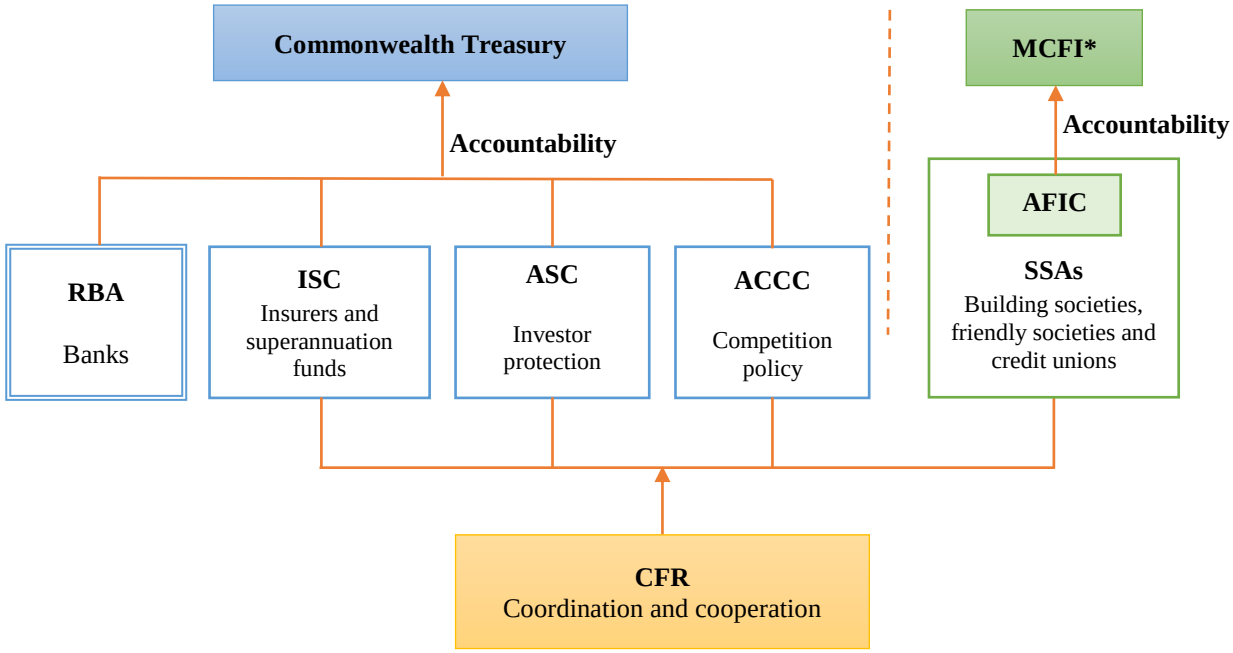


Figure 3: Sector-based financial regulatory and supervisory framework's in Australia

Note:*MCFI -Ministerial Council of Financial Institutions

Source: Han, (2017)

Structural changes were then pursued, which brought about numerous challenges for regulation. One of the major issues was the prudential regulation and supervisory position that the RBA played (Edey & Gray, 1996) The Wallis Inquiry, insinuated that there was great need for revising and re-configuring the Australian financial regulatory system. Essentially, it was decided that a functionally-focused regulator would best substitute the institutionally-focused regulator. Thus, the Twin Peaks Model was born and the Australian Prudential Regulation Authority (APRA) was established in 1998, and put in charge of prudential regulations. This was expressed by the APRA Act of 1998.

Regulatory authority was bestowed upon APRA to receive data from ADIs. The RBA was mandated to protect and encourage systemic stability. The Payment System Board (PSB) was incorporated into the RBA to ensure a safe and effective payment system, in accordance with Payment Systems (Regulation) Act 1998. The ASC became the Australian Securities and Investments Commission (ASIC). With the removal of systemic risk, the sector-based model was finally replaced with the Twin Peaks Model (Cooper, 2005) as presented in Figure 4.

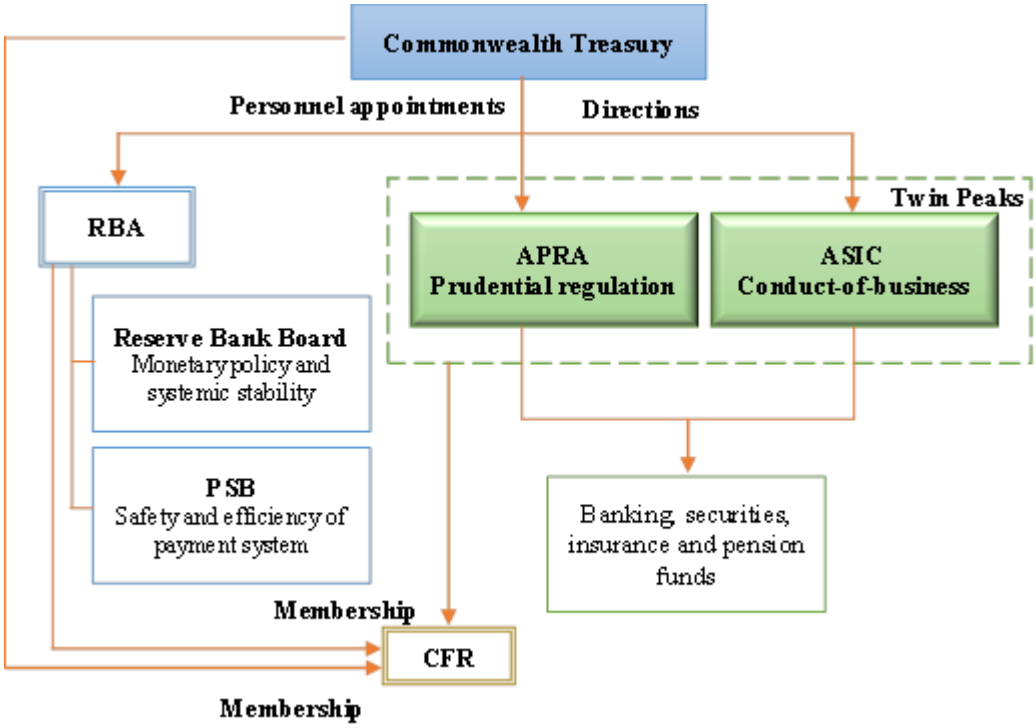


Figure 4: The Australian Twin Peaks Model approach

Source: Han, (2017)

The functional regulatory model has made its mark in improving stability and Gross Domestic Product (GDP) in Australia, during the GFC 2007/2008. The Twin Peaks Model has done its job in backing up and improving the Australian prudential regulator, with the assistance of ASIC, who has been mandated with this responsibility and improve the government's leadership (Brown, 2010).

2.6.2 Twin Peaks: Netherlands

In 2002 the Dutch changed their sector-based regulatory model to the Twin Peaks Model. The sector-based model comprised of banking, insurance and security sectors (Han, 2017). Under this model De Nederlandsche Bank (DNB) shared its mandate with the Ministerie van Financien (MvF) to ensure the monetary value in the country was in a stable condition. This led to the DNB receiving more authority which included taking over the banking sector as well as the collective investment entities and exchange offices (Mooij & Prast, 2002). Their structure further included the securities board to monitor the securities market and the Pension and Insurance Supervisor (PVK) to look after the consumers and pension funds.

Prast and van Lelyveld (2004) explained how consolidation did not play to well for the Dutch. The structure of their financial sector began to transform due to a minority number of financial conglomerates starting to control the markets. This sparked the need for financial reform. The

Council of Financial Supervisors (RFT), was created to manage and coordinate sector-based regulators, as shown in the OECD (2002). The Dutch's Authority for Financial Markets (AFM) was established in 2003, as a substitute to the STE. The mandate of the AFM was to direct business conduct and supervise across all sectors, while the DBN was established to regulate the micro-prudential regulation on a securities market platform. The DNB replaced the PVK, and was then mandated to oversee banks, securities and insurers.

Han (2017) highlighted an important contrast to the Australian model. The DNB continued to control the prudential regulation of banks, securities and insurers, pension funds, investment institutions, clearing house, monetary transaction offices, amongst others. Figure 5 demonstrates the Twin Peaks Model which replaced the Netherlands' sector-based regulatory model (Kremers, Schoenmaker & Wierts, 2003).

The Netherlands was drastically impacted by the GFC 2007/2008, including having negative issues with high level bank failures (Committee of Parliamentary Inquiry into the Financial System, 2013). Regardless of these issues, the Twin Peaks Model was assessed to be highly 'effective and efficient' (Taylor, 2009). The GFC 2007/2008 also brought about many institutional changes, which sparked the need to eliminate systemic risk, without interfering with or impacting on the Twin Peaks Model. With the assistance of the MvF it led to improved leadership by way of it being accountable (Han, 2017).

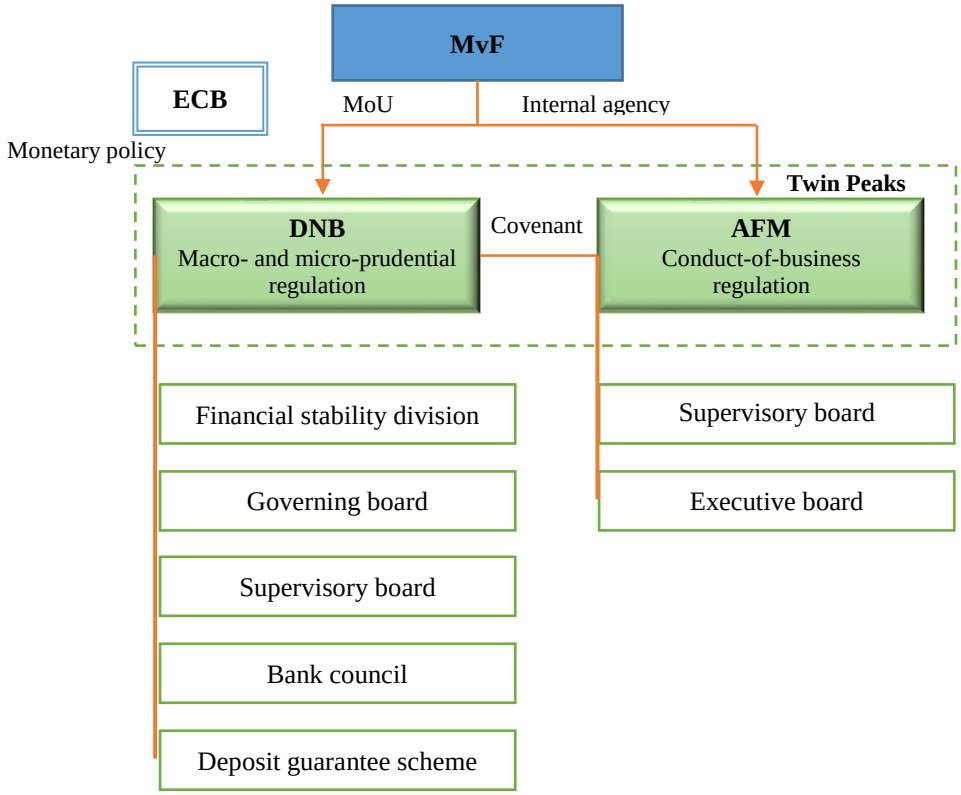


Figure 5: The Netherlands Twin Peaks Model approach

Source: Han, (2017)

2.6.3 Twin Peaks: UK

Since the Bank of England (BoE) is one of the oldest banks in the world, the view on supervision was very traditional, making it informal and non-legalistic (Goodhart, 2008). The BOE was authorised to lead and supervise respective institutions, by structuring its prudential regulation (Hall, 2001). When the British financial markets were led towards conglomeration, however, the boundaries between the banking sector, securities and insurers, became broken down (Van den Berghe, Verweire & Carchon, 1999).

The biggest international banks combined their securities transactions, derivative trading, fund management and insurance sectors across all capital markets (Davies, Richardson, Katinaite, & Manning, 2010). The FSA established the Securities Investment Board (SIB) in 1986. MoU's was used to define the bond between the BOE and SIB. The mandates given to the BOE was to oversee the financial stance and adequacies of all entities under its umbrella, while the SIB was given the highest authority to remove any entity's trading license and administer penalties as it seen fit (Deakin & Cook, 1999).

These fundamental changes combined with continuous market challenges, gave rise to the need for financial regulatory reform. The Twin Peaks Model was initially declined as a possible solution to the crisis due to the possibility of the 'Blurred Lines' effect. The government

decided that the all supervisors and regulators will be under one main body, who will monitor the entire financial market (Walker, 2001).

In 1998 the Financial Services Act (FSA) was mandated to consolidate prudential regulation of the entire financial market and across all financial entities, as the predominant regulator. It thus took over the prudential regulatory function of the BOE. A contrast for and against the Twin Peaks Model was under taken before it was completely decided whether or not to implement the model. The same factors that were arguably used against the Twin Peaks Model advocated favourably for the Twin Peaks Model to be implemented (Taylor, 2010). Contrasting to Australia and Netherlands, who implemented the model prior to the GFC 2007/2008, the UK Twin Peaks Model was implemented as a solution to the GFC 2007/2008. The Twin Peaks process initiated in 2010 and was implemented in 2013. The main objective of bringing in the Twin Peaks Model was to alleviate 'flawed regulatory regime' (Han, 2017).

