A SURVEY OF THE INVESTMENT PORTFOLIO OF PENSION FUNDS IN KENYA

BY

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DECLARATION

I declare that this Research Project is my original work and has not been

submitted for an award of a degree in any other University for

examination/academic purposes.

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DEDICATION

This research project is dedicated to God Hehas madeall these possible.To my dear husband Martine Ogutu for his unconditional support. To my parents Mr Edward Okeyo and Mrs Elizabeth Okeyo for their prayers and support throughout my academic endeavours.

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ABSTRACT

The introduction of RBA brought a lot of changes like introduction of portfolio investment guidelines .These guidelines were to address the problem of over investment in one set of portfolio , this motivated the researcher to do a survey of portfolio investments of pension funds in Kenya.The research problem was to determine the factors influencing choice of pension funds investment portfolio. The objective of the study was to do a survey of pension funds in Kenya, andspecifically to establish factors considered by funds in choosing fund managers, to carry out compliance check on portfolio investment by pension funds, to determine relationship between the RBA guidelines and other investment variables and to determine the degree to which pension fund asset base influence choice of portfolio investment.The study used primary data that was collected using questionnaires. The research design used was descriptive research and survey method. The data was analysed using advances excel (2010), the sample selected was 30 pension funds in Kenya.The findings of the study were 55% of the pension schemes are defined benefit. There is relationship between risk, return, liquidity and RBA guideline. Majority of the pension funds in the industry have an asset base between 500million to 99.9 billion.There is also a relationship between asset base and investment portfolio, also important to note was that the major reasons for choice of the various portfolios are liquidity, return and risk. Finally the research indicated that all the pension funds complied with the RBA portfolio investment guidelines.

TABLE OF CONTENTS

LIST OT TABLES

LIST OF FIGURES

ABBREVIATIONS

ANOVA	Analysis of Variance

BBVA	Banco Bilbao Vizcaya Argentaria

CEE	Central and Eastern Europe

CHF	Contoederatio	Helvetica Franc (Swiss Franc)

CSPS	Civil Servants Pension scheme

IMF	International Monetary Fund

IRS	Individual Retirement Scheme

NSSF	National Social Security Fund

OECD	Organization of Economic Cooperation and Development

ORS	Occupational Retirement Scheme

RBA	Retirement Benefit Authority

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

A portfolio holding is a group of assets. The aspect of portfolio holdings usually means bonds, stocks or other securities or property (Ammann & Zingg, 2008). A portfolio is known as a blend of dissimilar assets of investment complemented and diversified for the purpose of attaining an investor's goal or goals. Items that are measured as part of the portfolio can comprise of any asset that one owns from real items like fixed-income instruments, arts and real estate, equities, and cash and cash equivalents. The earliest portfolio system can be traced back in Germany, which was initiated by the German Chancellor Otto Von Bismarck. The author of this particular piece credits Bismarck for enacting a necessary program for having several grouped businesses for diverse employees in large companies who were uncovered to the socialism aspects in 1889. Antolin, Payet, &Yermo, (2010) articulate that the Otto Von Bismarck portfolio system was fully financed via contributions of employee and employer, fascinated taxation enticements and compensated retirement benefits once the employee attained the 65 years of age.

According to Bodie (1990), this particular pension's portfolio investment system, however, had no provision for the aspect of retirements benefits privileged to individual representatives when the case of demise arises. It was mostly limited to the civil employees and battle experts, and other employees did not live so as to benefit from the retirement as the life anticipation was 60 years. As a Pensions portfolio, investment scheme developed a system, political

and economic shocks affected their aspect of sustainability in diverse states. In the continent of Africa, the system of pension's portfolio investment came into existence after self-government and the retirement funds schemes that were being utilized by their colonial leaders were fully approved. In the case of pension funds in Kenya, a portfolio of investment usually means a mixture of dissimilar assets of investment complemented and diversified for the purpose of attaining an investor's goal or goals.

The theory of risk and returns is pragmatically referred to as the income that was established on investment in addition to any change in the market price of the investment. Carton (2004) articulated that returns are very core to any pension funds since that is what is usually shared among diverse members on to the normal contributions. There are various forms of retirement benefits schemes in the Kenyan set up. These schemes mostly invest for a long term because most of the liability only matures if the members retire. Return is an elementary determinant for delivering enhanced pensions; steady capital markets liberalization is indispensable so as to pursue these particular returns. A more liberalized market would more probably provide a more expanded portfolio, less unpredictable in the long run and more options to financial instruments development. This research will carry out a survey of the investment portfolio of pension funds in Kenya.

1.1.1 Pension Fund Investment Portfolios

Investment portfolio is the set of investment means, designed by the investor looking to realize his/her defined investment purpose. (Levisauskaite, 2010)

Pension funds can be defined as independent organizational units that usually hold and invest assets of those who contribute so as to offer old-age or retirement benefits. Pension funds normally cover definite groups of individuals and are structured as independent funds.

Pension Funds are funds set up so as to gather usual contributions from a company, state agency, or businesses so as to offer post-retirement incomes for entitled workers. Employer contributions are kept aside in tax-free ventures, under the established authority by the internal revenue code. These organizational ventures are among the biggest ventures in the stock market, and also venture in finance backed securities, and to a bigger degree, venture capital limited and real estate partnership. Pension funds are usually exempted from capital gain taxes and therefore any holding time rations in securities regulations. The pension funds directors are needed to follow rules of investment, as pension fund assets fiduciaries held in interest.

Usually, the accounts of individual members of pension funds are segregated, and benefits will be related to the amount of contributions. Pensions are often voluntary, but there can be compulsory contributions from the employee and employer. Pensions can be prearranged by social organizations, individuals, or via two-sided contracts amid employers and their employees. Governments can have plans for the pension for their workers that are sovereign of the social security system. Social Security Funds are mandatory programs imposed or controlled by the government in order to finance and provide social benefits for the community or large portions of the community (Chatterton, Smyth, & Darby, 2010).

Social Security funds are usually part of the general administration division.

Funded pension plans have divided pools of reserve that are used to provide benefits. Funded pension plans are autonomous if a distinct institutional unit manages them. Funded pension plans are non-autonomous if they are not managed by a distinct unit, but are maintained in segregated accounts maintained by the pension provider. Non-autonomous funded pensions create a claim of the household sector on the sector providing the plan.

