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An economic analysis of the anti-adverse selection provisions in the Medical Schemes Act 131 of 1998

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UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG FACULTY OF COMMERCE, LAW AND MANAGEMENT

SCHOOL OF BUSINESS SCIENCES

An economic analysis of the anti-adverse selection provisions in the Medical Schemes Act 131 of 1998.

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Degree: Master of Commerce (by research)
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DECLARATION

I, the undersigned, Guiatheu Yogo Georgia (full names, please print), hereby declare that this research is my own, unaided work. It is being submitted in partial fulfilment of the requirements for the degree of Masters in of Commerce (Insurance and Risk Management) at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

I further declare that:

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_____

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Abstract

The problems of adverse selection, asymmetry of information and moral hazard are well-known problems encountered in exchange markets. There are particularly well-recognized problems in the insurance market. To manage these problems in the insurance market, various measures have evolved in the Common Law such as recognizing the legal duty to disclose all material facts. Further insurance practice manages these problems by inserting terms in insurance policies. These measures are discussed in the dissertation. In 1998, the Medical Scheme Act neutralized these measures when it introduced the community rating system and replaced these common law measures with statutory anti-adverse selection provisions such as late joiner penalty and waiting periods. Community rating prohibits the use of risk factors such as gender, age, and health status to determine the contribution to be paid by members and require all individuals to pay the same contribution irrespective of the difference in their risk profile. These are the very factors the common law requires the insured to disclose. The Medical Schemes Act thus creates a system vastly at odds with the common law position. Consequently, the reasons of government intervention in the health insurance market are examined by looking at the history of the legislation. Government intervention is discussed against the economic theory of competitive markets and market failure. Finally, the effectiveness of statutory anti-adverse selection provisions is discussed. This dissertation has two central conclusions, firstly the anti-adverse selection provisions affects the pricing mechanism and thus competitive efficiency of medical schemes. Secondly, these anti-adverse selection provisions are not the best way to solve and reduce the problems of adverse selection, asymmetry of information and moral hazard, they instead worsen the situation, and thus different measures should be proposed to achieve the policy objectives of the legislation.

Keywords: Adverse selection, Asymmetry of information, Community rating, Market failure, statutory anti-adverse selection measures.

1 Chapter One: Introduction and Problem statement

1.1 Objective of this research

Asymmetry of information, adverse selection and moral hazard are well-known problems encountered in exchange markets. These are discussed in law, commercial practice and economic theory. They are particularly well-recognised problems in insurance markets. They were identified centuries ago and law methods for constraining these problems evolved. Methods of dealing with these problems have also evolved in commercial practice and dealt with by inserting contract provisions. In more recent years economists have also increasingly paid attention to these issues in general and as they appear in insurance markets. In a very real sense, it can be said that the evolution of the law and commercial practice have produced workable solutions in practice to these problems. Other forms of selection are discussed in the literature such as propitious selection (Hemenway, 1990). But it is not necessary to deal with other forms of selection since community rating does not distinguish between or discuss these different forms of selection. However the medical schemes market legislation intervened in such a way as to neutralise these workable solutions. These problems thus now reappear in practice in the medical schemes market. Recognising that the legal and commercial practices remedies were neutralised, the Medical Schemes Act 131 of 1998 introduced its own general remedial measures to counter problems which now arise because of the introduction of the Medical Schemes Act. The primary objective of this dissertation is thus:

(a) To identify, assess and evaluate the success or otherwise of the remedial measures introduced in terms of the Medical Schemes Act 131 of 1998.

In order to achieve the primary objective two secondary objectives have to be achieve:

(b) To understand why the Medical Schemes Act was introduced, the history of the Medical Schemes Act has to be set-out

(c) In order to carry out the economic analysis an appropriate framework or economic analysis has to be developed

Since the problems are discussed in a number of disciplines such as law, commercial practice and economics, the analysis can take on a number of different approaches. This dissertation

however places the analysis within an economic framework. It will thus be necessary to set out the economic framework so the analysis can be undertaken.

It should be noted these problems which are identified above, asymmetry of information, adverse selection and moral hazard are treated differently in different disciplines. The medical schemes literature, and to large by lesser extent economic literature has concentrated more specifically on the aspect of adverse selection than the other two. Discussion of the Medical Schemes Act itself has focused on adverse selection. Economic theory for example does not draw the same clear distinction between asymmetry of information and adverse selection as is usually done in insurance law and commercial practice. Economic theory sometimes conflates the concepts of asymmetry of information and adverse selection (Dahlby, 1983). It also conflates moral hazard and asymmetry of information.

1.2 Research problem

The common law and practice has evolved creating measures and practices to deal with the problems of asymmetry of information, adverse selection and moral hazard. The Medical Schemes Act of 1998 neutralised these when it introduced community rating and tried to compensate for this loss by inserting statutory anti-adverse selection measures. This dissertation assesses the success or otherwise of these compensatory measures.

1.3 Outline of the dissertation

The dissertation proceeds as follows; section two sets out the methodology, discussion of the literature review and the contribution of the dissertation. Section three examines how the problems of asymmetry of information, adverse selection and moral hazard are dealt with in insurance, in insurance law and commercial insurance practice. Essentially section three indicates how these problems have been contained. This section indicates how the common-law developed to deal with these problems, specifically withholding material information (asymmetry of information) and adverse selection. The issue is mainly a discussion of how the common law responded. The common law did not need the notion of asymmetry of information per se. It responded by recognising a duty rests on the insured seeking insurance

to disclose all material circumstances to the insurer. If this is done asymmetry of information cannot exist. Legal theory therefore does not need to label the problem as of asymmetry of information. Commercial practice, i.e. insurance practice on the other hand recognises the possibility of adverse selection and deals with this via contract terms. Contract terms are also used to deal with the moral hazard problem. The combined effect of the common law and insurance practice is to create essentially optimal insurance markets. Section three concludes by indicating how the Medical Schemes Act neutralises the legal and practical measurers which deal with these problems. This exposed medical schemes market to problems of asymmetry of information, adverse section and moral hazard. Section four sets-out the history of the state intervention into the Medical Schemes market. Section five sets out the economic framework which is necessary to provide the economic analysis of these problems. This section also discusses how the legislative intervention is far from solving the problems, instead may create in the context medical schemes markets problems it seeks to solve. The solution may not in fact be a solution. Section five examines the approach of economic theory to these issues.

Chapter 6 identifies the anti-adverse selection measures and discusses the effectiveness of those measures. And chapter 7 provides the conclusion.

2 Chapter Two: Methodology, literature review and contribution

2.1 Introduction

This chapter describes the research methods used in the dissertation. It provides and describes the various methods used in undertaking this research and justifications for the use of these methods. The chapter also describes the various chapters of the dissertation and the literature review necessary to support those chapters. The various contributions which the dissertation makes will also be discussed.

2.2 Research Methodology

2.2.1 Qualitative research

A research methodology is a process used to better understand the subject matter being analysed and to answer the research questions in relation with the subject matter (Denzin & Lincoln, 2011) . As a result, the research methodology can be seen as a tool used by the researcher to be able investigate the subject matter and answer the research questions. This dissertation is aimed at exploring and understanding some economic theories and meanings constructed by some relevant economic authors which can be applied to understanding the medical schemes market. This dissertation investigates the effectiveness of the various statutory anti-adverse selection provisions and the justification for government intervention in the medical schemes market as a whole. This study was guided by the following research questions:

(a) What is the justification for government intervention in the form of the Medical Scheme Act 131 of 1998?

(b) How effective are the statutory anti-adverse selection provisions and what is the impact of these on the problems of asymmetry of information, adverse selection and moral hazard in the insurance market?

A qualitative research approach was chosen as the research methodology. This seems the most appropriate approach to answer the research questions. There is a need to understand the

significance of asymmetry of information, adverse selection and moral hazard in a number of contexts and how these problems have been dealt with. A qualitative approach is best suited to carry out this analysis. This approach reinforces an understanding and interpretation of economic meanings and theories applicable to these problems. The qualitative approach leads to a better understanding of the issues.

In qualitative research, the methods often used are descriptive and exploratory rather than explanatory. Qualitative research needs to be descriptive as it enables the readers to understand the problem to be solved and the impact of this problem, and this is done by using the different theories and meanings in relation with the subject matter of the topic (Denzin & Lincoln, 2011). As a result, qualitative research was deemed suitable for this dissertation as the purpose and objectives of this dissertation is to examine the problems of asymmetry of information, adverse selection and moral hazard and the implications of these to medical schemes and to identify, assess and evaluate the effectiveness of the statutory anti-adverse selection provisions of the Medical Scheme Act 131 of 1998 and places the analysis of these statutory anti-adverse selection provisions within an economic framework.

When it comes to the appropriate economic framework Reekie correctly pointed the developments which had been taking place in the medical schemes market could be analysed from a number of perspectives. He continued and expressed the view that the most useful was probably to examine these developments from an economic perspective, since economics has the competitive advantage (Reekie, 1997, p. 283). He pointed out that most commentators use economic terminology and economic arguments even if they are not economists. It makes sense therefore to approach the matter from an economic perspective. Therefore, this dissertation provides an economic framework to do so. Reekie did not attempt to do so. This again is qualitative in nature.

As the research is done from an economic perspective, whereby various economic theories are used to critically analyse and investigate the subject matter, the researcher found it appropriate to use the qualitative research methodology. A qualitative research approach was also chosen because a great deal of empirical work and analysis has already been constructed in the Health Market Inquiry Commission as discussed below. It is thus unnecessary at this stage to repeat this empirical analysis.

2.2.2 Validity and reliability in qualitative research

The reliability of qualitative research is always criticised with respect to that of a quantitative research. It appears to be believed that the data based research is superior and end results from a quantitative research is more accurate to that of qualitative research, thus quantitative research is more reliable than qualitative research. Both qualitative and quantitative research provides accurate and reliable end results depending on the various techniques used by the researcher to evaluate and analyse the subject matter (Denzin & Lincoln, 2011). Validity in qualitative research was defined by (Denzin & Lincoln, 2011) . As per their definition, the dissertation should provide the reader with an understanding of the subject matter being analysed by discussing the various meanings and contexts related with the subject matter. Thus validation of the research depends on the form of methodology process and analysis procedures used by the researcher. The validation and trustworthiness of a research process can be determine if this process and methods used enables the end result or product of the research to be achieved. This end results or content analysis should be reported in a valid and understandable manner (Elo, Maria, Outi, Tarja, Kati & Helvi, 2014).

With the discussion of each chapter outlined in this chapter, it can be ensure that the end results of this dissertation is valid, thus its validity is ensured.

2.3 Literature review; different for each chapter

The dissertation consists of five chapters, and each chapter has its own and literature review. The literature is different from chapter to chapter since each chapter deals with a different aspect of the problem. A single literature review chapter would thus be inappropriate in this paragraph, the different research methodology will be discussed.

As noted earlier, this is a qualitative study where the primary data used is underpinned strongly by descriptive design to enable the readers to understand the problem to be solved and the impact of this problem. To provide better understanding of the issues to the reader, chapter three discusses the notion of asymmetry of information and adverse selection and moral hazard as encountered in the insurance market and how these problems have been dealt with in terms

of the common law of contract. These notions will further be discussed and gathered from the different leading court cases and legislation in the UK and South Africa. The effectiveness of dealing with the three problems is established by examining the common law-position. The remedies of the common-law are strengthened by examining insurance practice that is by examining how these problems are dealt with by the insertion of contract terms in the contract policy. Clearly this literature is mainly court cases augmented by article which appeared in journals and textbooks.

In chapter four, to have a clear understanding of government intervention, a history of Medical Scheme Act is set out from various commissions. This history will also enable a conclusion to be arrived at for the justification for government intervention, the literature for this chapter is largely commissions, theses and journal articles which appeared on the history of medical schemes legislation in South Africa.

One of the main objectives of this dissertation is to set-out an economic framework to examine the statutory anti-adverse selection provisions of the Act, this is done in chapter five. The framework for the economic analysis which is set-out is based on the Neo-Classical Economic theory of competitive markets applied to insurance and medical schemes markets. This entails setting out the outcomes of a competitive market and then the theory of Market failure. This is applied to understand the existence of government intervention in the form of the Medical Schemes Act, and the allegations of market failure in medical schemes markets is examined drawn from seminal academic works on the subject. The literature in this chapter is drawn mainly form academic articles dealing with competitive markets and market failure.

The main objective of this dissertation is to identify, assess and evaluate the effectiveness of the statutory anti-adverse selection provisions of the Medical Scheme Act of 1998, this is done in chapter 6. To identify the various statutory anti-adverse selection provisions of the Act, academic and peer viewed journals and articles will be used. To assess and evaluate the effectiveness of the anti- adverse selection provisions, the published Health Market Inquiry Commission report will be discussed, especially those sections which deal with Adverse Selection (called Anti selection in the report). The outcomes and end results obtain in the Health Commission report will be compared to the outcomes of the Common law and insurance practice provisions. Therefore, the impact of the Medical Schemes Act and the effectiveness

of the statutory substitutions will be examined and assessed individually in each of the three problems; asymmetry of information, adverse selection and pre-existing conditions exclusions. Chapter 7 provides a conclusion.

2.4 Contribution

The dissertation contributes in a number of ways

Firstly as pointed out above Reekie correctly pointed out that the developments which had been taking place in the medical schemes market can be analysed from a number of perspectives. He expressed the view that the most useful framework is probably to examine these developments from an economic perspective, since economists have the competitive advantage (Reekie, 1997, p. 283). Reekie did not attempt to do so. A significant main contribution of this dissertation is to set out the economic framework which enables an economic analysis to be conducted on the problem. This framework is applied to determine if the various statutory anti-adverse selection provisions are successful. This has not been done by any in terms of another piece of research.

A second contribution of this dissertation is sets out the historical development of the medical schemes market. This historical overview will enable the previous medical scheme acts to be analysed and compared to the present Medical scheme act 131 of 1998, and examine how effective the Medical scheme act of 1998 anti-adverse selection statutory provisions will address the problem of adverse selection, asymmetric of information and moral hazard in insurance markets.

A third contribution is the identification and assessment of the anti-selection provisions contained in the Medical Schemes Act. This will be done by analysing and comparing the outcomes of the Health Market Inquiry Commission to that of the outcomes of the of the Common law and insurance practice provisions. This method or process has not been done in any paper, so this dissertation provides a more detailed and comprehensive assessment of the effectiveness of the anti-adverse selection provisions in solving the issue of asymmetry of information, adverse selection and moral hazard.

3 Chapter Three: Common law measures countering asymmetry of information, adverse selection and moral hazard

3.1 Introduction

Insurers will charge different rates to consumers depending on their specific risk factors. The rate is determined by establishing different risk factors applicable to individuals; for example in health insurance, factors like age, gender, occupation, lifestyle and existing health status can be used as risk factors to establish the applicable premium or levy. This determination is usually made when insureds enter into the contract. Insureds are then pooled with other individuals with the same risk factors. In this way homogeneous pools are created. In this way low-risk or healthy individuals are pooled together and charged a lower premium, while high-risk or ill individuals are pooled together and charged a higher premium. The health status of the individual is clearly complex. To make it clear, when entering into the contract of insurance the insured has to disclose his or her health status and insurers can insert a term in the policy which excludes undisclosed pre-existing conditions. Through this process all insureds are correctly priced and low risk healthy insureds are not overcharged by cross-subsidising high risk individuals. High-risk insureds are not undercharged and will not be enticed to join low risk pools and will remain in the market. Correctly pooling insureds have a number of consequences as does incorrectly pooling insureds (West, 2013). To correctly pool insureds requires insureds to reveal all their risk factor's information and specifically that they do not conceal material information. Where the information is concealed, the problem of asymmetry of information is encountered. Where this is deliberately done to deceive the insurer, where this risk is likely to increase the problem is one of adverse selection. In this case adverse selection is merely a form of asymmetry of information.

If all risk factors are revealed the contract can be properly priced and little if any cross-subsidisation takes place. Insurance markets correctly rates are thus Pareto Optimal.

3.2 Methods used by insurance company to solve adverse selection

Insurance companies to limit the consequences of adverse selection places limits, that is aggregate limits on coverage and insurance contract liability or increase premium, this avoids the insurance company to be exposed to excessive financial risk (Richard, McGuire, Bae & Rupp, 1997).

Adverse selection in medical insurance occurs where insureds delay the purchase insurance until they are ill, this can be avoided by the implementation of compulsory purchase of health insurance imposed by legislation. This would be the case where, mandatory membership is imposed. The government may impose compulsory health insurance for everybody and impose taxes on those who refuse to purchase health insurance, this will encourage the public to purchase insurance (Belli, 2001). Mandatory insurance does not exist in South Africa. In the context of South Africa, mandatory health insurance, in the form of National Health Insurance may be introduced which may require all health schemes to have a common set of contribution rates and benefit packages (Van Den Heever, 2012).

In South Africa, health insurance can be purchased in addition to medical schemes. This additional cover is voluntary. There has always been concerns that insureds would purchase risk rated insurance instead of community rated medical schemes, these consumers may delay the purchase of medical schemes cover until they are ill and thereby medical health schemes would be faced with consumers that exhibit both adverse selection and moral hazard behaviours. Low risk insureds may abandon medical schemes in favour of the cheaper risk rated schemes leaving only high risk individual in the schemes. This pushes schemes to increase the levies to cover costs and make coverage unaffordable, especially by the high risk individuals.

Mandatory membership will also help to avoid anti-selection behaviours of schemes. The problem of adverse selection could cause medical schemes to be selective when choosing to whom to provide insurance cover; to so call “Cherry Pick”. Mandatory cover will prohibit schemes from embarking on anti-selection behaviour. Medical schemes are always sceptical when it comes to providing insurance cover to high risk individuals, usually persons over the age of 65. Medical schemes could exclude high risk individuals, in which case the schemes would need to increase the premium. Mandatory health insurance is an efficient method to avoid this increase in cost, which is mostly experience in private health insurance. Mandatory health insurance enables customers to receive efficient health services at efficient and fair cost,

thus health insurance becomes affordable to everyone. But as indicated above mandatory cover does not exist at this point of time in South Africa.

Coinsurance is another solution to solve some forms of moral hazard. This happens whereby both the insured and insurer share the amount for the health expenses in to a proportion (Arrow, 1963). Most of the ratio is 80% for the insurer and 20% for the insured. One manifestation of moral hazard is excessive visits to doctors since being insured the cost to the insured is reduced. Imposing co-insurance means the insured bears some of the costs, enough to discourage excessive service usage.

The general law of contract contains special rules which governs insurance contracts. These rules are;

(a) Insurable interest

(b) The contract is one of indemnity

(c) The contract can be one of utmost good faith.

The requirement of good faith requires insureds to disclose all material circumstances, this reduces the problem of asymmetry of information.

3.3 Duty of Good Faith: the duty to disclose material circumstances and the insurance contract

As indicated above the problem of asymmetry of information including adverse selection is dealt with in terms of legal duties which have developed in the common law. This is not a legal dissertation and it will suffice to understand the duty to disclose material circumstances by discussing the leading cases which introduced and developed the legal doctrine that the insured is under a duty to disclose all material circumstances when entering into a contract, and a contract of insurance in particular. The UK cases are first discussed and then the SA cases. Because of the community rating system introduced in the Medical Schemes Act these safeguards are not available to medical schemes. The question which arises is to what extent the statutory measures introduced in the Medical Schemes Act produce comparable outcomes.

3.4 UK case law and subsequent codification of case law

3.4.1 Carter v Boehm 1776 3 Burr 1095; 1776 ER

The duty to disclose material fact was first recognised in 1776 in the Carter v Boehm case.

The duty to disclose material circumstances was stated as follows by the judge Lord Mansfield:

> "Insurance is a contract upon speculation.
> The special facts, upon which the contingent chance is to be computed, lie most commonly in the knowledge of the insured only; the underwriter trusts to his representation, and proceeds upon the confidence that he does not keep back any circumstances in his knowledge, to mislead the underwriter into a belief that the circumstances do not exist, and to induce him to estimate the risk as if it does not exist. The keeping back of such circumstances is a fraud, and therefore the policy is void. Although the suppression should happen through mistake, without any fraudulent intention, yet still the underwriters deceived, and the policy is void, because this risque [risk] run is really different from the risque [risk] understood and intended to be run, at the time of the agreement. The policy would equally be void against the insurer if he concealed [it]."

A detailed discussion of the case is set-out in the annexure so as not to overburden the text. In this case the insured event was the falling of a fort into enemy hands. The fort was situated in a foreign country and insurance was arranged in the UK via an agent. Should this event materialise the insurer would be liable. When arranging insurance the agent did not disclose the attack was imminent and the defences of the fort were flimsy. As indicated above Lord Mansfield made the legal position clear a duty rested on the insured to disclose all material circumstances when entering into a contract, in this case the contract of insurance, Lord Mansfield made it clear the failure to make these disclosures bordered on fraud.

It can thus clearly be said that the problem of asymmetry of information is greatly reduced because of the common law.

3.4.2 Brownlee v Campbell 1880 AC 925 HL

The court expressed the duty to disclosure material facts as follows:

> "In policies of insurance, whether marine insurance or life insurance, there is an understanding that the contract is of uberrima fides, that, if you know of any circumstance at all that may influence the underwriter's opinion as to the risk he is incurring, and consequently as to whether he should take it or what premium he will charge if he does take it, you will state what you know. There is an obligation there to disclose what you know; and the concealment of a material circumstance known to you, whether you have thought it material or not, avoids the policy."

The legal position was once again clearly stated. A duty rests on the insured to disclose all material circumstances. This duty ensures there can be no asymmetry of information.

Again so as not to overburden the text the details of the case are set out as an annexure,

The facts of the case are complex because of the complex issues of property law in the UK which prevailed in the early 1800. Brownlee acquired rights to immoveable property which it was believed resided directly with the Crown. In terms of this belief there was no third party involved. In fact before the sale a third party intimated having rights to the property. This claim was disputed and nothing more was heard. This possible claim was never disclosed to Brownlee who entered into the contract and expressly accepted all risks associated with the property. That would include the risk that another party may well have rights in the property. Two years after the sale the third party reappeared and claimed a year's rent in satisfaction of his claim. The third parties claim was held to be valid. Brownlee then brought an action based on the failure to disclose the third parties claim or at least the claim had been made. As indicated above once again the court confirmed there is a duty to disclose all material circumstance. However, in this case since the purchaser had agreed to accept all risks associated with the transaction the claim arising out of the failure to disclose the material facts failed.

3.4.3 Materiality test can be found in section 18(2) of the Marine Insurance Act 1906:

The common law with respect to insurance in England was codified in 1906 as follows

> "Every circumstance is material which would influence the judgement of a prudent insurer in fixing the premium or determining whether he will take the risk."

According to the common law, the durability to exercise the duty of disclosure continues throughout the negotiations till the binding of the contract is concluded. The remedy for non-disclosure is a common law remedy. When utmost good faith does not take place and is not respected by both parties, this affects the validity of the contract, as the contract will be void and avoided by both parties (Wei, 2012).

Again it should be clear the duty exists on the insured to disclose all material facts and thus asymmetry of information is not a significant problem in insurance contracts.

The codified version made the decisive matter "the judgement of the prudent insurer". This turned out to be a problem since it favoured the insurer. A more reasonable approach would have been the reasonable insured, since the duty is on the insured to make the disclosure. It took over a 100 years for this to be rectified in the UK. As indicated below the South African courts declined to follow the UK position and the test in South Africa is the reasonable man test.

3.4.4 Recent reforms

After more than 100 years and after most countries had rejected the UK position of the reasonable insurer, including South Africa, the UK reformed its law abolishing a general duty to disclose and placing the duty on the insured to truthfully answer the questions set out in the proposal form.

A proposal form is a document which contains specific questions in relation with the risk involved which is usually furnished by the insurer to the insured. It necessitates the insured to answer accurately the questions by providing all information relevant to the insurer, this a form of disclosure procedure whereby the insured has to observe the duty of utmost good faith (Yeasmeen, 2015).

In the case where the insured provides wrong or inaccurate answers or statements in the proposal form, the contractual duty gives the right to the insurer to avoid the insurance contract whether this misrepresentation was made fraudulently or innocently, or whether this misrepresentation was consider as material circumstance or not (Yeasmeen, 2015; Ombudshman for short- term insurance, 2019).

The above cases, Carter v Boehm 1776 and Brownlee v Campbell 1880 both recognised that it is duty of the insured to disclose all material facts to the insurer or underwriter to be able to decides on whether to accept or reject the risk and to determine the premium to charge, and in any case of misrepresentation and non-disclosure, the insurer has the right to avoid the policy. The duty of disclosure by the insured which influences the judgment of a prudent insurer was also stated in the Marine Insurance Act 1906, but this rule was in favour of the insurer so was later changed by imposing the duty on the insured to truthfully answer the questions in the proposal form.