The Turner's Review advocated a balance in the banking sector between prudential regulation and business conduct regulation (FSA, 2009). It was found, however, that the FSA predominantly focused on the business conduct function, therefore neglecting the prudential regulation. It was at this stage that the Twin Peaks Model was appointed and put in charge of prudential regulation with the mandate delegated to the Prudential Regulation Authority (PRA) as a subsidiary of the BoE (BoE, 1998). The FCA was given authority over consumer protection and business conduct. Figure 6 demonstrates the UK's regulatory structure after adapting the Twin Peaks Model into their supervisory regime.

The UK's implementation of the Twin Peaks Model was further an act of resolve to the GFC 2007/2008. The HS treasury provided the FPC with strictly controlled micro-prudential tools for decision making over The Twin Peaks regulator, in accordance with a draft policy statement (BoE, 2013). The BOE drastically improved its ability to supervise and ensure systemic stability, while the HM Treasury directed the UK's financial regulatory regime (Han, 2017).

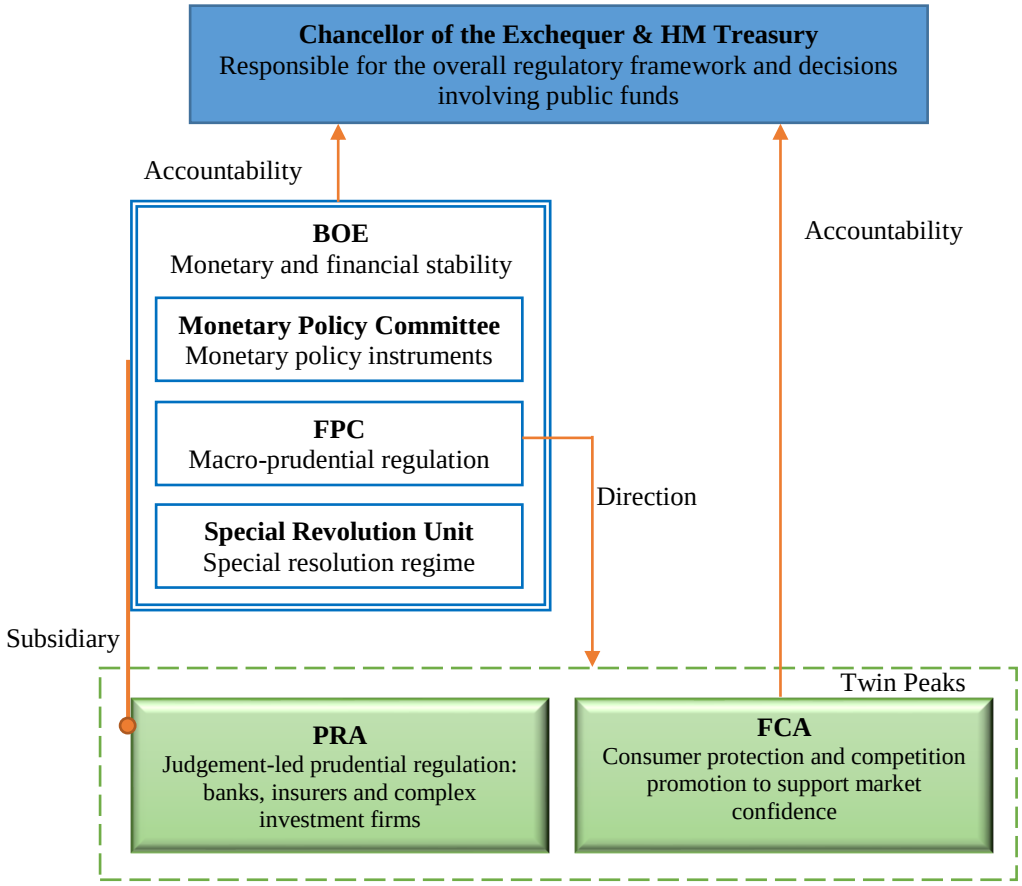


Figure 6: The United Kingdom's Twin Peaks Model approach

Source: HM Treasury, (2009)

2.6.4 A comparative analysis of the three Twin Peaks approaches

Han (2017) highlighted how Australia, the Netherlands and the UK were moved by the constant need for financial regulatory restructuring, to follow a regulatory reform approach. The three countries approached it in different ways with similarities between Australia and the Netherlands. The UK followed a very different approach by transforming from a fully or single integrated model to the Twin Peaks Model due the GFC 2007/2008. Table 5 show cases the different Twin Peaks regulatory models utilised by Australia, Netherlands and the UK, as well as a contrast of their regulatory regime structure.

Table 5 The Twin Peaks comparison table of the regulatory reforms in Australia, Netherlands and UK

	Australia	Netherlands	UK
Prudential regulator	APRA	DNB	PRA
Relationship with Central Bank	Independence	Same	BOE Subsidiary
Conduct-of-business regulator	ASIC	AFM	FCA
Relationship with Finance Ministry/Treasury	Accountability	MvF Agency	Accountability

Source: Han, (2017)

Based on The Twin Peaks Matrix, the model distinguishes and divides the prudential regulation and business conduct regulation in accordance with the country's regulatory needs. Australia and the Netherlands have a central bank that controls the micro-prudential regulation. The UK combines the BOE with the prudential regulator as a subsidiary. However, Australia and the UK share the same sentiments for making the business conduct regulator accountable to their treasury. The Netherlands decided to utilise the AFM as an internal subsidiary of the MvF (Han, 2017). These structures with their differences can be seen in Figure 7.

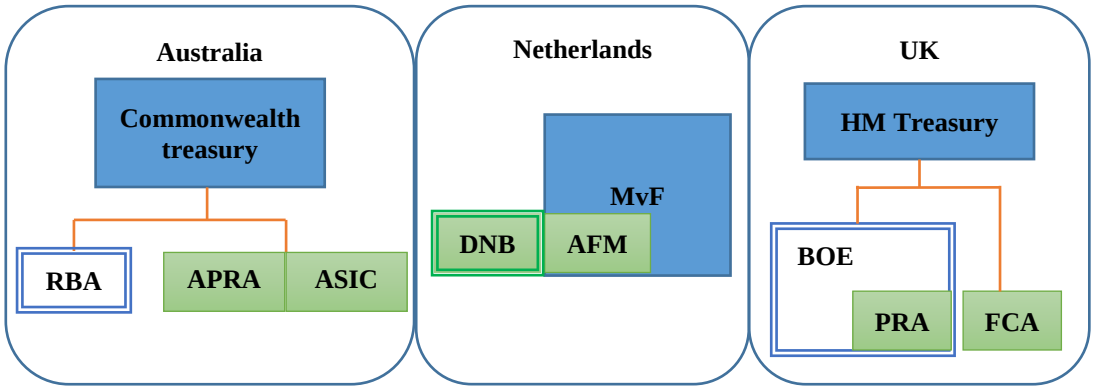


Figure 7: Twin Peaks regulatory structures compared
Source: Han, (2017)

In summary, the fundamentals regarding financial regulatory reform, were subject to various factors such as financial intermediary challenges, sector-based regulators inefficiencies and suitable reforms as solutions to the ever changing financial markets. This was evident in the Netherlands and Australia, who reformed to the Twin Peaks Model (Bell, 2013). These case studies illustrate how countries have reformed from their previous regulatory models to the Twin Peaks Model, in order to:

- Create a more effective focused regulator, (APRA in Australia and AFM in the Netherlands).
- Reform from previous models to achieve the desired goals, (separating the FSA into the PRA and CFA in the UK).
- Conglomerates to welcome the diversified mandates of the ASIC and the central banks, respectively.

It was also noted that the motivation and method of conforming the Twin Peaks Model are different for each country. The case of the UK is especially unique as implementation took place in response to the GFC 2007/2008. The fundamentals further emphasise the reasoning

behind financial reform and the consistency needed to maintain the regulatory regime of a particular country. The Twin Peaks Model should ultimately improve the objective of ensuring systemic stability and alleviate possible challenges (Han, 2017).

2.7 EMPIRICAL EVIDENCE ON THE TWIN PEAKS REGULATORY SYSTEMS

Empirical studies analysing the implementation of Twin Peaks in many economies have yielded mixed results. The various studies focused on a number of aspects pertaining to the model. Consequently the results have also varied widely, depending on the aspect considered. For instance, Masciandaro and Romelli (2017) conducted a study to explore both the economic and political principles that could be used in the evaluation of the involvement of the central bank as the prudential authority in a Twin Peaks setting in Australia, Belgium, the Netherlands, New Zealand and the United Kingdom. The results showed that the specific role of the central bank was not due to a superior mechanism in the assignment of powers to central banks. The study further supported the presence of the prudential authority to be housed within the central bank. Godwin *et al.* (2017) conducted a similar study in the same countries to evaluate the uniformity of the design and implementation of Twin Peaks from a regulatory perspective. The comparative analysis indicated many variations in the design and that neither a standardised model nor a rulebook on how the implementation should be approached, existed. Godwin *et al.* (2017) highlighted the fact that even a discussion on achieving regulatory coordination amongst jurisdictions has unveiled contradictory approaches. This can be viewed as a separation between the 'soft law' and 'hard law' approach to regulation. The hard law refers to approaching regulation through legally enforceable obligations while the soft law applies plausible legal vehicles that are not legally binding, such as Memorandum of Understanding (MoUs), mission statements and informal coordinating bodies.

Valev and Stoevsky (2004) emphasised the preferences of central bank supervisory in 20 of the OECD countries. They underlined how the birth of the European Central Bank (ECB) in 1999, gave rise to independent monetary agencies in certain states where the central banks were no longer independent. In Table 6, based on a study by Goodhart and Schoenmaker (1995), the preferences on how certain countries have adapted their central banking regime, have been capsulised.

Table 6 Monetary policy and bank supervisory agencies

Country	Monetary policy agency	Bank supervisory agency	Regime
Australia	Reserve Bank of Australia	Australian Prudential Regulation Authority	S
Austria *	National Bank of Austria	Ministry of Finance, National Bank	M
Belgium *	National Bank of Belgium	Banking and Finance Commission	S
Canada	Bank of Canada	Office of the Superintendent of Financial Institutions	S
Denmark	Denmark's National bank	Finance Inspectorate	S
Finland *	Bank of Finland	Financial Supervision Agency	S
France *	Banque de France	Banque de France, Commission Bancaire	M
Germany *	Deutsche Bundesbank	Federal Banking Supervisory Office, Bundesbank	M
Greece *	Bank of Greece	Bank of Greece	C
Ireland *	Central Bank of Ireland	Financial Services Regulatory Authority	S
Italy *	Banca d'Italia	Banca d'Italia	C
Japan	Bank of Japan	Ministry of Finance, Bank of Japan	M
Luxembourg *	Luxembourg Monetary Institute	Commission for Supervision of the Financial Sector	S
Mexico	Banco de Mexico	National Banking and Securities Commission	S
Norway	Norges Bank	Banking, Insurance and Securities Commission	S
Spain *	Banco de España	Banco de España	C
Sweden	Sveriges Riksbank	Swedish Financial Supervisory Authority	S
Switzerland	Swiss National Bank	Federal Banking Commission	S
United Kingdom	Bank of England	Financial Services Authority	S
United States	Federal Reserve System	Federal Reserve System, OCC, FDIC, State government	C
* Countries belonging to the Eurozone. The central banks do not directly conduct monetary policies			
Legend: C – combined regime S – separated regime M – mixed regime			

Source: Goodhart & Schoenmaker, (1995)

2.8 THE TWIN PEAKS A REGULATORY MODEL IN SOUTH AFRICA

With financial regulatory change becoming essential in South Africa, the Twin Peaks Model came as a well-suited solution. However, this study undertakes an analysis to find if this is what is really needed to address the South African financial regulatory shortfalls. The commencement of the Twin Peaks Model in South Africa followed a publication by the South African National Treasury (2014), highlighting the need for and the reasons why South Africa should consider this model. This in turn led to a policy document allowing an overview of the financial sector and the guidelines needed for regulatory reform. Schumlow (2017) was of the opinion that it was sparked as a protective measure, following the GFC 2007/2008 in the USA. Although South Africa escaped this relatively unscratched, the need for well-considered

comprehensive reform of its approach to financial regulation became of the highest importance. The Twin Peaks Model was introduced by the Financial Sector Regulation Act 9 of 2017(FSRA), moving South Africa away from the silo approach. The FSRA places South Africa as the first developing jurisdiction to switch to a Twin Peaks Model.

A major guiding principle in the Twin Peaks Model, highlighted in the draft Market Conduct Policy document, is for the quality of supervision by the new regulatory regime, to be intense, intrusive and effective. Van Heerden and Van Niekerk (2017) further emphasised that South Africa is a member of the G20, which ensures the resilience of its banking sector. The banking sector is regulated according to international standards issued by standard setting bodies such as the Basel Committee on banking supervision and the financial stability board.

2.8.1 Twin Peaks as the regulatory architecture of South Africa

Godwin (2017:153) stated that

> In order to establish the effectiveness of the Twin Peaks Model, it must be compared to other regulatory models. The first model, the institutional model, focuses on the form of the regulated institution, for example the SARB, and establishes a separate specialist regulator for that institution. Also known as the operational approach, the relevant regulator supervises all the activities by the institutions, regardless of the market, sector or actives undertaken. The institution, on the other hand, is regulated by the sector in which they operate or the products they engage in. A major problem with this model is the difficulty to operate as the complexities of financial products and institutions increases.