Unfunded plans have no distinguishable assets; benefits are paid by drawing on the general resources of the pension provider. Pension plans that are unfunded or that are not separated from other accounts of the enterprise do not have recognizable assets that can be considered pension fund assets of the household sector. (IMF, 2000)

The aspect of investment is referred to as the present commitment of consumption for a time period so as to obtain prospected payments that will recompense the venture for the time the funds are committed, the uncertainty of future payments and the expected inflation rate. Portfolio is defined as a collection of investments. Ideally, the ventures must have diverse returns patterns over time (Oxera Consulting Ltd, 2008). One major aspect of the pension funds management is the decisions for investment. Pension trustees are in a predicament as to the way to go in devoting pension funds so as to optimize returns as they minimize risk (Harper, 2008). The question that is habitually asked by pension funds trustees is whether it is enhanced to invest with insurance companies or fund managers. Pension funds are invested with the objective of giving employees, either lump-sum compensation or the undertaking of an income stream after retirement. Defined benefit scheme, the

firm accept the risk of paying the future pensions benefit to the retirees, should venture performance be poor, or the firm ought to be incapable of making enough contributions to the scheme. Defined contribution plan, do not pledge benefits but simply a specific contribution to the scheme. Consequently, workers benefits depend on contributions size made to the pension fund and the returns received on the fund's venture. Therefore, the specific worker decides how his or her contributions to the scheme are ventured.

Pension funds can own assets directly, with some quantitative restrictions for some reasons. The pension fund managers have the freedom to invest in various and different financial securities. Retirement Benefits Authority has introduced quantitative portfolio ceilings of pension funds, which are not unique to Kenya.

Some countries have introduced different alternatives to diversify their portfolios by introducing multiple funds schemes that offer different combinations of assets that balance risk and return (Bodie, 1990). Return is a fundamental determinant for delivering better pensions, gradual liberalization of capital markets is necessary in order to pursue these returns. A more liberalized market will most likely provide; a more diversified portfolio, less volatility in the long run and more alternatives to develop financial instruments. According to BBVA (2005), any 10% increase in pension fund stocks usually increases the national savings rate by 0.4%. For the Chilean system, in accordance to Schmidt-Hebbel and Corbo (2003), the reforms usually imply an increase in national savings rate between 1% and 5% of Gross Domestic Product. For the Peruvian system, according to Moron Carranza (2004), the reform offers an increase of 1% in economic growth and between 5% - 10% in national saving.

1.1.2 Pension Funds in Kenya

Kenyan Retirement Benefit plan was initiated immediately after independence making it the primary Post Independent Retirement Benefit Plan Fund Unit, which later evolved to the National Social Security Fund (NSSF) that was initiated in 1965. In the past, the Kenyan Retirement Benefit Scheme systems prior to improvements were done to the segment. The Retirement Benefits Scheme fund system offered benefits when an employee's retired or achieving the obligatory retirement age of 55 (RBA 2007). Kenyan workers or Trust Companies initiated pension funds in the binding trusts. This is done in agreement with the subsequent Parliament Acts: Trustees (Perpetual Succession) Act Cap 164; Trustee Act Cap 167. Benefits Act (1997) which initiated the growth of Retirement Benefit Regulation for occupational schemes, which was later operational zed on 8th October 2001 (Bodie, Detemple, &Rindisbacher, 2009)

The regulations were envisioned to attain pension funds separation from the employer's funds. Previously, employers had indefinite access to the pension funds and would utilize the pension funds to recover their cash flows in the firm. Some of the cases comprise of the University of Nairobi, Railway Corporation and Postal Corporation of Kenya. The pre-RBA period in Kenya saw a retirement benefits division with little efficient supervision and guidelines. The study research accentuates that the interest of retirement plan beneficiaries and their members were not protected adequately. Also, apprehension about the financial viability and design of definite plans in the state, unless suitable corrective actions were taken, deprived administration and investment of plans funds with specific concerns focused on investment,

principally in a property. It was observed in the most of the cases; this was always a risk of misappropriation and mismanagement. Additional accountability and disclosure were lacking, and confidence in the sector was low.

The Kenyan Retirement Benefit Plan fund system has four types: Individual Retirement Schemes, NSSF, Civil Servants Pension Scheme (CSPS) and Occupational Retirement Schemes (ORS). First category being pension fund sponsored by the state operating by the name National Social Security Fund (NSSF).This fund is compulsory to all workers who work both in the private and public sector. NSSF is considered to be a public fund that covers an approximation of 1,000,000 members both the informal and formal divisions, and the NSSF contributions are compulsory for workers in companies with more than five workers. Whereby, the members give about 5 percent of their monthly incomes to a highest of Kenya Shillings 200 that is harmonized by an equivalent employer contribution. Nevertheless, RBA permits the workers to contribute more on a deliberate basis to a highest of Kenya Shillings 1,000 every month and that the old-age Retirement Benefit Scheme benefits are accessible to those aged 55 who have already retired from dynamic service.

Second category being the one run by public service and is usually intended to serve civil servants. (Antolin et al. 2008) civil servants pension plans for the public employees, judiciary workforce, military workforce, Kenya armed forces, parliamentarians and teachers. CSPS offers benefits counting old age pension, compensation, and injury, benefits of continued existence, dependence pension for 5 years immediately after pensioner death, pension on disability

which is only for military and lump sums gratuities. The CSPS had about 300,000 members as at January 2015.

The third category of pension funds is known as occupational schemes, and their membership comprises of the private sector companies that operate pension schemes. In an attempt to collect retirement benefits for their workforce, ORS were initiated. In Kenya, ORS are controlled on a Defined Contribution Retirement Benefit plan structures. Although, for the situation of Kenya, the Defined Contribution is the principal design; however, it is not obligatory for employers to initiate the ORS, once initiated, the funds falls under the Retirement Benefits Authority mandate and therefore should conform to the put down policies. The ORS are expected to cover an approximated 5% of the Kenya working population.

The last type encompasses individual pension plan that ran as trust, and its membership is usually open to everybody. The Individual Retirement Schemes (IRS) are usually operated by financial firms, for the case of Kenya, it is mostly operated by insurance firms that offer a saving path for employers who do not have their individual plans, and for employees who anticipate to make extra deliberate contributions. As at 2015, RBA had indexed over 21 IRS that enclosed an approximated 2% of the working inhabitants (Black, 1980). IRS filled the spaces where the employees' number is so depressing to outline an ORS that would make it not being economically feasible because of the low membership.