3.5 South African case law and codification

The duty to disclose material facts was also accepted in South Africa in the case of Fine v General Accident 1915 AD and Colonial Industries ltd v Provincial Insurance Company Co Ltd 1922. However South African courts in the case of Mutual and Federal Insurance Company Ltd v Oudtshoon Municipality 1985, rejected the reasonable insurer test and made a change which was in favour of the insured by opening the door to introduce the test of a reasonable man, to determine the degree of negligence in misrepresentation and non-disclosure of a material fact.

Therefore there is a difference between the position in the common law and that of the Medical Scheme Act. Because of community rating material facts are not taken into consideration in the medical schemes market. A person seeking medical schemes cover does not need to disclose material facts and if disclosed the scheme cannot take these facts into consideration when determining the levy.

South Africa via case law adopted the UK duty to disclose.
The duty to disclose material facts was accepted in Fine v General Accident 1915 AD.

3.5.1 Colonial Industries Ltd v Provincial Insurance Co Ltd 1922 AD 33

The duty of disclosure was expressed by Lord Blackburn in the case of Brownlee v Campbell:

> "In policies of insurance whether marine or life insurance, there is an understanding that the contract is, uberrima fides, that if the assured know any circumstances at all that may influence the underwriters opinion as to the risk he is incurring, and consequently as to whether he will take it, the assured should state what he know. There is an obligation there to disclose what you know; and the concealment of a material circumstance known to you, whether you thought it material or not, avoids the policy."

Again so as not to overburden the text the details of the case are set out in the annexure.

The insured failed to disclose a number of material facts and went further and gave incorrect answers to questions set out in the proposal form,

3.5.2 Mutual and Federal Insurance Company Ltd v Oudtshoorn Municipality 1985 SA 1 419 A

Worldwide disagreement with the UK position existed that the insured had a duty to disclose information the insurer thought was material. So although SA courts accepted the UK position that a duty to disclose material facts existed it view was it could not be what an insurer thought was material. So in Mutual & Federal v Oudtshoorn Municipality 1985 the court changed the test to that of the reasonable man.

Again so as not to overburden the text the facts of the case are set out in the annexure.

Briefly the insured was a municipality which owned an airfield. At the end of the run way there were some overhead electrical lines. One night a plane crashed into the overhead lines and as a consequence the municipality was sued. The municipality lodged a claim for indemnification against the insurer which repudiated the claims on the basis of several material non-disclosures. The insurer alleged the insured did not disclose the existence of the overhead lines, that complaints had been lodged by pilots concerning the lines and that recently night

time flying has started. This gave the court the opportunity to reassess the doctrine of duty to disclose. The court decided to depart of the English position and ruled the test of the reasonable insurer was inappropriate. Shortly thereafter the court ruled the test is the reasonable man test

According to the test of a reasonable man, the justification of whether a fact is material or not had to be from the point of view of a reasonable man or a prudent person, that is will a reasonable man or person consider this fact to be material to a prudent underwriter or insurer when assessing the risk.

This was included in Section 53 of the Short term insurance Act 1998, which defines material misrepresentation and non-disclosure as;

> "A fact will be material if a reasonable, prudent person would consider such fact or information to be correctly disclosed to a short term insurer so that the insurer can assess the risk."

3.5.3 Codification

The duty to disclose material facts was codified (in part) by legislation. The purpose of the legislation was to deal with warranties

3.5.4 Insurance Act 27 of 1943

Section 63 (3) was inserted into the Insurance Act 27 of 1943 in 1969 which dealt in part with disclosure.

> "63(3) notwithstanding anything to the contrary contained in any domestic policy or any document relating to such policy, any such policy issued before or after the concealment of this Act, shall not be invalidated and the obligation of an insurer thereunder shall not be excluded or limited and the obligations of the owner thereof shall not be increased. On account of any representation made to the insurer which is not true, whether or not such representation has been warranted to be true, unless the incorrectness of such representation is of such a nature as to be likely to have materially

affected the assessment of the risk under the said policy at the time of issue or any reinstatement or renewal thereof"

3.5.5 Short-term Insurance Act 58 of 1998

Misrepresentation and failure to disclose material information

(1)(a) Notwithstanding anything to the contrary contained in a short-term policy, whether entered into before or after the commencement of this Act, but subject to subsection (2)

(i) the policy shall not be invalidated;

(ii) the obligation of the short-term insurer thereunder shall not be excluded or limited; and

(iii) the obligations of the policyholder shall not be increased, on account of any representation made to the insurer which is not true or failure to disclose information, whether or not the representation or disclosure has been warranted to be true and correct, unless that representation or non-disclosure is such as to have materially affected the assessment of the risk under the policy concerned at the time of its issue or at the time of any renewal or variation thereof.

(b) The representation or non-disclosure shall be regarded as material if a reasonable, prudent person would consider that the particular information constituting the representation or which not disclosed, as the case may be, should have been correctly disclosed to the short term insurer so that the insurer could form its own view as to the effect of such information on the assessment relevant risk.

(2) If the age of an insured under an accident and health policy has been incorrectly stated to the short term insurer, the policy benefits shall, notwithstanding subsection (1), be those which should have been provided under that policy in return for the premium payable had the age been correctly stated: Provided that nature of that accident and health policy is such as to render such arrangement inequitable, the Registrar may direct the short term insurer to apply such different method of adjustment to the policy benefits of that accident and health policy as the Registrar considers equitable in relation to the misstatement of age.

The insured must disclose all material facts within his knowledge to the insurer, and if it happens that the insured fails to disclose material facts, the insurer will void the contract, and in case of misrepresentation, whereby the insured fails to accurately answer the questions in the proposal form, the policy can still be void by the insurer. But according to the short term

Insurance Act, No 53 of 1998, a policy can only be repudiated if the non- disclosure of material facts affected the assessment of the risk involved by the insurer (Yeasmeen, 2015; Hofmeyr, 2019).

3.5.6 Insurance Act 18 of 2017

The above section was not repeated in the Insurance Act but is now to be dealt with in terms of subordinate legislation.

The Insurance Act 18 of 2017 has as objective to;
To establish a legal framework for the regulation and supervision of insurance market, to promote the maintenance of insurance market by monitoring the safety of insurers, to protect policyholders and increase access to insurance for all South Africans.

This Act introduces a micro insurance framework, which will encourage the entry of new firms, thus this also encourage and increases the number of South Africans who purchases insurance with the introduction of new insurance products both life and non-life policies and the protection provided to policyholders, policyholders will be encourage to purchase more insurance policies and low income individuals may also be able to purchase quality insurance products. By monitoring the insurance market through the legal framework implemented, the Act will make sure the informal insurers become regulated insurance providers.

3.6 Commercial practice - Contractual provisions

Insurers sometimes insert terms or conditions in their contracts which deal with asymmetry of information, adverse selection and moral hazard type of situations or ask specific questions in the proposal form. For example, insurers require insureds to disclose material facts, retain the right to avoid a claim if the insured commits fraud. Where experience teaches precautionary steps must be taken by the insured the insurer could make the taking of those steps obligatory. An example of this is discussed in the Norman Welthagen Investments Ltd case discussed in the annexure. In this case experience has taught insurers that keys should not be kept in the ignition of cars on display. Insurers thus insist these keys be kept in a locked safe. The insurer successfully repudiated a claim because the insured did not comply with the contract

conditions. An insurer might also decide to exclude pre-existing conditions when setting the contract which is important in the medical schemes market. Some insurance companies also set conditions in insurance contracts which excludes coverage for certain types of expensive health care products and services. So clearly market practice has evolved where insurers deal with the three problems being discussed using contractual terms.

3.7 Conclusion: the common law with respect to asymmetry of information

Conclusively, the problem of asymmetry of information is contained by the common law by recognising the insured's duty to disclose all material circumstances to the insurer to assess the risk and that in case of non-disclosure, the insurer can avoid the insurance contract. Adverse selection is regarded as an example of asymmetry of information. If a person delays the purchase of insurance until the risk of the event has increased the insured has a duty to disclose this and if not the contract can be avoided by the insurer. These problems are also dealt with in terms of contract terms and condition

3.7.1 Countermeasures are effective

Conclusion regarding the duty to disclose material facts.

It can thus be concluded that the common-law, augmented by legislation is very effective in dealing with the problem of asymmetry of information. This is augmented by contractual provisions. Probably in all countries round the world there is a legal duty on the insured to disclose all material circumstances which can influence the insurer's ability to assess the risk.

3.7.2 Efficient markets are created

As a rule thus insurance contracts are appropriately rated using risk factors based on material information which produces homogenous risk pools.

Conceptually at least each homogenous risk pool is economically speaking Pareto Optimal. If these markets are Pareto Optimal, market failure has not occurred (Bator, 1958). Without market failure there is no justification for government intervention.

The prohibition against insurers using risk factors to set premiums is thus unprecedented in insurance practice. The medical schemes pools are thus not Pareto Optimal.

3.7.3 Medical Schemes Act 131 on 1998 neutralised the counter measures

It should be clear that by introducing community rating the Medical Schemes renders the common law and contractual terms ineffective. Because of community rating medical schemes cannot rate policies in terms of risk factors which is the main reason why material information needs to be disclosed. Therefore the duty to disclose material facts was abolished with the introduction of the community rating provisions. Thus it would be possible for a person to wait until they are ill before purchasing medical cover. Even if this is disclosed the medical scheme cannot rely on this information to rate the policy nor decline to accept the insured. It is thus necessary when community rating is imposed to also insert anti-adverse selection measures as discussed below.

3.8 Moral hazard

The problem of moral hazard is less clearly dealt with in terms of legal doctrines which have been developed in the Common law, than asymmetry of information. Moral hazard is more commonly dealt with in terms of contract terms and conditions, this can be seen in the court case of *South African Eagle Insurance Company Ltd V Norman Welthagen Investments* Ltd 1993.
In this case the South African company inserted a term in the insurance policy to avoid moral hazard behaviour of the insured, but the insured breached this term, thus the insurer voided the contract. This is discussed in detail in the Annexure.

Moral hazard occurs when individuals' behaviour causes the cost of insurance to increase. In the medical schemes market this refers to the situation whereby individuals increase the use of medical services because of insurance, for example when a person is insured, the insured always has an incentive to use medical services to a greater extent than if not insured and to use services that are expensive which he would not if he did not have insurance. Thus this behaviour increases the cost of insurance. The increased use of medical services may also be as a result of over-servicing by suppliers such as doctors. This is recognised and Supplier

Induced Demand (SID) as discussed in the Health Market Inquiry. To remedy this, insurance companies reduce the problem of moral hazard by sharing the costs of medical services with the insured. This is done by instituting co-payment, co-insurance like deductibles which is a specific amount the insured is required to pay before the insurance policy is accepted by the insurer (JobKoijen, Yoel & Zeelenberg, 2007). But the Act prohibits the use of coinsurance. This is yet another example of how the Act has neutralised most of the common law measures.

Another method used by insurance companies to reduce moral hazard is by instituting exclusion conditions in the insurance policy. Coverage may not be accepted for some activities because in the case of occurrence of these activities it would create a severe moral hazard, so insurers avoid this by non-coverage. For example in health insurance, the insurers might decide not to cover individuals that smoke or not cover new applicants who have chronic illnesses (Ben-Shahar & Logue, 2012).

Insurance companies also take steps to reduce the occurrence of moral hazard by insisting insureds take steps to mitigate losses. Insurers often place a contractual provision in insurance policy which necessitates insureds to take all necessary steps to mitigate the insured losses (Ben-Shahar &Logue, 2012). For example in health insurance, insurers could provide wearables such as self-tracking watches which helps to monitor the health situation of the insured. Insures can also implement systems which encourage insureds to maintain their health condition by encouraging insureds to exercise more, reminding insured through e-mails or text to follow their eating habits and remind insureds with chronic illnesses to follow their treatment (JobKoijen, Yoel & Zeelenberg, 2007).

Insures may also make use of "pay according to improve in health conditions" to reduce moral hazard in health insurance. Most of insurance contract are covered annually so the insurer cannot cancel the contract within the year, but the contract can be renewable after this period. But some insurers might decide to refuse to renew a contract if the insured did not take any steps to reduce his exposure to chronic illnesses, or if the insured health status becomes more serious, thus increase the purchase of high cost medical services. Insurers could decide to institute lower contribution for insureds who demonstrates "no moral hazard behaviour" and are conscious of their health condition. For example, when renewing a health insurance policy, the insurer could charge a lower contribution to an insured, if the insured health condition ameliorate and used less medical services during the previous insurance contract. None of

these initiatives can be used to manage the risk in the Medical Schemes Market because of the Medical Schemes Act.

4 Chapter Four: Brief history of the medical schemes legislation

As indicated above the evidence indicates insurance markets formed where the parties have a legal duty to disclose all material facts, that is in the absence of asymmetry of information, which includes the reduction of the possibility of adverse selection are Pareto Optimal and as such do not displace characteristics of market failure. Under those circumstances there is little justification for government intervention into the market. This chapter sets out the history of medical schemes legislation. Arising out of this some indication of why government intervention took place appears.

4.1 Pre 1967

4.1.1 Public health system

The first piece of legislation which deals with health matters to be passed in South Africa was the Contagious Disease Act (1 of 1856 Cape). This was to deal with regular outbreaks of measles and smallpox in Kimberley. Then later came the Contagious Disease Act 25 of 1868 which was implemented because the epidemic caused many deaths in Cape Town. Due to the high mortality rate in Cape Town, the government intervened by financing public hospitals to treat patients (Department of Health, 2002; Hagendorn-Hansen, 2011).

Due to the high mortality rate experienced, the public health system faced serious challenges like inefficiency functioning of the system and slow procedures in taking charge of the patients. This resulted in the passing of the Public Health Act 36 of 1919,which divided the public health sector in to three areas of responsibility; public sector structure of central government, provincial administrators and local authorities (Department of Health, 2002). The Public Health Act reinforce the management and maintenance of the hospitals.

4.1.2 Private health – to genesis of medical schemes

The first medical scheme in South Africa was the De Beers consolidation mines Limited benefit society. It is the oldest registered benefit society established in terms of the Friendly Societies Act of 1882. This scheme provided cover for circumstances like sickness, death and distressing circumstances for the employees. The number of benefit societies steadily increased from 7 in

1910 to 193 during the Second World War, due to the increase in number of these societies, this led also to the increase in numbers of schemes to 169, which of course attracted more members (Department of Health, 2002; Hagendorn-Hansen, 2011).

An important development in the medical schemes was the passing of the Friendly Societies Act of 1956. The Friendly Societies Act 25 of 1956 was a consolidation of former Friendly Society Acts the existence of which can be traced back to the previous century and existed in several of the previous colonies which combined to form the Union in 1908. The Act required that funds be registered as friendly societies before they could operate their particular scheme. At that stage the control which was exercised was mainly of a financial nature (Melamet 1994: 7). "A friendly society can be defined as a formal mutual organisation existing with the purpose of providing its members and its relatives with benefits, relief or maintenance when in financial difficulty due to, among other things, sickness, death, unemployment and retirement" (FSB Circular 2000: 33). These scheme provided cover to 368 890 members and 588 997 dependants (Malamet, 1994). These schemes and its funds were regulated by the Friendly Societies Act No.25 of 1956. This Act, of course was not focussed on medical schemes but could include any friendly society. However, at about this time these schemes started to experience cost troubling escalations due to the increase in cost of medical expenses. As a result the Synman Commission of Inquiry was appointed. At the same time another committee was established that of the Reinach Committee which was appointed to investigate the functioning of the medical schemes (Reinach, 1961). Thus during 1960, three Commissions of Enquiry reported their findings namely the Reinach Committee in 1961, on the functioning of Medical Aid, Insurance and Assistance Schemes; the Snyman Commission in 1962 on the High cost of medical services and medicines and finally the Coertze Commission in 1965. The Reinach's findings were included in those of the Snyman Commission. The outcome of this was the Medical Schemes Bill which in turn led to the passing of the Medical Schemes Act 72 of 1967. This was the first piece of legislation dedicated to medical schemes. Clearly the main reason for this intervention was the concern over cost escalations.

4.2 Medical Schemes Act 72 of 1967

The Commission recommended a Central Council for medical schemes be established, and it also recommended a National Association of Medical Aid Schemes and a National Association of Medical Benefit Schemes to be established. Increase in cost would be settle by proclamation

and disputes within registered medical schemes would be settled by arbitration (Coertze 1966: 34). The introduction of the Central Council for Medical schemes took effect from 21st October 1962 (Melamet, 1994). The Central Council was to coordinate, control the development and functioning of medical schemes. The Council also have the duty to investigate the complaints and settle the disputes of concerning medical schemes .The Central Council was later renamed as the Council for Medical Schemes.

On the 1st June 1967, the Medical Scheme Act No.72 of 1967 came into existence and operated from 1 July 1967, this Act was passed following the recommendations of the Coertze Commission. The 1967 Act was later amended by various other Acts. A significant amendment was that of the Medical Scheme Amendment Act no.23 of 1993, but later some changes were made in the Act on 1 January 1994. These changes were to enable the Act to be more flexible to all the schemes (Melamet, 1994). Therefore by this period, all the schemes needed to be registered under this Act before they could operate, as they were subject to supervisory provision. By this time, there existed 187 medical schemes, but even with the passing of this Act, some schemes still operated without being registered under the Medical scheme Act. South Africans medical benefit schemes is governed by the Medical Schemes Act No.72 of 1967. In 1967, contribution was based on income and the use of other factors such as health status were prohibited. The levy could increase with the increase in income implying that higher income members paid higher contribution than lower income members. Mandatory minimum benefits were also compulsory (Van Den Heever, 2012).

The objectives of the Medical Schemes Act, No. 72 of 1967 were to reduce the cost of medical expenses and to control the functioning of medical benefit and medical aid funds and to develop schemes (Department of Health, 2002).

4.3 Medical Schemes Amendment Act of 1988 – start of de-regulation

The view developed that costs could be reduced if schemes were de-regulated and the de-regulation of medical schemes started in 1989 - 1993. These schemes were de-regulated because of cost escalations. The view was developing that for competition to work the market should be free to charge the appropriate contribution to members depending on their risk characteristics. Due to this medical schemes were allowed to and started to risk rate (Doherty & McLeod, 2002; Hagendorn-Hansen, 2011).

Markets or schemes were free to rate risk by making use of actuarial risk factors with the passing of Medical Schemes Amendment Act of 1988. Pre 1989, medical schemes were only permitted to make use of income and number of dependants in determining the contributions to be paid by members. However, in 1989 a modification was made in the regulation of the Medical Schemes Act, whereby a member's contributions could be based on other risk factors like; number of dependants, income level, age, geographic area, actual claims experience, extent of cover provided, period of membership and size of group to which member belongs.

Thus, the regulation introduce risk rating within schemes, whereby high risk or ill members were charged higher contributions and low risk or young members charged lower contributions, which prevented the occurrence of cross subsidisation between members of the scheme(Doherty &McLeod, 2002; Van Den Heever, 2012) .

The amendment Act defined medical schemes as:

> "a scheme established with the objective of making provisions for members and dependants for any services, to cover their expenditures incur in rendering of any service. This service means any health care treatment of any person registered by the scheme"

4.4 Medical Schemes Amendment Act of 1993 – continuation of de-regulation

Some changes were also made in the regulation with the introduction of The Amendment Act No. 23 of 1993. Statutory guaranteed minimum benefits and guaranteed payment for claims were removed from the Act. Therefore, schemes were permitted to exclude or limit cover for procedures, and risk-rate to a greater extent. However, the Act also gave medical schemes the ability to directly supply healthcare services for members (Doherty & McLeod, 2002; Department of Health, 2002; Hagendorn-Hansen, 2011).

4.5 Medical Schemes Act 131 of 1998 – social solidarity

In 1996-1998, costs continued to rise, but this increase in cost did not affect the number of customers purchasing health insurance. The Medical Schemes Act 131 of 1998 changed the approach from cost reduction to social solidarity which articulated concepts such as affordability and fairness in contributions (Doherty and McLeod, 2002). The concept of social solidarity is attributed to (Wilkie, 1997) by (McLeod, 2005). Wilkie defines solidarity as follows;

> "Solidarity is a concept whereby contributions are made not in accordance with risks brought before the insurer, but according to the ability to pay or equal contribution imposed."

The Registrar of Medical Schemes explained the reason for the Act as follows:

> "The Act introduces a new approach to governance, regulation and supervision of medical schemes and related activities. The Act seeks to provide greater protection to the public, and to enhance access to private health cover within a community rated environment (Annual report of the Registrar of medical schemes (1998): 4)."

The social solidarity conceptual basis of the Act was set out in the explanatory memorandum which accompanied Bill as follows:

> "This clause intends to reinforce community rating and social solidarity within medical schemes. The potential of adverse selection is nonetheless recognised by inserting a provision that medical schemes can only vary from this requirement in those cases spelt out in the regulation to protect other members and the medical schemes against exploitation through adverse selection Reekie 1997" .

The Medical Schemes Act, No. 131 of 1998 was passed, and came into operation on 1 February 1999. The Regulations of the Act were introduced by Government Gazette No 20556 on 20 October 1999, and came into effect on 1 November 1999. On 1 January 2000, the Council for Medical Schemes (CMS) came into operation. Its stated objectives were:

> "To consolidate the laws relating to registered medical schemes: to provide for the establishment of the Council for Medical Schemes as a juristic person; to provide for the appointment of the Registrar of Medical Schemes; to make provision for the registration and control of certain activities of medical schemes; to protect the interests of members of medical schemes; to provide for measures for the coordination of medical schemes; and to provide for incidental matters (Government 1998: 2)".

It aimed to achieve the following main objectives:

a. To re-introduce community rating versus risk rating in medical schemes
b. differentiation was on the basis of income and number of dependants only, not age or ill-health
c. To improve access to medical schemes for people who were previously excluded, thus compulsory acceptance of eligible applicants
d. To mandate a Prescribed Minimum Benefit Package (PMBP) to ensure that all members have essential hospital cover – this was to prevent medical schemes from discarding their members when benefits have been depleted, at the expense of public hospitals
e. To improve financial management and governance of schemes.

The Act was introduced with the intention to encourage an increase in coverage for a larger proportion of the population, that is to provide medical cover mostly to the middle and low income earners, but writers expressed doubts at the time that this may not have been achievable due to the high cost of cover, so the view as express that the this Act may not efficiently address these issues (Van Rensburg 2004: 403).

The medical schemes Act requires all persons or organisations to be registered before it can carry on the business of medical insurance, and must comply with the provisions and terms of the Act. A medical scheme is recognised when it is registered under the Medical Schemes Act 131 of 1998 and registered by the Council of Medical Scheme(CMS) which gives authority to a scheme to start accepting business, so individuals should always verify that the medical scheme they chooses is registered by the CMS. In the case where individuals make use of agents such as brokers to assist them in the procedure of purchasing a medical scheme cover, these individuals should make sure these brokers has been accredited by the Council for Medical Schemes, and this is done by proof of accreditation provided to the brokers.

Medical Schemes on the other hand are governed by the Medical Schemes Act which imposed community rating and open enrolment, which will be briefly discussed. Medical schemes are thus unable to take steps against adverse selection other than those provided for in the Act itself.

4.6 Conclusion

Medical schemes have been subject to legislation from the 1800s. The first basis of regulation, government intervention, were the Friendly Societies Acts. The focus of this legislation was prudential management. Funds had to be collected and properly managed and accounted for. The second basis for legislation, in 1967, was concerns of cost escalations. This led to the passing of the first Medical Schemes Act. It is not clear how the 1967 Act was supposed to reduce costs. The lowest costs which can be achieved is via the competitive market. For this to be achieved medical schemes need to risk rate that is price of the cover should be based on risk characteristics. As part of the cost reduction effort medical schemes started to introduce de-regulation allowing for risk rating. It is fair to say during the de-regulation stage there was no evidence or suggestion that market failure, in the technical economic Bator sense, had occurred. .

The post 1998 legislation, adopted a different approach; that of social solidarity. This was to be achieved via the community rating system. The basis of social solidarity, and community ratings, is cross-subsidisation. The stated reason for the new approach was thus social solidarity. The instrument selected to achieve this is community rating. A market where cross subsidisation exists in not Pareto Optimal. The post 1998 intervention would cause market failure. There was no suggestion that the new direction was because of market failure in the Bator sense (Bator, 1958). Whereas the usual argument is that government intervention is justified to correct market failure, in the case of the Medical Schemes Act it was to introduce market failure. This was driven by the social solidarity ideology.

5 Chapter Five: Economic framework to facilitate the analysis

5.1 Introduction

Reekie correctly points out that the developments in the medical market including government intervention can be analysed from a number of perspectives or academic disciplines. He continues to point out the most useful probably is to analyse the developments from an economic perspective since in this regard economists have the competitive advantage (Reekie, 1997, p. 283). He points out that in any event, most commentators use economic terminology and resort to economic arguments even if they are not economists. It makes sense therefore to approach the matter of government intervention from an economic perspective. To do this an economic framework is necessary and this accordingly is set-out, herein.