Van Heerden and Van Niekerk (2017) explain further that the second model is the unified or super-regulator model, mainly used to address the problems found in the institutional model. This is done by creating a single regulator to monitor both the conduct market and prudential soundness of a financial institution. A serious problem with this model is that prudential conduct of business requires different fundamental approaches. This might not be efficiently dealt with by a single regulator. The other issue is that a single regulator might not be able to give the necessary dedication and differentiate between the different forms of institutions and businesses. This was one of the reasons why the UK moved from the unified model to the Twin Peaks Model.

According to the 2014 National Treasury draft market conduct policy, market participants in the finance sector, exist only to serve the broader community and economy. However, the

report states that consumers are inadequately protected in South Africa and therefore emphasises that the management of the financial systems must be a main point of focus (National Treasury, 2014). The SARB, being the central bank since its inception in 1921, will become the regulatory landscape for The Twin Peaks and has been positioned as a robust prudential regulator of all banks in South Africa. Prior to the Twin Peaks Model, the FSB was responsible for insurance regulation and supervision and supervise fund managers and exchanges, including the JSE. The National Credit Regulator (NCR) oversaw lending and reported to the DTI. Due to this silo structures, financial regulation in South Africa were fragmented and susceptible to regulatory arbitrage. Van Heerden and Van Niekerk (2017) confirmed the many cracks in the system into which commercial banks could fall since they were not being solely regulated by the SARB. They often got caught in a net between the NCR and the Competition Commission.

In 2007, the NCR conducted a formal review of the South Africa's financial sector. This was shortly after the GFC 2007/2008 as well as South Africa's commitment to G20 to reform its financial regulatory system. A comprehensive policy paper was duly issued, entitled "A safer financial sector to serve South Africa better in February 2011" (Godwin, 2017). In order to learn from and prevent issues that led to the GFC of 2008, the Twin Peaks Model was explored and selected as the best fit model for future financial regulation in South Africa. Treasury then published another detailed policy document on February 01, 2013, entitled "Implementing a Twin Peaks Model of financial regulation in South Africa, The Roadmap". This set out the process going forward and emphasised imperative policy choices of prudential and market conduct supervision. Van Heerden and Van Niekerk (2017) highlighted the main aim as minimising potential conflict and regulatory arbitrage and to provide better protection to financial consumers.

The most unique feature of the South Africa's Twin Peaks Model is that it imposes an express financial stability mandate on the SARB while removing bank regulation. It established a separate juristic person, namely the Prudential Authority (PA) located in the SARB to oversee all financial institutions. Furthermore, the FSB will be replaced by the FSCA which is separate from the PA, overseeing market conduct of all financial institutions, including all banks. The NCR will operate independently as a credit market regulator. Collaboration and cooperation are mandatory between these three peaks for the success of the model.

2.9 THE TWIN PEAKS MODEL: EFFECTIVE REGULATORY FINANCIAL REFORM TOWARDS SOUTH AFRICA

The European Central Bank (2010) showed how the consequences of the GFC 2007/2008 sparked the necessity for efficient regulation as the fundamental foundation for developed countries. Van Hengel *et al*. (2013:188) reaffirms that "Over 80% of OECD countries have conformed their regulatory architecture, due to the vast expansion and intricacies of financial products and continuous hurdles that come about when trying to govern financial institutions".

2.10 CONCLUSION

Godwin *et al* (2017:130) mentions that "South Africa initiated reforms to its systems of financial regulation in 2011. Central to the reforms was a move towards Twin Peaks Model of financial regulation. The legislation of the new model (Financial Sector Regulation Act) was tabled in Parliament in October 2015 and enacted in August 2017". Transitional arrangements have been made to adopt and implement the reforms of Twin Peaks Regulators: The Prudential Authority established in January 2018 and Financial Sector Conduct Authority expected to be established in October 2018. The Twin Peaks Model as the right solution to the South Africa's problems identified earlier will thus be looked at further in relation to its possible effectiveness in South Africa.

CHAPTER 3
TWIN PEAKS: A CRITICAL DISCUSSION OF SOUTH AFRICA AND INTERNATIONAL COUNTER PARTS

3.1 INTRODUCTION

Identifying the need for improved financial regulation in South Africa, the regulatory frameworks are being replaced by The Twin-Peaks Model. In this model the central bank is responsible for bank supervision while the FSB focuses on both prudential and market conduct supervision of non-banking institutions, including insurance companies and pension funds. The third regulator, the NCR is mandated with the supervision of providers of retail credit and largely promotes credit in the retail credit industry. Not surprisingly, this model presents fragmentation in the regulatory framework, thereby creating gaps in the application of regulation requiring a streamlined twin-peaks approach (Gikunda, 2015).

The financial sector lies at the centre of a country's economic growth. For this reason it affects people and companies transacting in it domestically or from outside the borders (Financial Regulatory Reform Steering Committee, 2013:2). The main stakeholders of the sector include pensioners, workers, depositors, employers and businesses since they all carry out their financial transactions through financial institutions. The GFC 2007/2008 exposed general weaknesses in the financial regulatory environment, although the South African financial sector somehow weathered the storm. The effect of the crises and the challenges faced by the financial institutions caused the loss of nearly one million jobs in South Africa. These identified vulnerabilities, amplified by the interconnectedness of financial markets prompted a worldwide change in regulation to be implemented (Ernst & Young, 2018:P.3). A general consensus for co-ordinating global action was required for the prevention of a similar financial crisis from occurring again. Although financial services tend to be globally integrated, the regulatory framework varies from one country to another; therefore it is necessary to set a minimum international standard for national regulators.

Based on the evidence from the GFC 2007/2008, which showed the vulnerabilities in the global market and the FSR Act[4], The Twin Peaks regulatory model became the preferred regulatory system to address these challenges. The FSR Act works hand in hand with the twin-peaks

[4] The FSR Act came into force in South Africa on 1 April 2018. By a two-step process the Minister of Finance was empowered in the Gazette of 29 March 2018 to make regulations enabling the Reserve Bank to perform the functions of the Prudential Authority and for the FSB to perform the functions of the Conduct Authority.

model, with the objective to provide a stable and mature financial services sector, as well as financial products that are easily accessible, affordable and well-designed to meet consumer needs. The Conduct of Financial Institutions (CoFI) Act consolidates the guidelines in which financial institutions are expected to conduct business to achieve fair outcomes and market integrity. The proposal to implement the Twin Peaks Model as the South African financial regulator was made by the Department of National Treasury in 2011 (Department of National Treasury, 2018:1).

South Africa is preceded by other jurisdictions, such as the UK in implementing a twin-peaks approach to regulation. By implementing Twin Peaks, South Africa ensures dedicated regulatory authorities for both prudential and conduct matters to be in place. Van Heerden and Van Niekerk (2017) proposed that by virtue of South Africa being a member of the G20, the country's financial services sector should be strictly in line with its global peers. In this regard, the South African financial services sector is regulated based on stringent international standards regularly assessed by standard setting bodies such as the Basel Committee on Banking Supervision and the Financial Stability board. The twin-peaks regulatory model is now discussed in more detail, firstly from a South African perspective and then an international perspective.

3.2 THE TWIN PEAKS REGULATORY MODEL IN SOUTH AFRICA

On 1 April 2018, The South African Department of National Treasury announced that the country's financial regulatory system would radically change. Two new regulators were expected to come into operation, namely the Prudential Authority (PA) and the Financial Sector Conduct Authority (FSCA). Details pertaining to these two bodies are displayed in Table 7. Under the new regulatory system, the FSB would be replaced by the FSCA, while the SARB effectively became the resolution authority mandated to for protecting, maintaining and enhancing financial stability (Ernst & Young, 2018:2). According to the Department of National Treasury (2018:1), this involved the implementation of the Twin Peaks Model of financial sector regulation. Consequently, The Minister of Finance and Governor of the South African Reserve Bank appointed the Deputy Governor, Kuben Naidoo, as the CEO of the Prudential Authority. Established within the South African Reserve Bank, the PA would oversee and inspect the safety and soundness of the country's financial institutions. The FSR Act provides for a stronger oversight of financial conglomerates and of Systemically Important Financial Institutions (SIFIs). The FSCA would supervise the manner in which financial institutions conduct their business and treat their customers. Thus, FSCA would be responsible

for improving the protection of customer interests and customer outcomes while ensuring best services to its customers. FSCA is also responsible for ensuring that the financial sector is efficient and operates with integrity at all times. In summary, as the FSCA, its main objectives are to ensure the protection of customers participating in the financial sector by

- ensuring financial institutions treat all their customers with fairness;
- ensuring the financial industry provides its services with efficiency and integrity; and
- Providing customers (existing and potential customers) with sufficient financial educational programs, in order to promote both financial literacy and capability.

Table 7 The structure of TWIN PEAKS that will be implemented in South Africa

Prudential authority (PA)	**Financial sector conduct authority (FSCA)**
Responsible for the oversight and maintenance of financial stability	Responsible for the management of business conduct and consumer protection
Responsible for supervising safety and soundness of financial institutions that provide: • Financial products • Market infrastructures • Payment systems Special attention given to conglomerates in terms of systemic risk.	Responsible for supervising services performed in relation to: • Financial products • Foreign financial products • Securities • Market infrastructures • Payment systems TCF: Treating customers fairly (outcomes orientated)
Authority for licensing • Deposit taking (banks) • Long-term and short-term insurance acts	Authority for licensing • Financial services/advisory • Retirement savings (pension funds) • Credit rating agencies • Pooled investments
Set prudential standards for • Liquidity • Leverage • Risk management • Capital	Set conduct standards for • Product design • Advice • Disclosure • Transparency

Source: Ernst & Young, (n.d.)

The South African Finance Ministry considers the Twin Peaks Model a comprehensive and complete system for the regulation of the financial sector. The model represents a decisive shift from a fragmented regulatory approach, closing possible gaps in the system. It is also viewed as a means of removing the possible existence of regulatory arbitrages. Twin Peaks is thus aimed at making the financial sector safer and more effective in serving the interests of all South Africans through an early detection of any potential threats to financial stability.

Additionally, Twin Peaks protects customers in the financial sector by ensuring they are treated fairly. The scope of regulatory requirements and actions driving Twin Peaks is based on the FSR Act's "financial sector law". South Africa joined the UK, Netherlands and Australia as being the only countries in the world to use the twin-peaks regulatory model. Table 8 shows some of the key jurisdictions expected to be regulated by the PA and FSCA under Twin Peaks.

Table 8 Jurisdictions covered by the PA and FSCA under the twin-peaks model

Prudential authority (PA)	Financial Sector Conduct Authority (FSCA)
• Banks Act • Mutual Banks Act • Cooperative Banks Act • Financial supervision of the Road Accident Fund Act • Long-term Insurance Act and Short-term Insurance Act, as they relate to matters within the specific objectives of the Prudential authority • Regulations issued in terms of any of the above	• Pension Funds Act • Friendly Societies Act • Financial Advisory and Intermediary Services Act • Collective Investment Schemes Control Act • Financial Markets Act • Credit Rating Services Act • Long-term Insurance Act and Short-term Insurance Act, as they relate to matters within the specific objectives of the Financial Sector Conduct Authority • Regulations issued in terms of any of the above.

Source: Adopted from Ernst and Young, (2018)

3.3 FACTORS TO BE CONSIDER PRIOR TO THE IMPLEMENTATION OF TWIN PEAKS IN SOUTH AFRICA

Ernst and Young proposed a set of factors and the context in which they should be considered for Twin Peaks to be effectively applied in the South African financial sector. Each business process is analysed to discuss how is should be designed to ensure it is aligned with the appropriate, comparable twin-peaks framework. At least five processes have been identified, namely structure of risk function, skills to manage conduct risk, technological advancement, data preservation and reporting requirements, and risk culture.

3.3.1 Structure of risk function

Firms should analyse the extent to which the present composition of their risk function is in synergy to the new supervisory model (the Twin Peaks Model). The FSR Bill clearly defines which regulator is responsible for which type of financial institution. With this approach, both the reporting and communication processes between the regulators are streamlined. Within the ambit of dual-regulated firms it is imperative that the functions internally are restructured and that these function possess the capabilities which may be required (Ernst & Young, n.d.).

3.3.2 Skills to manage conduct risk

The separation between the regulation of prudential and conduct risk might require the availability of more specialised resources. A case in point is understanding conduct risk, since it is a relatively new area requiring special attention in the regulation of South African financial services. Thus, it becomes imperative that more training and development for the new and existing employees or when recruiting new employees altogether with the required skills to manage conduct risk holistically (Ernst & Young, n.d.).

3.3.3 Technology advancement

The adoption of the Twin Peaks Model may result in undue cost and the intricacies of compliance in big firms and their stakeholders. These changes may require more attention to be paid to new enabling technologies to meet the regulatory challenges. It is thus necessary that technologies are adopted early to ensure a more well-structured regulatory and compliance programmes (Ernst & Young, n.d.).

3.3.4 Data preservation and reporting requirements

The adoption of the Twin Peaks regulation may result in tighter and stricter reporting lines within increased exorbitant data bases. It is imperative that some firms are proactive by having formulated central repositories to store amalgamated information regarding risk into one central repository. This will ensure accuracy in risk reporting (Ernst & Young, n.d.).

3.3.5 Risk culture

Essentially, a sound risk culture in the financial sector is not new; the way in which regulations are implemented evolves over time. For financial institutions to be in alignment with acceptable risk practices, these conglomerates should put in place mechanisms to have functional processes to manage the following:

- Sound risk leadership;
- High propensity to take risk; and
- Attractive compensation structures that encourages the right behaviour (Ernst & Young, n.d.).