1.2 Research problem

Pension funds are an exclusive kind of organizations since they hold long-term liabilities that belong to recipients. A well-defined aspect of investment portfolio can be an influential prioritizing means for the firm goals and attaining them. Portfolios of pension funds have significantly recorded a growth in diverse states across the world as they seek to add their growths. A lot of people rely on their pension funds as an income source after retirement. Retirement income usually accounts for about 68% of the total revenue of those who retire, in Kenya with 12%, Australia has 45%, Austria 44% and France 80%. In South Africa, 75% of the elderly populations depend on pension returns (Alliance Global Investors, 2007). In the United States of America, 82% of those who retire rely on pension earnings. There are currently 1,232 pension schemes in Kenya managed by 20 pension fund managers. These firms usually declare different interest rates annually from their investment returns, and this attracts more pension schemes to the funds that can offer greater revenue.

There are diverse studies that have addressed various aspects of pension funds. For example, Harper (2008) conducted research on the responsibility of capital market development at the bond and stock market level. Diverse illustrations were collected from several countries and the study illustrated that the pension funds fiscal assets have a positive impact on stock market liquidity and depth in addition to private bond market depth. Another study conducted by Crose, Kaminker, & Stewart, (2011) on the effect of pension funds regulations on investment portfolios. The study established that diverse pension funds regulations usually govern pension on investment portfolios and also influenced membership age and leadership. The pension scheme design and the number of

members do not significantly persuade on the way the pension's plans are usually administered. Regardless of the previous studies done as stated above on pension funds, there is none done on survey of investment portfolio. Therefore the research seeks to establish why pension funds prefer certain investment portfolios over others, and hence the need to carry out a survey of the investment portfolio of pension funds in Kenya

1.3 Research Objectives

The general objective of this study is to do a survey of the investment portfolio of pension funds in Kenya. The specific objectives are;

1. To establish the relationship between RBA guidelines and choice of portfolio investment.

2. To establish the preferred qualities of fund managers considered by pension funds

3. To carry out a compliance check on portfolio investment by pension funds on different portfolio classes

4. To determine the degree to which pension fund assets base influences the choice of pension investment portfolio.

1.4 Significance of the Study

The findings of this study will assist pension schemes and fund managers in formulating strategies that improve returns on investment, in regard to choice minimize risk and increase the value of the portfolio. This will, in turn, increase the income paid by pension firms to beneficiaries.

The findings will also help investors who would be interested in investing in pension funds, to make objective decisions on which pension firms to invest in,

and which portfolios to incorporate in their investment. This research will also help highlight, and the portfolios that are preferred by pension funds.

This research will assist RBA in coming up with investment ceilings, which reflect the performance of various portfolios in the financial market. This in turn, will help grow the pension sector as the sector will be attractive to investors, and in the long run grow the economy of Kenya. Finally, this research will add value in the finance field by narrowing the gap of previous studies done in the sector of pension funds; also this research will help in the drafting of policies by the fund managers in their investment decisions.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The section comprises of past study, critical review, and the summary. This chapter, therefore, has detailed information in relation to the highlighted factors in the conceptual discussion and respect of existing articles. A critical analysis was taken to explore all the variables. A review of the significant theories that explains investment portfolio of pension funds, an experimental review that offers diverse substantiation from real research studies that had been already been conducted in addition to a literature summary.

2.2 Theoretical framework

Crose et al. (2011) note that the economic regulations theory is rooted in the insight that government should step in so as to control portfolios when portfolios are incapable of regulating themselves. This sort of portfolios along with the overall mechanism of regular public portfolio disclosure makes comparison significant if the public interest is to be confined. In this particular views, the comparison results from the requirement to guard the public against the negative effects of such markets pension comparison. (Ammann and Zingg, 2008) carried out research into the affiliation of governance of pension fund and venture performance of the Swiss pension funds. The research study was centered on a sample of 99 pension funds with total assets of more than CHF 200 billion. The study findings indicate that good authority with respect to target setting and venture approach appears to be of specific significance.

Chatterton, Smyth & Darby, (2010) also conducted another study, on strategies to enhance pension fund effectiveness in Kenya. The findings from the study indicate that fund size is a considerable factor of the monetary effectiveness of pension funds. Empirical outcomes also established that those lesser funds are professed to be further financially proficient than larger ones. It was, however, clear that the size of the pension fund did not have any considerable impact on the operational effectiveness of pension funds. It was also evident that that fund policies influence how funds are led and governed.

2.2.1 Stakeholders Theory

Stakeholders are individuals and groups who directly benefit from and whose rights are respected or violated by company actions. Stakeholders include customers, creditors, shareholders, suppliers, employees, and the whole community. The main proposition of the stakeholder theory is that corporate firms have the role to making sure that their diverse actions meet the expectations of all the shareholders. Corporate management must not only consider its shareholders in the process of making a decision but also anybody who is affected by the decisions of the business. In classical view contrast, the stakeholder view holds that the ultimate goal of any particular firm is or must be the affluent of the corporation and all its major stakeholders. The critics of the stakeholder theory accentuate that the shortcomings of the theory lie on its enclosure of non-human shareholders like the natural atmosphere and absentee ones like potential victims or future generations. The complexity of considering the natural environment as a stakeholder is real since most of the stakeholders' definitions often treat them as individuals or groups, thus eliminating the natural atmosphere as a matter of definition since it is not a human community

or group. For example, consumers or employees argue that only humans can be taken as corporate shareholders and censure any attempts to offer the natural setting stakeholder status.

Additionally, there is no general achievement to members or shareholders from selecting one investment mix over the other. Other order impacts comprise of diverse frictional costs that include fund management fees, capital raising, transaction costs, and distribution costs, tax and agency costs. For several reasons, a number of these recommend that there is a very substantial combined gain to shareholders and members from investing a pension plan in corporate debt securities or government. The stakeholders' theory is considered to be very elegant (Bodie, Detemple, &Rindisbacher, 2009). The ultimate conclusion for portfolio venture is that stakeholders and members often have a mutual edge in maintaining debt securities. Conversely, this particular conclusion is at apparent different with present practice, and in the United Kingdom, where the greater part of pension plans holds a vital section of their portfolios in equities.