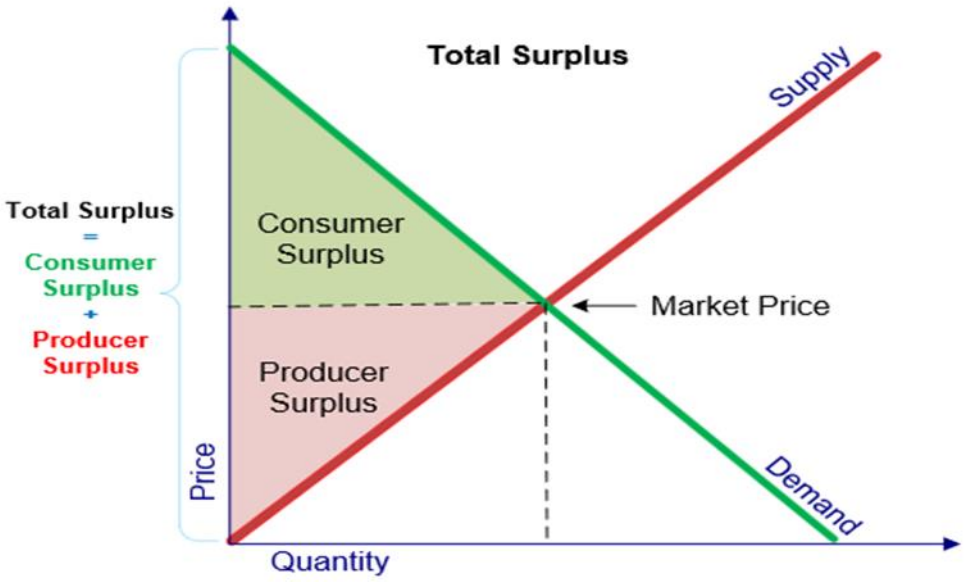
The point of departure is to start off with the situation as if there is no government intervention. In this case since there is a demand for medical cover, a market for health funding would evolve, this is Reekie's spontaneous exchange trading market. This market is expected to produce certain outcomes. Accepting these expected outcomes occur, the next question would be why should government intervene? Further if it intervenes as it has what are the consequences of this intervention. The first question is partially answered into the above chapter setting out the history of the medical schemes legislation. This section develops an economic framework for analysis and attempts to answer the above two questions, but the second question in particular.

5.2 Outcomes of a competitive market

In line with the above; the point of departure is to posit the outcomes of Reekie's spontaneous exchange market without government intervention. These outcomes are well-known based on the Neo-Classical Economic assumptions (Roy, 1952; Weintraub, 2002). Firstly consumers are driven by utility and secondly suppliers on making a profit.

5.2.1 Maximum consumer's surplus

A consumer enters a market because of the satisfaction of acquiring a good or service. The utility of a good or service the consumer obtains from the transaction (Marshall, 1924). The consumer obtains utility from the transaction. That utility determines the amount the consumer is willing to pay. The supplier of the good or service enters the market to earn a profit. The price of the good or service is determined by the existence of competition. Competition ensures the market price is below the willing to pay "price". If a consumer is willing to pay more than the actual market price for the product, but does not he or she benefits in the amount which is saved by not paying, the willing to pay the amount but paying the price prevailing in the market. The difference between the price a consumer is willing to pay and the price he pays is the individual consumer's surplus. Consequently, the aggregate consumers 'surplus is the sum of all individual consumer's surpluses" (Marshall, 1924). The producer surplus is the difference between the economic cost to produce a product and the market price. As indicated in the diagram below, consumer's surplus is the area above the market price and below the demand curve, while producer surplus is the area below the market price but above the supply curve.



If the consumer pays a single price for all units bought (market price) then the total willingness to pay for those units will exceed the amount actually paid. Stigler mentions that the market facilitates the making of exchanges, which is equivalent to saying that markets are where prices are established. A market is where a set of suppliers and buyers whose trading establishes a price of a good (Stigler, 1985).

Insurance markets are competitive markets and thus one can expect the market to be a market which produces a consumer's surplus. Since it is a market which creates consumer's surplus, it thus, for this reason, justifies the existence of insurance contracts. Society is better off because of the existence of insurance contracts.

Knight pointed out competitive markets tend to eliminate economic profits (Knight, 1921). The creation of maximum consumer's surplus is the other side of the same coin when it is said competition creates the maximum consumer's profits.

5.2.2 Maximum total economic welfare

5.2.2.1 Introduction

Pigou following on from Marshall at Cambridge championed the idea of economic welfare (Pigou, 1932) . This idea was not readily accepted (Clapham & Chapman, 1922). Nevertheless the concept of economic welfare became part of mainstream economics. It can thus be argued a competitive market provides goods and services at prices lower than the consumer is willing to pay. The consumer therefore makes savings in competitive markets.

At the same time the transaction can be evaluated in terms of utility or satisfaction. Competitive markets also produced consumer satisfaction in addition to be expressed in terms of the concept of consumer's welfare. It can thus be said competitive markets which produce maximum consumer's surpluses also produce maximum total welfare. Confusingly Bork who became an authority on competition law referred to consumer's welfare (Bork, 1966; Bork, 1978). After Pigou's version of economic welfare a second version gained credence, Pareto Optimality. These two forms are referred to as the Old and New forms.

5.2.2.2 Old total economic welfare (Pigovian economic welfare)

Welfare economics as first explained by Pigou focuses on the production of economic welfare. It analyses the welfare and units of utility of individuals. For example as indicated above the existence of insurance contracts increases the total utility of society (Arrow, 1971) . If these contracts are not available, total economic welfare of society will be decreased. Welfare economics also analyse cost-benefit analysis. The debate surrounding insurance markets often discuss markets which contain high and low risks consumers. Clearly high risk consumers in the same market diminish the economic welfare of low risk individuals. If high- risk individuals would admit their high accident probabilities, and charged accordingly, all individuals in the market would be made better off without anyone being worse off and the total economic welfare would increase (Rothschild & Stiglitz, 1976).

Economic welfare is sometime called Social welfare and notionally can be regarded as the aggregate of all individual utilities. Conceptually this would produce an increase in the total welfare of society. Which it could be argued produces a similar outcome which according to Marshall would be an aggregation of consumer surpluses. Since general welfare is a wide range, Pigou decided to limit the range and defined economic welfare as "that part of social welfare that can be brought directly or indirectly into relation with the measuring rod of money." Thus, economic welfare according to Pigou, implies the satisfaction of utility derived by an individual from the use of exchangeable goods and services. (Stigler, 1985) mentions that the central role of price in defining a market is the reciprocal side relationship between price determination and market determination, which is ensuring both sides of the spectrum are satisfied thus achieving economic welfare.

Pigou has two conditions for maximization of economic welfare. The first condition states that welfare is said to increase when national income increases. Given the same tastes and income distribution, an increase in the national income represents an increase in total economic welfare. Second, for welfare maximization the distribution of the national income is equally important. If national income remains constant, transfers of income from the rich to the poor would improve economic welfare. According to Pigou, such transfers mean less to the wealthy than to the poor, as a result the economic position of the poor is raised (Pigou, 1920).

Stigler highlights that if we observe close parallel price movement then those prices are in the same market and if the price movements are not parallel, they are not in the same market (Stigler, 1985). These price movements may also be used to identify if a market is a monopoly or competitive market. Where there is presence of price discrimination (monopoly), price tests will reveal that markets are separate. This is like what Pigou mentions about welfare being maximized when income is fairly distributed, prices are only parallel in a competitive market (Stigler, 1985).

Pigou argues that different people derive the same satisfaction out of the same real income and that "people now rich are different in kind from the people now poor having in their fundamental nature greater capacities for enjoyment." With income subject to diminishing marginal utility, transfers of income from the rich to the poor will increase social welfare by satisfying the more intense wants of the latter at the expense of the less intense wants of the former. This is economic equality that maximizes welfare (Pigou, 1920). Stigler mentions a similar point that competition will serve to bring the prices in the different parts of a market to equality.

In this section a link is made to Marshall's consumer's surplus and Pigou's total economic welfare. This link is made to facilitate and understanding of economic welfare. It is accepted that utility and economic welfare have always been difficult concepts to grasp as is understood when dealing with abstract concepts such as utility. It is also understood that concepts such as happiness and satisfaction cannot be measured, compared or added. It is thus not surprising, despite initial optimism that attempts to directly arrive at Pigou's economic welfare directly from Marshall's consumer's welfare did not succeed (Samuelson, 1947).

5.2.2.3 New total economic welfare (Pareto Optimality)

Pareto optimality is conceptually easier to deal with than Pigou's economic welfare. Both have the same objective in mind but Pareto Optimality does not evoke utility. Pareto optimality exists where there is a state of allocation of resources from which it is impossible to reallocate resources to make any one individual or preference better off without making at least one individual worse off. The optimum level of economic welfare exists where no one in a market is made worse off by the existence of others in the same market. This is not the case of insurance, whereby for example, high risk males and low risk males are charged the same price.

The presence of the high-risk individuals exerts a negative externality on the low- risk individuals.

One of the conditions of market optimality is that, there must be a correspondence between Pareto efficiency and market performance. This can be expressed at the duality theorem. It states that with all the independence of tastes, technology and producers' motivation is added within it a set of constants called duals. Pareto efficient occurs when production and exchange associate with the maximum of the welfare function. For a market to achieve Pareto optimality, inputs and outputs should be measured in terms of price parameters which will yield a local profit maximum position for each producer (Bator, 1958).

If market forces determine prices, they will not correspond to a Paretian maximum unless self-regulating competition obtains in all markets, which is, there should be many suppliers in every market. An example of Pareto inefficiency, can be observed whereby in insurance markets, is the case where people with different risk profiles are placed in one pool. This will lead to Pareto inefficient market, because cross-subsidisation would have to exist. This leads to the conclusion arrived at above if high and low risk individuals are pooled the market is not Pareto Optimal since low risk individuals are worse off because of the presence of high risk individuals. In this sense Pareto Optimality is conceptually more useful than Pigou's total economic welfare, since using the concept of Pareto Optimality clearly demonstrates pooling high and low risks leads to a suboptimal market. Stated in the positive the view of Arrow, endorsed by Pauly then is correct. Arrow noted:

> "Hypothetically, insurance requires for its full social benefit a maximum possible discrimination of risks. Those in groups of higher incidence of illness should pay higher premiums (Pauly, 1968, Pauly 1970)"

Pauly did not explain what was meant by "full social benefits" but that is a clear reference to welfare economics and conceptually clear reference to Pareto Optimality. A similar conclusion can be arrived at via the theory of externalities discussed below. It should be clear, Pigou's welfare economics, Pareto optimality and other concept can be overlapping. Pauly never specifically mentions Pigou nor Pareto but merely refers to welfare economics (Pauly, 1970). Arrow's analysis makes copious reference to Pareto Optimality but does not refer to Pigou.

5.2.3 Optimum resource allocation

Another outcome of a competitive market is that it leads to optimum resource allocation which was explained in Lionel Robbins's essay on the nature and significance of economic science (optimum resource allocation) (Robbins, 1932).

According to Robbins's famous definition, "Economics is the science which studies human behaviour as a relationship between ends and scarce means which have alternative uses". By "ends", Robbins means human objectives; possible states of affairs that can be ranked in terms of their importance or desirability. By "means", he has in mind the available time and other resources that could be deployed to achieve those ends. Economic problems, as he conceived them, arise in situations where there are competing ends of different levels of importance, and where the available means could be put to more than one use and are scarce relative to those ends. He states that when time and the means for achieving ends are limited and capable of alternative application, and the ends are distinguishable in order of importance, then behaviour necessarily assumes the form of choice. Every act, which involves time and scarce means for the achievement of one end, involves the relinquishment of their use for the achievement of another. It has an economic aspect. Robbins thus characterizes economics in terms of what we will call an economizing orientation, namely a concern analysing how scarce resources may be put to their best use. Under conditions of optimum or perfect competition, a market economy, will allocate scarce resources in an efficient way. Economic efficiency in this sense is approximated by Pareto efficiency. An emphasis was made on static allocative efficiency and the idea that this is mostly likely to be affected by the desirable properties of certain optimal market structures such as perfect competition.

Robbins "allocation of scarce resources" must be seen against the debate of the time. Some economists were advocating central planning as an alternative to the market as a mechanism of allocating resources (Pigou, 1937). The economic analysis of resource allocation thus came to the fore. Samuelson correctly captured the general sentiment when he opined there has always been an impression that somehow the competitive market represented the ideal (Samuelson, 1947).

5.2.4 Maximum innovation

The importance of innovation in markets is attributed to Schumpeter. In competitive markets suppliers compete with each other for markets. To maximise profits consumers reduce costs by working more efficiently and productively. This leads to innovation. Suppliers compete by producing improved and different products which again leads to innovation. A centrally planned economy would stifle innovation.

5.2.5 Conclusion – outcomes without government intervention

A competitive market thus produces optimal outcomes. It is argued where a market does not operate to produce these outcomes government intervention could be justified to achieve the optimal outcomes. Government intervention in markets in theory can only be justified if it is clear the optimum outcomes are not achieved; that is to say market failure occurs. Although good intentions may be the reasons for intervention and the intervention may not succeed and result in an even worse functioning of market.

5.3 Market failure as the justification for government intervention

5.3.1 Bator (1958) "The Anatomy of Market Failure"

As indicated above competitive markets produce optimum outcomes. If a market is not producing the optimum outcomes of a competitive market it can be said market failure occurs. The next question to be answered is when, according to academic literature does market failure occur and what does market failure mean. It is important to know if market failure has occurred since it is generally accepted, or at least argued, that government intervention is justified where market failure exists. The concept of market failure is attributable to Bator, who provided the seminal work on the meaning of market failure (Bator, 1958, p. 358). Bator in his article "Anatomy of Market Failure" defines market failure as follows;

> "What is it we mean by "market failure?" Typically, at least in allocation theory, we mean the failure of a more or less idealized system of price market institutions to sustain "desirable" activities or to stop "undesirable" activities. The desirability of an activity is evaluated relative to the solution values of some explicit or implied maximum welfare problem."

He thus specifies that a market failure occurs when market fails to generate the more or less idealized system. That is the system which produces the competitive outcomes. He refers specifically to two of those outcomes optimum resource allocation and maximum economic welfare. There are two forms of welfare economics, the older being the Pigouvian and then the then more recent version that of Pareto efficient. A market which conforms to this version can be said to be a market which exhibits Paretian efficiency. The market that promotes social welfare that ensures that resources are allocated properly in such a way as to achieve maximum social (economic) welfare is an optimum competitive market. Resources such as inputs, outputs and commodity distribution should be arranged in a way to produce social satisfaction that is promotes maximum social welfare. Resource allocation failure results to inefficiency of the market and market failure, Bator identify monopoly and externalities as the main failures which occurs in the market.

He starts his analysis by drawing attention to what was being accepted as the duality theorem. This asserts a correspondence between Pareto efficiency and market performance. If a market is Pareto efficient it is a market which is producing optimal performance. The converse is also correct, if the market is an optimal market it is then Pareto efficient.

Importantly, he explains when a market is Pareto efficient (Bator, 1958, p. 351 n 2):

> "A community is on its Paretian frontier if it is impossible to make anyone better off (in terms of his own ordinal preference function) without making someone else worse off. Associated with the utility possibility frontier, in turn, is a production possibility frontier denoting maximal alternative output combinations."

The point which is important for this dissertation is the notion that a market is Pareto efficient where if one consumer enters into a market, existing consumers are not made worse off. This market clearly is a market without cross-subsidisation. So if a market consists of low risk individuals and a high risk individual enters that market the low risk individuals become worse off since the market price will increase and the price paid by low risk individuals will increase. Thus a market which exists because of cross-subsidisation is not Pareto Optimal. Insurance markets work by pooling risks according to risk characteristics with each participant rated according to the characteristic of the pool. Thus pooling high and low risks produces a non Pareto Optimal market. An alternative way of looking at the position is from the position of

externalities. A high risk consumer imposes an externality on low risk consumers. A Pareto Optimal market is a market which is not subject to externalities. Two commonly accepted examples of market failure are the existence of monopolies and as pointed out above where externalities exist. These are now discussed in the context of insurance markets.

5.3.2 Monopolies

It is clear that if monopolies exist in a market, market failure exists. One outcome of a monopoly is monopoly pricing. The market price is higher where monopolies exist than where they do not exist. Thus where monopolies exist consumers pay too much. That means the consumer's surplus is decreased. From this it can be seen why maximum consumer's surplus is seen an outcome of a competitive market. There are various notions of what constitutes a monopoly market. In the perfect competition concept of a monopoly market a monopoly can be defined as a situation where there is a only one supplier of a good with no close substitutes (Bussin & Adelekan, 2018). Clearly in this case there is no competition to offer a lower price.

When markets are competitive, prices are at their lowest possible value. Adam Smith in dealing specifically with insurance states that the lowest price is the price at which a policyholder can expect to insure himself paying no more than the price of its risks and expenses incurred by the company in providing insurance. In this instance each policyholder should pay the lowest possible price (Vivian & MacGregor 2019). This leads to maximum total consumer's surplus because the contracts will provide the maximum utility to consumers. In addition, competitive markets also lead to the achievement of total economic welfare. So clearly society benefits with the absence of monopolies.

In the absence of government intervention there is no reason to believe monopolies existed in the medical schemes market, in particular of the advent of open schemes. The introduction of regulation in terms of the Medical Scheme Act also affected the profitability and business portfolio model of the medical schemes, which affect the economic efficiency and productive capability of medical schemes. The usage of risk factors to determine the contribution to be paid by a member is necessary for medical schemes to perform perfectly in a competitive market, which avoid monopoly pricing.

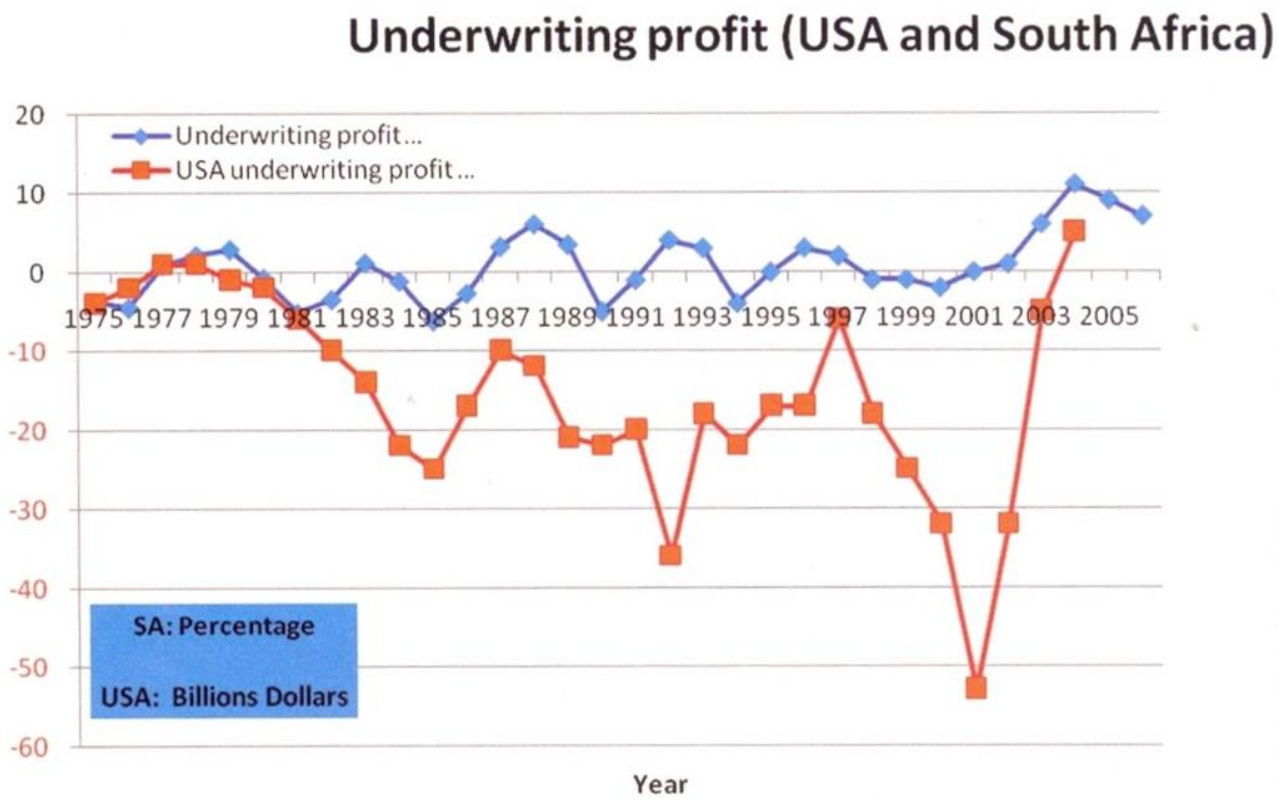
So the question becomes do insurance markets demonstrate tendencies to monopolies.

5.3.2.1 US Markets - Joskow's analysis re monopolies

It can be argued, from a study of the history of the regulation of the US Markets that the original reason for intervention into the American insurance markets, in general and not medical insurance markets specifically, was concerns over anti-trust activities of the market in that tariff committees existed. The attempt to impose the federal Sherman Anti-trust Act led to the passing of McCarran-Ferguson Act 1945. Attempts were made to impose the Sherman-Antitrust Act on the insurance market at the state level, which before that attempt were regulated as state level. The concern arose because of the existence of industry committees which set rates. Little attention was paid to the question of whether or not insurance markets themselves were competitive. The offending committees were shut down as state regulators took over their functions. At a much later date, question of the competitive structure of the insurance market was investigated in detail by Joskow whose findings have not been challenged (Joskow, 1973). It can be accepted that as a general statement US insurance markets are competitive, even when regulated as they have been since 1945, and thus do not demonstrate any evidence of monopolies (Joskow, 1973) .

5.3.2.2 South African Markets - Sandrock

Sandrock investigated the SA Markets in detail (Sandrock, 1996). Monopoly profits are the hall-mark of non-competitive markets. His outcomes are indicated in the figure below which for comparative purposes include the position of US markets.



From the period 1970, when in South Africa the tariff committees were abolished to 2002 the end of the period of his analysis, the average underwriting profit of the market was a mere 1 %. Clearly the South African insurance markets did not demonstrate any tendency to generate monopoly profits. It can therefore be accepted as in the case of the US there is no evidence of monopoly profits in the South African insurance markets.

It can thus be argued that there is little evidence of market failure of insurance markets, in the form of monopolies. There is no evidence that insurance markets are prone to monopolies.

5.3.3 Externalities

The second well-known form of market failure is the existence of externalities. Externalities arise whenever the actions of one economic party impose a cost or benefit on another party who did not choose to incur that cost or benefit (Coase, 1960). When a benefit is imposed it is a positive externality and when a cost is imposed it is a negative externality. This study is mainly concerned with costs not benefits; negative externalities. This leads to the occurrence of cost shifting from the party who imposes the cost to the party who did not choose to incur such cost. The quintessential example of externalities is pollution. If a manufacturer creates

pollution without cleaning the created pollution, the manufacture imposed an externality on others. This is a non-insurance example. More recently Mushai has suggested an insurance example of externalities; that of occupational accidents and diseases. If for example a breadwinner worker contracts an occupational disease the breadwinner can no longer produce an income and also will be in need of medical care. This loss of income imposes a cost on his family. This cost correctly understood is a cost of production. The cost can be captured via the worker's compensation system. This suggests a system for dealing with externalities. The cost should be captured where the cost is created in the same way the rule became the polluter pays. The cost of occupational accidents and diseases is captured via the worker's compensation levy (Mushai, 2018).

In insurance markets an externality can exist where high and low risks are pooled. The standard insurance practice is to risk rate. That is to place risks in homogeneous pools based on risk characteristics. This practice reduces the possibility of cross-subsidisation. Individual risk pools are thus Pareto Optimal. Thus in markets which risk rate, there is thus little evidence of externalities within insurance markets.

5.4 Little evidence of market failure in insurance markets

Existing research has found little evidence of market failure in insurance markets;
To summarise

5.4.1 Joskow (1973)

As indicated above Joskow investigated the US insurance market in detail and found little evidence it did not exhibit the characteristics of a competitive market, despite being a highly regulated market (Joskow, 1973). He recommended steps to reduce regulation, specifically rate regulation, which in his view achieved little.

5.4.2 Dahlby (1983)

Dahlby examined the Canadian motor market which was at the time was clearly Pareto optimal (Dahlby, 1983). It was being proposed that gender discrimination be outlawed, that is higher claims making males be pooled with lower claims making females. Gender was a valid risk characteristic. Dahlby's research indicated that the motor market was Pareto Optimal and to abolish risk rating would make the market non-Pareto Optimal.