3.4 TWIN PEAKS IN THE INTERNATIONAL SOCIETY

As already stated, Twin Peaks has gained popularity in many countries, particularly on account of the vulnerabilities highlighted by the GFC 2007/2008. Godwin *et al.,* (2017:P.1) reflected to the effect that "since the time that the Twin Peaks Model originated in Australia, the model

has thus been implemented in the Netherlands, Belgium, New Zealand and the United Kingdom while the US might follow suit". The European Union (EU) Member States are migrating from sectoral-based to cross-sector models in response to the ongoing changes in the global financial markets (Schoenmaker, 2013:368). The EU's financial supervisory architecture follows a sectoral model comprised of separate authorities for banking, insurance and securities and markets (Schoenmaker & Véron, 2017:1). As new developments unfold in the EU financial sector the sectoral structure increasingly becomes outdated. Twin peaks is the first functional cross-sector model to be implemented. Furthermore, most central banks are moving away from a previous position of overly relying on the ECB. The emerging position for several euro-area countries is the adoption of the Twin Peaks Model, with the central bank given the responsibility for managing the micro-prudential and a separate financial market authority focusing on conduct of business.

Schoenmaker and Véron (2017:P.4) proposed that a synergy between prudential supervision and conduct-of-business supervision, often called the 'one-stop supervision', is achieved by combining different supervisory activities from the two regulators within one institution. Figure 8 presents an illustration of how supervisory synergies are achieved and conflicts avoided by adopting Twin Peaks.

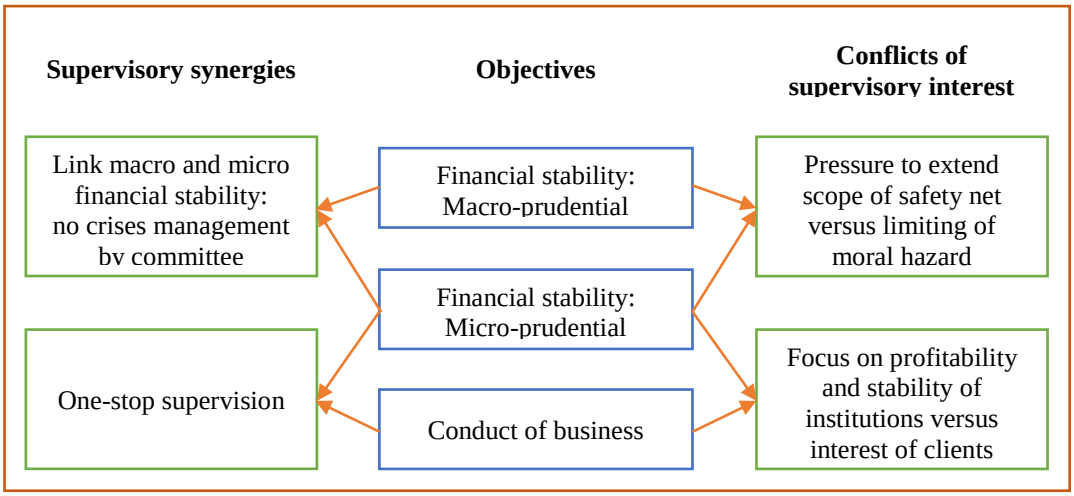


Figure 8: Supervisory synergies and conflicts

Source: Schoenmaker & Véron, (2017:P. 4)

Figure 8 shows that the existence of synergy between stability issues on the level of the financial institution (micro level) and the economy-wide (macro level) refers to the ability to act decisively and quickly when a crisis event occurs. The management of crises often requires key decisions to be made within hours rather than days. Thus, a system that combines both

micro- and macro-prudential supervision within a single institution ensures that appropriate information becomes available at short notice. Swift decisions to act on the event can thus be taken if the need arises. The Northern Rock crisis in the UK in 2007 gives testimony to the fact that a situation in which crisis management is handled by two institutions might not be very effective, as this may lead to conflicted decisions between the two different institutions.

When taking a look at the Netherlands in this regard, there are four major mandates that needs to be established for a holistic monetary and financial system. These mandates are as follows: monetary stability, financial stability, soundness of financial institutions and well functioned markets and fair treatment of consumers. This general overview is observed and stated by Kremers *et al.* (2003) as well as Herring and Carmassi (2008). Figure 9 is an adaption of Figure 8, which shows the policy framework utilised by the Netherlands. It demonstrates the core framework for the Dutch monetary and financial system and how it works in cohesion and synergy. For simplicity the primary and secondary mandates have been directly linked to the outcome each mandate is subject to achieve (Kremers & Schoenmaker, 2010).

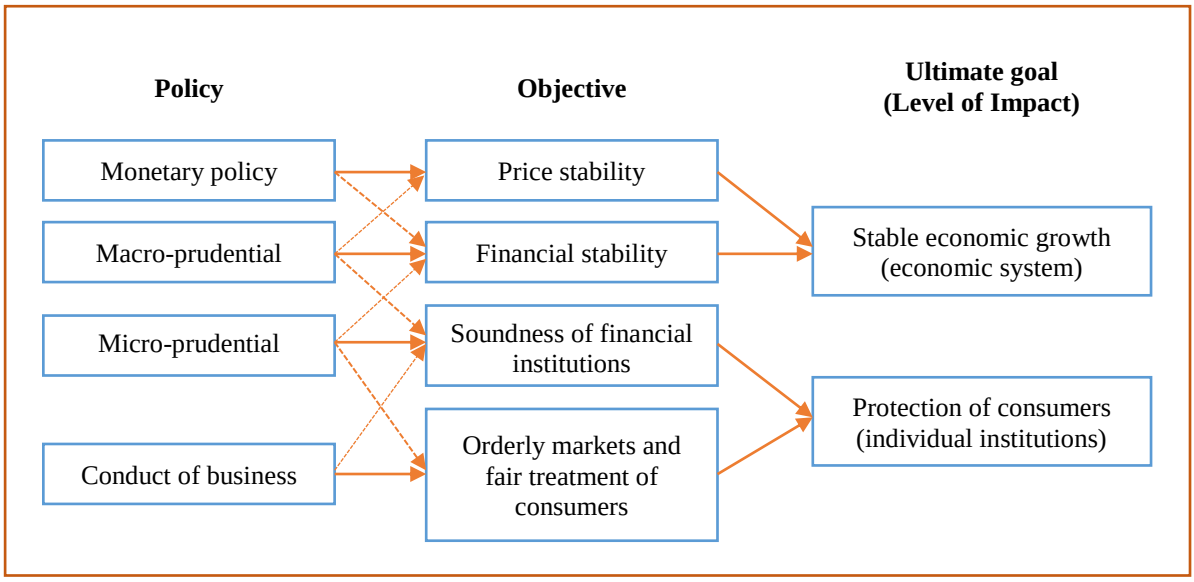


Figure 9: Netherlands policy framework
Source: Kremers & Schoenmaker, (2010)

Kremers and Schoenmaker (2010) deliberated on the supervisory structure in the Netherlands model. They emphasised that by assuming that the four objective areas should not be look at in silos and that if the systems and instruments utilised to distinguish a single objective are not working in synergy, they will compromise each other. They further discredited the assumption that by making single financial institutions safe the system in its entirety will be made safe.

Brunnermeier *et al*. (2009) argued that the misconception of the framework, whereby Basel is used as a bases of bank supervisory. Its purpose is to protect the system and framework as a whole. However, financial constituents in their attempt to protect themselves, tend to behave in a contravening manner, i.e. the vending of an inappropriate instrument to an individual, institution or bank. This will have a ripple effect, which will ultimately lead to the demise of the macro-system.

To avoid the objectives of the regulators to overshadow each other, a hierarchy of objectives was created. This will ensure that in unfavourable situations, the macro-prudential will always have preference over the micro-prudential. Figure 10 is an indication of how the hierarchy of objective will work.

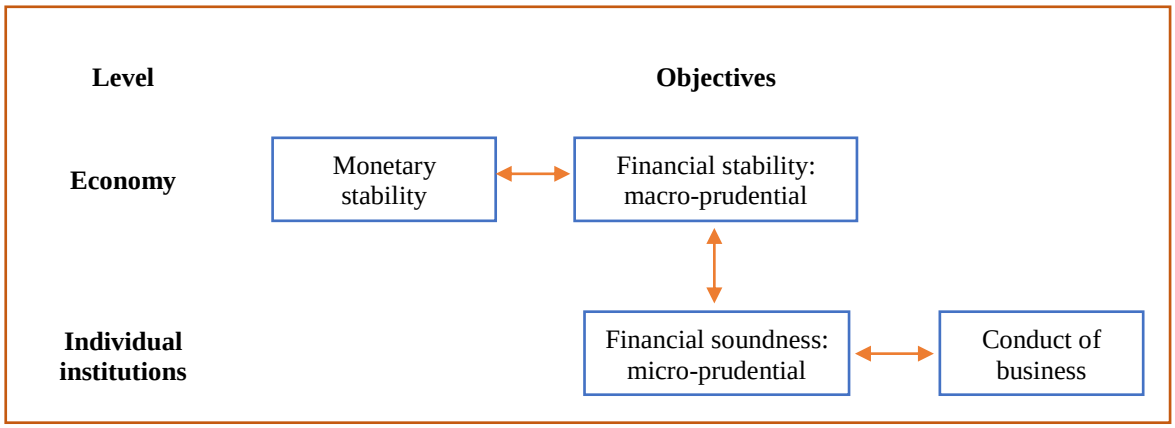


Figure 10: Hierarchy of objective

Sourced: Kremers & Schoenmaker, (2010)

Taking cognisant that under the Twin Peaks Model, whereby micro-prudential and macro-prudential is separated, there will be no need for the hierarchy of objectives. Each regulator will be dominant in their area, thus the macro-prudential will ultimately move the micro-prudential forward, creating a more efficient system (Taylor, 2009).

Australia and Canada adopted Twin Peaks a few decades back while the UK chose a single regulator model (Gikunda, 2015:P.15). Gikunda (2015) reported that in Australia, the two pillars of the Twin Peaks are the Australian Prudential Regulation Authority (APRA) and the Australian Securities and Investments Commission (ASIC). The former is responsible for the supervision of banks and insurers while the latter oversees financial services and corporation laws. By contrast, in the UK, pre-GFC 2007/2008 the Financial Services Authority was responsible for the regulation of all financial services. However, post-GFC 2007/2008, the country moved to adopt Twin Peaks with the Prudential Regulatory Authority (PRA) operating

as subsidiary of the BOE. In this new set-up the PRA is only in charge of the prudential regulation of institutions prone to systemic risks such as banks, insurers and some asset managers. Another regulator was formed, namely the Financial Conduct Authority (FCA), which is responsible for the supervision of market conduct. This method is known as 'regulation by objective', meaning regulation with the purpose of achieving particular and concrete outcomes (Schumlow, 2015:3-4). Although attempts have been made by many EU Member States to opt for Twin Peaks, its successful implementation is not easily measurable. In fact, the existence of too many policy constraints within the EU may delay the adoption in the short term. Other obstacles include the uncertainties about Brexit, treaty provisions and unpredictable changes to the geographical coverage of the banking union (Schoenmaker & Véron, 2017:P.9). As from November 2017, there were 19 countries in the EU with a big possibility of that number increasing in the future through the close cooperation among countries (Schoenmaker & Véron, 2017). For this reason, Twin Peaks is viewed more as a long-term guiding vision for the EU, and not a target achievable in the short term.

3.5 CONCLUSION

The Twin Peaks Model will ensure that South Africa has a solid and safe foundation with regard to its financial system. This will be as a result of the separated regulatory roles, namely the PA oversight and FSCA which will demand treating customers fairly and protecting the integrity of the financial services sector. With a special adaption of the model by making the NCR the third peak, credit regulation and supervision will ensure the retail credit industry is protected, (Schoenmaker & Véron, 2017) thus contributing towards easing the issue of regulatory arbitrage.

CHAPTER 4
A CRITICAL COMPARATIVE ANALYSIS OF THE TWIN PEAKS MODEL BETWEEN SOUTH AFRICA AND INTERNATIONAL COUNTER PARTS

4.1 INTRODUCTION

South Africa initiated financial regulation reform in 2011, with the inclination to fully adopt the Twin Peaks Model. The Financial Sector Regulation Act facilitated the legislation of the new model, known as the Twin Peaks Model which was tabled in Parliament in October 2015 and came into effect in August 2017. Protocols have been put into place to facilitate the transition towards implementing the reforms of the Twin Peaks Regulators. This comprises of the Prudential Authority which came into effect in January 2018 and the Financial Sector Conduct Authority expected to be established in October 2018 (Godwin *et al.* 2017). Thus, is the Twin Peaks Model the right solution for the South African problems identified earlier, which will be looked at in depth in relation to its possible effectiveness in South Africa?

4.2 OVERVIEW OF THE EFFECTIVENESS OF TWIN PEAKS FINANCIAL REGULATORY MODEL IN SOUTH AFRICA

To test the effectiveness of the new regulatory model (the Twin Peaks Model) being implemented in South Africa, against international counter parts, countries where this model has proven successful were carefully selected. According to Pan (2010) there are four primary factors that need to be considered for successful financial regulatory reform, namely

- how the regulatory systems will be structured,
- the extent to which each regulator will be separated,
- distinguishing a distinct mandate of which regulator will be responsible for monitoring and management of systemic risk and the extent of the powers bestowed to the relative party, and
- The manner in which financial services and transactions will be supervised and regulated.