2.2.2 Theory of liquidity preference

The liquidity preference theory holds that long-standing securities offer higher returns than short-standing commitments since investors are enthusiastic to forgo some yields so as to venture in short-term maturity liabilities so as to shun the higher price instability of long-standing bonds. The segmented market institutional theory, states that diverse institutional investors have diverse maturity necessities that lead them to confine their security choices to precise maturity part (Davis, 2000).

A pension fund means a fund established voluntarily by the employer for the benefit of employees, employed on permanent and pensionable terms for purposes of paying benefits when the member or staff is leaving employment with the particular employer. The benefits are paid on normal retirement, early retirement, on ill health and withdrawal before retirement. Some countries have introduced different alternatives to diversify their portfolios by introducing multiple funds schemes that offer different combinations of assets that balance risk and return. Kenya on the other hand has introduced portfolio ceilings through RBA.

2.3 Determinants of pension fund investment in Kenya

2.3.1 Age of the contributors

The pension funds existence in Kenya can be traced back to the old days when the colonial administration introduced the aspect of social welfare programs. In the recent years there has been an excellent transformation of the pension funds in addition to major growth rate across the world (Ammann and Zingg (2008)). The sole purpose why a pension fund exists is usually to provide some form of social security to diverse people who retire from an active employment. The pension funds are articulated at offering some incomes that will enable retired people to meet their particular needs even when they retire. It is hence apparent that pension schemes are part of a social protection plan that is usually designed so as to protect the people from financial impairment once they retire from an active employment.

2.3.2 Assets

Basically, the pension plans structure has gradually transformed from defined benefit system to diverse forms of measures in which the pension provision is financed by assets either in specific accounts or in a collective schemes. This particular change has been principally driven by governments looking to reduce the financial effect of the aging population and also to spread the retirement income sources (Black, 1980). One of the key results is that diverse systems are now in the process of becoming asset backed. This particular transformation of pension funds implies that the retirement revenue are now closely linked to the ultimate performance of the assets that results in the participants being exposed to the investment market uncertainties so as to determine the benefits levels that they receive. It is fully evident from the 2008 financial meltdown that there are probable impacts of this particular form of transformation.

Crose et al. 2011 argued that there is need to acknowledge that pension funds' assets have vital variances as matched with other types of collective investment. The losses experienced by diverse pension funds since the onset of the 2008 financial crisis have been broadly debated and noted. The Organization for Economic Corporation and Development (OECD) shows that there were about $5.4 Trillion of approximately 20% of the total assets losses in states that were fully affected by worldwide financial meltdown of 2008 were two digits negative (Ammann and Zingg (2008).

2.3.3 Density of contribution

Contributions density is an important issue that has affected the investment portfolios in countries with big informal sectors. Individuals that have low

contributions densities are possible to face low accumulated assets at the age of retirement, and thus are likely to have low incomes from retirement. The age of retirement is a vital factor that affects the investment portfolio of various pension funds' performance (Crose et al. 2011). Because the growth period is shorter in states that permit individuals to retire earlier, individuals are probable to get lower income from retirement. Governments as a result have been increasing the retirement age in some states and introduce inducements to delay retirement. The funded individual capability account systems to distribute earnings from retirement which additionally challenged in this case as life expectancy prolongs to increase in virtually all states.

2.4 Conceptual framework

Conceptualization of the process was used to clarify the concept and clearly

outline the variables

Independent variable   **Dependent variable**
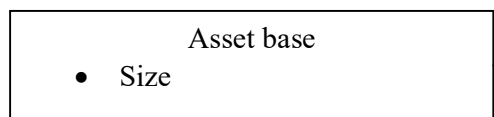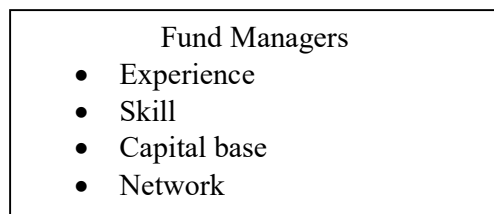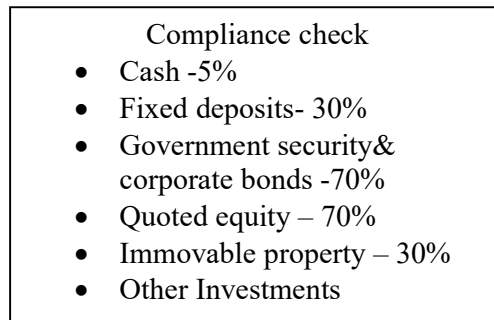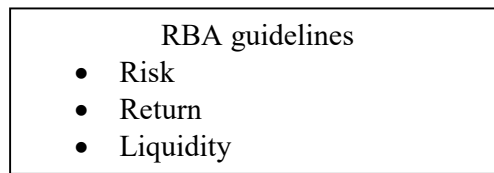
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┌─────────────────────────────┐
│        RBA guidelines       │
│   • Risk                    │
│   • Return                  │
│   • Liquidity               │
└─────────────────────────────┘

┌─────────────────────────────┐
│      Compliance check       │
│   • Cash -5%                │
│   • Fixed deposits- 30%     │
│   • Government security&    │
│     corporate bonds -70%    │
│   • Quoted equity – 70%     │
│   • Immovable property – 30%│
│   • Other Investments       │
└─────────────────────────────┘
                                     ┌─────────────────────────────┐
                                     │    Investment               │
                                     │    portfolio choice         │
                                     │                             │
┌─────────────────────────────┐      │       • Percentage          │
│        Fund Managers        │      │         investment          │
│   • Experience              │      │         portfolio           │
│   • Skill                   │      │                             │
│   • Capital base            │      └─────────────────────────────┘
│   • Network                 │
└─────────────────────────────┘

┌─────────────────────────────┐
│         Asset base          │
│   • Size                    │
└─────────────────────────────┘
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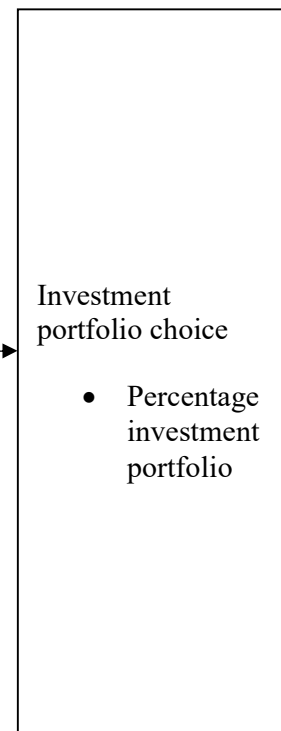
Figure 1 Conceptual framework