5.5 Specific Allegations of Market failure within medical funding markets

The above analysis concludes that there is little evidence to support allegations of market failure in the general insurance markets. Specific allegations have however been made of market failure in medical insurance and schemes markets. It is also at this point concerns over asymmetry of information arise. This section now examines the allegations of market failure within the medical insurance and schemes markets.

The problem of asymmetry of information is examined thereafter.

5.5.1 Arrow 1963

A specific problem was identified in the US medical insurance market whereby a person over 65 years of age could not acquire insurance cover. Insurers declined to enter that segment of the market. Arrow and other economists declared this to be a form of market failure. Arrow also discussed about asymmetry in information in the case of medical care. He specifies that in medical care, the insurer has more knowledge and information concerning the possibilities of risk and recovery than the customer. Obviously, both parties are aware of this gap in knowledge, so is necessary for them to provide each other with the necessary knowledge in relation to the risk. Even though, the insurer has more medical knowledge than the customer, the customer or buyer knows more of his own loss probabilities and has more knowledge of his utility than the insurer. Customers demand medical services taking into consideration their loss probabilities and their earning ability (income). The inset of illnesses are unpredictable and in the course of occurrence will affect the income of the customer. Without medical care, in the occurrence of an illness the insured will cover the costs of recovery from his income. So, customers purchase health insurance to maximize their expected value of utility function,

the cost of medical services is reduced from income. Individuals are risk advert so will prefer to purchase medical services to preserve their income. Individuals also purchase medical services with an actuarial fair premium to obtain a welfare gain.

Arrow also discussed about competitive theory, and specifies that a competitive market is achieved, when the net return of a product is obtain given that the same product is offered by another buyer and restriction of entry into the market. For example, in medical services, entry is restricted through licensing, licensing implies that less medical services will be supplied, increase the cost and quality of these services.

The problem of health insurance to cover individuals with 65 years and above in the US was solved by government intervention with the introduction of Medicare.

5.5.2 Akerlof 1970

Akerlof tried to explain the absence of insurance cover for persons over 65 in terms of asymmetry of information. To do this he first developed a theory of asymmetry of information. He simply discussed the consequences of asymmetry information using as an example the market of "lemons"; bad second hand cars. He states that asymmetry information can affect the price charged by the seller in relation to the quality of a product. He considered the good cars to be the low-risk individuals and the "lemon" or bad cars to be the high-risk individuals. Obviously an insurer cannot determine if an individual is a high-risk individual or low-risk individual and vice versa and would therefore charge a rate somewhere in between the two. If the insurer is unable to determine the price because the information available to the insurer is too unreliable, the insurer would not enter the market. So lack of reliable information could result in an incomplete market. Akerlof argued the insurer was unable to obtain reliable information about the health status of persons over 65 and that he posited was the explanation for the absence of a market for persons over 65 years of age.

In insurance, it is assumed that an individual who approaches an insurance company to purchase an insurance policy , obviously have more knowledge concerning his loss probability and information related to the risk to be covered while on the other hand the insurance company knows less. The insurance company might not be able to distinguish if an individual is a low or high-risk individual that is either a good car or a "lemon", but this can be avoided if the

individual decides to disclose all the material facts of the risk to be covered. In some cases, it is possible that the insurer still cannot distinguish between a low or high- risk individual even after the customer disclosed all the material facts of the subject matter to be covered. Considering that the individual (insured) have more knowledge about the risk than the insurer, asymmetry in information will develop.

Disclosure of all material facts related to the risk need to be applied by the insured because it enables the insurer to determine the price of the insurance contract. Considering that the insurer cannot determine if an individual is a low-risk or high-risk individual, this will result to the situation whereby the insurer will charge the same price both to a low-risk individual and a high-risk individual. This means that a high- risk individual who is riskier or has a higher expected loss probabilities than a low- risk individual might be charge a lower price or the same price as a low-risk individual. This is advantageous to the high risk individuals "the lemons" because they will pay less for their high loss probabilities and might be tempted to purchase more insurance contracts at that lower price, because it is convenient for them. On the other hand, this is disadvantageous to the insurance company because it results to adverse selection and might imply losses to the insurer since the high-risk individuals "lemons" will remain the market. Another consequence of asymmetry in information is that the good cars, the low- risk individuals will be driven out of the market by the high-risk individuals, because they are charged the same price. Obviously the demand and supply of insurance contracts will be affected as the price falls for the high-risk individuals, more contracts will be demanded or less insurance contracts might be supplied to high risk individuals. In equilibrium, demand must be equal to supply, the price level for the "lemons" will reduced, but in return this implies that the quality will also fall, and this might lead to a situation whereby no goods will be offered or sold to the high-risk individuals.

Akerlof also analysed adverse selection in the sector of health insurance, and stated that the older individuals especially at the age of 65 years and above, but who are healthy, might not want to purchase a health insurance because they are aware that the price charged to them will be higher in relation to their perception of their expected loss probabilities. The healthier over 65s will exit the market causing an increase to those left in the market. Due to the increase in price, insurance contracts will be demanded only by those who are certain that they need it. Insurance companies may decide to reduce or avoid the sales of insurance to the older individuals, causing the disappearance of this market segment. Consequently, health insurance

contracts will not be available and sold to the old or aged group. Some individuals in the aged group might still want to purchase a health insurance contract even with the increase in price, but the insurance company will still not provide them with these contracts because they do not want the market to be full of "lemons" that is high costs claiming, aged individuals.
Thus according to Akerlof's analysis asymmetry of information could explain the absence of insurance to the over 65 age group.

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Again it is pointed out that the problem of health insurance to over 65s in the US was solved by government intervention with the introduction of Medicare.

5.5.3 Rothchild and Stiglitz 1976

Rothschild and Stiglitz also tried to explain the absence of insurance for over 65s in terms of asymmetry of information. Rothchild and Stiglitz started by discussing the demand and supply of insurance. From the demand perspective of insurance, an insured seeks insurance taking into consideration his or her utility, that is, the insured choses the contract which maximises his expected utility. This is because the insured might decide not to purchase insurance at all. So an insured decides to purchase an insurance contract taking into consideration that his expected utility is increased and his probability of loss. The term used for this situation is the expected utility theorem. This is because individuals are risk averse. On the other hand insurance companies are risk neutral. When offering and selling insurance contracts to individuals, the insurer's aim is to make expected profits.

Rothschild and Stiglitz assumed the individual is aware of his or her loss probabilities when approaching an insurance company to acquire insurance. This leads to the discussion of asymmetric information. In insurance it is assumed that individuals know their accident probabilities while insurance companies do not. This leads to the situation whereby the insurer will opt to use other ways to establish its insureds loss probabilities. They states that an insurance company can take into consideration to observe its customers' market behaviour to determine their loss probabilities. This method is not practical and accurate for the insurance company because it may lead the insurance company to make wrong decisions about the risk brought to them by individuals (insureds), and in determining the insured's characteristics. Knowing their risk probabilities, low risk individuals might decide to limit the quantities of

insurance purchase. Another way which can be used by the insurance companies is by selling a menu of insurance policies, this will enable the insurer to get accurate information concerning loss probabilities of individuals. Insurance companies when taking into consideration individuals accident probabilities, this means that high risk individuals with higher loss probabilities will demand more insurance than low risk individuals, with less loss probabilities. So, it is necessary for insureds or customers to provide the insurer with the right information and risk characteristics, because this enables the insurance companies (insurers) to decide the terms of the policy and the premium of the contract.

They also discussed the notion of equilibrium in different competitive markets. In insurance, the sellers determine the price but have no control on the quantity of insurance policies an individual buys, this is how a competitive market functions, so an insurance company is considered as a competitive market. Price and quantity competition best characterise an insurance market because the insurer determine the price and the insured decide the quantity of insurance to purchase. Price and quantity competition is a competitive market compare to price competition.

> "The notion of equilibrium in a competitive insurance market is a set of contracts such that when customers choose contracts to maximise expected utility, no contract in the equilibrium set makes negative expected profits and there is no contract outside the equilibrium set that, if offered will make a non-negative profit."

Equilibrium was analysed using two cases, where the insurance market only has identical customers and in the second two classes of customers, high and low risk consumers. In the first cases, they will be a stable equilibrium, a Wilson equilibrium. In the second case there may be an equilibrium but it would have to be a no pooling equilibrium. This equilibrium if it exists may be unstable. . With two classes of customers, low risk and high risk individual, if the pooling equilibrium is unstable there will be no market. If the market can identify the risk characteristics separate homogeneous pools will form, resulting in a number of pooling equilibria whereby low risk and high risk each buy the appropriate contract resulting in separating equilibria, which each purchasing different contracts. This will lead to the pooling equilibria As stated above, individuals purchase insurance contracts taking into consideration their expected utility and loss probabilities, so a contract which is attractive to a high risk

insureds might not be attractive to low risk insured, so each would have purchase different insurance contract, this will enable the equilibria to be exist.

In regards to the welfare economics, if pooled high risk individuals will cause an externality on the low risk individual, but the high risk are no better off. All individuals could be better off with no one worse off, if only the high risk individuals will admit having high risk probabilities and pay the appropriate price. So once again the conclusion is reached that pooling high and low risk individuals even if a stable market emerges in not Pareto Optimal. Insurance companies might decide to offer their insurance policies only to low risk individuals with lower loss probabilities, this will lead to the incomplete market. This would happen for example if insurers decided not to offer insurance to persons over 65.

Conclusively, the duty to disclose risk information is necessary and obligatory since this enables the insurer to avoid asymmetry information problem. The insurer needs to be able to implement decisions based on this information. If the insurer is unable to make right decision in respect of the risk covered this could result in market failure.

The Medical Scheme Act has implemented a regulation banning registered medical schemes to use risk factors like gender, age, health status (past and current), marital status and others to determine the contribution to be paid by the insured to the scheme, and specified that instead income or the number of dependants or both the income and the number of dependants should be used to determine the contribution of members. This regulation (community rating) will be accompanied by many consequences, which will be felt mostly by the members and medical schemes, as it will affects the underwriting ability of the scheme and the profitability of medical schemes.

One of the arguments against this medical scheme regulation, whereby the price charged will be determine by the medical scheme Act of 1998 and not the market. Community rating means that the same price will be charged to all members irrespective of their risk profile, so there will exist just one price in the market that is it will violate one of the important elements of an insurance contract. An insurance contract requires that no one should make gain from insurance, each policyholder is required to pay and be covered only for his risks (Landes, 2015). This is to avoid discrimination between the customers.

5.5.4 Moral Hazard – the Arrow-Pauly debate

As indicated above Arrow Kenneth identifies that the segment of the health insurance market for persons over 65 years of age as an incomplete market. He attributed this to the problem of moral hazard. It follows that to ensure access to health cover for over 65s would require government intervention. This occurred after he wrote his 1963 article with the introduction of Medicare.

Arrow specified that because of the incomplete market or non-existence of market of some risks (persons over 65), there will be a gap in the market and therefore welfare gain will be reduced for these individuals who wish to transfer risks at a certain price but will not be covered by insurance companies (Arrow, 1963). Society would be better off if the cover was available.

Arrow pointed out that individuals prefer to purchase policies with actuarially fair price compared to self-insurance. However, the policy is not offered at an actuarial fair price because of the administrative costs added to it, therefore the policy is not charged an actuarial fair price but individuals will still prefer the actuarial unfair price if it is not too unfair because these individual are risk averse. Arrow viewed the incomplete market and price discrimination as market failure, and suggests that to overcome this government intervention is necessary, by imposing compulsory social insurance but Pauly viewed government intervention as being inefficient.

Pauly states that individuals behave differently thus an individual purchase medical care taking into consideration his income, taste, health condition and the price charged. An individual purchase medical care when his probability of being ill increases and individuals are aware that the premium charged increases according to their risk probabilities and the frequency at which the use medical care. Therefore Pauly states that the implementation of compulsory social insurance will not help to solve the problem of moral hazard, forcing individuals to purchase insurance in the form of taxation which is non-optimal (Pauly, 1968).

Arrow argued by stating that in the theory of optimal allocation of resources of risk bearing, it is shown that competitive insurance markets achieve optimal allocation when the events insured are not controllable by individual behaviour. So Arrow argued that if the premium to

be paid by an individual is decided by state of nature that is its health status, this pricing system can also be regarded as a form of tax and thus optimality will not be obtain in a competitive insurance market.

Pauly therefore argued that the consumer moral hazard behaviour of purchasing more medical care insurance with insurance and less medical care with no insurance is because of rational economic behaviour, and can be solve be solve by implementing price rationing which is more efficient compared to compulsory insurance. He follows that to solve the issue of moral hazard, optimal resource allocation to consumers can be improve by rationing the amount of medical care services a consumer can benefit under an insurance policy. But Arrow criticised Pauly by stating that complete reliance on economic incentive does not lead to an optimal allocation of resources. Pauly also pointed out two measures that can be used to reduce the occurrence of moral hazard in insurance market, which are deductibles and coinsurance.

Deductibles is an amount paid in addition to the premium, this amount is deducted from the individual income, thus may influence the individual 'usage and purchase ability of insurance. obviously deductibles reduces and affects the income level of individuals but helps to reduce ad restrain the amount of medical services used by individuals (Pauly, 1968). Coinsurance requires that in case an insured event happens, the cost will be paid both by the insured and the insurance company, but the highest percentage is paid the insurance company (insurer). With coinsurance, as individuals also contribute in the payment of the insured event, this will encourage individuals to avoid making high and increase in medical care claims and costs because of the existence of insurance, thus this helps to reduce and avoid risk aversion and moral hazard in the insurance market.

Pauly also objected to the term moral hazard. The term implied the actions of consumers were somehow immoral. He argued that if someone purchased insurance and then utilised the services offered by insurance this cannot be regarded as immoral. It was the rational behaviour of a consumer who purchased insurer. Obviously an insured consumer would utilise more medical services than a person without insurance. That he argued is rational, not immoral. The argument raised the question whether or not moral hazard was a valid concept in health insurance.

Economic theory role of asymmetry of information, adverse selection and moral hazard.

Asymmetry of information, adverse selection and moral hazard are related problems of considerable significance in economic theory and insurance markets. These have also received considerable attention in the field of health economics.

5.5.5 Asymmetric of information

It must be pointed out again at this point economic literature sometimes treats adverse selection as virtually synonymous to asymmetry of information. Accordingly economic texts should be read bearing this in mind (Reekie, 1999). The Medical Schemes Act has a fairly clear idea of what it means by Adverse Selection. Adverse Selection occurs where a person delays the purchase of medical cover until it becomes clear the cover is needed for example where the patient has been diagnosed with an illness and thus in need of treatment. The range of meaning of Adverse Sections can be seen from the discussion of the Health Market Inquiry discussed below.

First it is important do understand in general why asymmetry of information is important in economic theory especially when applied to insurance. Different risks result in different levels of claims. Thus fire claims costs of houses with thatched roofs are higher than houses with tiled roofs. In order to correctly rate the risk it is necessary for the insurer to know that the insured house has a thatched roof (Stander v Raubenheimer 1996). The construction of the building is thus a risk characteristic. Generally the insurer needs the information in order to correctly rate or price the risk.

Arrow 1963 raised the issue of asymmetry of information but Akerlof (1970) produced a seminal work on asymmetry of markets which was followed by Rothschild and Stiglitz (1976). It was then applied by (Dahlby, 1983) who emphasized adverse selection by stating that the problem of adverse selection arises in insurance markets when the purchaser of insurance has more information about the probability of a loss than the insurance company. Dahlby examined the motor market where all the information was objectively determinable, age, gender, marital status etc. and the cover could be correctly rated. That market was thus Pareto Optimal because the policies were correctly rated based on the information. Incomplete information leads to the problem of asymmetric information and thus incorrect pricing. Asymmetric information also known as information failure or information asymmetries, occurs when one party to an economic transaction possess greater material knowledge than the other party. It is often

assumed that in insurance markets, insureds know the risk class to which they belong but insurers do not. The individual may have no incentive to disclose this information, so a problem of asymmetric information arises (Hoy, 1982). This was also discussed by Akerlof, in his theory of lemons, he states that in health insurance, the ill individuals has more information concerning their health conditions, so the individuals possess an advantage when buying insurance. Knowing their medical needs and cost, the ill individuals are always willing to purchase health insurance (Akerlof, 1970a). In other words asymmetric information is a form of hidden information (Einav and Finkelstein, 2018b). This can be seen in the case whereby an individual does not disclose his current health status to the insurer while seeking for an insurance coverage, and this affects the insurer's decision on whether to accept or reject the risk and setting the price.

An essential feature of asymmetry of information is without the correct information insurance cannot be correctly priced. Stated positively information is needed to correctly price insurance. Incorrectly priced insurance results in a non-optimal market

5.5.6 Adverse selection

Adverse selection in insurance practice is where the insured delays purchasing insurance until the risk has increased but fails to disclose these factors to the insurer. In insurance practice this is merely an example of asymmetry of information, or the failure to disclose material fact. If the insurer knows the truth the insurer is unlikely to provide cover and if so it would be provided at a higher cost. So if an uninsured person is about to go on holiday for a month and decides to take out cover for that month. An insurer advised of this fact may well decline to offer insurance and if so it would be at a higher premium.

Adverse selection refers to the tendency for low risk individuals to avoid insurance, when the risk is low and for high-risk individuals to seek it when the risk increases. An example of this is as indicated above the case of the insured insuring when going away on holiday and cancelling when he or she returns (West, 2013).

The most common adverse selection situation is where the insured delays purchasing insurance until the risk is more likely to materialise or has in fact already materialised. Thus an example of this is where an insured decides not to purchase theft insurance until a week or so before

going on holiday and then cancels it after returning from holiday. The risk of theft increases when a house stands vacant. The insured then purchases insurance only to cancel the insurance when he or she returns from holiday. A typical example of the second in the health funding market is where the insured does not purchase insurance until the insured falls ill i.e. when the medical expenses are likely to be much greater. Another case of adverse selection in relation to health insurance, occurs in a situation whereby the high risk or ill individuals are more likely to buy health insurance than the low risk or healthy individuals. As each individuals has the right to choose among the set of contracts offered by the insurer, obviously the high risk individuals, who has higher probability of using health insurance will tend to purchase or choose a more generous or favourable contract, in terms of benefits, than the low risk or healthy individuals (Belli, 2001). Therefore, health insurance policies will be purchased more by high risk individuals who have higher claims expectancy than healthy low risk individuals. High-risk individuals will therefore cause an externality and be cross-subsidize by low risk individuals. Akerlof noted this form of adverse selection in the medical funding market where healthy insureds exit the market while ill high risk insureds stay in the market (Akerlof, 1970a). In insurance markets adverse selection is dealt with in terms of the common law and contractual provisions.

Adverse selection leads to economic issues which will mostly affect the insurance companies. As mentioned above, adverse selection is caused by the special form of asymmetric of information. Insurance companies want to know their policyholders characteristics to be able to decide on what terms they should offer them insurance and the premium costs they should pay (Rothschild & Stiglitz, 1976). But due to the fact that the insured holds more information than the insurer, adverse selection will cause the group of policyholders has to pay higher risk premiums for their statistically proven lower risk (Schmeiser, Störmer & Wagner, 2014). That is, healthy individuals may not want to buy health insurance because it is relatively expensive for them and they may exit the market. This may lead to incomplete market as discussed above. As healthy individuals drop out of the health insurance market, the pool of insured people contains more high-risk policies. This means that the insurance company would be forced to pay out a larger portion of claims as compared to the number of policies in force, because a disproportionately high number of insured people are utilizing more health care. This may cause financial loss to the company by paying out more benefits or claims of high risk individuals (Belli, 2001).

Another economic consequence of adverse selection is that insurance companies may take too much time in the identification and classification of customers. That is, to identify in which groups of customers do every individual belongs to. The insurer may face difficulties in identifying between the individuals, the healthy low risk individuals and high risk individuals (Woodfield, 1994).

Conclusively, adverse selection as a form of asymmetry of information results in the inability of insurers to correctly price contracts. Insurers if advised of the correct facts may well decline to offer insurance. The impact of adverse selection may result in the refusal or denial of access to healthcare to members who have been diagnosed as being seriously ill and thus in need of insurance. It also results in members needing to purchase more expensive benefit options which they not in a position to afford. Insurers accepting insureds under conditions of adverse selection may also result in the payment of cross subsidization by young and healthy individuals.

5.5.7 Moral hazard

Moral hazard results in increased costs to the insurer because of the behaviour of the insured, specifically where the behaviour is influenced by the existence of insurance. From an insurance perspective moral hazard is a post-contractual event which is often dealt with via contract terms. So for example if the insured is a motor dealer which has very expensive cars on show, experience my reveal a tendency of motor dealers to leave keys in the ignition. This results in high value motor vehicle theft claims. This carelessness is referred to as an example of moral hazard especially if the keys are left in the ignition because the insured takes the view the loss is insured. The insurer may then impose a contractual condition that car keys are to be removed from the cars on show and be locked in a safe (South African Eagle Insurance Company Ltd V Norman Welthagen Investments 1993 SCA). This is the example of moral hazard and how the insurer deals with this problem via contract terms.

Moral hazard is thus a situation where one party (insured) gets involved in a risky event knowing that he or she is covered against the risk should the event materialise and the another party (insurer) will incur the cost. Precisely, moral hazard describes the tendency of the insured to behave differently when no longer exposed to the financial consequences of risk. After purchasing insurance, the insured's motive to prevent a loss from occurring will reduce. If a

loss occurs, the insurance companies will pay it. The insured will therefore have a lowered incentive to avoid loss. This will cause an increase in overall cost of losses and will damage the effectiveness of the insurance system. In addition, total loss pay-outs could exceed the total premium collected (Pauly, 1974; Shavell, 1979; West, 2013). As said above, In the case of health insurance, moral hazard can be witnessed in the situation whereby individuals exert less effort in maintaining their health because of their awareness that their financial cost, caused by bad behaviour are covered by health insurance (Einav and Finkelstein, 2018a). This may lead to the situation whereby individuals take less initiatives to take good care of themselves for example smoke more and exercise less knowing they are covered.

The most well-known allegation of moral hazard is the tendency to use health care services to a greater extent because the medical scheme is paying for the service. Moral hazard can be imposed by third parties such as suppliers of medical services. A patient may visit a doctor who over serviced the patient in order to be paid by the medical scheme. Moral hazard is not confined to the insured.

5.6 Market development with respect to asymmetry of information, adverse selection and moral hazard.

Recently with the development in technology, various techniques have been developed to reduce the problem of adverse selection, asymmetry of information and moral hazard in the insurance market. In regard to automobile insurance, usage-based automobile insurance and the use of black boxes in cars has helped in dealing with these three problems. Usage-based insurance (UBI) enables in the monitoring of the driving behaviour of the insured by monitoring the driving distance (mileage), habits and speed of the insured (Arvidsson, 2011). These would be regarded as moral hazard problems. This enables the insurer to be able to differentiate between high and low customers and determine the degree of risk and on renewal of the policy charge an actuarial and correct premium to customers. In perspective usage-based insurance is a form of Pay-As-You-Drive (PAYD), because the premium is determine by considering the mileage (driving distance) of the insured. Similarly, as the UBI, the use of black box is cars enables to reduce the occurrence of Adverse selection, asymmetry of information and moral hazard in insurance, as this helps to promotes perfect information provided to the insurer in regards to the risk type of customers (Filipova-Neumann & Welzel,

2010). These techniques helps in altering the risk behaviours of customers, as it provides incentives to high risk drivers to become low risk drivers (Arvidsson, 2011). Technology development can also be observed in the health insurance market, one of the method developed in the health insurance market to solve the problems of adverse selection, asymmetry of information and moral hazard is the use of wearables this is a form of "self-tracking" which allows to monitor the health habits and status of customers. Also, innovative wellness programs such as the Generali vitality has been developed to monitor the health behaviour and lifestyle of customers (Eling & Kraft, 2020). This helps individuals to be more caution with their health lifestyle and habits thus promotes perfect information and correct risk rate.

The community rating system will influence South African health schemes in the way and methods they use to underwrites and rate risks. South African insurers may turn to other options to accomplish fair discrimination, so they will make use of telematics. They will make use of new technology such as telematics especially in underwriting new policies and new insurance products. This has already started to be evolved in South Africa, whereby international companies such as Mix Telematics and Insure Telematics have already engage in the development of this technology (Rianet, 2011). Therefore, over the next few years we may experience a change in the insurance market whereby more technology systems will be used to underwrite risk.

5.7 Economics of government intervention in the medical schemes market

5.7.1 No evidence of market failure

The first point to be resolved; was there any evidence of market failure to justify government intervention into the Medical Schemes Market. As indicated above there was no evidence of the existence of monopolies nor externalities in a correctly priced market. There is evidence that it was becoming difficult for persons over the age of 65 to obtain medical schemes cover. Other authors have also argued little evidence exists of market failure in health insurance markets. Cochrane notes the following about US market before government intervention (Cochrane, 2009).

