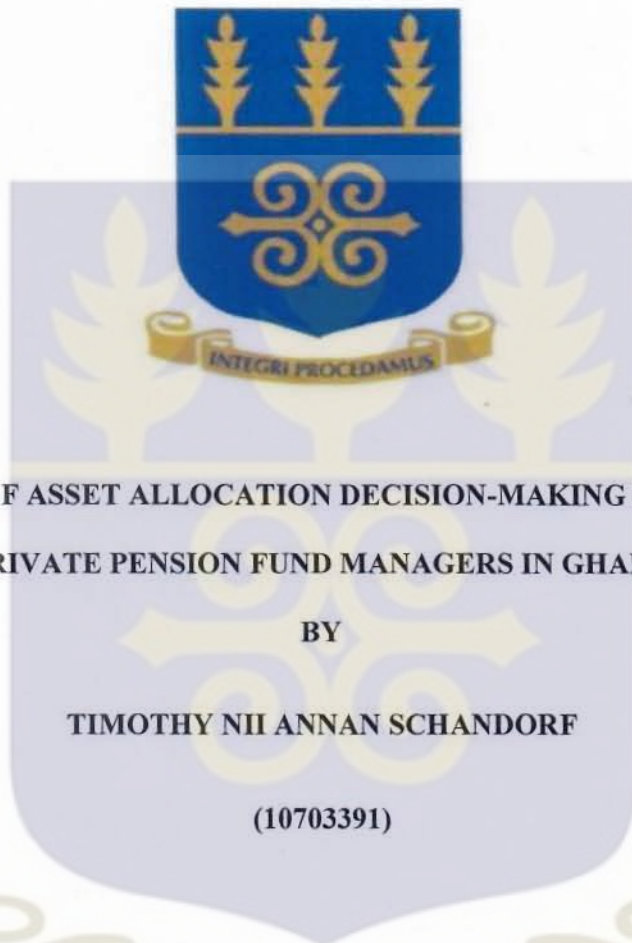


UNIVERSITY OF GHANA



**ASSESSMENT OF ASSET ALLOCATION DECISION-MAKING BEHAVIOUR OF
PRIVATE PENSION FUND MANAGERS IN GHANA**

BY

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(10703391)

**A THESIS SUBMITTED TO THE UNIVERSITY OF GHANA BUSINESS SCHOOL IN
PARTIAL FULFILMENT FOR THE REQUIREMENT OF THE AWARD OF A MASTER
OF SCIENCE DEGREE IN DEVELOPMENT FINANCE**

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DECLARATION

I, Timothy Nii Annan Schandorf, declare that except for references to other people's work, the study presented in this paper is the first of its kind to be submitted to the University of Ghana Business School (UGBS) under the supervision of Dr Elikplimi Komla Agbloyor. I take sole responsibility for any mistakes or shortcomings that may be found in this thesis.



.....

05/08/2019
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DATE

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CERTIFICATION

I hereby certify that this thesis was supervised according to the laid down procedures of the university.

... 

...5/8/2019.....

DR. ELIKPLIMI KOMLA AGBLOYOR

DATE

(SUPERVISOR)

DEDICATION

I dedicate this dissertation to my brother, Sidney Laud Schandorf, who passed away on 2nd April, 2018. You have been my hope, mentor, friend and aspiration. Till we meet again, you will forever remain in my heart.

ACKNOWLEDGEMENT

I lift praise to the Almighty God for the gift of life and the grace to apply all knowledge I have acquired towards the completion of this thesis. I also express profound gratitude to my family and friends who have supported me immensely through the tough periods of this exercise. I will also like to express my most sincere gratitude to my supervisor, Dr Elikplimi Komla Agbloyor, for his direction and timely feedback that refined my ideas for this study. His immense contribution has helped me cross the finish line. I also thank all the lecturers of the Department of Finance, University of Ghana Business School for their intellectual guidance.