Source: Author 2016

2.5 Empirical Review

According to Black (1980) indicated that the pension funds need to comprehend the premise of risk management since it plays a very important duty in offering an increased corporation efficiency of incongruent risk management functions via a central management function that has clear accountability and ownership for general risk management. They further assert that senior management who understand risk management will be better knowledgeable when making material decisions and must be enhanced so as to evaluate risk or return trade-offs, in addition to having an insight option into emerging opportunities and risks

A study research was also conducted by Davis (1995) on investment performance and pension fund management. The study illustrated that the value of the pension fund would rise over time because of investment returns and the contributions to the fund. These investment returns depend on the portfolio decisions and asset allocation of fund managers. Small adjustments in the investment returns, rise to large adjustments in the pension fund value at the period of retirement. The substantiation on fund manager performance is that on average they do not add much value over and above an inactive strategy of investing in the market directory. Conversely, these averages disguise the fact that some fund managers execute well, and others do poorly. Understanding and identifying the perseverance of the poor performance of some fund managers is a significant issue in 15 the pensions areas, and one in which further research would be valuable.

Davis (2000) also did a relative study on the performance of pension plans. The study was sponsored by Organization for Economic Corporation and Development in association with the World Bank and some private sector organizations and began at the end of 2006. The major aim was to compare investment performance of privately managed pension funds across several Organization for Economic Corporation and Development, Central and Eastern European (CEE) states and Latin American. The study first offered an aggregate investment performance analysis by a state on a risk adjusted basis via comparatively standard investment performance measures. The second phase of the study comprised assessing possible relationships between the features of every pension system, investment performance, and the specific regulatory environments. The study illustrated that the attribution analysis and Sharpe ratio shows that, for those states with sufficient data and information to adjust returns consequently, privately managed pension funds have attained a risk premium against short-term investment options. It was also evident from the findings that pension funds have usually underperformed with respect to the theoretical portfolio with the utmost (mean) return for a given risk level. The outcomes also showed that in several states investment limitations had had an adverse effect on performance.

Ammann and Zingg (2008) carried out a study on the firm manager's perception of pension plans. The main argument of the study was that typical financial theory provides a normative recommendation. For pension fund portfolio distribution that discards the theory of portfolio selection, preferential by practitioners in support of liability matching and close asset. The research study concluded that organizational managers could cite 12 to outsiders a

number of secondary reasons why they carry on supporting equity investment by pension funds, contrary to the neoclassical, normative theory. Conversely, one main rationalization appears to be an insider effect whereby management favors to uphold the considerable ability to influence earnings linked with equity invested pension funds.

Chatterton et al. (2010) carried out a study research on the feasibility of occupational pension plans in Zambia. The study research focused on seven multi-employer pension trusts in Zambia and examined the factors that influence the performance of pension funds. The resultant findings from the study illustrate that the seven multi-employer pensions in Zambia are in shortfall hence not viable. The study also illustrated that there are a number of factors that determine their performance of pension funds: inadequate regulatory guidelines, unbalanced macroeconomic environment and high levels of employee mobility. It was also illustrated that there exist an important relationship between the performance of the pension funds and the above mentioned three variables.

Chatterton, Smyth, & Darby (2010) did an evaluation of assets or portfolio selection and performance assessment of pension funds in Kenya. The study was aggravated by a World Bank (2000) study on China Old Age Security that illustrated an imminent old age crisis because of the breakdown of family-based systems of old age security. It was evident that allocation of assets differs between diverse pension funds, a sign that the criteria for developing the optimal investment mix differ between investment executives of diverse pension funds. It was also evident from the whole findings that, even though the

performance of pension funds' assets is comparable to diverse market indexes as there is no definite standard performance measure. Some fund managers build in-house indexes for some assets; others assets performance against accessible economic performance indicators, while others were silent on the pensions fund portfolio performance.

2.6 Summary of Literature review

The research study has reviewed the expansive literature on the investment portfolio of various pension funds. It is apparent that pension fund portfolios have vital variations compared to other types of portfolios or group investments (Davis, 1995). Conversely, the similar dimensions are still utilized so as to quantify the performance of pension funds. It is also evident that diverse pension funds are still in their early life, and this makes it hard to form any performance significant trend investigation. Diverse research studies connecting the performance of the pension funds for most rising states are also limited because they usually don't have well-planned pension schemes because of insufficient policies.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This part provides the utilized methodology to complete the already established research aim. The part contains the research study design, sampling design; target population, data collection and analysis and sample size are discussed briefly. It observes the diverse steps that are commonly adopted by a researcher when studying the problems of research.

3.2 Research Design

Ammann and Zingg (2008) describes research design as the connection and condition organization use for data collection and analysis, in an approach that aims at combining significance to the research aim with the economy in the process.

This study used descriptive research design, and survey method to carry out the research. Kothari and Garg (2014) define a survey as a way of obtaining information of a particular phenomenon, from the whole population or a sample of the population selected. This survey design enabled the researcher to gather qualitative and quantitative information. The information was obtained using questionnaires.

3.3 Study Population

The total study population is the whole range of a system or interest process. It is the space of people so that the study research can be comprehensive. The

population of this study according to Retirement Benefits Authority, (2014), there are 1,232 registered pension funds in Kenya.

3.4 Sample Size and Sampling Procedures

A sample design is a map for acquiring a sample from a specified population .It refers to the method the researcher will use in selecting sample objects or individuals. This study used stratified random sampling because this method is suitable for a large population. Under stratified random sampling the population is stratified according to homogeneous characteristics of the population. (Kothari and Garg 2014)

This study stratified the pension funds with regard to age of the pension funds .The Study sample size n was 30.