A matrix based on a cross examination of factors leading towards financial crises and types of regulatory failure, were utilised in this study, based on Pan's (2010) table on financial crises as regulatory failure, as presented in Table 9. By establishing that these factors and failures are rectified through the application of the Twin Peaks Model in international counterparts, a possible positive outcome of its effectiveness in South Africa can be established.

4.2.1 Effectiveness of Twin Peaks: Twin Peaks – Resolution of Economics in A South African Context

Godwin (2017) described the advantages of the Twin Peaks Model as follows:

- The two-peak regulator is more likely to have dedicated objectives and clear mandates.
- There is a lower chance of one aspect of regulation dominating the other. This solves the issue of fostering many cultures under one roof, which was an issue in the super-regulator model.
- This model is designed to accommodate the complexities of financial markets and conglomerates as posed in the institutional model.
- The Twin Peaks Model also addresses conflict of interest experienced in the unified model.

Schumlow (2017) proposed the advantage of the Twin Peaks Model as the separation of the prudential stability oversight and market conduct and consumer protection, while preventing one peak from dominating the other. The key pillar for the implementation of the model in South Africa is the protection of consumers and ensuring fair treatment by financial institutions with regards to market conduct, policy and law.

Table 9 Financial crises as regulatory failure

Contributing factors to financial crisis	Type of regulatory failure
Predatory lending	Lack of consumer protection regulation
Unsophisticated investors and borrowers	Lack of consumer protection regulation
Risk management weaknesses	Failure of prudential supervision
Failure of credit rating agencies and other market gatekeepers	Failure of self-regulation
Unregulated financial entities and instruments	Under-regulation
Financial supermarkets	Overlapping and competing regulation and under-regulation
Cross-border financial contagion	Lack of international cooperation and doubts concerning home country supervision
Crisis response	Absence of market

Source: Pan, (2010)

4.3 THE EFFECTIVENESS OF THE TWIN PEAKS FINANCIAL REGULATORY MODEL IN DEVELOPED COUNTRIES

According to Van Heerden and Van Niekerk (2017), the first step toward implementing the Twin Peaks is being encapsulated in the FSRA 9 of 2017. This puts the regulatory architecture for the Twin Peaks Model in place. The objective of the FSRA is to achieve a stable financial

system that works in the interest of financial customers, and supports balanced and sustainable economic growth in the Republic, by establishing, in conjunction with other financial sector laws, a regulatory and supervisory framework that promotes financial stability; the safety and soundness of the financial institutions; the fair treatment and protection of financial customers; the efficiency and integrity of the financial system; prevention of financial crime; financial inclusion and confidence in the financial system (Van Heerden & Van Niekerk, 2017).

The effective implementation and functioning of the Twin Peaks Model is largely dependent on the well-considered cooperation and collaboration between the various role players (Godwin *et al.* 2017). This is especially true for the three major regulators, also known as the three main peaks in the adapted South African Twin Peaks Model, namely the SARB, FSCA and NCR.

4.3.1 The effectiveness of the Twin Peaks Model in Australia

The Twin Peaks Model which was pioneered in Australia in 1997, has proven be an exceptional architect for the regulation of Australia's financial systems. This was concluded by Cooper (2005), who further noted Australia has led by example with the successful implementation of this framework, from an international prospective.

The effectiveness of the model is a continuous process and requires the government to make continuous adjustments to improve the framework as the economy develops. Future success of this model on both a local and international level can be measured through the confidence levels of businesses, consumers and investors' willingness to invest in the country. Hill (2012) brings empirical evidence on how well the Twin Peaks Model has favoured Australia, based on Australia's performance during the GFC 2007/2008. Determinants that played a major role in Australia's resilience during the GFC 2007/2008 included monetary and fiscal policy, legal structures and reform, financial market regulation and regulatory history, banking history and corporate governance (Hill, 2012). This evidence shows that financial markets are highly influenced by intricate regulatory, economic and legal ecosystems.

Although Australia did not escape the GFC 2007/2008 completely, the affect was not as detrimental as in the USA and UK. The delineation of duties between the APRA and the ASIC, which have a specific mandate for business conduct and consumer protection, contributed to the success if this model.

However, it should be noted that this model is of one attribute, to the success of certain jurisdictions that was relieved from the ramifications of the GFC 2007/2008 in both regulatory

structure and supervisory style. Brown (2010) elaborated on the contrast of the regulatory systems utilised in the USA and UK during the GFC 2007/2008. The Twin Peaks Model had some superiority in comparison to other regulatory models, such as mitigating the risk of regulatory arbitrage, which was a major issue in the USA's financial regulatory model. Blurred boundaries could lead to conflict of interest which is a high possibility when the prudential regulator and business conduct regulator are acting as a single regulator (FSA, 2009).

A pre-Wallis report was released before the actual Wallis Report was released. This report emphasised further advantages of the Twin Peaks Model in Australia. Bora and Lewis (1997) pointed out that the consistent collaboration between the government, the APRA and the ASIC during the GFC2007/2008 was found to be more demanding under the pre-Wallis Report was mainly due to the APRA who controlled Australia's GFC 2007/2008 experience and maintained the regulatory culture responsible in retrospect.

As a point of interest, it should be noted that the APRA also experienced its own issues when it started in 1998, when Australia's second largest insurance company, HIH Insurance crashed. It was concluded that the APRA did not cause the crash, however it failed to deliver the level of expected proficiency for its mandate of supervising the Australian insurance giant. This was rectified with the major advised changes to the APRA's operational structures and stance on delivering prudential supervision in its ability to restore public confidence (Commonwealth of Australia, 2003).

4.3.2 The effectiveness of the Twin Peaks Model in the Netherlands

The need for regulatory reform in the Netherlands was highlighted by the blurred boundaries between the financial firms, markets and products. A breakage in the mandates of three sectoral supervisors, to monitor and control their respective domains, became clear. Turf battles ensued instead of trying to achieve their objective in each sector (Kremers & Schoenmaker, 2010). This gave rise to The Dutch's Twin Peaks Model. The objective-based reform put the DNB as single supervisor, with the sole mandate to bring about prudential stability to both the micro- and macro-prudential systems. The next peak created was the AFM who would be in charge of overseeing the conduct of business of all financial institutions. Thus, the DNB would be the insurance and pension supervisor while the AFM would be the security regulator.

This proved to be very effective and as a result from the regulatory reform there were significant improvements. The issue of turf battles was demolished as the objectives of the two supervisors' mandates were distinctly defined. The merging of the micro-prudential and macro-

prudential system brought further stability at the DNB. The monetary policy, however, was kept as stipulated. This was meant to ensure that the DNB would have more control in order to achieve its objective of maintaining financial stability and to establish an innovative presence internationally. With the DNB having sole micro-prudential authority for all banks, insurance and security firms, large pension funds and enormous financial markets, it established itself as one of the best supervisors internationally to deliver on this issue. Kremers and Schoenmaker (2010) thus presented four arguments that envision the success and effeteness of the Twin Peaks Model in the Netherlands, as follows:

- A robust and combined macro and micro- prudential supervisor encourages full and timely exchange of information.
- Central banks have become more efficient and effective in crises management as the micro and macro-prudential are now combined.
- When conflict arises, it envisages that macro issues will outweigh micro issues.
- Both peaks and supervisors will be equal to each other, thus preventing one spectrum from overruling the other and vice versa.

The experiences from the Netherlands show how well separating business conduct from the micro- and macro-prudential, work practically and effectively. To optimise and ensure the future success of the model, strong governance structure of the prudential and monetary authorities are needed to be established. The success of the Netherlands' Twin Peaks Model has led to several countries, moving towards the model in recent years.

4.3.3 The effectiveness of the Twin Peaks Model in the United Kingdom

As noted by Godwin *et al.* (2017) the UK was immensely impacted by the GFC in 2008. This led to a near shut down of Britain's Banking system but was saved by government intervention and pumping in billions of pounds. The UK Joint Committee on the draft Financial Services Bill (JCFSB) emphasised the weakness of the tri-partite regulatory structure, which was highlighted by the GFC 2007/2008. Taylor (2010) reaffirmed that the term "'tri-partite' refers to the three institutions previously involved in financial regulation – the BOE, the HM Treasury and the FSA. The FSA was a 'super-regulator', responsible for both market conduct and prudential supervision". The FSA was condemned for their inability to regulate and supervise the UK banks, distributor capital markets and maintain systemic stability, efficiently (JCFSB, 2012).

The introduction of the Twin Peaks Model ensured a clear distinction between the prudential regulator and conduct regulator for all banks and customers. This led to the amendment of the Financial Services and Markets Act 2000 (FSA Act) by the FSA of 2012, to ensure the new regulatory framework was in place. This all became effective in 2013, where the regulatory structure of the tri-partite system shifted to the Twin Peaks Model (JCFSB, 2012).

The new structure entails the FSA being substituted with the two dominant regulators, FCA and the PRA, which is a subsidiary of the BOE. However, the PRA is no longer a subsidiary under the new model but rather forming a component of the BOE who will be acting as the Prudential Regulator (Godwin *et al.* 2017).

Han (2017) noted, following the implementation of the UK's Twin Peaks Model that the economy has improved consistently. Inflation decreased by more than a percent from the stipulated target of the BOE, which has not been the case for over 10 years prior to the change in regulatory reform. BOE was also able to increase its Repo Rate to 5.75% in 2007 (Han, 2017) which allowed GDP output to expand even more (Hopper & Stainsby, 2006).

4.3.4 The effectiveness of the Twin Peaks Model in New Zealand

New Zealand (NZ) had a very receptive financial regulatory system. The major hurdles experienced by this system were the unexpected GFC 2007/2008, conglomerate of financial firms being unsuccessful and the unavoidable Canterbury earthquakes (Fiennes & O'Connor-Close, 2012). NZ's attempt to solve these major issues came about when they assigned the Reserve Bank of New Zealand (RBNZ) to be the prudential regulator in 2005 (Ministry of Economic Development, 2010). After this decision NZ started experiencing more and more prudential challenges. The NZ Cabinet identified some of the fundamental problems after the GFC 2007/2008. Fiennes and O'Connor-Close (2012), reflected that the most urgent problems that was experienced in April 2010, was the lack of proficiencies and disintegration of the market regulators.

With the new Twin Peaks Model in place, NZ established the Financial Markets Authority (FMA) in May 2011, who would now be the market conduct regulator. The FMA took over mandates that were shared amongst the Securities Commission, Ministry of Economic Development and NZX Ltd. (Minister of Commerce, 2010). Fiennes and O'Connor-Close (2012:5), commented to the effect that "the implementation of the Twin Peaks Model spelt the end of the fragmented regime with multiple regulatory bodies. This indeed is a positive and effective change by the FMA".

4.3.5 The effectiveness of the Twin Peaks Model in Belgium

During the GFC 2007/2008, the crashing of the European Bank impacted Belgium tremendously. Two of the most influential banks in the country had also gone under monetary constraints. Richter (2012) reported further trouble as the "Franco-Belgian mega-bank that collapsed twice and was bailed out twice within three years". The country had no choice but to nationalise and save the banking segment (Kelion, 2011). According to Tait and Steen (2008), these fall outs were a direct aftermath of the GFC 2007/2008.

The Belgium financial regulatory system used, was known as the super-regulator model. The prudential regulation was mandated to the National Bank of Belgium (NBB), in February 1998. This model was replaced by The Twin Peaks I, which then led to the replacement of the Bank, Financial and Insurance Commission in April 2011. This initial model was known as the "Twin Peaks Decree". Under this model the existing market conduct regulator was the Financial Services and Markets Authority (FSMA) (Godwin *et al.* 2017). In 2013 the Twin Peaks I was changed to The Twin Peaks II. Godwin *et al.* (2017) gave evidence from an analysis which states:

> Twin Peaks II substantially strengthens the supervisory powers of the FSMA and aims to improve market transparency and protection of investors. It builds upon the "Twin Peaks" supervisory architecture created in April 2011, under which the supervision of the financial sector and financial markets is shared between the FSMA and the National Bank of Belgium.

The FSMA received a superior updated mandate to apply government intervention, as explained by Linklaters (2013). Belgium has utilised three different financial regulatory models, with the Twin Peaks Model as the current one. They (IMF) have modelled their Twin Peaks in accordance with the foundation of the Netherlands, being more comparable to the Australian Twin Peaks Model (International Monetary Fund, 2011).

4.4 AN EFFECTIVE DESIGN FOR THE TWIN PEAKS MODEL IN SOUTH AFRICA

This section demonstrates the fundamentals to structure an effective Twin Peaks Model, based on the paper by Godwin *et al.*, (2017). Five predominate platforms are being discussed. A simplified form of the Twin Peaks Model is featured in the Figure 11.