> "Any good policymaker looks for market failure before regulating something. Where is the market failure behind bans on risk-based premiums, medical insurance competition, or tax preferences favouring employer-provided group health insurance? No one has seriously documented natural monopoly, missing property rights, adverse selection, asymmetric information, or any conventional source of market failure motivating these interventions, or preventing the emergence of private long-term health insurance. Those regulations emerged as a patchwork response to the historical accident of employer-provided group insurance, not as a coherent regulatory program to address market failure."

Just as Cochrane could find no evidence of market failure to justify government intervention in the US medical health market, as indicated above no evidence was found of market failure in the South African medical insurance schemes market. No documentary study was found showing market failure. In South Africa the position is somewhat clearer. The declared justification for the Medical Schemes Act 131 of 1998 was not market failure but the desire to introduce social solidarity.

5.7.2 Government induced market failure

One of the consequences of government intervention is that this intervention induces market failure.

Accepting government intervention has taken place in the medical schemes market as indicated above, the issue then becomes what impact does this have with respect to the optimal outcomes of the otherwise competitive market. The central feature of the intervention is the system of community rating as discussed in greater detail below. It implies that the above optimum outcomes discussed of a competitive market will not be obtained and thus market failure such as monopoly and externalities occurs. In terms of this system the price is not determined on risk characteristics but only on income and number of dependants, therefore risk characteristics become irrelevant. The consequences of this intervention on the possibility of monopoly pricing and externalities is now discussed.

5.7.3 Monopoly pricing

With the Medical Scheme's regulation, the contribution to be paid will be decided by the medical scheme insurer, only one price exists in the medical scheme market for each specific option, so all medical schemes will charge all individuals the same price. This must be the

case since the levy is based only on income and number of dependants. In practice however this is not what happens. There is a rate for the principal member a different rate for other beneficiaries and yet another rate for dependants. The price will not be determined by the risk rated competitive market. Since the risk pool contains high and low risks members, cross-subsidisation takes place. Generally the young and healthy subsidising the older and less healthy. Notionally therefore the low risk group are paying an excess. This would not be possible in a risk rated competitive market. Compared to the competitive market the excess can be treated as a monopoly profit which is transferred to the high risk group. This monopoly profit decreases this class of consumer's surplus. This leads to monopoly because individuals will not pay the appropriate contribution in relation to their risk characteristics. This does not maximize consumer surplus, hence does not meet one of the outcomes of a competitive market. Government intervention therefore creates this form of market failure.

5.7.4 Loss of total economic welfare

Equilibrium in a competitive insurance market occurs when policyholders purchase insurance policies or contracts to maximize their expected utility, and none of these contracts should obtain negative expected profits (Stigler, 1957; Rothschild & Stiglitz, 1976; Crocker and Snow, 1986). The compulsory use of the number of dependants and income and not any other factors causes the medical schemes market not to be price competitive. This is because the contribution might not be assessed correctly since some main factors such as age and health status are not used. Consequently some individuals will be charged higher prices than the competitive market price. The market price is not constrained by price competition. The market price can be overpriced, experiencing monopoly pricing.

5.7.5 Externalities

Cross subsidization will occur in a market where government intervention takes place since the price is not set on risk characteristics. Low risk policyholders will subsidise the costs incurred by those whose risks have been under-priced. That is, younger and healthier individuals, who are low risks individuals will subsidise the cost of older and sicker individuals, who are high-risk individuals because premiums are not rated in terms of risk characteristics; this allows older members to transfer part of their cost to younger and adult members. Therefore, older and high risk members will impose an externality on younger members who did not choose to

incur those costs (Landes, 2015). This will be disadvantageous to the younger and healthier members many of whom will not be able to afford the cover, the low risk members may not aware that they are subsidising the risks of riskier individuals (that is older members) in the same insurance pool, thus the subsidisation means the market is not optimum with respect to consumer surplus and welfare. The market after government intervention is thus not Pareto Optimal.

Externalities thus lead to government induced market failure because a product or service price equilibrium does not reflect the true cost or benefits for each individual as associated to that product or service (Coase, 1960). Thus, it does not contribute to maximum total welfare, one of the competition outcomes resulting to market failure. The community rating contained in the Medical scheme Act will impose a price that does not reflect both the true cost and benefits associated to the contracts purchased both by the younger and older individuals, so this will lead to an externality and affect the maximum total welfare of the society. This will also reduce the efficient utilization of resources because of lack of adequate insurance cover and the degree of inequity since members will not contribute to cost recovery according to their true costs; younger and healthier individuals (low risk individuals) will be less willing to take policies because of the increase in the price and may leave the market (Buzzacchi, 2005) . If younger members could leave then without the cross-subsidization from the younger members, the contributions of the combined pool will rise to its correct level and in the end two correctly priced pools will exist and a stable market, that is insurers, instead of mixing their members or different group of members in the same pool, will create two separate pools for claims made by the younger and older members respectively. By doing so Pareto efficiency will be obtained which is one of the optimum outcomes of a competitive market. But community rating prevents this. So implementing the usage of community rating and the use of particular risk factors will imply that the market will be non-Pareto optimal. This could cause the driving low risk individuals, the younger and adults out of the market (Buzzacchi, 2005; Sass & Seifried, 2014) . In the long run they may not purchase insurance at all, or they may also decide to wait when they get older to purchase medical cover, so that they can also benefit from the younger. This creates the late joiner problem discussed below. This point can be emphasized by using the analogy of Akerlof (1970)'s automobile market i.e. good cars and bad cars (lemons); considering the good cars are low risk individuals (younger) and the bad cars are high-risk individuals (older). He states that, if the same price is charge to both bad and good cars, the good cars will be driven out of the market by the bad cars (the lemons).

5.7.6 Incomplete markets: failure of market to form as a type of market failure

Community rating passed by the medical scheme Act will cause the market to be Pareto inefficient because it will lead to failure of market to form that is incomplete market, which is a form of market failure. Market performance will not be efficient because the prices will be arranged in a way where maximum social welfare will not be obtained and the structure of the market will be affected. The structure of the market will be affected because, every medical scheme will be obliged to sell their products only at the same price. By doing so, the demand and supply of insurance products will be altered. In insurance, to obtain an equilibrium in demand and supply, the total amount demanded by policyholders must be equal to the total amount supplied by insurers. That is, a direct relationship must exists between the price and the quantity that potential sellers are willing to supply to the market, this is the equilibrium condition (Vivian & MacGregor, 2019). With the regulation passed by the Medical Scheme Act, this equilibrium will be disrupted because the demand of medical cover by the younger and healthier individuals will reduce due to the unfair and inappropriate contribution charged. As the prices increases, the quantity decreases, and the insurers will limit their supply of policies to older, high-risk individuals. This limitation to high-risk individuals may enable insurers to retain the profit they could have used for cross-subsidization (Vivian & Hugh, 2014). The decrease in customer demand especially by the younger and healthier, adults members will lead to a situation whereby, these members who could afford medical cover will now face ruin because they will stop to purchase insurance and they will be responsible for their ill health. Community rating listed income as one of the factor which can be used when assessing the contribution of an individual, so obviously those that have a higher income will be charge more, that is the higher your income, the higher your contribution. Individuals with a higher income will criticise this system, because obviously an individual's contribution cannot be determine only by his income, thus he may be charged a contribution which does not correspond to his risk. So, the increase contribution cost on this set of individuals will mean more expenses rate net their income. This will reduce the standard of living of these individuals and optimum economic welfare will not be obtained. The decrease in the younger and healthier individuals' demand for medical cover may limit the amount of contracts sold by the insurer and competitors will reduce the sales of these contracts that is medical cover (Schmeiser, Störmer & Wagner, 2014). This limitation in products offering will lead to a situation in which

younger, adults and healthier individuals will turn to other options such as substitute products like self-insurance (Woodfield, 1994). The demand of medical insurance by younger individuals will reduce, because of the same price imposed on every individuals. Henceforth, the insurer's portfolio will be made up of older and high-risk individuals and only one price will exist in the market that is the contribution cost for the high-risk individuals (Schmeiser, Störmer & Wagner, 2014). This will affect the resource allocation of the medical scheme, as all its resources will be focused on the older individuals, so its business portfolio will be affected. Therefore, optimum resource allocation will not be attained, which is one of the optimum outcomes for a competitive market. As a result, this will lead to incomplete market, as the market.

As noted above there was evidence developing that in South Africa persons over the age of 65 were having difficulties obtaining medical schemes cover. Community rating addresses this problem but at the cost of introducing other forms of market failure.

5.7.7 Regulatory capture

One of the issues which arises with regulation is the possibility of regulatory capture. This has not been discussed in detail in this dissertation and thus the issue will not be discussed in detail. The possibility of regulatory capture does exist. Regulatory capture occurs when the regulating bodies or agencies are more concern about their private interest than the public interests. Regulatory capture led to the continuation existence of monopolies who charge high prices (Posner, 1974) . Where there is regulatory capture, public interest cannot be achieved, because regulators will instead act at their own interest or the interests of the regulated bodies resulting in market failure (Stigler, 1971).

5.7.8 Conclusion regarding government intervention

From the above, we can observe that four out of the five optimum outcomes are not obtained with the implementation of community rating. These four optimum outcomes are optimum economic welfare, optimum consumer surplus, optimum resource allocation and Pareto efficiency.

5.8 Cochrane's solution

In the US there are many critics of the health insurance market which like South Africa, had become a heavily regulated market. The market was flawed but what is the solution to this problem? Should it be more regulation? Cochrane argued not, the problem could be solved and a contract could be designed which would provide the necessary lifelong cover. He was optimistic this solution could evolve. He asks:

> "How can long-term insurance be provided without intrusive and distorting regulation? … Implemented. The bottom line of the analysis is that markets can provide long-term health insurance, and deregulation is the likely policy route to achieve it."

He then set out to explain what this policy would look like. He referred to this contract as the time consistent contract.

Cochrane started his analysis by pointing out that in the US health insurance companies often refused or reject to provide coverage to individuals with long term illnesses that is sick individuals, or persons at higher risk (e.g. above 65 years) with pre-existing conditions and if the cover is provided charge these individuals high premiums. Due to health expenses, sick people often get bankrupted, as the cost of medical expenses increases and thus they can no longer afford medical care services. Cochrane proposed that to avoid the situation whereby individuals with long term illness, older individuals who have limited coverage. Also due to pre-existing conditions, a new policy, the time consistent insurance contracts should be implemented.

Time consistent contracts will help to cover the increase in premium charged to individuals with long term illnesses. He states that time consistent contracts are efficient because an individual's health status can change, that is a healthier individual may get sick later, therefore pays a higher premium to the insurer and a sicker individuals may get healthy and the amount of premium paid to the insurer decreases, thus premium is actuarially fair to everyone. Therefore, time consistent contracts both provides insurance against the rises in premiums and health insurance against uncertain health expenditures. This premium insurance is both provided by the insurer and any financial services companies (Cochrane, 2009).

With Standard health insurance, individuals often pay a constant premium equal to health expenditures throughout the period of the insurance contract regardless of the changes of their health status, thus standard health insurance is not time- consistent and therefore current health insurance contracts that offer long term insurance contracts are not competitive and non-pareto optimal. This is not the case with time- consistent insurance contracts, as premium could change depending on the individual health status. Cochrane specifies that time consistent contracts are Pareto optimal, as it promotes fair pricing ton individual and competition between insurers thus avoid the occurrence of market failure.

Individuals with long term illnesses mostly face the situation of increase in premium especially when these individuals decide to change insurers or renewing their policy, the new insurer charges these individuals higher premium based on their health status or limit coverage. Cochrane propose that time consistent insurance contracts can help in this situation whereby the term of the contract could states that the current insurer will pay a new insurer if the consumer is sick at the time, or the new insurer will pay the previous insurer of the consumer if the consumer is healthier. Time consistent contracts promotes freedom as individuals are free to change from one insurer to another.

Despite these contracts being advocated since 1995 they have not appeared, Eleven years later Cochrane noted the market he advocated had not evolved (Cochrane, 2009).

5.9 Conclusion

The limitation of the usage of some risk factors, will lead adverse selection and asymmetric of information, as not all the necessary information will be provided to the insurer to charge an actuarial fair price to everyone as some information will be hidden. When a market is deregulated, the market is free and competitive, as its decision does not depend on regulation control but on actuarial evidence, a competitive market attracts innovation, and the services offered by such market is efficient and at a best and reduced cost.

Conclusively, a regulated market lead to market failure, regulators need to allow the health insurers to determine the premium freely without any obligation, as this will create a

competitive market. Instead of government intervention in the insurance markets, technology database and system can be used such as telematics and PAYD (pay as you drive).

6 Chapter Six: Statutory anti-adverse selection provisions

6.1 Introduction

This chapter identifies, analyses and assesses the different statutory anti-adverse selection provisions contained within the Medical Schemes Act. These will be assessed to see to what extent they combat the problems of asymmetry of information, adverse selection and moral hazard. These statutory anti-adverse selection provisions are necessary since, as pointed out above, the system of community rating neutralised the historical measures which exist to combat these three problems. The measures available are Prescribed Minimum Benefits (PMBS), Waiting Periods (WP) the imposition of a Late Joiner Penalty (LJP) and restrictions of switching schemes to specific times. To this list can be added the question Mandatory Membership of medical schemes, which was discussed in Chapter 3 above. This is not at yet a statutory provision but it is recognised if the mandatory membership were to be introduced it would largely eliminate at least two of the three problems being discussed. Mandatory Membership is thus usually discussed as part of the anti-adverse selection problem. Once these are discussed the effectiveness and success of these anti-adverse selection provisions to the health funding markets will further be assessed. To assess and evaluate the effectiveness of the anti- adverse selection provisions, the published Health Market Inquiry report will be examined, since it also assesses the effectiveness of these measures. The outcomes and end results obtained in the Health Market Inquiry report will be compared to the outcomes of the Common law and insurance practice provisions. In this way the impact of the Medical Schemes Act and the effectiveness and success of the statutory substitutions will be evaluated.

6.2 Anti-adverse selection measures contained in the Act.

6.2.1 Specific provisions

6.2.1.1 Community rating – the source of the neutralisation of the common law measures

It is recapped by pointing out the need for statutory measures against the three problem are necessary because the Act introduces community rating. As indicated above in Chapter 5 where the economic framework for the analysis is set out, it is necessary to eliminate asymmetry of information as far as possible to correctly price the cover and eliminate uncertainty in pricing. If perfect information is available to both parties to the contract the contract can be correctly priced and the market would be Pareto Optimal. To make matters worse if the uncertainty cannot be eliminated a market may not form leading to allegations of market failure (Kenneth J Arrow, 1963; Akerlof, 1970; Rothschild & Stiglitz, 1976) The ability to manage the problems in the reality of the situation that the common law and contractual remedies have been neutralised by the introduction of community rating, are now discussed,

Community rating is introduced in Chapter 5 of the Act via the rules of funds.

Rules of the Medical Scheme of the Medical Schemes Act

S29 (1)(n) – the introduction of community rating

This section reads as follows:

> "(n) The terms and conditions applicable to the admission of a person as a member and his or her dependants, which terms and conditions shall provide for the determination of contributions on the basis of income or the number of dependants or both the income and the number of dependants, and shall not provide for any other grounds, including age, sex, past or present state of health, of the applicant or one or more of the applicant's dependants, the frequency of rendering of relevant health services to an applicant or one or more of the applicant's dependants other than for the provisions as prescribed"

It is this section which introduces community rating. It should be noted that it is done via individual rules of the fund, Medical schemes are arranged as if they are Clubs with members joining and accepting the rules of the fund, the rules of the Club, so to speak. The Act requires that the rules of the fund shall provide that contributions (levy) be determined "on the basis of income or the number of dependants or both the income and the number of dependants…"

Income is not defined in the Act. Presumably in practice the levy could be determined very much along the lines of Income Tax. That is to say, the more the member earns the more the member pays. In the case of a closed scheme since all members are employed by the same entity it is possible and was the case that the levy was graded according to income. But, an income based levy system is not what happens generally in practice. Instead schemes offer a range of options, the more expensive option is selected by the higher income group, with improved benefits.

The above section does not suggest a different rate can apply for the member and dependants but in practice nowadays a lower rate is charged for dependants. This does not appear to be justified in terms of the wording of the Act itself.

What is important to note is the section continues to indicate what factors cannot be used for rating purposes, that is on "any other grounds" then to emphasise the position, it specifically states not on age, or gender, state of health (past or present) .

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These are all factors on which pricing depends. There are the risk factors insurers apply to determine the correct price. These are the risk factors the insurer would need to know and the member would need to disclose in order that the membership is correctly priced, Thus it is clear that because of community rating the material factors which can influence the determination of the levy cannot be used to price the contract. Because of community rating the pricing is based on asymmetrical information, the insurer cannot use the risk information. It is however factually not a question of asymmetry of information since even if the insurer knew the information it cannot be used. In a real sense, information become irrelevant,

Moral hazard cannot also not be dealt with one of the most common methods of dealing with moral hazard is co-insurance in the form of excesses or deductibles but when it comes to PMBs co-insurance is not allowed (Arrow, 1971).

The same can be said about the use of contractual provisions. One way to eliminate the problem of asymmetry of information is via contractual terms. So knowledge of a pre-existing health condition would be important to an insurer. An insured for example who recently has been diagnosed with a serious health problem, say cancer, can seek insurance cover and decide to withhold this information. The information is clearly important with respect to determining if

the insurer would accept the risk and at what price. So an insurer, the supplier, would usually by contract exclude pre-existing conditions which are not disclosed. Because of the community rating system health conditions cannot be used either not to accept the risk or to price the risk thus contract conditions cannot be used to deal with pre-existing conditions. Since contract conditions cannot use risk factors to rate the contract, the disclosure of these become of academic use only.

Thus because of community rating the very concept of asymmetry of information becomes meaningless. This also means a person can decide not to purchase cover until actually diagnosed with an illness. This is the problem of adverse selection. Asymmetry of information becomes meaningless but not the problem adverse selection and so the focus on this point became adverse selection.

Given the above, the Medical Schemes Act contains an enigmatic provision holding that the cover can be cancel and or suspended because of the failure to disclose material information.

> "S29 (2) (e) – non-disclosure of material information
>
> (2) A medical scheme shall not cancel or suspend a member's membership or that of any of his or her dependants, except on the grounds of—
> …
> (e) the non-disclosure of material information"

So if the member had failed to disclose material information the scheme may cancel membership. It is not clear what this relates to but it cannot be material in determining the rate since as indicated above risk factors cannot be taken into consideration for rating purposes and are thus not material. A material factor is defined as a factor which would influence an insurer to set the premium or accept or reject the proposal.

6.2.1.2 Other underpinning provisions

The community rating system is underpinned by a number of other provisions which are now detailed and discussed.

6.2.1.3 Compulsory acceptance of membership

Non- refusal of membership is dealt with in terms of s29(3)

> "(3) A medical scheme shall not provide in its rules—
> (a) for the exclusion of any applicant or a dependant of an applicant, subject to the conditions as may be prescribed, from membership except for a restricted membership scheme as provided for in this Act;
> (b) for the exclusion of any applicant or a dependant of an applicant who would otherwise be eligible for membership to a restricted membership scheme; and;
> (c) For the imposition of waiting periods other than as provided for in section 29A."

The following provision in the Medical Schemes Act influence the question of Anti-adverse selection.

6.2.1. Prescribed Minimum Benefits

The community rating system could be subverted if the scheme were free to offer different forms of cover. It could for example cherry pick by not covering any of the expensive medical conditions. The Act thus lays down Prescribed Minimum Conditions which every scheme must cover.

6.2.1.4 Restricted Scheme switching

The right to switch schemes is restricted to certain times of the year. So if a person is on a low level plan such as say a Hospital Plan and is diagnosed with say cancer, the member cannot switch to a high level plan. The member would have to wait until switching is permitted.

6.2.1.5 Waiting period

The first specific provision which is exists as an anti-adverse selection provision is the imposition of waiting periods, clearly imposing a waiting period influences adverse selection. If a person waits until he or she is ill before obtaining cover that person will discover they have no cover during the waiting period other has provided for in the waiting period provisions. This section is a section which deals with the issue of adverse selection. What is the position

of a person who waits until they are ill before joining the medical scheme? In terms of s29 (3) the rules may consider imposing a waiting period. According to the Medical Scheme Act of 1998, waiting periods are used for new members or individuals who join a medical scheme. These members are still obliged to pay full contribution during the waiting period, but cannot benefit from full coverage from the medical scheme during these waiting periods. Also these members cannot make large claims after joining the scheme, because there is a possibility that after having been pay out for these claims may decide to cancel their contract (Emmenis, 2017). There are two forms of waiting periods; the general 3 months waiting period and the 12 months conditional specific waiting period. New members charged with these waiting periods may not have access to some form of benefits such as the prescribed minimum benefits, which are a set of benefits given to registered members of the scheme by all registered South African medical schemes, these prescribed minimum benefits provided member with some minimum health facilities or services regardless of the benefit option chosen by the member. The details of this are set out in terms of S29A which reads as follows:

29A. Waiting periods.—

> "(1) a medical scheme may impose upon a person in respect of whom an application is made for membership or admission as a dependant, and who was not a beneficiary of a medical scheme for a period of at least 90 days Preceding the date of application—
> (a) a general waiting period of up to three months; and
> (b) a condition-specific waiting period of up to 12 months.
>
> (2) A medical scheme may impose upon any person in respect of whom an application is made for membership or admission as a dependant, and who was previously a beneficiary of a medical scheme for a continuous period of up to 24 months, terminating less than 90 days immediately prior to the date of application—
>
> (a) a condition-specific waiting period of up to 12 months, except in respect of any treatment or diagnostic procedures covered within the prescribed minimum benefits;
>
> (b) in respect of any person contemplated in this subsection, where the previous medical scheme had imposed a general or condition-specific waiting period, and such waiting period had not expired at the time of termination, a general or condition-specific waiting period for the unexpired duration of such waiting period imposed by the former medical scheme.
>
> (3) A medical scheme may impose upon any person in respect of whom an application is made for membership or admission as a dependant, and who

was previously a beneficiary of a medical scheme for a continuous period of more than 24 months, terminating less than 90 days immediately prior to the date of application, a general waiting period of up to three months, except in respect of any treatment or diagnostic procedures covered within the prescribed minimum benefits.

(4) A medical scheme may not impose a general or a condition-specific waiting period on a beneficiary who changes from one benefit option to another within the same medical scheme unless that beneficiary is subject to a waiting period on the current benefit option, in which case any remaining period may be applied.

(5) A medical scheme may not impose a general or a condition-specific waiting period on a child-dependant born during the period of membership.

(6) A medical scheme may not impose a general or condition-specific waiting period on a person in respect of whom application is made for membership or admission as a dependant, and who was previously a beneficiary of a medical scheme, terminating less than 90 days immediately prior to the date of application, where the transfer of membership is required as a result of—

(a) Change of employment; or
(b) An employer changing or terminating the medical scheme of its Employees, in which case such transfer shall occur at the beginning of the financial year, or reasonable notice must have been furnished to the medical scheme to which an application is made for such transfer to occur at the beginning of the financial year.

(7) A medical scheme may require an applicant to provide the medical scheme with a medical report in respect of any proposed beneficiary only in respect of a condition for which medical advice, diagnosis, care or treatment was recommended or received within the 12 month period ending on the date on which an application for membership was made.

(8) In respect of members who change medical schemes in terms of subsection

(9), where the former medical scheme had imposed a general or condition-specific waiting period and such waiting period had not expired at the time of termination, the medical scheme to which the person has applied may impose a general or condition specific waiting period for the unexpired duration of such waiting period imposed by the former medical scheme."

6.2.1.6 Late joiner penalty

Another method used by the Medical scheme to protect the scheme and its members from adverse selection is by charging new members who were not previously members of a scheme a penalty, called the late joiner penalty.

Definition of late joiner penalty.

The late joiner penalty is imposed not by the Act but in terms of the regulations which deals with late joiners. Membership of a Medical scheme is not compulsory. In most countries state cover is to be purchased by individuals. South Africa is such a country. So for most of South African Medical cover is neglected by the public because they find it either unnecessary or they cannot afford the cover. These individuals become aware of the necessity to purchase Medical Scheme cover when their health condition deteriorates or when they get older, but these individuals fail to appreciate that by waiting, when purchasing cover, they will be charged an additional levy by the scheme.

Due to this situation, whereby individuals join a medical scheme later in life, the Medical Scheme Act No 131 of 1998 therefore allow medical schemes to apply late joiner penalties. These penalties are charged to individuals who decide to purchase a medical cover only after the age of 35 or in the situation whereby a member belonged to a registered medical scheme before but terminated the contract, and waited or took a break in cover for more than 3 months, or 90 days before deciding to re-purchase medical cover (Emmenis, 2017; Discovery Health Medical Scheme, 2020).

Therefore a late joiner applicant is an individual:

- Who decide to purchase medical cover when he/she is 35 years and older.
- Who was not a member or a dependant of a registered South African medical scheme for more than 3 consecutive months after 1 April 2001.
- Waited for more than 3 consecutive months before deciding to purchase another medical cover after the termination of the previous medical cover.