The sizes of the strata was uniformly assigned (1232/5=246), since the objective was to compare the differences among the strata hence uniform sample size per strata (Kothari and Garg 2014).The formula used was

n1= n.Pi where Pi= N1/N

Where;

N – Actual population size	(1232)
N1 – Stratum size	(246)
n – Total sample size	(30)
Pi – proportion of population included in stratum	(0.2)
i – Stratum	(5)
n1 = n.Pi - No. of elements selected in a stratum	(6)

From the above formula;

n1= (30*0.2) = 6

Table 1 Pension funds sample size

Age	Population	No. of pension funds in strata	No. of pension fund in sample
0 -10	1232	246	30/1232*246 =6
11-20	1232	246	30/1232*246=6
21-30	1232	246	30/1232*246=6
31-40	1232	247	30/1232*247=6
41-50	1232	247	30/1232*247=6
TOTAL	**1232**	**1232**	**30**

Source: Author 2016

3.5 Data Collection

Data gathering is considered to be the process of collecting and measuring data on variables of interest in a conventional methodical manner which facilitates an individual to respond to research questions, stated hypothesis testing and evaluation of outcomes. (Bodie, Detemple, &Rindisbacher, 2009).The research study used primary data, which was collected using questionnaires. The questionnaires had open and closed ended questions issued to pension fund trustees.

3.6 Data Analysis

According to Davis (1995), data analysis is the process of compiling the information collected, arranging and structuring its main components for easy and effective communication. The survey used Analysis of variance one way (ANOVA), to determine the research problem the factors that influence choice of portfolio. After the field work, all questionnaires were adequately checked and verified for reliability. The data was analyzed using advanced excel 2010, and presentation included the use of bar charts, tables and pie charts.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSIONS

4.1 Introduction

This chapter covers analysis of findings and data presentation of the research study. The data was collected by use of questionnaires issued to 30 pension fund trustees, and a total of 21 questionnaires were returned. The response rate was 70%.

The analysis of the portfolios was premised on the RBA investment portfolio guidelines (appendix II).

4.2 Basic information about the respondents

The respondents were asked to give basic information about themselves, gender and age, length of service as a pension trustee and their level of education. Majority of the respondents were analysed to be above 40 years, with an average of five years' experience as pension trustee's .It was clearly observed that 61.9% were degree holders with 28.6% being masters' degree holders.

The data for the number of years the pension scheme have been in existence, according to the pension trustees data was given as shown by figure 2.
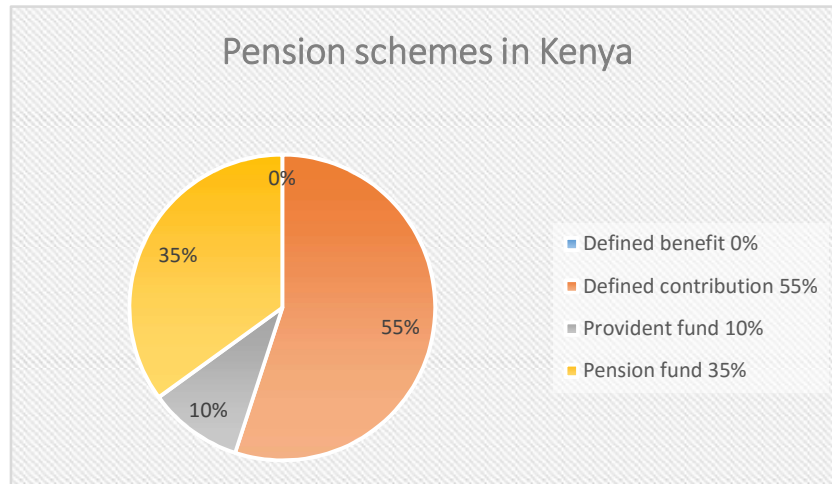
Figure 2: Types of pension schemes in Kenya

Source: research findings

4.3 Analysis and interpretation

The research used advanced excel (2010) to compute the findings, tables ,pie charts and bar graphs was also incorporated to ease understanding.

4.3.1 One way ANOVA

ANOVA: single factor

SUMMARY

Table 2: ANOVA

Groups	Count	Sum	Average	Variance
Risk	21	22	1.047619	0.47619
Return	21	27	1.285714	0.214286
Liquidity	21	45	2.142857	0.428571
RBA	21	42	2	1.1

Table 3: ANOVA finding

ANOVA

Source of variations	SS	df	MS	F	P-value	F-crit
Between groups	18	3	6	13.40426	3.5932 5E -07	2.7187 85
Within groups	35.809 52	80	0.4476 19			
TOTAL	**53.809 52**	**83**				

The four variables grouped were return, risk, liquidity and RBA guidelines. In this study an ANOVA test was carried out to test the statistical significance between groups and within groups. The findings show that there was statistical significance between groups determined by one way Anova F= 13.404 P= 3.5932E-07.

The findings showed that the F value 13.40426 was greater than the F critical value 2.718785 at 0.05 significance level, this confirmed that return, risk, liquidity and RBA guideline influence the choice of portfolio. The p value was 3.59325E-07 which is less than the alpha 0.05 also confirms the statistical significance.

4.3.2 Qualities of fund managers considered by pension funds

The respondents were asked to rank in order of importance factors they considered important while selecting a fund manager. The table 4 shows the percentages ranking for each of the four categories; experience, skill, capital base and network.

Table 4: Qualities of fund managers considered by pension funds

		Experience	Skill	Capital base	Network
n= (counta)		21	21	21	21
Blanks = (counterblank)		0	0	0	0
Total (-sum)		21	21	21	21
Counts (-countif)	1	15	12	5	4
	2	6	9	6	9
	3	0	0	8	6
	4	0	0	2	2
	5	0	0	0	0
		21	21	21	21

Valid percentages

Very important	1	71.43%	57.14%	23.81%	19.05%
Important	2	28.57%	42.86%	28.57%	42.86%
Neutral	3	0%	0%	38.10%	28.57%
Not important	4	0%	0%	9.52%	9.52%
Least important	5	0%	0%	0%	0%
Total		**100%**	**100%**	**100%**	**100%**

Table 5: Average percentages

Very important	1	71.43%	57.14%	23.81%	19.05%
Important	2	28.57%	42.86%	28.57%	42.86%
Neutral	3	0%	0%	38.10%	28.57%
Not important	4	0%	0%	9.52%	9.52%
Least important	5	0%	0%	0%	0%
Total Average		**50%**	**50%**	**25%**	**25%**

The findings from table 4 indicated that out of the four variables experience is highly ranked by the pension trustees at 71.43% as the most important variable when selecting a fund manager. In second position was the skill of the fund manager with 57.14%, followed by capital base with 23.81% and lastly network with 19.05%. From the findings in table 4 a number of pension trustees were

seen to be neutral between capital base and network. On average as shown by table 5 experience and skill tied at 50%, indicating that fund managers are torn between the two options. The pension fund trustees also seemed not to consider capital base and network as a measure of fund manager's effectiveness, since both variables had an average of 25%.