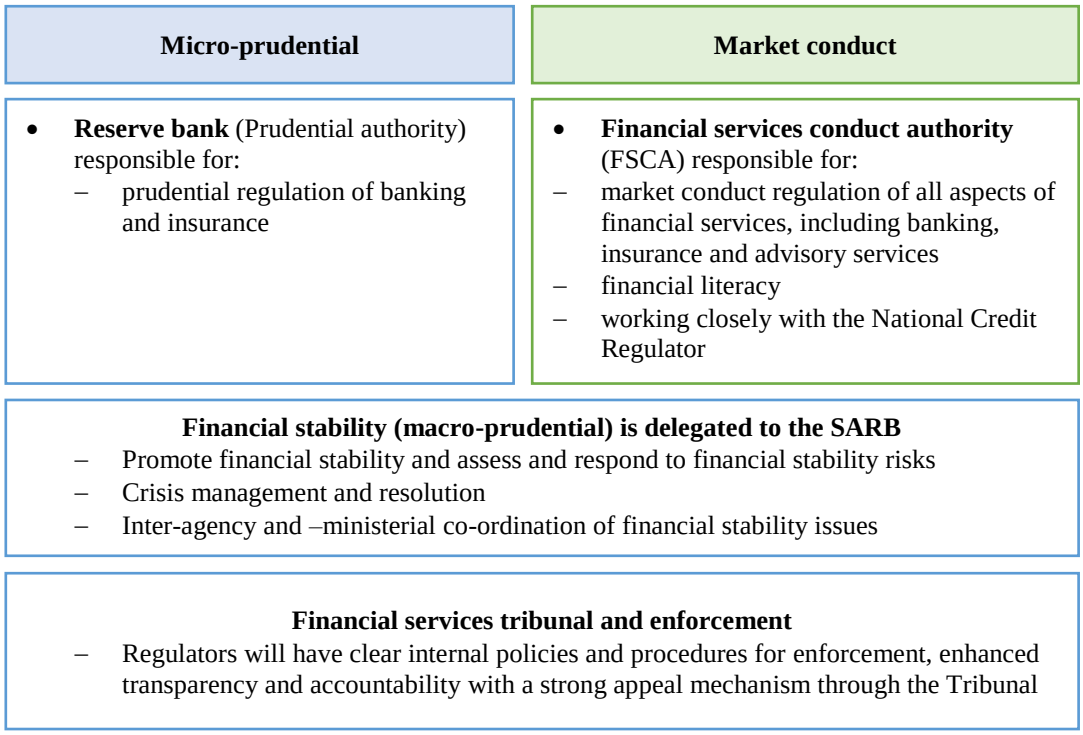


Figure 11: The Twin Peaks regulatory framework

Source: Goodspeed, (2017)

4.4.1 The housing of the prudential regulator in South Africa

One of the most vital aspects in implementing the Twin Peaks Model is the housing of the prudential regulator. Godwin *et al.* (2017:9) proposed three factors as essential that need to be considered when deciding where to house the prudential regulator which are as follows:

- "The SARB is a separate entity to the prudential regulator and it should be ascertained that the prudential regulator sits separately.
- The prudential regulator will remain a subsidiary to the SARB
- The prudential regulator could also be contained within the SARB"

4.4.1.1 The SARB is a separate entity to the prudential regulator

By considering the Australian Twin Peaks Model approach, it can be proven that keeping the prudential regulator separate from the central bank was essential. It was pioneered in this way when the APRA acted as an independent body outside of the RBA in accordance with the APRA Act, sections 7 and 13. Some of these reasons are

- Due to all the secondary functions mandated by the central bank there would be inefficiencies and flexibilities as these functions would compromise the primary functions required of the SARB.

- The aspect of clarification regarding the scepticism of whether the central bank will be able to maintain their liquidity should it become insolvent, as they are fundamental to ensuring financial stability.
- To ensure that the RBA and ARBA have distinct goals and focus, separating of both regulators is vital, this will also ensure accountability.

4.4.1.2 The prudential regulator will remain a subsidiary to the central bank

Following the example of the UK there were two main reasons to justify the prudential regulator functioning as a subsidiary of the central bank. Firstly, since the purposes of prudential and monetary policies are intrinsically connected, a link between the BOE and PRA would strive to attain the most favourable regulatory outcome. Secondly, the chance of regulatory arbitrage would be minimised due to the BOE, along with the financial policy committee statutory coordinating committee, could force the PRA to ensue regulatory ramifications and actions (HM Treasury, 2011; BOE, 1998 s. 9H). The crux of this will inherently improve the synergies of macro-prudential, micro-prudential and monetary policy.

4.4.1.3 The prudential regulator could also be contained within the central bank

Guided by the Netherlands adaption of the Twin Peaks Model, the DNB found it most beneficial to incorporate the prudential regulator within the central bank. The results of this showed evidence of synergies when the central bank of prudential supervision, was adapted by Belgium. The NBB envisages that this was the most beneficial move in regard to the bank having the required skills to be able to execute their mandates most effectively and efficiently (NBB, 2011).

NZ also followed this approach which shows the RBNZ incorporating the prudential supervision of specific institutions, according to the Reserve Bank of New Zealand Act, 1986. This transition took place in 2005, where the RBNZ was officially known as the prudential regulator (Ministry of Economic Development, 2010).

4.4.2 Defining the functions and objectives of the regulator

Van Hengel *et al.* (2013) elaborated how the success of The Twin Peaks Model is dependent on the distinct mandates of the market conduct and prudential regulators. The Basel Committee (2012) demarcated the core principles for effective banking supervision in their discussion on the functions and objections of the regulator. Two points were emphasised namely the strategic objective and the question whether the market conduct regulator should be subjected to competition. The strategic objective is stated endorsing fair, efficient and transparent financial

markets. In context with this approach, the UK's FCA demonstrated their two dominant objective strategies as enforcing the markets in question to function optimally and the working mandate of consumer protection (FSA, 2012). The Netherlands AFM stated three main mandates, which is to encourage just and diligent financial services, effective capital markets and to maintain financial stability (AFM, 2015). The Belgium FSMA has aligned their mandate to these.

For South Africa to make the Twin Peaks Model work for them and champion this model, it will need to be adapted to cater for the regulatory loopholes and arbitrage issues being experienced. Thus, the three peaks were a result of this adaption. With this adaption the 'blurred lines effect' will be resolved and there will be no grey area between the key regulators, overlapping of jurisdictions but rather ensuring effective collaboration between the three regulators, as discussed by Van Heerden and Van Niekerk (2017).

Factors to take into consideration when structuring the functions of the prudential regulator, are the ways the objectives of the prudential is articulated. It is to note whether or not competition is needed and what amount of control the prudential regulator should have over market conduct. Godwin *et al.* (2017) further express when viewing these factors that NZ, Australia, the UK and the Netherlands utilised these guidelines to structure their prudential regulator. As there is no legislation there is a requirement for competition in NZ, Belgium and Netherlands (JCFSB, 2010).

4.4.3 Structure of the relationship between the government and the regulator

Godwin *et al.* (2017) explained how the government plays a fundamental role in the execution of financial regulation. This space of study shows the separation between countries utilising the Twin Peaks Model and countries not utilising the model and elaborates the reason behind there being no archetype of the Twin Peaks Model. This is the underlining cause of scepticism as whether this model will work in solitary or not.

Essential aspects of the role of the government in the regulatory model for it to be effective in South Africa should include the South African government's ability to supervise the regulator to engage in an investigation, to ensure the regulators being the SARB, FSCA and NCR are reporting to the government. The ability of the South African government to enforce the regulators to take the remedial steps, and the government being able to use their discretion on determining the primary and dominant regulators when the situation arises.

The South African government needs a certain amount of authority to supervise the regulator to engage in an investigation. In the Twin Peaks Model this ability is dependent on the two regulators. NZ is a good example where the government may instruct the FMA to report or enquire on any situation in respect to the financial markets, market participants or anyone else working in these markets (FMA, 2011). RBNZ is authorised have an impact on liquidity policies, should the need arise (RBNZ Act, 1989, s. 14 & 33). Australia is mandated to ask the prudential regulator to give recommendations (APRA Act, 1998, s. 10), while the Dutch's DNB is required to make recommendations to the government on respective matters (DBN, 2015).

With regards to the regulators reporting to the government, the APRA in Australia is under a strict mandate to make recommendations to the government when it finds a regulated entity in financial distress (APRA, 1998, s. 10. ss.1). ASIC, however, is not subject to this rule, similar to the RBNZ and FMA. In the UK the PRA and FCA are compelled to adhere to this mandate (FSA, 2000, s. 73 & 74).

As far as the South African government enforcing remedial steps to be taken by a regulator in question, the function will be directed to the market conduct regulator and the prudential regulator. By observing how the Australian minister may request the ASIC and APRA to adhere to policies they may not dictate how to handle any cases (APRA, 1998, s. 12; ASIC, s. 12). The Netherlands aligned themselves to the Australian model to combat previous areas of concern. This also cancelled out government intervention (AFM, 2015, Act, s 1). This however is not the case in NZ, as they only have this kind of authority which can be shown over the RBNZ in this respect, according to the RBNZ Act (1989, s 68B). In respect of the prudential regulator, NZ and Australia implemented this area of study quite well. The minister is able to direct the bank in relation of government policy but may not give direction on how to perform any actions must be performed (RBNZ, 1989, s. 68B ss. 5). South Africa can learn from all the positives and negatives experienced by these countries and implement what will work, thus allowing the model to work efficiently and with fewer setbacks.

The fourth area of discussion revolves around the government being able to use their discretion on determining the primary and dominant regulator when the situation arises. This has been one of the major issues for the Twin Peaks Model, because of the double regulators, simultaneously trying to have efficient coordination and maintain the balance. However, the minister can still make the decision of who would take the lead from the dual regulators (Godwin *et al.* 2017).

4.4.4 Achieving effective coordination between South Africa's regulators

For the Twin Peaks Model to be successful in South Africa, a predominant amount of coordination between the regulators is needed. The UK confirms this and points out that each regulator cannot work in an individual manner (FSB, 2013). Australia also finds such coordination as fundamental to the success of the model.

One way of ensuring the coordination of the regulators is to create a mandate within legislation. In Australia the APRA Act enforces coordination between the market conduct regulator and prudential regulator. Where cooperation is not being legislative the concept is envisaged through integrity (APRA, 1998, s. 10A). NZ for example, has the ability to exchange information but have no law governing them to do so. The UK on the other hand, has a distinct mandate enforcing coordination and cooperation between the FCA and the PRA (FSA, 2000, s. 3D). Legislative constraints further requires any important information relating to the financial markets and infrastructure, to be shared among the FCA, BOE and the PRA (MoU, 2015). The Netherlands follows the same principles as the UK and the AFM and DNB are under legal obligation to cooperate with each other (FSA, 2013, s. 64). Under the Belgium law the FSMA and the bank are allowed to conclude their own terms of contract regarding cooperation (FSMA, 1998).

Another factor in this field is that of confidentiality and information sharing. Several mandates exist for the sharing of information despite the obligation of secrecy. This can be seen in the Australian Twin Peaks Model between the APRA and the ASIC (APRA, 1998, s. 56. ss.5). NZ has such a mandate to Australia and the FMA may utilise any information they see fit in order to perform their duties (FMA, 2011, s. 30) and the FSM in the UK is also mandated to the sharing of private information (FSA, 2000, s. 1A).

The FCA, on the other hand, is not allowed to share confidential information. Circumstances for changing this rule are documented in the FSA Act, 2000, ss. 348 and 349. The Netherlands also has mandates to govern and protect the confidentiality of private information of firms. The AFM may share information only with the DNB, as demonstrated in the AFM Act, 2015, Art. 1. S. 90(4).

Godwin *et al.* (2017) proposed the Memoranda of Understanding as an effective tool to assist with the coordination between regulators. The MoU expresses the intel on how the regulators will go about the sharing of private information. Countries such as NZ, UK, Netherlands, Australia and Belgium have all utilised the MoU, or an adapted format, which has proven

successful in this regard. This is another effective tool that South Africa can champion and look to implement to enhance the quality and effectiveness of the Twin Peaks Model in South Africa.

4.4.5 Establishing a coordinating body to monitor coordination between regulators

According to Godwin *et al.* (2017), the Twin Peaks Model gives a sense of presence of a coordinating body whether being present formally or informally. This subsection looks further into addressing two objectives:

- The existence of a coordinating body
- The government forming part of the coordinating body

4.4.5.1 The existence of a coordinating body

NZ established a formal council called the Council of Financial Regulators (CFR) to facilitate regulatory cooperation. The CFR has a set a criterion of approximately four meetings to be held annually. The head of these meetings will alternate between the RBNZ and the FMA, as reported by the RBNZ (2013). These meetings add great value to building good working relationships with the CFR having a highly positive impact (Reserve Bank of Australia, 2014). The presence of the CFR thus fulfils the ultimate goal of bringing stability to the NZ financial system and to promote efficiency and effectiveness of the Twin Peaks Model. Australia follows a similar model with a CFR fulfilling this role.

The UK took a slightly different approach and did not establish a CFR. However, they created the Financial Policy Committee (FPC), which serves as a coordinating body. One of the different features of the FPC is that it has been given authority and a mandate to give guidance to the FCA and PRA in all aspects of macro-prudential policy as well as give advice to the BOE (FSA Act, 2000, s. 9H & 9O).

The Netherlands established the Financial Stability Committee (FSC) as coordinating body. The FSC's role is to facilitate cooperation and the sharing of information. They also have been mandated to bring about financial stability, which it has done successfully (FSB, 2013). It is interesting to note is that the FSC is allowed to give cautions, however they are not legally binding.

Belgium on the other hand, utilised a different structure. They established the Protocol that contains the Liaison Committee (LC) and Joint Supervisory Committee (JSC) to ensure coordination between the regulators (MoU, 2015, s. 6 & 24).