6.2.1.7 Calculation of the late joiner penalty.

When calculating the late joiner penalty, two important pieces of information is needed, that is; the number of years the member had medical scheme cover with a registered South Africa after the age of 35 and the present age of the member at the time application for cover. This penalty is then added to the monthly contribution paid by the member, thus the total amount is paid by the member for life.

The percentage rate of the penalty added to the contribution varies according the number of years that a member has not been on a registered South African medical scheme after the age of 35 years (Discovery Health Medical Scheme, 2020; Sandy Van Dijl, 2020).

Number of years without registered medical scheme after 35 years	Percentage rate according to the number of years
1-4 years	5% contribution
5-14 years	25% contribution
15-24 years	50% contribution
25 years or more	75% contribution

Example

George approaches a registered South African medical scheme to purchase a medical cover. On the date of registration, George age is 60 years. George has previously belonged to a registered South African medical scheme for 5 years from 36-41 years. Let's assume George monthly contribution once admitted is R2 500. What will be George's late joiner penalty?

To calculate the late joiner penalty, we will take George current age minus 35 plus the number of years of previous cover with a registered South African medical scheme.
George age is 60 – (35 + 5) = 16years

George went 16 years without medical scheme cover. So the late joiner penalty will be calculated by using 50% of the monthly contribution as indicated in the table above.

50% of R2 500 = R1 250.

Therefore his total amount of contribution will be; R2 500 + R1 250 = R3750.

It is important to note that when determining the number of years of an individual previous medical cover, there are some exceptions; any cover the member had before the age of 21 and any medical cover purchased for foreign purposes is not considered. This penalty is calculated

based on the contribution paid by the insured to the scheme, no savings component of the scheme is taking into consideration.

6.2.1.7 Late joiner penalty imposed on those not previously members of a scheme

To avoid paying this penalty, individuals should not purchase medical cover only when their health is affected or when they are getting older, but instead should always have medical scheme cover. . Individuals cannot predict when they will face or experience a severe illness or medical emergency, which most of the time are costly. So, it is always advisable that every individual has a financial protection against any future event. It is advisable to join a medical scheme when younger and healthy to avoid late joiner penalty.

It is also important for individuals or members to keep a copy of their previous membership certificate with their previous registered South Africa medical scheme, this certificate is useful especially when individuals switch schemes or purchase medical cover with another registered medical scheme. This certificate will enable the new registered medical scheme to determine the commencement and termination date of the medical contract with the previous medical scheme and other information. This will help the current registered medical scheme to determine the contribution to be paid and the late joiner penalty if applicable (Sandy Van Dijl, 2020).

Why is the late joiner penalty important to medical schemes?

The charging of a late joiner penalty was introduced to solve the problem of cross subsidization. In the medical aid scheme, there are two group of members the younger and healthier members and the older and sicker members, because of community rating both of these groups pay the same contribution to the scheme. Obviously cross-subsidization will occur whereby the younger and healthier members who usually claim less than the older will cross subsidize the older members in the risk pool. Since the younger claim less, it is obvious that the contribution of the pool will mostly be used by the older members to reimburse their large claims. The late joiner penalty protects current members of the scheme so that they may not be subsidising new members who did not subside other members, this ensures fairness within the members of the scheme.

The late joiner penalty is a tool available to the medical schemes. It protects both the medical scheme and the current members of the scheme from adverse selection, which occurs when members older than 35 years decide to join a medical scheme for the first time. As discussed above adverse selection occurs when, older individuals decide to join a medical scheme later, when they need a medical cover, and when their risk probabilities has increased, and this is meant as adverse selection.

Conclusively, both waiting periods and late joiner penalty are introduced to protect the medical scheme market solvency and its members from adverse selection.

The late joiner penalty is also advantageous on the side of individuals who wish to purchase a medical cover since medical scheme can no longer reject or refuse to cover because of age or high risk probabilities. But an individual can be expelled from a medical scheme, if this individual in any way or by any action commit fraud against the medical scheme or act in bad faith, whereby this individual failed to disclose some material facts to the insurer to efficiently access its risk conditions.

Despite the few advantages of the late joiner penalty, it also have critiques. One of the criticisms associated to the late joiner penalty is that is does not help to solve the problems of asymmetry of information, adverse selection and moral hazard. This will be discussed in the following section in relation with the critiques discussed in the Health Market Inquiry report.

6.3 Provisions not included in the Act:

6.3.1.1 Mandatory Membership

It is not mandatory to be a member of a medical scheme. It is often suggested that mandatory membership should be introduced. Clearly if this was to happen the question of adverse selection and pre-existing conditions would fall away. It has been argued medical cover should be regarded as a form of life long cover, paid for in instalments. And thus the notion of medical cover being short-term cover produces problematic outcomes. This point is not discussed in

detail herein say to point out it is usually discussed when the anti-adverse section provisions are discussed.

6.3.1.2 Equalisation and cross-subsidisation mechanisms

It was accepted that risk equalisation mechanisms including cross-subsidisation mechanisms would have to be introduced. Despite considerable work having been done on the point these mechanisms have not been introduced.

6.4 Finding of the Health Market Inquiry with regard to Anti- selection.

6.4.1 Meaning of adverse selection according the Health Market Inquiry (HMI)

The effectiveness of the statutory anti-adverse section provisions have been discussed on a number of occasions. The most recent being set-out in the Health Market Inquiry (HMI), where the question of adverse selection was considered (Ngocob, 2019). The Health Market Inquiry referred to Anti-Adverse Selection simply as Anti-Selection. The HMI relied on a previous report for its views (Ngocob, 2019). That report was compiled by the firm Willis Towers Watson commissioned by the HMI for this purpose (Watson, 2017). This section discusses the findings of the HMI.

The HMI report starts by setting out its view of what constitutes Adverse-selection behaviour. The first conception is stated as follows (Ngocob, 2019):

> "105.1. individuals join medical schemes when in need of care, i.e. when they expect healthcare expenses and leave the scheme once treatment has been completed;"

This view is in line with the view set-out above namely that adverse selection occurs when individuals buy or purchase insurance when in need, and after been paid for medical expenses decide to leave the medical scheme. Even if the individual did not leave the scheme after the illness has been treated this would still constitute Adverse-selection as generally understood in insurance practice. For example individuals join medical schemes when in need of medical

care and expect to incur health care expenses, and leave the medical scheme after health care expenses has been covered and treatment completed.

The HMI sets out a second example of what it considers to be Adverse Selection (Ngocob, 2019):

> "105.2. people not joining medical schemes (or leaving if they are already members) when they believe they will not need access to care;"

The market concept of Adverse Selection does not include the decision of not purchasing insurance because they do not believe they need insurance cover. As indicated the Neo-Classical Economic theory of markets works on the basis that utility drives the consumer participation in an exchange transaction. A consumer enters into exchange transactions to maximise their utility. If a consumer obtain more utility from not entering into a transaction the theory would not regard that as adverse selection. The reason economic theory is concerned with a consumer entering into a market under conditions of adverse-selection is because the transaction is incorrectly priced, if a consumer does not enter into a transaction the question of price does not arise, So the view of the HMI that Adverse-selection also happens when individuals decide not to join a scheme because they do not need health care services finds little support in theory or practice.

The above paragraph also refers to leaving a scheme as an example of Adverse Selection. For the reason set out above this is not what is considered adverse selection in practice. It is worth discussing in greater detail because Akerlof also labelled leaving a scheme as a form of adverse selection (Akerlof, 1970). Akerlof was relying on a textbook which dealt with Adverse Selection as follows:

> "There is potential adverse selection in the fact that healthy term insurance policy holders may decide to terminate their coverage when they be- come older and premiums mount. This action could leave an insurer with an undue proportion of below average risks and claims might be higher than anticipated. Adverse selection "appears (or at least is possible) whenever the individual or group insured has freedom to buy or not to buy, to choose the amount or plan of insurance, and to persist or to discontinue as a policy holder."

There are at least two reasons to leave a scheme. The reason of affordability and the view of the insured that the insurance is overpriced. If the member leaves because of affordability it is not adverse selection as indicated by the HMI discussed in the next paragraph. The other reason is the member may decide the cover is mispriced. If the member is healthy and the majority of other members are not, the member may decide the price is out of alignment with the benefit and leave the scheme, this again is not adverse selection.

The HMI continued to mentions a third instance of interest, which the HMI does not classify as Adverse selection (Ngocob, 2019):

> "106. Above inflationary increases in healthcare expenditure means some members may 'buydown' to cheaper plans while retaining the same claiming behaviour or leave when a scheme becomes unaffordable. This behaviour is not considered to reflect anti-selection but rather a reflection of consumer budget constraints. The definition of anti-selection (sic) [Adverse Selection] assumes affordability. Plan-movement as a result of budgetary considerations reflects the inability for funders to negotiate affordable provision and not anti-selection."

Quite correctly the HMI does not classify instances where members leave schemes for affordability reasons (contrary to the views of Akerlof) as adverse selection.

From the above it can be seen why adverse selection can exist even if asymmetry of information does not. If health status is a risk characteristic adverse selection would take place if the individuals' health status changes for the worse and on learning this the individuals seeks cover. On the other hand the individual seeking cover can notify the scheme he or she is seeking cover because of the bad news concerning his health. Knowing this the medical scheme in terms of the legislation must nevertheless accept the application at the same price as other members. So the medical scheme cannot either decline the application or increase the price. So the information cannot be used,

The HMI continues to explain why adverse-selection is a problem (Ngocob, 2019)

> "108. Anti-selection (sic) [Adverse-selection] creates a risk for medical schemes as these individuals' claims for healthcare expenditure can exceed their contributions to the scheme, leading to higher premiums for all members."

The contributions are based on the expected value of the claims, the average value. If a person is diagnosed with an illness the probability of the payment approaches 1 and the expenses equals the cost of the treatment. There is no diversification. So every new member who purchases cover with a probability of 1 imposes considerable costs. If joining under this condition everyone would do so resulting in exceptionally high costs to members.

To mitigate the occurrence of adverse selection in medical schemes, funders implemented three measures;

- Enabling members to change their health plans at a certain period of the year
- Imposing waiting periods
- Imposing late joiner penalties for members joining the scheme at a later age (35 year and above)

Adverse selection leads to the increase in claims of health care expenditures which affects the medical schemes, due to the increase in health care expenditures, schemes will increase the amount of contribution to be paid by members.

Adverse selection behaviours portray by individuals may lead to the occurrence of an increase in high claims faced by schemes. So the question to be asked is do adverse selection contributes to an increase in claims experience by schemes.

The Health Market Inquiry Report (HMI) assessed the claims per beneficiary to analyse if schemes experience an increase in claims from new entrants to schemes, and if so; is this increase of high claims caused by new joiners or the existing or long term members of the scheme?

From the findings, the increase in claims is not caused by the new joiners. The analyses show that the increase in claims were not as a result of new joiners for two reasons. With the introduction of waiting periods which prevent new joiners from making high claims, and the fact the new joiners might instead join a scheme in the middle of the year and not at the beginning of the year, thus it reduces the number of months covered. Therefore, taking into consideration these reasons the findings states that the increase in high claims is not caused by the new joiners.

The findings instead suggests that the increase in high claims might be due to systemic anti selection. This occurs when the increase in claims experience by schemes is caused by the members that stays in the scheme that is long term members and get old or age thus their claims cost increases, and results to an increase in claims inflation in schemes.

Thus HMIR pointed out that the problem of adverse selection must be taken into consideration as this problem persist in the market and proper and efficient recommendations or measures needs to be put in place to remedy it.

The problem of anti-selection is mitigated by the market through the use of late joiner penalties and waiting periods. Even though late joiner penalty contributes in avoiding new joiners from making high claims then leaving the schemes, it does not totally protect schemes or insurers from the cost associated with adverse selection. HMIR found these anti-adverse selection provisions to be insufficient adequately to protect health schemes form the costs associated with the problem of adverse selection. The report criticise these anti adverse selection provisions by stating that it provides limited or little protection to health schemes, and that the extent of the problem of adverse selection has been underestimated in the market .

Conclusively, from HMIR findings adverse selection is likely to happen in a market with community rating and open enrolment as members will be allowed to opt in and out of the health scheme. Community rating might have contributed to establish a stable and average members contribution cost, but has not helped in reducing the increase in claims faced by schemes.

6.4.2 Effectiveness of the statutory provisions

If adverse selection takes place the costs would be higher than if it did not take place. Because of the law of large number one would not expect the average cost to increase from year to year because of adverse selection. The HMI did not try to measure the extent of adverse selection but rather concentrated on entry to schemes to assess if adverse selection contributes to the increase in claims costs. The HMI reason if adverse selection was a problem two things would happen; firstly the proportion of new jointers would be greater than existing members and the average costs would be higher for the new joiners (Ngocob, 2019):

> 110. For anti-selection to contribute to higher claims, we would expect to see a greater proportion of new joiners relative to other cohorts as individuals continuously enter, receive treatment, and leave. We assessed the claims per beneficiary for the different membership duration bands. The analyses did not show a greater proportion of new joiners relative to other cohorts or that claims were higher for longer-term members relative to new joiners, with, The analyses did not show a greater proportion of new joiners relative to other cohorts or that claims were higher for new joiners relative to longer term members. All claim inflation rates fall within a reasonably narrow band for all the groups.

The above analysis indicates that adverse selection does exist. The HMI however readily concedes the conclusion is not totally convincing (Ngocob, 2019). The HMI is more confident adverse selection does not contribute unduly to increases in medical schemes rates (Ngocob, 2019). The HMI then abandons the effort to determine if adverse selection does exist and if it does its extent and concedes it is most likely to exist (Ngocob, 2019).

> "113. We have concluded that anti-selection is likely in a market environment which allows consumers to opt-in or out of health insurance alongside policies of open enrolment and community rating. The SID [Supplier Induced Demand] analysis confirms this and shows that there is an anti-selection effect."

So as indicated above because of the law of large numbers one can expect adverse selection to impose a stable cost on other members but the HMI was unable to determine what that cost is. It merely concedes it exists. The general conclusion by stakeholders who were consulted was that adverse selection does exist but it is not the lead cost driver but that any proposals which are made must take adverse selection into consideration (Ngocob, 2019).

Then comes the conclusion which is important to this dissertation. The measures introduced are likely to have had a measure of success. The general feeling is however these measures are insufficient and the extent of adverse selection is under-estimated (Ngocob, 2019).

It is pointed out that despite the detailed empirical analysis carried out by consultants the central findings of the HMI on adverse selection rely to a large measure on the views of stakeholders. It is also noted the findings do not include the views of the consumers. So there is no information as to whether or not the public have found the measures to be fair and satisfactory.

6.4.3 Recommendations by the Health Market Inquiry.

Taking the above findings into consideration the HMI then considered or made some recommendations. These recommendation fall into two categories. Firstly, the HMI repeated the recommendations it has made in the Preliminary Findings Report (PFR) and then discussed the issue more generally. Although the HMI referred to this section as containing recommendations to deal with adverse selection the section contains more of what can be referred to as a discussion of a number recommendation it had made.

6.4.3.1 Mandatory membership

The HMI discussed the possible introduction of mandatory membership.

Mandatory cover does not exist at the moment thus the question of mandatory cover falls outside the scope of this research which is focussed on the existing measures. If cover is mandatory the cover can be treated as lifelong cover, as for example in the case of life insurance. In this case illness could be an insured peril and not a risk factor. Mandatory cover would achieve the same outcome as insuring death. It is inevitable somewhere along the way. Mandatory cover has been raised and discussed by many authors. There remains the question of affordability. Many will not be able to afford cover. It does not help designing a system which provided free cover since the cost of that cover will be borne by other members. That market is thus not Pareto optimal. This implies that alongside the medical schemes market a public health system would have to exist as a public good. The mandatory medical schemes market would then include only members.

Insurance practice deals with the issue of asymmetry of information, adverse selection and moral hazard by contractual terms inserted in insurance policies. The problem of asymmetry of information, adverse selection and moral hazard is dealt with in terms of legal duties which have been developed in the common law. This legal doctrine introduced the duty of the insured to disclose all material circumstances when entering into a contract. Insurance contract most always have one of the most important feature which is “uberriae fidei” or utmost good faith, which must be respected by both parties of the contract. In case of non-disclosure, misrepresentation and concealment by one party, the other party has the right to breach and avoid the contract.

The legal duty of disclosure by the insured and the duty to answer all the questions in the proposal form solves the problems of adverse selection, asymmetry of information and moral hazard, thus because of the duty to disclose there is no evidence of asymmetry of information. Thus insurance markets are Pareto efficient as Dahlby observed. With the duty to disclose material circumstances, consumer behaviour to wait until they are ill before purchasing medical cover can be remedy by charging an actuarial price considering the material circumstances disclosed by the insured. Also consumer "moral hazard attitudes" whereby they take less incentives to avoid risk because of insurance, which increases the cost is reduced.

The question to be asked here is that despite its merits, does it solve the issue of adverse selection, asymmetry of information and moral hazard efficiently?

The HMI decided it would not recommend the introduction of mandatory cover.

6.4.3.2 Risk adjustment mechanism and income cross-subsidization.

Risk adjustment is a form of mechanism which was created to respond to the restrictions of rating practices imposed by the Act. This mechanism was created to solve the inefficiencies in the health market due to restrictions on the risk based rating practices. Risk adjustment and income cross-subsidisation is a form of risk equalisation. These methods are seen as a method to avoid price discrimination between the high risk individuals and low risk individuals. Risk adjustment mechanism and income cross-subsidisation is another option to deal with adverse selection. Tax subsidy on contributions is a benefit which all the members of a scheme has the right to benefit from, but tax subsidy actually is not beneficial to all members of the scheme, it is discriminatory as it is beneficial to individuals who earned higher income and does not considers individuals with income below the tax threshold. Regulation intended to change tax subsidy on income to direct income subsidy per person, this will enable individuals with lower income to be able to afford medical cover. Risk adjustment mechanism is adequate as the amount of contribution will be based both on income and risk, this will equalise risk in the various schemes and pools, thus promotes competition in schemes (Market Inquiry, 2019) . The risk adjusted mechanism also help to eradicate the anti-competition behaviour of insurers that is risk selection and cream skimming. With this mechanism, insurers do not discriminate

when charging contributions to members, since insurers might decide to charge sicker or high risk individuals' higher monthly contributions, or some insurers might even decide not to provide coverage to this group of individuals.

Risk adjusted mechanism is an efficient method to solve these issues, but will not be adequate in the long run. Income and risk will be the two factors used to determine the contribution to be paid by a member, but other factors like age will still be considered, this is because age is correlated with income. The younger, healthy members earn lower income compare to adults and older, riskier members, so cross-subsidisation will occur, as the younger with lower income will cross subsidies the older with high income. So, in addition to the risk adjustment mechanism, income related cross subsidization can be used.

6.4.3.3 Standardised benefit package (PMB)

Asymmetry of information and adverse selection can also affect the fragmentation and sustainability of risk pools and scheme. The benefit package or options taken by various members needs to be in relation with their risk profiles. Imperfect information leads to a situation whereby high risk individuals may be purchasing low cost option while low risk individuals are purchasing high cost options.

Schemes may instead decide to have one standardised benefit package, which all members will be required to purchase ,this will enable to avoid fragmentation in risk pools of schemes.

6.4.4 Conclusion regarding the findings of the HMI

From the above a conclusion can be arrived regarding the findings of the HMI with respect to adverse selection and the anti-adverse selection measures. The HMI conceded the system of community rating introduces the problem of adverse selection; The HMI was not really successful in measuring the success or otherwise of the anti-adverse selection measures. It was accepted that adverse selection was not a driving force behind increases in the medical schemes rates. Changes to the existing measures were not discussed. Possible additional measures were discussed. It is accepted the existing measures have been successful to a point but this could not be measured. The views of the public were not canvassed.

6.5 Discussion

6.5.1 Waiting periods

The purpose of having waiting periods is to deal with adverse selection. If a person for example had no cover, becomes ill and realises he or she needs cover and because of this decides to purchase cover, then that is the quintessential example of adverse selection. Now in this case the person will discover he or she may have to wait a year before being able to put in a claim. During that year they have to pay the contribution. That would be strange paying for a service and not obtain a benefit.

Waiting periods will affect the claim costs for new joiners, members charged waiting periods are not allowed to make high claims and most new joiners do not necessarily join a scheme at the beginning of the year, therefore the average number of months covered is lower. Due to the disadvantages attached to waiting periods, there will be a decrease in both the number of new joiners and lower claims by new joiners, whereas the scheme will experience high claims increase since the members that stay in the scheme will age and experience high claims while the number of new joiners decrease, this situation might lead to claims inflation.

Open enrolment and community rating has helped to stabilise the average cost of contributions to members, but has not contributed in solving the increase in claims costs and cost of adverse selection faced by medical schemes (Ngocob, 2019).

The question to be answered it thus how does the concept of waiting periods compare to the unregulated market? In a competitive market if all the information is disclosed cover would be obtained at the correct price. The new consumer would not impose a cost on other consumers since being correctly priced the market is by definition Pareto Optimal. So there would be no waiting periods. During the waiting period the schemes obtain money for nothing. The new member pays but cannot receive any benefit. It is not clear why this should be. Possibly the view is if the person is critically ill he or she may die before the period had expired. In this case the waiting period is simply cruel. If the person is critically ill with an illness which could run for a long period of time, it is unlikely the person would have been able to obtain

cover in the competitive market. The cover would have been declined in terms of the pre-existing condition clause. In this case the new member is considerably better off than in regulated market than the competitive market. He or she could be paying say R60 000 a year for cover but incurring R600 000 pa in medical costs. It could be argued Pauly did this simply demonstrates medical schemes is not really insurance. One could also argue as Arrow did that medical covers should be regarded as lifelong cover,

The waiting period does not really solve any problem other than have a period long enough for ill persons to die and in that way not claim. There is no evidence as to the adequacy or other wise of paying a levy for 3 or 12 months achieves and specified purpose and if so adequately.

6.5.2 Is the Late Joiner penalty ultra vires and irrational?

6.5.2.1 Discussion three questions

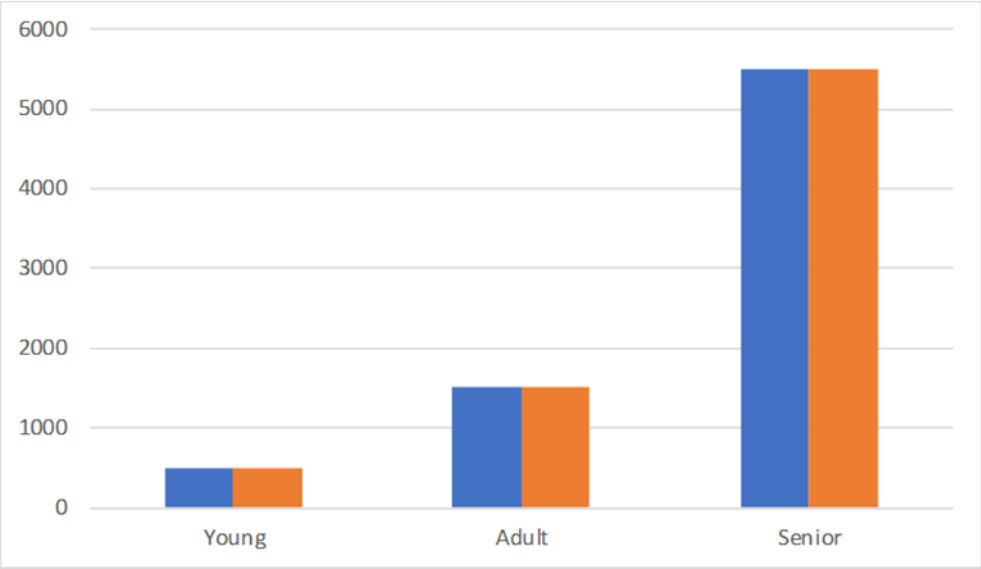
Medical schemes levy a late joiner penalty against persons who join medical schemes later in life. By later is meant after the age of 35. This raises a number of questions, three of which are now highlighted. Firstly is the penalty *ultra vires*, secondly is it irrational and thus unconstitutional and finally is it efficacious. To answer these questions it is first important to understand a bit about insurance and medical schemes.

6.5.2.2 Something about how insurance works

It is not clear conceptually what medical schemes are supposed to be. The closest comparable structure is insurance. So in the first instance let us place it within the insurance concept. With this in mind is it short-term or long-term insurance? Medical schemes cover is only valid as long as the levy is paid. This exposes members to great risk since if they become ill or unemployed they may not be able to afford the cover and thus loose it when most needed. This is possible since In terms of s29(2)(a) of the Medical Schemes Act the rules of the fund may make provision to cancel membership if the levy is not paid. Recently there was a case where the levy was paid by debit order at the end of the month. A member died while in hospital during the month. The bank on learning of the member's death froze the bank account and accordingly the debit order was not honoured. The medical scheme then advised that it was not going to pay the medical bills since the levy had not been paid. So we can only, if the

medical scheme is conceptually thought of as being insurance, think of it as being short-term insurance. Most short-term policies have a term which deals with this situation and the cover provided by policy would be unaffected by the decision of the bank. Being a medical scheme the matter is dealt with in terms of its rules and not standard contractual terms.