4.3.3 Pension Funds compliance level

This was measured by comparing the pension industry average investment portfolio to the RBA investment Portfolio guidelines.

Table 6: pension fund compliance level

NO	Investment Class	Maximum (%)	Pension Fund average (%)
1	Cash	5	2.03
2	Fixed deposits	30	3.70
3	Government securities	70	30.39
4	Quoted equity	70	33
5	Immovable property	30	13.45
6	Other investments	5	1.39

The analysis of all the pension fund in the survey indicated that they were all in compliance to the set RBA investment guidelines, as all the pension funds observed the maximum ceiling level set by RBA. Cash had an average percentage of 2.03%, fixed deposit 3.70%, Government securities 30.39%, quoted equity 33%, Immovable property 13.45% and other investments 1.39%.The average portfolio investments indicated there was very low investment in fixed deposit and other investments. The portfolios that are heavily invested in are government securities and immovable properties. Also noted was that pension's funds with large asset base invested more in immovable property compared to those with small asset base who shied away altogether from this investment.

4.3.4Pension schemes market share using asset base

The respondents were asked to indicate between the five groups where their pension scheme fall in terms of asset base. The figures are represented by figure 3 below.
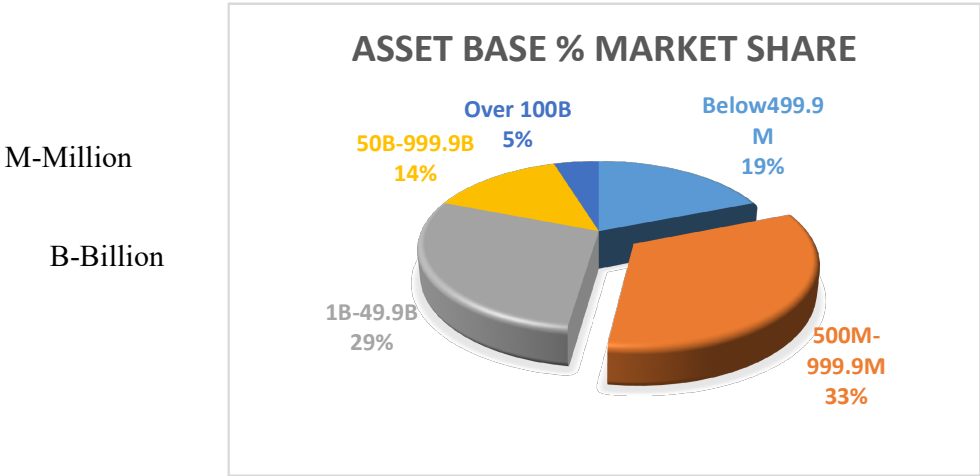
M-Million

B-Billion

Figure 3 Asset base % market share

The analysis shows that 33% market share were pensions with asset base of 500million-999.9million, this was followed by pension schemes with 1billion to 49.9billion asset value with a market share of 29% .In third place was pension schemes with asset base of below 499.9 million with a market share of19%.In fourth place was pension schemes with 50billion -999.9billion with 14% market share. Lastly was pension schemes with over 100 billion in asset base and 5% market share

4.3.5 Degree to which pension fund asset influence the choice of Pension investment portfolio

Three portfolio invested classes that were used were cash, quoted equity and immovable property. This is shown by figure 4
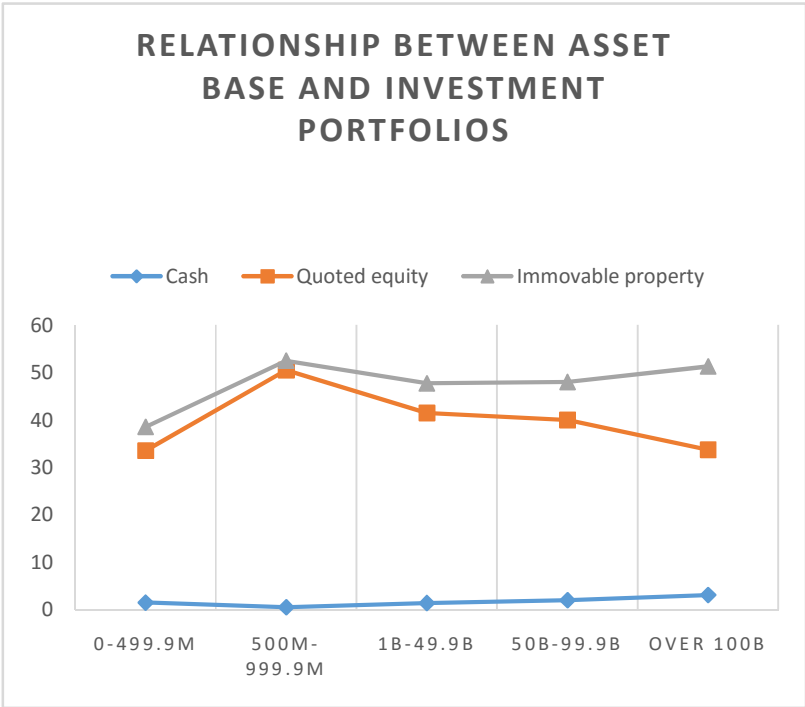

Figure 4: Relationship between asset base and investment portfolio

The findings show that cash investments across the 5 asset base classes was low at 1.5%,0.5%, 1.4% ,2% and 3.1% respectively from 0-499.9 to over 100 billion. Quoted equity on the hand had major investment in class II 500M-99.9billion the other classes posted relatively equal results. Immovable property had major investments from over 100billion class and the least from 0-499.9million.Therefore this shows there is a relationship between asset base and type of investment portfolio by pension funds.

4.3.6 Reasons for investing in the various portfolios investments

The reasons given by the pension fund trustees for investing in cash and cash equivalent was to provide majorly operational liquidity and locking in short term gains. Government securities on the other hand was invested in because of fixed guaranteed income, interest income, stability of the investment and the low risk of the investment. Quoted equity investment yield long term gains, dividend and capital gain.