4.4.5.2 The government forming part of the coordinating body

When South Africa is structuring a coordinating body as part of the Twin Peaks Model, it seems that some form of government representation is essential. This presence in the models of the countries under study will be examined more closely.

The Australian CFR, comprised of the APRA, ASIC, RBA and Treasury, which shows a presence of government in the body make up (RBA, 2011). The UK's FPC is a make-up of the four Deputy Governors, The Governor, Chief Executive of the FCA, bank directors, external member and representative of treasury (BoE, 2015). In NZ the CFR comprises of the RBNZ, FMA, Minister of Business, Minister of Innovation and the Minister of Employment (RBNZ, 2013), which gives clear evidence of the government's presence. The Netherland's FSC comprises of authorities, the DNB, the MOF and AFM (FSB, 2013).

Belgium is different to the other countries. The LC comprises of four members and the JSC comprises of certain heads. Anyone may join their board dependant on approval. The government is thus not directly or formally part of the coordinating body structure. However, the government has an indirect approach and informal way of being represented in the body, as shown in the MoU between the NBB and the FSMA.

4.5 CONCLUSION

The Twin Peaks Model has come along over the past twenty years, since its birth in 1998. It was pioneered in Australia, and later adopted by the Netherlands, UK, NZ and Belgium. The model splits financial regulation into two main streams, being the prudential regulation and market conduct regulation. The Twin Peaks Model has proven to be a predominant means for supervising intricate financial products and financial institutions. As the ascendancy of a country shifts away from predecessor regulatory models, it will be met with the choice of which is the best regulatory model that will meet its demands, choosing the right fit will be imperative for the success of their financial sector. South Africa is now on the journey to joining these developed countries by being the first developing country to change to the Twin Peaks Model (Department of Treasury, 2008).

CHAPTER 5
CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

South Africa as a developing country, has one of the most advanced and intricate financial systems, therefore the need for an integrated regulatory system became a major priority. Many players in the financial sector have urged South Africa to move towards a Twin Peaks Model of financial regulation and adapting to the successful testimonies of countries like Australia, Netherlands, UK, New Zealand and Belgium. This research has undertaken a critical and in-depth study of the benefits and prosperity attached to reforming to the Australian pioneered Twin Peaks Regulatory Model. This paper insinuates that by making the right decisions South Africa may adopt and adapt the Twin Peaks Model to fit the regulatory financial reform needs. However, there is no guarantee that it will come without challenges. It is critical to fully understand all options and exploit all alternatives when it comes to putting the interest of a country's needs first.

After viewing how South Africa can utilise and implement an effective design of the Twin Peaks Model, as discussed in Section 4.4, the Twin Peaks Model has a high success rate of working as South Africa has a lot of effective tools and experiences from other countries to assist in the championing of this model. Each regulatory peak, will be able to handle the regulatory loads and make this a success, provided the level of support the regulatory bodies receive from the government is as efficient as that of the government in countries that have successfully implemented the Twin Peaks Model.

5.2 CONCLUSIONS AND RECOMMENDATIONS

This paper looked at whether or not the Twin Peaks Model of financial regulation would be suitable in the South African context. A critical analysis was undertaken to assess the appropriateness of how it would be as a regulatory reform model for the country and how effective it would be. This was done by taking an in-depth look at the past and current experiences of countries such as Australia, the Netherlands, the UK, New Zealand and Belgium; that have successfully reformed and implemented the Twin Peaks Model as their own, by adapting it to fit their regulatory objectives. The Twin Peaks Model of financial sector regulation is a regulatory model pioneered in Australia. It is meant to reform a country's existing financial regulatory model that may have some flaws, to strengthen the country's finance sector.

In the South African context that would mean establishing a prudential regulator, known as the PA, which would be imbedded in the SARB. The business conduct regulator that is currently under the FSB will be converted into a resolute market conduct regulator called the FSCA. The main objectives of the Twin Peaks Model in South Africa would be to strengthen an improve market conduct, consumer protection, combat regulatory arbitrage and establish a strong and stable financial system.

With South Africa's existing regulatory model in place, based on the above research it was found that consumers are currently inadequately protected due the financial system being poorly managed. This is due to 'Peak' regulators like the SARB and NCR, working in silos, causing fragmentation and conflicts between regulators in the financial system making it susceptible to regulatory arbitrage. By adopting and reforming to the Twin Peaks Model, a strong and viable financial system can be achieved. Furthermore, by having a two peak regulator there will be distinct objectives and mandates in place. The possibility regulator dominance will be alleviated. This could resolve the issue of multiple cultures being fostered under one regulatory roof, which was a major challenge in the current regulatory model. The Twin Peaks Model was ultimately created to facilitate highly intricate financial markets conglomerates which were also an issue in the previous model.

Based on the effectiveness and efficiencies of the implementation and experiences of the Twin Peaks Model in other countries, the model will serve as the ideal regulatory solution to combat the shortfalls and current problems persisting in the South African regulatory system. This research paper, therefore recommends that implementing the Twin Peaks Model as a regulatory reform will be in South Africa's best interest. Although some challenges can be expected, the pros outweigh the cons and the sooner the model is implemented the more time South Africa will have to overcome these challenges and build on the foundation creating the ultimate financial system that will best suit the county's goals. The success of the Twin Peaks Model will be defined by the imperative effective and efficient collaboration and cooperation between the 'Peak' financial regulators and 'organs of state' who are the key players in the financial sector.

In order to facilitate this there will be a need to create diverse committees to ensure and enforce coordination and collaboration as well as efficient communications regarding all parties who will be involved in this establishment. To corroborate this, it is further recommended that the Financial Sector Regulation Act and policy makers create and implement viable legal and

institutional structures, fortifying a safe and effective financial regulatory system in South Africa.

5.3 AREAS FOR FURTHER RESEARCH

The research analysed on the effectiveness of the Twin Peaks Model in a South African context, examined the model in developed countries. South Africa is the first developing country to implement the Twin Peaks Model. Other developing countries like China and Brazil are still considering the model for their financial regime. Further research, therefore, could be done on the effectiveness in a developing country, once the model has been implemented. This could benefit developing countries wanting to reform their financial regulatory structures. Furthermore, smaller issues such culture reform towards The Twin Peak Model can also be investigated. This can include the ability of the consumer and willingness of various conglomerates to accept change and not sabotage the system on implementation.

REFERENCES

Australian Prudential Regulation Authority Act APRA. (1998). *Federal register of legislation*, viewed 15 November 2018, from https://www.legislation.gov.au

Authority for the Financial Markets AFM. (2015). *Annual report: Financial services:* Regulation tomorrow, viewed 15 November 2018, from https://www.rregulationtomorrow.com

Basel Committee on Banking Supervision. (2012). Core principles for effective banking supervision. p. 21, viewed 15 November 2018, from https://www.bis.org>bcbs

Bell, J. (2013). Path dependence and legal development. *Tulane Law Review* 87(787), p. 137.

Bank of England BOE. (1998). Bank of England Act, viewed 20 May 2018, from ps://www.legislation.gov.uk

Bank of England BOE. (2013). *The financial policy committee's powers to supplement capital requirements.* A draft policy statement, viewed 20 May 2018 from https://www.bankofengland.co.uk

Bank of England BOE. (2015). *Mapping the UK financial system, Q2,* viewed 20 May 2018, from https://www.bankofengland.co.uk

Bora, B. & Lewis, M.K. (1997). The Australian financial system: Evolution, regulation and globalization. *International Business*, 24(21).

Borio. C. (2011). Implementing the macro-prudential approach to financial regulation and supervision. The Financial Crisis and the Regulation of Finance, pp. 101-110

Botha, E. & Makina, D. (2011). Financial regulation and supervision: Theory and practice in South Africa. *International Business & Economics Research Journal,* 10(11), pp. 27-35.

Brown, E.F. (2010). A comparison of the handling of the financial crisis in the United States, the United Kingdom, and Australia. *Villanova Law Review,* 55(3), p. 574.

Brunnermeier, M., Crockett, A., Goodhart, C., Persaud, A. & Shin, H. (2009). *The fundamental principles of financial regulation.* 11th Geneva Report on the World Economy, International Centre for Monetary and Banking Studies, Geneva.

Cihak, M. & Podpiera, R. (2012). Integrated financial supervision. *North American Journal of Economics and Finance*, 19(2), pp. 135-152.

Committee of Parliamentary Inquiry into the Financial System. (2013). *Changing banking for good*. London: The Stationery Office Limited.

Commonwealth of Australia. (2003). The failure of HIH Insurance: Volume 1: A corporate collapse and its lessons. Commonwealth of Australia.

Cooper, J. (2005). The Integration of Financial Regulatory Authorities – The Australian Experience. 30th Anniversary Conference Assessing the Present, Conceiving the Future, Brazil, September 4–5, viewed 14 September 2018, from https://dv8nx270cl59a.cloudfront.net/media/1339352/integration-financial-regulatory-authorities.pdf

Davies, R., Richardson, P., Katinaite, V. & Manning, M. (2010). Evolution of the UK banking system. *BOE Quarterly Bulletin, Q4*, viewed 14 September 2018, from www.bankofengland.co.uk/publications/Documents/quarterlybulletin/qb100407.pdf.

Deakin, S. & Cook, J. (1999). Regulation and the boundaries of the law. ESRC Centre of Business Research, University of Cambridge, viewed 25 May 2018, from http://webarchive.nationalarchives.gov.uk/+/http://www.dti.gov.uk/cld/may2000/esrc9.pdf

De Nederlandsche Bank DNB. (2015). *Independence and secrecy*, viewed 1 December 2018, from http://www.dnb.nl/en/aboutdnb/organisation/onafhankelijkheid-en-geheimhouding /index.jsp

Department of Treasury. (2008). *Blueprint for a modernized financial regulatory structure*. Washington D.C., pp. 134, 142-3.

Department of National Treasury. (2018). *New Twin peaks regulators established*. Republic of South Africa, viewed 25 May 2018, from http://www.treasury.gov.za/twinpeaks/Press%20release%20Twin%20Peaks%20implementation%20March2018_FINAL.pdf.

Edey, M. & Gray, B. (1996). The evolving structure of the Australian financial system. In *The Future of the Financial System*, edited by Malcolm Edey, 6–44, RBA, viewed 1 December 2018, from https://scholar.google.com

Ernst and Young. (n.d.). *How should South African financial services firms prepare for change?* Viewed 25 May 2018, from http://www.ey.com/za/en/industries/financial-services/ey-twin-peaks-regulation-in-south-africa.

Ernst and Young. (2018). *Financial Sector Regulation Act: Implementing Twin Peaks and the impact on the industry*, viewed 25 May 2018, from https://www.ey.com/Publication/vwLUAssets/ey-financial-sector-regulation-act-twin-peaks/$FILE/ey-financial-sector-regulation-act-implementing-twin-peaks-and-the-impact-on-the-industry.pdf.

European Central Bank. (2010). *Recent developments in supervisory structures in the EU member states* (2007-10), p. 5.

Fiennes, T. & O'Connor-Close, C. (2012). *The evolution of prudential supervision in New Zealand*. Reserve Bank of New Zealand: Bulletin 75(5), p. 1-51.

Financial Market Authority FMA. (2011). *Financial Market Authority Act*, viewed 26 May 2018, from www.mbie.govt.nz

Financial Regulatory Reform Steering Committee. (2013). *Implementing Twin Peaks Regulation in South Africa*, viewed 26 May 2018, from www.treasury.gov.za

Financial Sector Regulation FSRA. (2017), FSRA Act 9 viewed 26 May 2018, from www.treasury.gov.za

Financial Services Authority FSA. (2000). *Financial Services and Market Act*, viewed 25 May 2018, from https://www.legislation.gov.uk

Financial Services Authority FSA. (2009). *The Turner Review: A Regulatory Response to the Global Banking Crisis 2009*, viewed 24 May 2018, from https://scholar.google.com

Financial Services Authority FSA. (2012). *Financial Services Authority Act*, viewed 25 May 2018, from https://www.legislation.gov.uk

Financial Services and Markets Authority FSMA. (1998). Law of 22 February 1998 Establishing the Organic Statute of the NBB (unofficial translation March 2015) art 77bis § 1(1°), viewed 02 June 2018, from https://www.nbb.be/doc/ts/enterprise/juridisch/e/organic_act.pdf

Financial Stability Board FSB. (2013). Peer Review of the United Kingdom. Report, p. 7-8, viewed 27 May 2018, from www.fsb.org

Gikunda, K.B. (2015). The way to a safer financial services sector: A comparison between South Africa and Kenya. LLM Mercantile Law dissertation, faculty of Law, University of Pretoria, viewed 27 May 2018, from https://repository.up.ac.za/bitstream/handle/2263/53135/Kiautha_Way_2016.pdf?sequence=1

Godwin, A. (2017). Introduction to special issue – The Twin Peaks Model of financial regulation and reform in South Africa. *Law and Financial Markets Review* 11(4), pp. 151-153, viewed 1 December 2018, from https://doi.org/10.1080/17521440.2017.1447777

Godwin, A., Howse, T. & Ramsay, I. (2017). Jurisdictional comparison of the Twin Peaks model of financial regulation. *Journal of Banking Regulation* 18(2), pp. 103–131,

viewed 25 May 2018, from https://ssrn.com/abstract=2905458 or http://dx.doi.org/10.2139/ssrn.2905458

Goodhart, C.A.E. (2001). *The organizational structure of banking supervision, in financial stability and central banks: A global perspective,* eds. J. Healey and P. Sinclair, Rontledge and the Bank of England, pp. 79-105.