In terms of the insurance framework the idea that a person who purchases insurance late in life should pay a penalty is an extraordinary proposition indeed. Assume a person purchases his first car at the age of 40 and the when he purchases motor insurance the insurer says it is going to raise a penalty because he did not purchase insurance previously. This would not happen since the premium correctly reflects the risk. Not having cover previously is not relevant. Secondly to make matters worse he is told the penalty will be levied for the rest of his life, and it does not matter if he changes insurers the penalty will follow him for the rest of his life. To understand why this is an extraordinary proposition let us take a simple example. Insurers rate risks according to costless obtainable risk characteristics (or factors). As far as practical the determination of the characteristics is costless since it is not economically viable to spend a great deal of money to establish these. These factors could be age, gender, occupation and so on. Clearly these can be established at little or no cost. Age is a very significant characteristic. Three age bands can be specified; young (before going to work), and adult (working age) and seniors (over 65).



The average cost of claims in each band change significantly and are readily available say by analysing simple claims records. An approximation can be obtained by looking at American

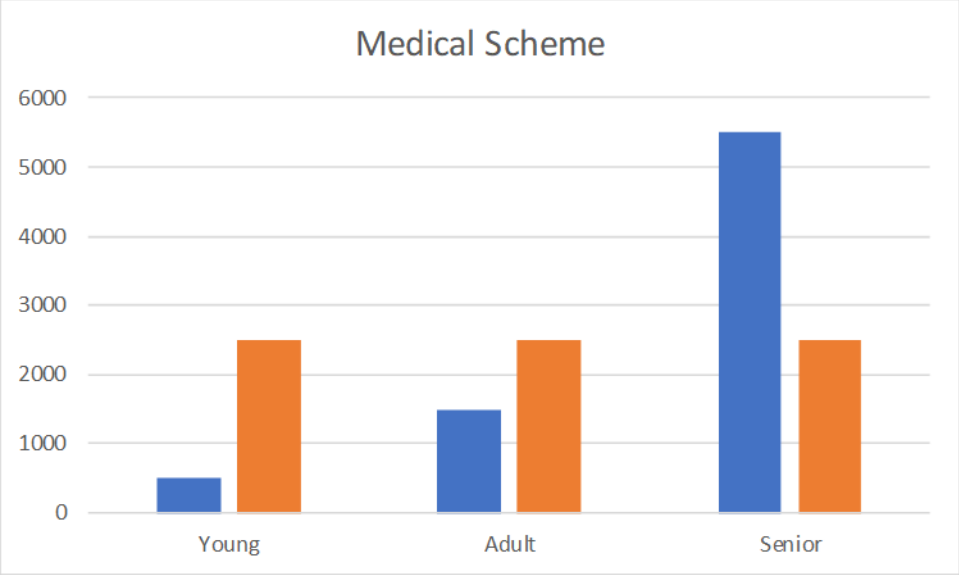
statistics. Some studies indicate the difference between the young and seniors could be 10 fold. For ease of calculation assume the American ratios of 1, 3 and 11. Assume therefore the levy for the young (dependants) is R500 pm that makes the adult R1500 pm (member) and the senior R5 500 pm. The insurer would levy the appropriate premium as indicated in figure 1.
So if this were an insurance market; three separate stable markets would evolve. These markets are stable because they are in equilibrium – called a Wilson equilibrium. In this case three Wilson equilibria would form. A market for the young, for adults and seniors. Each insurer would charge the correct amount to cover the appropriate costs. It should be very clear it does not matter when an insured enters the market ages say at 10 or 30 or 50 the premium is known. In a correctly rated insurance market the idea that somehow when insurance is first purchased can influence the price simply has not basis in reality.

6.5.2.3 Is the levy ultra vires the Medical Schemes Act?

Legislation in the form of the Medical Schemes Act was passed which introduced community rating, in terms of s29(n) which 'the determination of contributions [shall be] on the basis of income or the number of dependants or both the income and the number of dependants, and shall not provide for any other grounds, including age, … "

Late joining is not a factor to be taken into consideration in setting the premium. Insurers cannot work on this basis so it is now a medical scheme and not an insurer.

So now the medical scheme charges a single rate for each member. Assume there is an equal proposition of ages in the risk pool. The average premium would be R2 500. This is now shown in figure 2.



Now instead of each group paying the appropriate cost, within a stable market. The medical scheme charges everyone the same amount R2 500. This market may not be stable – it is not remain in equilibrium. Economists call this the Carnout-Nash equilibrium which may be unstable. The young and adults are paying a subsidy to the seniors. It is thus also a non-Pareto optimal market. Assume for example the young and adults decide the cost exceeds the benefit and exit the market. The ratio of senior would increase and the average premium could go to say R5 000 at which point only the seniors are in the market and their costs are R5 500.

Unless the levy is increased to R5 500 the fund would collapse into insolvency.

What problem does the late jointer pose? There are two closely related possibilities. The first is adverse selection (which strangely actuaries call anti-selection) i.e. the decision to purchase cover is delayed until the member is actually ill i.e. his or her claims cost exceeds the levy and the other is mere asymmetry of information. Adverse selection as understood in the insurance market is where a person realizes the risk has increased and then purchases insurance. Mere asymmetry of information is when the insured does not disclose all material facts to the insurer. So assume for example a person goes to the doctor who diagnosed that the person has cancer and about a year to live. That person is not a member of a medical scheme but decides to join a medical scheme. That would be an example of adverse selection. Imposing a late joiner penalty does not solve this problem since the new members' costs will in any event exceed his costs. A late joiner penalty does not address the mere asymmetry of information problem either

because with a community rating system there is no point disclosing any material facts since the medical scheme cannot use the information for rating purposes.

So the late jointer penalty does not address the fundamental issues.

6.5.3 Age as a rating factor

One of the most important risk factors in medical cover is age. Community rating precludes the use of age in determining the levy. Age rating has crept in via the back door so to speak. Despite the absence of any statutory authority different rates are levied for the second beneficiary and dependants. In the common law age would be a risk factor.

6.5.4 Moral hazard considerations and Community rating

6.5.4.1 Discussion

Moral hazard describes the tendency of the insured to behave differently having purchased insurance. After purchasing insurance the insured's motive to prevent a loss from occurring will reduce that is the insured will have a lowered incentive to avoid loss. This will cause an increase in cost and the overall loss rates (Pauly, 1974; West, 2013).

When a consumer makes efforts or have incentive to avoid a risk from occurring, the probability of this individual to make a claim is low compared to consumer that has less incentive in avoiding the occurrence of a risk (Laird, 2016).

- Let's assume; A consumer which makes effort to avoid a risk from occurring, the probability of this consumer making a claim will be, P(c)
- A consumer which makes no effort to avoid a risk from occurring, the probability of this consumer making a claim will be, P (nc).

Usually, the group of consumers who make less effort to avoid a risk from occurring are the risky and high risk individuals, implies an increase in cost and loss rates by this group compared to those who make effort to avoid a risk.

Therefore, $P(nc) > P(c)$

Thus consumer actions affect the expected losses from the insured risk (Tennyson, 2010). Individuals purchase insurance coverage to maximise their utility, but with the introduction of community rating, utility loss will be experience by these individuals (Pauly, 1970).

The premium charged to individuals determine the amount or quantity of insurance these individuals purchased. With community rating, the quantity of insurance purchased by high risk and sicker individuals increases because of the decrease in price while low risk individuals purchase less because of the increase in premium. While with experience rating, the high risk and sicker individuals will not purchase more insurance as compared to under community rating. Here, the low risk individuals purchase more (Pauly, 1970). Under community rating, high risk and sicker individuals purchase more, implies that there is an increase in demand for health insurance, this does not means that this pricing system is efficient to solve the issue of asymmetry of information, adverse selection and moral hazard. Restricting rate categories in pricing lead to losses and market failure (Crocker and Snow, 2000). Even though each pricing system has its demerits, experience rating or actuarial rating is better than community rating because the premium is charged fairly in consideration with the individual risk profile.

Proportion of high risk, sicker individuals and low risk, healthy individuals purchasing insurance with a community rating system.



With community rating, high risk individuals purchase more insurance coverage because of the price reduction, while low risk individuals purchase less insurance cover because of the increase in premium.

Proportion of high risk individuals purchasing insurance with the experience or actuarial rating system.



With experience rating, instead the health market have more low risk individuals purchasing insurance because the levy is charged fairly, thus the levy paid corresponds to the risk profile while high risk, sicker individuals purchases less because of their high propensity to experience a risk and their high risk profile.

6.6 Contrasting the common law and statutory provisions

As indicated above asymmetry of information of which adverse selection is a particular form is undesirable since it prevents suppliers from correctly pricing the risk. If the risk is correctly priced there is no cross-subsidisation, the market is then Pareto Optimal. So the question becomes if the statutory measures are taken into consideration what is the position with respect to the competitive market. The competitive market would be Pareto Optimal.

6.6.1 Asymmetry of information

Clearly the statutory provisions have virtually no impact on the question of asymmetry of information. An insurer would use the information to price the cover. The Act prohibits this, and it intends to do so. So schemes cannot for example use age as a rating factor. So medical schemes cannot correctly price the risk. Nor can the scheme use heath status as a risk fact. As indicated a central purpose of eliminating asymmetry of information is correctly price the risk. The statutory provisions introduced to deal with anti-selection to not attempt to correctly price the risk. Medical Schemes are thus non-Pareto optimal.

6.6.2 Adverse selection

As indicated above, a specific form of asymmetry of information is adverse selection. This is the case were someone delays the purchase of insurance until the risk of the insured event occurring his higher. In terms of the common-law the failure to disclose the facts of the higher risk could be regarded as a material circumstance which has to be disclosed. Thus if a person is diagnosed as having cancer and then without telling the scheme of this fact takes out cover, this would be a breach of the duty to disclose. This would also usually be dealt with in terms of a contract provision in terms of which the scheme would exclude claims arising out of a pre-existing condition. In terms of the common law position persons who try to obtain cover via adverse selection in all probability will not succeed. In terms of the Medical Schemes Act these persons can obtain cover. Clearly the claims experience would be higher because of this. It is also fair to say the anti-selection provision in the Act are aimed more specifically at this problem.

6.6.3 Moral hazard

As is clear from the Pauly – Arrow debate on moral hazard, moral hazard is a difficult problem to deal with in the medical schemes Act. In fire insurance for example moral hazard is involved where the insured brings about the insured event, say, by setting fire to his own property to gain from the insurance. One would not expect the insured to bring about the insured event. In the case of medical insurance a person may well go visit a doctor because he or she has insurance. Without insurance they may well not have gone simply because they could not afford to pay. Insurance cover makes going to see the doctor possible and thus increases the

cost of cover. The anti-selection provisions do not address this problem. One measure available to deal with this problem is co-insurance and the Act prohibits co-insurance. It seems fair to say that the Act does little to address the question of moral hazard.

6.7 Conclusion

The problems of adverse selection, asymmetry of information and moral hazard are faced by every market especially in the insurance market. These problems usually need to be solved as they distort market efficiency and competitiveness. The insurance practice and common law evolved to solve these problems creating efficient Pareto Optimal Markets. The insurance practice dealt with this by insurers imposing contractual terms in policies and the common law by imposing the duty of disclosure on the contracting parties. These provisions if applied to the medical schemes market would reduce the occurrence of asymmetry of information, adverse selection and moral hazard in the health market, thus the market is Pareto optimal. The Medical Schemes Act neutralised the common law and insurance practices to create non-Pareto optimal markets. The stated reason for this policy is to achieve social solidarity. A particular problem which is addressed in the Act is that of Adverse Selection. Persons can wait until they are ill before purchasing insurance. The provisions in the Medical Schemes Act address this problem but adverse selection will not be solved because community rating creates the possibility of the occurrence of adverse selection.

Thus, statutory anti-adverse selection measures were introduced; including late joiner penalty and waiting periods. These are directed at the problem of adverse selection. Moral hazard would usually be dealt with via co-insurance which is not permitted with respect to PMBs. Community rating creates the problem of adverse selection because insurers or schemes cannot take all risk factors into consideration but only make use of two factors, income and number of dependants in assessing the risk. Thus the duty to disclose material facts will be of less importance and this worsened the already existing problems of adverse selection, asymmetry of information and adverse selection.

Furthermore, the statutory anti adverse selection measures; waiting period and late joiner penalty does not solve the problem of adverse selection, asymmetry of information and moral hazard, there are instead disadvantageous to the insureds and provides no protection to the insureds. The Health Market Inquiry report affirmed that these statutory anti-adverse selection

provisions are insufficient inadequately to provide protection against the cost of adverse selection. Thus, suggested three measures to deal with these problems; mandatory membership, risk equalisation and income cross-subsidization mechanisms and standardised benefit coverage which have not yet been implemented. These three measures are efficient tools to protect insurers and insureds from negative effects of adverse selection, asymmetry of information and moral hazard and benefit to provides cost effective policies to customer and achieve a competitive market.

Conclusively, the government intervenes to promote the policy of social solidarity, but government intervention is not always the favourable option in dealing with the problems of adverse selection, asymmetry of information and moral hazard as this might instead worsen the situation by inducing market failure. Statutory anti- adverse selection were implemented to deal with the problems of adverse selection, asymmetry of information and moral hazard. Unfortunately, the statutory anti-adverse selection provisions are not the best option to deal with adverse selection, asymmetry of information and moral hazard, as it affects the behaviour of both insurers(anti-selection) and consumers(moral hazard).

7 Chapter Seven: Conclusion

All exchange markets especially insurance markets are faced with the problems of asymmetry of information, adverse selection, and moral hazard. To neutralise these problems, various remedies evolved. The common law responded to these problems by recognising the legal duty to disclosure material circumstances by the parties. The duty to disclose risk information is necessary in insurance markets as it reduces the occurrence of asymmetry of information, adverse selection, enabling insures to correctly price policies. Insurance practice also dealt with these problems with insurers imposing contractual terms and conditions in insurance policies so as to minimise these problems. The resultant market would be an optimal market

The Medical Schemes Act introduced community rating which neutralised the common law safeguards and insurance practice measures. This thus opened the door for the problems of asymmetry of information, adverse selection and moral hazard to appear, the drafters of the Act were aware of this and introduced statutory counter measures. The question then arises how successful are these measures?

It was decided to answer this question in terms of economic theory and a framework to achieve this was developed. This framework accepts government intervention is justified on a number of grounds of which the main ground is market failure. If market failure occurred government intervention would be justified. All the evidence however leads to the conclusion that competitive insurance markets are not subject to market failure. In the unregulated competitive insurance market there is no evidence of asymmetry of information, adverse selection or unmanageable moral hazard. Therefore it is concluded government intervention could not be justified because of market failure. A central feature of the unregulated competitive market is that it is Pareto Optimal. This is the conclusion arrived at by a number academics including Dahlby (Dahlby, 1983; Cochrane, 1995).

One of the objectives of this dissertation thus became to understand why the Medical Scheme Act of 1998 was introduced. It is concluded that the central reason for the introduction of the Medical Schemes Act was to achieve social solidarity in the health industry. The mechanism to achieve this is community rating which restricts pricing to a limited number of factors the number of dependants and income as the risk factors in setting the levy. Other factors like

health status (past or present), gender and age cannot be taken into consideration for rating purposes.

The main objective of this dissertation was to identify and evaluate the effectiveness of the statutory anti-adverse selection provisions mainly late joiner penalties and waiting periods. It is clear that the, late joiner penalty and waiting periods does not address the problems of asymmetry of information and moral hazard. These measures also have limited success in addressing the problem of adverse selection.

The Health Market Inquiry Report confirmed that these provisions are inadequate to deal with the problem of adverse selection. Additional measures have been suggested to be implemented to deal with adverse selection i.e. mandatory membership, risk equalisation and income cross-subsidization mechanisms and standardised benefit coverage. These have not as yet been introduced and hence the success or otherwise is not discussed in the dissertation. The views of consumers concerning the statutory measures were not documented by the Health Market Inquiry Report.

It can thus be concluded government intervention was not a response to market failure. It was to achieve the goal of social solidarity. Social solidarity required cross-subsidisation which means the consequent market is not Pareto Optimal. Government intervention therefore created market failure market. The counter anti-selection measures did not address the questions of asymmetry of information nor moral hazard, reinforcing the conclusion that the market is one characterised by market failure. The Market Health Inquiry Report confirms the measures to counter adverse selection are not convincingly successful and recommended further measures. Presumably an argument should be made that the statutory imposition of solidarity justifies creating a market which operates in a state of market failure but that line of enquiry is not considered in this dissertation.

In the meanwhile new developments and better methods to deal with the problems of adverse selection, asymmetry of information and moral hazard are developing in the insurance market due to developments in technology. In regard to automobile insurance, mechanisms like Pay-As-You-Drive (PAYD), usage based insurance and mileages have already been implemented. In health insurance the use of wearables “self-tracking” is slowly being implemented in the health insurance market to monitor the health status and habits of insureds, this promotes

perfect information and actuarial risk rating which is not permitted in the market created by the Medical Schemes Act. The statutory created a social solidarity market which cannot benefit from these innovations.

It is thus concluded that the statutory intervention created a non-optimal market and the counter measures are not effective to deal with the problems created by the government intervention.

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Annexure A: Discussion of the case

Annexures: Analysis of cases

Carter v Boehm 1776 3 Burr 1095; 1776 ER

Facts

An insurance policy was taken by the plaintiff on behalf of his brother, Governor George Carter. This insurance policy was issued and underwritten by Mr Charles Boehm in London. On Saturday the 19th April, Mr Charles Boehm, the defendant put forth repudiated the claim on the grounds that circumstances were not fully and sufficiently disclosed by the insured, that is the plaintiff. The insurance policy taken by the plaintiff was for one year from the 16th October 1759 to 16th October 1760, this insurance policy was intended to cover against the loss of Fort Marlborough in the Island of Sumatra in the East Indies. The Fort was covered if it was taken, destroyed or surrounded by a foreign enemy or any European enemy during the insurance period. The beneficiary of the policy was the Governor of Fort Marlborough, George Carter. The Fort was subsequently taken by Count D'Estaigne during the existence of the cover.

It was alleged the insured was well aware of the pending attack when applying for insurance be did not disclose this fact. The underwriter, Mr Charles Boehm accused the plaintiff of fraud, because of failure to disclose material facts in relation to the risk to be insured (the Fort). These material facts were pointed out by the underwriter which are; the nature of the Fort which made it incapable of withstanding and attack and the known probability of it being attacked by the French. Mr Charles proved that the plaintiff was guilty of concealment of circumstances by giving two proofs; first, that the plaintiff, Roger Carter did not provide the underwriter with the letter which he received from his brother, not disclosing the present nature and state of the Fort, and that the plaintiff did not have any insurable interest in the risk insured, that made the policy to be wager. The underwriter also points out that the Governor had only insured parts of his properties and failed to inform that the Fort was once threaten by the French. Therefore,

the defendant argued that it is obvious that he is not liable to cover the theft of the Fort because, Governor Carter and the plaintiff failed to disclose these facts at the time the policy was underwritten.

Decision

The Court found that it is necessary for the defendant, Mr Charles to carry out his function as an underwriter. In order to do so the insured when seeking insurance was obliged to disclose all material facts. Lord Mansfield stated this duty as follows:

Insurance is a contract upon speculation.
The special facts, upon which the contingent chance is to be computed, lie most commonly in the knowledge of the insured only; the underwriter trusts to his representation, and proceeds upon the confidence that he does not keep back any circumstances in his knowledge, to mislead the underwriter into a belief that the circumstances do not exist, and to induce him to estimate the risk as if it does not exist. The keeping back of such circumstances is a fraud, and therefore the policy is void. Although the suppression should happen through mistake, without any fraudulent intention, yet still the underwriters deceived, and the policy is void, because this risque [risk] run is really different from the risque [risk] understood and intended to be run, at the time of the agreement. The policy would equally be void against the insurer if he concealed [it].

The defendant ought and was obliged to cover for the event because the Fort was insured against any attack from the European force. Obviously, this is what happened the Fort was taken by the European with the help of Count D'Estaigne. Therefore, the Court found the underwriter was obliged to indemnify the plaintiff for the contingency insured.

Furthermore, the Court did not take into consideration the circumstance concealment concerning the fact that the plaintiff did not mention the previous attempt by the French to attack the Fort. The Court found it not to be fraud, because the Court found it unnecessary for the plaintiff to disclose such material facts because that attack happened last year, and therefore does not mean it will happen this year. The Court considered the plaintiff silent about these circumstances to be innocent.

Another reason why the Court speculated that the plaintiff acted rightly is because they believe the event happened due to political speculation, since the Governor George Carter had no idea that the Dutch could assist the French to capture the Fort with the help of Count D'Estaigne, and considering that George Carter had never been threaten nor attacked by the Dutch. So the Court found this information unnecessary to the underwriter to decide whether to accept or reject the risk proposed. The Court also found that the Governor acted in good faith because he wrote to the company, the defendant and his brother (the plaintiff), stating every material facts he knew and suspected about the property insured, the Fort. This was to avoid any form of fraud to occur.

Conclusively, the Court found the defendant to be guilty, because he was aware of all the circumstances, and did not use different methods to obtain more information from the insured, but went forth to signing the insurance policy. Consequently, the case was discharged.

Discussion

In insurance, it is the duty of both the insured and the insurer to observe the duty of disclosure. Most of the times, this duty is mostly laid to the insured. The insured is required and obliged to disclose all materials facts to the underwriter to assess the risk and decide whether to accept or reject the risk and determine the levy. The insured is required to disclose the material facts and not the ideas and speculations related to the risk to be insured.

From our case, the plaintiff, Roger Carter and his bother Governor George Carter could not suspect that there is a probability that the French will attack the Fort Marlborough. Even though in the previous year before the Fort was insured, the French attempted to attack the Fort, the plaintiff could not have the knowledge that the Fort could be attacked by the French in future at the same time and period . The plaintiff found it unnecessary to disclose the information about the previous attempt by France to attack the Fort, because the plaintiff thought that since it happened the previous year, there is no need to give such information to the insured, for it is material to affect the terms of the insurance policy. The event did occurred on 1st April 1760 and the risk was already covered by the defendant, Mr Charles Boehm. In addition, in insurance, it is required that the insured is not obliged to disclose any information which the insurer ought to know in the course of his work, it is estimated that the underwriter is required to speculate any contingency to the risk insured, for example; any natural peril which may cause an event, any probability of safety . The defendant, Mr. Charles Boehm possesses the same knowledge as the plaintiff, because he had information concerning the operation of war

in Europe and about the English and French naval forces sent to the East Indies. Mr Charles, the underwriter was aware of the chances or possibilities of the occurrence of an event happening to Fort Marlborough. In some situations, like the present one, it is considered that the insured may be innocently silent, that is the insured is not required to mention or disclose material facts that the underwriter knows.

The defendant also argued that the plaintiff did not disclose the condition and state of the Fort, but form this case, it is mentioned that the defendant was aware of these circumstances, but till went ahead to accept the risk. Even if the opposite was true, that the underwriter did not have any knowledge of these circumstances, the risk to be insured was covered with no intentions by the defendant to use other methods to inquire more and sufficiently material facts from the plaintiff by asking more and specific questions.

The defendant also accused the plaintiff of seeking an insurance policy when he had no insurable interest in the risk to be insured. Assuming that the insurance contract purchased by the plaintiff was a wage policy. This is false because Governor George Carter used his funds to purchase the properties which were used in the Fort, meaning in the occurrence of an event to the Fort, the plaintiff will loss his properties which he values. Due to the taken of the Fort by the French, the Governor lost his properties. The underwriter also mentioned that the plaintiff did not totally disclosed his properties, whereby the Governor had 20000l affects in total but decided to insure just part of it, 10000l. So, the underwriter took it as an excuse to found the plaintiff guilty of his actions of non-disclosure. The plaintiff may have not insure all his properties for personal reasons. Conclusively, the plaintiff acted in good faith, and the defendant is liable to cover the plaintiff for the risk incurred.

Brownlee v Campbell 1880 AC 925 HL

Facts

On March, 1874, Mr Brownlee, the appellant bought an estate from the respondents, Mrs Anna Maria Campbell and others. Mr Brownlee then requested to know the nature of the holdings and whether the property is in non-entry, and it was replied by the sellers' agents, Carment and Messrs that the land hold of the crown and they never asked entry. In October, 1874 Mr Brownlee was accepted and granted the land by the marriage contract trustees of Mrs Macalister and Mrs Wallnut and was provided with a sale contract which transferred all the

and whole of lands of the respondent to the appellant, the purchaser Mr Brownlee and had pertinent that read as follows "together with all right, title and interest belonging, that shall belong to the granter". It was also stated by the sellers' agents that these lands were held directly of the crown and that among the writs assigned there was a degree of forfeiture obtained in 1849, and a mid-superiority existed.