Immovable property was invested in majorly to redirect volatility and long term investments that earn capital gain. Other investments majorly were for diversification and funding of projects.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Introduction

This chapter presents the summary, conclusion and recommendations on the study on the survey on the investment of pension funds in Kenya. The study used advanced excel (2010) to analyse data. ANOVA was used to test significance of the model, the variables incorporated were RBA, return, Risk and liquidity.

5.2 Findings

The aim of the study was to do a survey on the investment portfolio of pension funds in Kenya. The findings show that most of the pension funds are defined contribution having 55% of the market share and all the pension funds comply with the RBA investment regulations.

The Anova findings indicate that return, risk, liquidity and RBA guideline influence the choice of portfolio the findings showed that the F value 13.404 was greater than the F critical value 2.719 at 0.05 significance level.

Asset base determine the type of portfolio investment by pension fund, this is shown by figure 4.Pension funds with asset of over 100 million invest more on immovable assets than the pension funds with lower asset base .The pension funds with assets between 500 million to 99.9 billion investment on quoted equity is average, whereas pension funds with over 100 million invest less on equity compared to the rest of the industry.

Lastly there are investment opportunities that have not been incorporated in the

investment classes this include direct investments, derivatives and Real Estate Investment Trusts

5.3 Conclusion

The performance of a pension scheme depends on a well-diversified portfolio. Therefore emphasis should be put on the RBA portfolio investment guidelines to reflect performance of the market and to be all inclusive to avoid loss of investment opportunities by the pension funds.

Therefore continual revising of the guidelines and RBA Act and regular compliance checks of the industry should take place. There should also be increase of the classes of investment portfolio to increase the investment opportunities while at the same time minimizing risk. This will in turn increase returns hence improving the income earned on retirement bymembers.

5.4 Recommendations

The investment in real estate structures should be adequately addressed and derivatives to be included in the investment portfolio classes of pension funds. The findings also propose continuous improvement in regulations and governance of the pension industry. Also recommendedisthe alignment of set limits against available opportunities and some discretion given to fund managers on portfolio adjustments or expand the other (optional) Investments.

The limits given by RBA allows investments of government securities up to 70% of the pension fund investment portfolio. The recommendation is that this percentage to be revised downwards, this is because in the event the government is not able pay its debt when they fall due the pension industry will be seriouslyaffected as the survey showed most of the investments are in

government securities.This situation was clearly seen in Greece debt crisis where up to date the government is unable to pay pensiondue to pensioners. In Kenya the situation would be worse because even private pension firms have heavily invested in government securities.

There should be introduction of Real Estate Investment Trusts (REITS) though it is not common in African markets. Lastly there should be introduction of investment or infrastructural bond/commercial paper issue, currently pension funds can only participate in assets set up by others corporations and not direct projects.

5.5 Limitations of the study

Thescope of the study was limited to 30 pension funds due to time limitation and also cost resources, therefore it may not give the actual representation of the pension industry.

Accessing the pension fund trustees was also difficult due to their busy schedules, and hence data was collected from 21 out of the sample of 30.

5.6Suggestion for further research

This study focused on 21 pension funds in Kenya, a census can be carried out so as to come up with a more representative data.Some other research can also be done to cover all the classes of investment as this research only covered five classes' cash, government securities, quoted equity, immovable property and other investments.

Lastly a research can also be done to find out if there are any other considerations apart from risk, return, liquidity and RBA guidelines that inform investment of pension portfolio.

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APPENDICES

APPENDIX I

This questionnaire will be used to collect data from pension fund trustees for academic purpose only and all your responses will be kept confidential. The study seeks to carry out a survey of pension funds in Kenya.

SECTION 1. BACKGROUND INFORMATION

Please (**Tick as appropriate).**

1. Gender Male ☐   Female ☐

2. Age bracket

18-24 ☐   25-31 ☐   32-39 ☐

40 -50 ☐   Over 50 ☐

3. Length of service as a pension trustee

0-5 years ☐   5-10 years ☐   over 15 years

4. Level of education

Form four ☐   Master's Degree ☐

Diploma ☐   PHD ☐

Degree ☐

5. How long has the pension scheme you represent been in existence

0-5 years ☐   5-10 years ☐   15 years ☐

Over 20years ☐

SECTION 2

6. What is the type of your company's pension scheme?

Defined benefit ☐   Defined contribution ☐

Provident fund ☐   Pension fund   ☐

7. To what extend do you consider the factors below influence your investment portfolio, where 1. Very important. 2. Important 3. Neutral 4.Not important 5 .Least important

	STATEMENT	SCALE				
		1	2	3	4	5
1	Risk of investment					
2	Return of investment					
3	Liquidation of asset value and security					
4	RBA regulation					

Any other reason not stated above

……………………………………………………………………………………

……………………………………………………………………………………

……………………………………………………………………………………

…………………………………………………………………………………..

43

8. Highlight the challenge you encounter in pension fund portfolio

    management?...

    ....

    ....

    ....

9. List amendments you would want to be included to the RBA Act to make it

    all inclusive?

    ....

    ....

    ....

    ....

10. Which other investment opportunity are there for pension funds but are not

    included in the RBA guidelines?

    ………………………………………………………………………………

    ………………………………………………………………………………

    ………………………………………………………………………………

11. List in order of importance in relation to fund manager's effectiveness

    where 1. Very important. 2. Important 3. Neutral 4.Not important 5 .Least

    important

	MEASURE	SCALE				
		1	2	3	4	5
1	Experience					
2	Skill					
3	Capital base					
4	Network					

12. Give the percentages your pension fund has invested in each class of the

stated portfolio, and give reasons for your percentage investments

NO	Investment Class	Investment (%)	Reason for investing
1	Cash and cash equivalent		
2	Government securities and corporate bonds		
3	Quoted equity		
4	Immovable property		
5	Other investments		

13. Where does your pension scheme fall in relation to asset base value where

1) Below 500million. 2). 500 million-999million.   3). 1billion-49.9 billion

4). 50billion- 99.9 billion 5). Over 100billion

MEASURE	SCALE				
	1	2	3	4	5
Asset base					

APPENDIX II

Table 7 RBA Investment Guidelines

NO	Investment Class	Maximum (%)
1	Cash	5
2	Fixed deposits	30
3	Fixed income (private)	30
4	Government securities	70
5	Quoted equity	70
6	Unquoted equity	5
7	Offshore investments	15
8	Immovable property	30
9	Guaranteed funds	100
10	Other investments	5

Source: (RBA, 2007)