Goodhart, C.A.E. (2008). Financial supervision from a historical perspective: Was the development of such supervision designed, or largely accidental? In *The Structure of Financial Regulation*, edited by D. G. Mayes and G. E. Wood, 43–64. Warwick: Taylor &Francis.

Goodhart, C. & Schoenmaker, D. (1995). Should the functions of monetary policy and banking supervision be separated? *Oxford Economic Papers, New Series*, 47(4), pp. 539-560.

Goodspeed, I. (2017). "Twin Peaks" *SA Financial Regulation Journal,* Sept., viewed 26 May 2018, from www.financialregulationjournal.co.za>twin-peaks

Group of Thirty (G30). (2008). *The Structure of Financial Supervision – Approaches and challenges in a global marketplace.* Washington, D.C: Financial Regulatory Systems Working Group.

Hall, M.J.B. (2001). The evolution of financial regulation and supervision in the UK: Why we ended up with the financial services authority? *Banca Impresa Societa,* 12(3), 377–412.

Han, M. (2017). Twin Peaks regulation after the global financial crises: A reform model for China. *Asian Journal of Law and Economics,* 8(3).

Harper, I.R. (1997). The Wallis Report: An Overview. *The Australian Economic Review,* 30(3), p. 290.

Herring, R. & Carmassi, J. (2008). Structure of cross-sector financial supervision. *Financial Markets, Institutions & Instruments,* 17(1), pp. 51–76.

Herring, R.J & Santomero, A.M. (2000). What is optimal financial regulation. The new financial architecture- Banking regulation in the 21st century. Pp.51-54

Heyman, T., Yskout, K., Scandariato, R., Schmidt, H. & Yu, Y. (2011). *The security twin peaks.* In: Engineering secure software and systems - Third International Symposium, 09-10 Feb. 2011, Madrid: Spain, viewed 25 May 2018, from http://dx.doi.org/doi:10.1007/978-3-642-19125-113.

HM Treasury. (2009). *Reforming financial markets,* viewed 25 May 2018, from https://scholar.google.com

HM Treasury. (2011). Financial Regulation: A preliminary consideration of the government's proposals. Report, pp. 32-33, viewed 25 May 2018, from https://scholar.google.com

HM Treasury (2015). Bank of England Bill: technical consultation, p3 viewed 25 May 2018, from https://scholar.google.com

Hill, J.G, Ferran, E., Moloney, N. & Coffee, J.C. Jr. (2012). *Why did Australia fare so well in the Global Financial Crisis?* Sydney Law School Research Paper No. 12/35. Cambridge University Press, pp. 203-300.

Hopper, M. & Stainsby, J. (2006). Principle-based regulation–better regulation? *Journal of International Banking Law and Regulation,* (7), pp. 387–391.

Hossain, A.A. (2009). *Central banking and monetary policy in the Asia-Pacific*. Cheltenham: Edward Elgar Publishing.

Implementing a Twin Peaks Model of financial regulation in SA, The Roadmap. Viewed 15 June 2018

International Monetary Fund. (2011). Kingdom of the Netherlands – Netherlands: Publication of financial sector assessment program documentation – Technical note on crises management and bank resolution frameworks, viewed 27 May 2018, from www.imf.org/external//pubs/ft/scr/2011/cr11208.pdf

International Monetary Fund IMF. (2013). *Annual report: Promoting a more secure and stable global economy,* viewed 27 May 2018, from https://www.imf.org>2013>eng>pdf

Joint Committee on the draft Financial Services Bill (JCFSB). (2012). *Draft Financial Services Bill – Report,* viewed 02 June 2018, from https://www.parliament.uk

Kelion, L. (2011). How Dexia was caught out by the Eurozone debt crisis. BBC News, 6 October 2011, viewed 24 May 2018, from http://www.bbc.com/news/business-15180153

Kremers, J. & Schoenmaker, D. (2010). Twin Peaks: Experiences in the Netherlands. *LSE Financial Market Group Paper Series, Special Paper 196,* viewed 22 May 2018, from www.lse.ac.uk/fmg/workingPapers/specialPapers/PDF/SP196.pdf

Kremers, J., Schoenmaker, D. & Wierts, P.J. (2003). *Cross-Sector Supervision: Which Model?* In Brookings-Wharton Papers on Financial Services, edited by R. Herring and R. Litan. Baltimore: Brookings Institution Press.

Linklaters, M. (2013). Twin Peaks II – Belgium. Report, p. 1, viewed 02 June 2018, from www.linklaters.com/pdfs/mkt/brussels/The_Twin_Peaks_II_Law.pdf.

Llewellyn, D. (2006). Institutional structure of financial regulation and supervision: The basic rules. Paper presented at a World Bank seminar Aligning Supervisory Structures with Country Needs, June 6-7, Washington. D.C.

Masciandaro, D. & Quintyn, M. (2011). *The handbook of central banking, financial regulation and supervision: After the financial crises 2011.* Cheltenham, UK: Edward Elgar Publishing.

Masciandaro, D. & Romelli, D. (2017). *Twin peaks and central banks: Economics, political economy and comparative analysis.* BAFFI CAREFIN Centre research paper no. 2017-68, viewed 25 May 2018, from https://ssrn.com/abstract=3098098 or http://dx.doi.org/10.2139/ssrn.3098098.

Meleky, M. & Podipiera A. (2012). Munich Personal RePEc Archive, no 37059, March, viewed 26 May 2018, from Http://mpara.ub.unimuenchen.de/37059/1/MPRA_paper_37059.pdf.

Ministry of Economic Development. (2010). *Financial sector regulatory agencies: Agency disclosure statement*. Regulatory Impact Statement, 14 September 2010, p. 4, viewed 23 May 2018, from http://www.med.govt.nz/business/business-law/pdfdocs-library/ris-financial-sector-regulatory-agencies.pdf

Memorandum of Understanding MoU. (2015). Memorandum of Understanding, viewed 28 May 2018, from https://eurointegration.com.ua

Mooij, J. & Prast, H.H. (2002). *A brief history of the institutional design of banking super vision in the Netherlands.* DNB Working Paper 48, viewed 25 May 2018, from www.dnb.nl/en/binaries/ot048_tcm47-146058.pdf.

National Bank of Belgium NBB. (2011). Financial stability review, viewed 25 May 2018, from www.nbb.be/en/articles/financialstability-review

National Treasury. (2014). Annual Report, viewed 28 May 2018, from www.treasury.gov.za

New Zealand Treasury. (2010). Financial sector regulatory agencies – regulatory impact statement, viewed 01 December 2018, from http://www.treasury.govt.nz/publications/informationreleases/ris/pdfs/ris-med-fsra-sep10.pdf/view

Nicholls, N.C. & Jasinski, D. (1995). The blurring of industry boundaries: An explanatory model applied to telecommunications. *Industrial and Corporate Change,* 4(4), pp. 755–768, viewed 26 May 2018, from https://doi.org/10.1093/icc/4.4.755.

Organisation for Economic Co-operation and Development OECD. (2002). OECD Annual Report, viewed 16 June 2018, from https://www.oecd.org

Pan, E.J. (2010). Four Challenges to Financial Regulatory Reform. *55 Villanova Law Review* 743(2010), viewed 27 May 2018, from www.digitalcommons.law.villanova.edu>iss3

Prast, H.H. & Van Lelyveld, I. (2004). New architectures in the regulation and supervision of financial markets and institutions: The Netherlands, DNB Working Paper No.21, viewed 26 May 2018, from www.dnb.nl/binaries/Working%20Paper%2021_tcm46-146678.pdf

Reserve Bank of Australia RBA. (2011). Reserve Bank of Australia bulletin, viewed 01 December 2018, from https://www.rba.gov.au>publications

Reserve Bank of Australia RBA. (2014). Reserve Bank of Australia Annual Report, viewed 01 December 2018, from https://www.rba.gov.au>publications

Reserve Bank of New Zealand RBNZ. (1989). RBNZ Act, viewed 25 May 2018, from https://www.rbnz.govt.nz

Reserve Bank of New Zealand RBNZ. (2013). Reserve Bank of New Zealand bulletin, viewed 26 May 2018, from https://www.rbnz.govt.nz>rbb2023-76-04

Restoy, F. (2018). *Central banks and financial oversight*. Financial Stability Institute, Fundación Ramón Areces, Madrid: Spain, viewed 26 May 2018, from https://www.bis.org/speeches/sp180618.pdf. (Accessed 26 May 2018).

Richter, W. (2012). The Dexia bailout is turning into a €162 Billion nightmare for Belgian taxpayers. Business Insider Australia, 25 February 2012, viewed 24 May 2018, from http://www.businessinsider.com.au/belgians-get-cold-feet-as-bailout-queen-dexia-drags-themtoward-abyss-2012-2

Schumlow, A.D. (2015). *Twin peaks: A theoretical analysis*. Centre for the study of Financial Innovation paper no. WP064/2015, viewed 26 May 2018, from https://ssrn.com/abstract=2625331 or http://dx.doi.org/10.2139/ssrn.2625331

Schumlow, A.D. (2017). Retail market conduct reforms in South Africa under Twin Peaks. *Law and Financial Markets Review*, 4(11). pp. 163-174.

Schoenmaker, D. (2013). Financial supervision in the EU. In *Handbook of safeguarding global financial stability: Political, social, cultural, and economic theories and models,* Vol. 2. Edited by Caprio, G. Oxford: Elsevier Inc.

Schoenmaker, D. & Véron, N. (2017). *A 'Twin Peaks' vision for Europe*. Policy Contribution 30 November 2017, viewed 26 May 2018, from http://bruegel.org/wp-content/uploads/2017/11/PC-30-2017-1.pdf.

Tait, N. & Steen, M. (2008). Financial crisis fells Belgian leadership. Financial Times online, 23 December 2008, viewed 01 December 2018, from http://www.ft.com/intl/cms/s/0/189bfaa2-d03b-11dd-ae00000077b07658.html#axzz3fqSPmokz.

Taylor, C. (2009). Choosing financial regulatory agency mandates. PEW Financial Reform Project Note 1, viewed 29 May 2018, from http://fic.wharton.upenn.edu/fic/Policy%20page/Choosing-Agency-Mandates.pdf.

Taylor, M.W. (1995). *Twin Peaks: A Regulatory Structure for the New Century.* London: Centre for the Study of Financial Innovation, Paper No.20.

Taylor, M.W. (1996). *Peak practice: How to reform the UK's regulator system*. London: Centre for Study of Financial Innovation.

Taylor, M.W. (2009). *Twin Peaks Revisited: A second chance for regulatory reform.* London: Centre for Study of Financial Innovation.

Taylor, M.W. (2010). The Road from 'Twin Peaks'–And the Way Back. *Connecticut Insurance Law Journal,* 16(1), pp. 61–96.

Thomson, D. & Abbott, M. (2000). Australian financial prudential regulation: A history view. *Australian Journal of Public Administration,* 59(9), pp. 78–85.

Valev, H. & Stoevsky, G. (2004). Should central banks supervise the banking system, and if so, should they supervise non-bank financial institutions as well? *Personal pages of the CEU,* viewed 01 December 2018, from www.personal.ceu.hu>MBF_Presentation

Van den Berghe, L., Verweire, K. & Carchon, S.W.M. (1999). Convergence in the financial services industry, viewed 25 May 2018 from www.oecd.org/finance/insurance/1915267.pdf

Van Heerden, C.M. & Van Niekerk, G. (2017). The Twin Peaks Model of financial regulation and reform in South Africa. *Law and Financial Markets Review*, 11(4), pp.154-162.

Van Hengel, M., Hilbers, P. & Schoenmaker, D. (2013). Experiences with the Dutch Twin-Peaks model: Lessons for Europe, in A.J. Kellerman, J. de Haan & F. de Vries (eds.), *Financial supervision in the 21st century*, pp. 185-200, Amsterdam: De Nedelandsche Bank.

Van Niekerk, G. & Van Heerden, C.M. (2017). Twin Peaks: The role of the South African central bank in promoting and maintaining financial stability. *Journal of Contemporary Roman-Dutch Law*, 80(2), pp. 636-656, viewed 25 May 2018, from https://ssrn.com/abstract=3175789

Vibhuti, L. (2018). *Ernest and Young explains the new Financial Sector Regulation Act*, Johannesburg, 3 April 2018, viewed 27 May 2018, from: https://www.ey.com/za/en/newsroom/news-releases/news-ey-explains-the-new-financial-sector-regulation-act.

Vivian, R.W. (2016). Case against introducing the Twin Peaks regulatory system, 24 August 2016, viewed 25 May 2018, from http://www.freemarketfoundation.com/article-view/case-against-introducing-the-twin-peaks-regulatory-system

Walker, G.A. (2001). *International banking regulation law, policy and practice.* London: Kluwer Law International.

Wikipedia. (n.d.). *Gini coefficient*, viewed 25 May 2018, from https://en.wikipedia.org/wiki/Gini_coefficient

Wymeersch, E. (2007). The structure of financial supervision in Europe: About Single Financial Supervisors, Twin Peaks and multiple financial supervisors. *European Business Organization Review*, 8(2), pp. 237-262.