After the land has been purchased by the appellant, the previous midsuperior after reducing the decree of forfeiture, claimed from the purchaser a casualty of composition. Due to this, the appellant was not happy with the situation and raised an action on the warrandice against the seller. The appellant claimed that the respondent did not indicates that the land were held of the estate or a subject superior. But it was sated by the respondent that the lands were held of the crown.

Another important fact is that the land was sold publicly, so the sale contract contains the conditions of the articles of roup of public sale. Within these conditions, there was one condition which stated that the purchaser was to be held to be satisfied with the validity of the title deeds and that in case of any error concerning the particulars of the land, he will be liable of such risk. In this case, the purchaser claims that the sellers acted in bad faith and misrepresentation, because the sellers failed to inform the appellant about the previous mid superiority of the lands by Lady Rossmore' trustees. These trustees claimed from Mr Brownlee a casualty of composition on the ground of mid superiority on the lands of Monkcastle. It was therefore decided by the court that the appellant was liable to cover the trustees for this cost. The appellant paid for this cost and later claimed from the sellers' agents the cost he paid, the expenses in defending the action in court and the value of the mid superiority that he was accused for.

Discussion

In insurance an insured can recover from a claim due to bad faith from the insurer and in case of the occurrence of fraud by the insurer. Lord Blackburn analysed if there was any instance of fraud in this case. Lord Blackburn starts by stating two instances in which fraud can occur in insurance contracts. Firstly, in insurance contract if one party disclose a fact which is false, with the intention to mislead the other party in deciding whether to accept or reject the contract that is fraud. Furthermore, fraud can also happen whereby a party acted in good faith by disclosing the right circumstances at the beginning of the contract, but after some while the party discovers that what was disclosed was false, and after having the knowledge of the correct facts he was instead supposed to disclose, the party decide to keep silence after the discovery

of these facts and continue to mislead the other party. From this case, there was no instance of fraud, because the sellers 'representatives acted in good faith and there was no fraudulent concealment of any form. The sellers' representatives (the respondents) provided the appellant with all the necessary information in relation with the lands on sale, that is the sellers 'agents, Mr Carment and Messrs M'Ewen provided the purchaser, Mr Brownlee (the appellant) with the particulars of the land, the articles of the roup in relation with the land and it was specified that the land were held from the crown. The withholding of the information concerning the claim of the mid superiority cannot be considered as concealment, because this claim was made by Lady Rossmore's trustees before the land was sold to the appellant and this claim was settled before the sale took place, this was confirmed by Mr Carment who acknowledged that they destroyed the mid-superiority by a decree of forfeiture in 1849. Obviously, Carment had received multiple letters from Lady Rossmore's trustees concerning the claim, so Mr Carment was aware of the claims set out by Rossmore' agents. This point was argued by law that the means of knowledge is different from knowledge, meaning that the means in which a party got knowledge or facts is different from the actual knowledge of this party (means of knowledge Vs actual knowledge). Lord Blackburn further stated that there is no law with a rule that specifies that because a party has the means of knowledge that means that this party has the knowledge itself.

It is also important to highlight that the duty of uberrimae fidei in insurance contracts such as life, automobile, health and marine, whereby the insured is obliged to disclose all material facts to the underwriter or insurer to decide whether to accept or reject the contract and to determine the premium to be charged, and in case this duty is not respected, the contract can be void by the insurer, but in other contracts, this may not happen. As per this case, it is a contract of sale of heritage, it may be demanding to expect every agent to keep a schedule of all the claims that had been made against their customers (sellers) before, and to disclose these claims to any purchaser. There is no rule that exist that necessitate such action to be practise.

In addition, from the conditions of the sale contract it specifies that the purchaser in case of any error in the particulars of the holding will be liable for such risk, so the purchaser is not entitled to recover the cost he incurred.

Decision

The court found that the sellers' representatives acted in bona fide, taking into consideration their knowledge, so the representation was true, and that in case of any error or

misrepresentation, the purchaser agreed to undertake any error in the contract. It was concluded that the appeal should be dismissed with costs.

One of the most serious issue in insurance law is the duty of disclosure in insurance contracts. An insurance contract is regarded as contract of "uberrima fidei", which means that all insurance contracts must be entered into utmost good faith (Tarr & Tarr, 2001; Wei, 2012). Utmost good faith is necessary in all forms of contracts, but is more important in insurance contracts such as life, marine and health insurance. The principle of utmost good faith in insurance contracts must be observed by both parties. This principle requires one party, the insured to disclose all the information, material facts or circumstances related to the risk to be insured to the insurer or underwriter, which will enable the underwriter to either accept or reject the risk and determine the levy (McCoid, 1961; Khumalo & Kamwendo, 2019). The duty of material disclosure must be applied by both parties; this was discussed by Lord Mansfield as he said that: "good faith must be applied by both parties, because each party is ignorant of the material fact of the risk, and if not applied, the policy would be void". Likewise Farewell LJ also said: "Contracts of insurance are contracts in which uberrima fidei is required, not only from the assured, but also from the insurer." Therefore, according to the common law, the insured has the obligation to disclose material facts and not to make material misstatements before the formation of the policy i.e. at the pre-contractual stage, and the insured will continue to exercise the duty of utmost good faith throughout the period of the policy, the same applies for the insurer (Wei, 2012).

Even though the principle of utmost good faith involves both parties, this duty of disclosure is mostly related to the insured, the policyholder who is applying for insurance. This was observed by Scrutton LJ who said that, "it is the duty of the insured to disclose all material facts to the insurer without being asked because the insurer or the underwriter knows nothing concerning the risk to be covered". The fact that it is assumed that the insured has more material knowledge about the risk than the insurer, while the insurer only knows what the insured has disclosed, this may lead to the concept of information asymmetry (Akerlof, 1970; Khumalo & Kamwendo, 2019).

The policyholder is under a duty to disclose not only known facts but also such facts, which in the ordinary course of business, the policyholder, might reasonably be expected to find out. These facts will enable the insurer to determine whether to accept or reject the risk propose and to decide the amount of the levy to be charged for he risk. The duty of disclosure might also

be extend to any agent or broker employed by his principal to make a contract on his behalf. In this case the agent or any representative is also oblige to disclosed any facts that his principal knows or ought to know, or any fact the agent has discovered himself in the course of his business (Tarr &Tarr, 2001).

South African cases

Fine v The General Accident Fire and Life Assurance Corporation Ltd 1915 AD 213

Facts

An applicant for a policy of fire insurance approaches an insurance company to insure his property. This applicant, the Appellant, who is the plaintiff was further provided with a proposal form which contains questions, which he was required to answer all questions. But it appears that the insured gave a wrong answer to one of the question. The applicant replied "no" when he was asked if the subject matter to be insured had been rejected or declined by any other insurance company or office before. This was later discovered by the defendant, the General Accident Fire and Life Assurance Corporation Ltd, that the applicant gave a wrong information, since the insurance policy or the same subject matter had been cancelled by another insurance company before the end of the term of the policy, but the applicant was reimburse a proportion of the premium paid for the unexpired period of the insurance policy. The applicant failed to disclose the information needed by the insurance company to assess the risk and decide whether to accept or reject the risk.

Further key facts is that the applicant had once insured the same property with Law Union and Rock Insurance Co., on 14th February, 1913, which amounts to 1000 Euro for one year. Unfortunately Law Union and Rock Insurance Co. cancelled their contract with this applicant before the termination date of the insurance contract. On 11th June, 1913, the applicant received a letter from this Company demanding to cancel the contract. This company decided to cancel the contract with no specific reason given to the applicant. The company had the right to cancel the contract even with no reason provided at any time by a notice given because this was one of the policy conditions, but in return this company was obliged to reimburse the insured for the unexpired period of the policy.

Another important fact to mention is that, the applicant did not give a false answer, but instead the right answer to the question. The question read "has the insurance now proposed been

declined by in any other office?" the answer replied by the applicant was "No". The insurance was not declined by Law Union and Rock Insurance Co. when it was proposed to the company, but the company decided to cancel the policy later after the insurance policy was accepted and established.

Due to this situation and misunderstanding, the appellant(the plaintiff) went forth to sue the defendant, the General Accident Fire and Life Assurance Corporation Ltd for an amount of 1000 Euro for the policy of fire insurance which was issued by the company. The issue of determination of whether the applicant did not observe the duty of disclosure or whether the insurance company was liable to pay the claim was therefore proceeded.

Decision

The applicant (the plaintiff) claimed that the amount of 1000 Euro had to be payable to him because he gave the correct answer in relation to the question in the proposal form, so he is liable to be paid by the insurance company.

The Court called upon the defendant company to recover the sum of 1000 Euro incurred by the applicant under the fire insurance policy, because the policy was already in force. The Court was bewildered about this case, since both parties, the plaintiff and the defendant company needed to be analysed. The plaintiff actually gave the right answer to the question and did not consider giving more information because the plaintiff thought that by simply saying a "No", it will be sufficient for the defendant company. On the other side, the defendant company failed to prove that the fact concealed was material to the point that it influences the company in deciding whether to accept or reject the risk and determine the amount to charge for the premium. Finally, the Court came to the conclusion that the appeal should be dismissed with costs.

Discussion

Lord Blackburn in Brownie V Campbell states that, all insurance contracts are contracts of uberimae fidei. The duty of disclosure is very necessary when it comes to insurance contracts. The insured has the duty to disclose further information and to answer all questions in the proposal form. In the situation whereby the insured fails to disclose any material to the insurer which will influence his decision about the risk to be insured, that is considered as fraud.

In regard to this case, the applicant simply answered the question in the proposal form which was correct. The defendant company is to be blamed, because the defendant company did not ask the correct question to get the information he wanted and to get more information from the

plaintiff. The defendant company needed to be more direct and specific. Instead of asking "has the insurance proposed been declined by any other office", the company could extend the question by asking if after being accepted was the insurance proposed subsequently cancelled. The plaintiff thought that he observed the duty of disclosure by answering the proposal form, since materiality limit is based on the proposal form. Obviously, the plaintiff omitted to provide the defendant company with the material fact that the insurance policy was subsequently cancelled by Law Union and Rock Company, this is because Law Union and Rock Company did not give any reason for their action. So this fact is immaterial to the defendant company to know in deciding either to accept or reject the risk. Only facts are require to be communicated, not reasons (see Ionides V Pender). Therefore, there was no concealment of a material fact because there was no reason given by the previous company for the termination of the contract. Contrary, if there was a reason in relation with the character of the plaintiff, then there will the occurrence of material concealment. The plaintiff had no idea that this fact was of great materiality to disclose to the defendant company as specify by George Jessel in Mansel's case. Fletcher, Moulton L.J says "a reasonable insured must have the knowledge to know or recognised what information is material and necessary to be disclosed to the insurer". In this case, the plaintiff could not imagine that by disclosing the fact of the cancellation of the contract with Law Union and Rock Company, this will have influence the decision of the defendant company or an underwriter in assessing the proposed insurance. The plaintiff did not consider such a fact to be material, so is unnecessary to the insurer. The defendant company needed to be more specific in the questions asked in the proposal form or the company could create a space in the proposal form which requires the applicant to provide any other information he knows in relation to the risk to be insured, this will enable the company to inquire more information from the applicant.

Mutual & Federal v Oudtshoorn Municipality 1995 AD

Facts

The respondent municipality was the owner of the Aerodrome at Oudtshoorn in October 1971 when an aircraft owned by Mr Noakes crashed at the Aerodrome on the night of 23 October 1971, as a result of collision with the top of the pole containing electric power lines. This pole has once been erected by the respondent municipality in 1964 in the street outside the premises of the aerodrome. The Aerodrome was regulated by the Air Navigation Act 74 of 1962, this means that the respondent had to consult the rules of the Act and apply it before taking any

decision on the construction of any property in the aerodrome. Due to the occurrence of this aircraft, the owner of the aircraft claimed actions against the respondent municipality, and the owner of the aircraft (the third party) was reimbursed for the damages caused by the Cape Provincial Division as they established that the respondent acted in negligence.

Another important fact in relation with this case is that the respondent municipality held a public liability policy issued in June 1970. This insurance policy was first issued in August 1970, and renewed in July 1971.The respondent claimed the amount paid to the owner of the aircraft which amounts to R13850 from the appellant, because the contract was valid at the time the accident occurred, on 23 October 1971. The appellant argued that he is not liable to pay for these claims because the respondent municipality did not act in good faith by failing to disclose certain material facts. These facts are; the height of the pole which breached the height limit set up by the Air Navigation Regulation, the fact that the pole had no warning light as advised by the Air Navigation Regulation and the fact that the respondent has been warned and received complaints before in relation to the pole, that it presented a danger to aircraft especially at night and the probabilities that the pole was a hazard to aircraft and failed to inform the appellant about the proposed thorough investigation of the properties of the municipality which was not yet concluded.

To judge this case, the judge use the test of materiality of fact, and this was accompanied by the test of a reasonable insurer and a reasonable insured. These tests were used to determine if the undisclosed information or facts were necessary to the insurer for the assessment of the risk and to decide the amount to charge as premium. The court used the test of a reasonable insured and analyse whether a reasonable man face with the same situation and knowledge would have considered the circumstances material to disclose to the insurer (the appellant). An insurance company is a contract of uberrimae fidei that is both the insured and insurer is required to disclose any material facts in connection with the risk to be insured. The respondent had the duty to disclose every material circumstances which is related to the risk to Mutual and Federal Insurance Co. The respondent had the duty to disclose to the Appellant the fact that the investigation about the position of the poles were still under discussion taking into consideration that the respondent did not have the knowledge that the poles presented a hazard or not. This fact is material because it might have influence the decision of the appellant to either accept or reject the risk and to decide the premium to charge. Another reason given by the Appellant to void the contract is that the respondent was negligent, because no reasonable precautions was taken to prevent accidents to happen and the statutory regulations were not

obeyed by the respondent as it is stated as one of the conditions of the policy, so the appellant not was liable to reimburse for this claim .

Decision

The court to come to a fair decision analyse this case from both parties, to decide who was actually wrong and acted in bad faith. The court after taking onto consideration the test of a reasonable insured, came to the conclusion that the insured had the duty to disclose these material circumstances to the appellant, but the court excused the respondent municipality of non-disclosure of facts based on the reason of "exceptional circumstances". The court pointed out that the respondent was not aware of the possible hazards and dangers that the electric lines and poles could cause, and that if he knew them he will have not erected them on that position. The judge found that the respondent had no intention to deceive the appellant.

Meanwhile the appellant did not agree with this point, and argued that if the appellant was certain with the poles or any other facts, the respondent municipality would not found it necessary to carry on an investigation.

The court also found that the respondent was liable to be covered because the liability insurance policy taken by the respondent covered liability for any defective property in the insured premises and damages due to the negligent actions and considering that the respondent was not aware of the probability of the damages that could be caused by the pole.

The court went forward to research if the respondent municipality suspected that the poles could cause any damages, or suspicion on negligence and of materiality. And the court found that the respondent did not know the risks that the poles could cause be a hazard, since the respondent did not know that the poles were 31 feet high in excess of the height allowed by the air navigation regulations. Obviously, the insured was not aware or suspected the accident the poles or wires could cause. The insured had no knowledge about it, so there is no material facts to be disclosed by the respondent to the appellant. Material concealment can exist if only the court could prove that the respondent knew about the fact or any suspicions existed.

After further investigation and research, the court found that the municipality acted negligently and was guilty. The argument used upon the non-disclosure of material facts by the respondent was amended from the way good faith functions in an insurance contract; when applying for an insurance policy, the insured is under the duty to disclose to the insurance company all facts material to the risk to be undertaken by the insurer. From this case the respondent breached this duty, all material facts and documents were not disclosed to the appellant and these circumstances were material to the risk.

Discussion

A reasonable man who is aware or has knowledge of any fact in relation to the risk to be insured, must disclose such facts to the insurer to adequately assess the risk and determine the premium.

From the reasonable insured test point of view, it can be assumed that the respondent municipality had the obligation to disclose to the appellant the nature and the danger of the poles, and the respondent failing to do so, gives right to the appellant (Mutual and Federal Insurance Co.) to avoid the insurance policy.

The doctrine of insurance states that the insured has the duty to disclose all facts material to the risk which he knows, so in conclusion the fact to be disclosed needs to be known to the insured. Lord Blackburn agrees with this by stating that insurance policies are contracts of uberimae fidei, that if the insured knows any circumstance that may influence the underwriter decision about the risk to be covered, the insured ought to state these circumstances. In this case, the insured was aware of the material circumstances in connection with the risk but failed to disclose them to the appellant. Schultz, the chief executive and administrative officer of the respondent had the knowledge of these undisclosed information, so obviously the respondent municipality was also aware.

The court of appeal states that the reasonable insured test is not the best, but that it is preferable compared to the prudent insurer test. After all, this test can be criticised and be viewed as been unfair to the insured. This is because an insured can be rejected an insurance policy on the reason that he failed to disclose a material fact, which a reasonable insured may not consider the fact material to be disclose, while a reasonable insurer, will consider it material . To solve this situation, it will be important to stress upon the insurer to ask more and specific questions from the insured to inquire more facts and information.

The types of material facts to disclose vary according to the type of insurance taken by the insured. In this case, the respondent has a liability insurance policy, and according to the law, liability insurance policy provides coverage for damages or damages due to negligence or other liability to the third party. So when an insurer decides to provide coverage to an insured for liability insurance, that means the insurer will be liable for all events or damages that occurred to the third party as a result of the insured or its employees negligent act. From this point, it might be concluded that the appellant could be liable to pay the respondent of his negligent actions since the respondent holds a liability insurance, but the respondent acted in bad faith. According to this case, the insured was aware that its negligence actions caused by his state of

affairs could probably lead to damages for which he will be liable for, then the respondent municipality is guilty of non-disclosure, because the duty of disclosure requires the insured to disclose what he knows.

It was pointed out that the respondent did not have to disclose any of these material circumstances because he had no suspicions, the respondent states that the material facts needed to be disclose in public liability insurance is the existence of any suspicion of liability. This cannot be considered, it will lead to a situation whereby an insured might justify his failure of non-disclosure, because the insured did not realise that such facts will lead to liability and use this reason to get excuses for failure to disclose material facts not knowing that they are material to be disclose to the insurer.

Test of materiality is the process whereby a set of questions is asked by the insurer to the proposer to disclose any material facts he knows and ought to know as a reasonable man in the same position will disclose. Form this case, the undisclosed facts are material because a fact is material if it will influence the decision of the insurer to either accept or reject a risk and in fixing the premium. The respondent needed to disclose the fact that the pole presented a hazard to the aircraft so is material to the risk insured, if the facts were disclosed this could possibly influence the decision of the appellant to accept or reject the risk, to decide the premium charged and alter the terms of the insurance policy . In the result, the conclusion is that the facts needed to be disclose to the appellant and that the failure to do so, gives right to the appellant to void the contract.

Colonial Industries Ltd Appellant V Provincial Insurance Co Ltd Respondent AD1922-33

Facts

Phillips, Gruss and Helling approach an insurance company to purchase an insurance contract for Colonial Industries Ltd (the plaintiff), which was not yet existence. These persons had to be shareholders of the company to be formed. Two policies was issued to the plaintiff by the defendant, Provincial Insurance Co Ltd, the first policy was issued on the 6th February and the second on the 7th February, with the premium 5000 EU and 2000 EU respectively, and this premium was paid by Phillips, Gruss and Helling. These policies were issued to cover the stock in trade on the premises, and the period of cover was from the 24th January 1920 to 24th January 1921. It is important to note that the proposal from was filled by one of the employee of the defendant company, Mr. Nicholson with the answers given by Phillips without the presence of Gruss and Helling. Unfortunately, a fire occurred on the premises and a portion of

the stock in trade was destroyed, so the plaintiff, Colonial Industries Ltd sued the defendant company under the two policies, the plaintiff claim the sum of 7298 EU for this event. But the defendant company refused to reimburse the plaintiff for this event on the grounds that the plaintiff provided wrong answers to the questions asked in the proposal form. These questions reads as follows;

1. Has any proposal made by you or any member of your firm to any Fire Insurance company, either direct or through an agent, ever been declined? Name the companies
2. Have you or any member of your firm ever approached any company, either direct or through an agent, with the object of effecting a fire insurance, has been refused or has any proposal made by you been reduced in amount as a condition of acceptance?
3. Has any fire insurance policy effected by you or any member of your firm ever been cancelled by any company before expiry or been allowed to lapse at expiry date?

Decision

The court found it necessary for Phillips to have disclosed all material facts beyond the insurance company duty of asking specific questions in the proposal form, so the duty of utmost good faith was not respected by Phillips, so as result Gruss and Heiling will not be reimbursed by the defendant for the cost of the fire outbreak that affected the large portion of the stock in trade bought by them. This is because the Court considered that material concealment caused by Phillips influenced the defendant company decision to either accept or reject the risk and in determining the premium of the risk.

Therefore the appeal fails, and dismissed with cost.

Discussion

In insurance the assured is always bound, not only to provide true answers to the questions put to him, but to also disclose any fact within his knowledge which is material for the insurer to know.

Based on the questions in the proposal form, Phillips gave wrong answers to the defendant company, because it was discovered that a partnership consisting of Phillips had previously been declined insurance cover after they made proposals to these insurance companies, these companies were the Commercial Union Assurance Company in January, 1913 and the General Insurance Company on January 1914 and February 1916. And in January 1919 the African Guarantee and Indemnity Company cancelled before expiry a contract of insurance of a partnership which Phillips was part of. Phillips failed to disclose these information to the defendant company, so fails to respect the duty of utmost good faith, meanwhile the company asked specific questions in the proposal form to obtain all the necessary information and

material facts from the appellant to decide on the premium and whether to accept or reject the risk. In this case, the facts which were not disclosed by Phillips are material, because "every fact is material which would affect the prudent insurers in deciding whether they will accept the contract, and in fixing the amount of the premium to be charged. And the defendant company mentioned that if he was aware of these hidden material facts, that Phillips who was of the member of the firm has been refused an insurance policy and had an insurance policy cancelled, the insurance policies would not have been granted to Colonial Industries Ltd. Phillips had the obligation to disclose all the material facts to the defendant company, Provincial Insurance Co Ltd, as the duty of utmost good faith requires.

South African Eagle Insurance Company limited V Norman Welthagen Investments ltd 1993.

Facts

South African Eagle Insurance Company (the appellant) insured the Norman Welthagen Investments Ltd (respondent) against the loss of theft of any of the respondent's vehicles found on the premises of the respondent. The respondent was a motor dealer. The vehicles were on show. Unfortunately, a vehicle was stolen on the premises of the respondent, therefore the respondent claimed for the stolen car to the appellant but the appellant repudiated this claim on the grounds that the respondent failed to respect one of the terms of the insurance policy. The term read as follows;

> "All vehicles left in the open must be locked at all times out of business hours and all keys must be removed and kept in a locked safe"

Experience has obviously taught the insurance market that motor dealers leave keys in the ignition of cars on display which increases the risk of theft and thus require these be kept in locked safes. This is an example of the use of contract measures to reduce the moral hazard risk. The policy required the dealer warrant the keys would be kept in a locked safe. The term is not mere term but a warranted term.

In regard to this term, the keys of the stolen car were not kept in a safe place instead in a cupboard at the respondent's premises. Therefore the term of the contract was not respected by

the respondent. Another important fact is that the respondent agreed to the policy, therefore the respondent has an obligation to comply with the terms in the insurance policy.

Decision

To decide whether the appellant has the right to repudiate the claim, the court first decided to apply section 63(3) of the Insurance Act to this case.
Section 63(3) of the 1943 Insurance Act states that representation is considered material if it affected the assessment of the risk at the time the risk was issued'.

From this case, if section 63 (3) has to be applied, the appellant need to cover the claim of the respondent because the risk characteristics (where the keys were placed when the car was stolen) does not in either way materially effect in the assessment of the risk at the time of issue of the policy. Otherwise if section 63 (3) is not considered as the appellant just inserted a term in the policy which had to be respected by the respondent, thus the appellant has the right to void the policy. Therefore the court decided that section 63 (3) of the Insurance Act does not assist, the respondent which had breached the warranted term of the policy, thus the claim will not be covered by the appellant.

Discussion

In regard to insurance contracts when an insured agrees to accept the policy the insured has an obligation to comply with the conditions and terms set in the insurance contract. If not, the insurer has the right to void the contract, especially where the insured warrants to do so. The respondent did not take all the possible precautions to make sure the keys of the stolen car were kept in a safe place because of the existence of insurance, so this can be observed as a moral hazard behaviour, and insurers insert term in contract to remedy the moral hazard attitudes of insured. The insured tried to argue in order to rely on the breach the insurer would have to show the breach caused the loss. This argument did not succeed.