ABSTRACT

Private pensions in Ghana by law are defined contribution schemes established to enhance retirement benefits for contributors. The performance of private pension schemes hugely relies on the expertise and investment decisions of fund managers. It is, therefore, worthwhile to interrogate the factors that influence investment decisions. This paper presents the result of a case study of the factors that influence the asset allocation decisions of private pension fund managers in Ghana. A thematic analysis was employed to identify patterns of thought amongst the fund managers sampled for this study. Data collected and analysed showed that currency stability, regulations, political/economic cycles, sponsor investment philosophy and objective and the risk appetite of pension fund managers are the significant factors that influence asset allocation decisions of private pension fund managers.

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LIST OF ABBREVIATIONS

BOG	Bank of Ghana
BNSS	Basic National Social Security Scheme
DB	Defined Benefit Scheme
DC	Defined Contribution Scheme
EMH	Efficient Market Hypothesis
IMF	International Monetary Fund
LCH	Life Cycle Hypothesis Theory
NPRA	National Pensions Regulatory Authority
PWC	PricewaterhouseCoopers
SSNIT	Social Security and National Insurance Trust

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Pensions play an essential role in providing the elderly with financial support to ensure that they can meet their basic needs after retirement. Pension schemes all over the globe are set up to give workers social security when they retire from active work. A pension scheme refers to a structured benefit system funded to provide stable income to workers upon retirement.

The extended family mostly provided social security for the elderly in Ghana during the pre-independence era. This arrangement did not only cater for the economic needs of the elderly but also psychological stability and moral upliftment (Kumado & Gockel, 2003). As economic output and social structures improved, the CAP 30 Pension scheme was introduced in 1950, this was followed by several reforms and Acts that sought to improve the livelihood of the elderly in Ghana until the establishment of the Social Security and National Insurance Trust (SSNIT) pension scheme in 1991 (Ofei-Kwapong, 2013). Both schemes, SSNIT and CAP 30, were operational until the formation of a new pension structure under the National Pensions Act, 2008 Act 766. The new three-tier structured comprised a mandatory defined benefit occupational scheme managed by the government through SSNIT, a second-tier mandatory privately managed defined contribution, occupational scheme and a voluntary privately managed defined contribution third-tier scheme (Kpessa, 2010).

Mandatory Tier 1 and 2 pension contributions accrue several benefits to employees. Since compulsory Tier 1 and 2 contributions are pre-tax contributions, employees make some tax gains

from contributing religiously. Also, investment income from pension contribution investments is not subject to tax. Tier 2 assets are solely managed by trustees who have the sole responsibility of ensuring the assets under management are invested and appropriately administered without the interference of government. The quantum of accrued benefits under the tier 2 & 3 scheme is influenced mainly by the governance, investment and operational expertise of trustees and fund managers (Petra Trust, 2010)

Pension schemes, just like any other investment fund, are posed with risks that could derail contributors of satisfactory returns. Risk management frameworks are therefore crucial in mitigating market, operational and governance risk that may arise when trustees do not manage schemes appropriately. The structure of private pensions in Ghana permits fund managers to advise trustees on investments through asset allocation and security selection recommendations, which translate into investment performance. With the notion that pension fund investments have a long-term focus, there is the need to understand and question the factors that influence how private pension fund managers make asset allocation decisions because these decisions affect investment performance significantly.

1.2 Statement of the Research Problem

As described earlier in this paper, the second and third tier of the structure of the new pension are defined contribution schemes. Under defined contribution schemes, the employee and employer contribute a fixed amount periodically towards the employees' pension. The value of the accrued benefit to the employee on retirement depends solely on the level of returns accrued on investments made with the contributions (Munnell, Aubry, Hurwitz, & Quinby, 2011). Therefore, an employee's benefit under Tier 2 & 3 of the pension act is dependent on the decisions of the trustees

and the performance of the chosen fund managers selected by the trustees. It is essential that Trustees establish controls to ensure that schemes are not susceptible to fraudulent activities and also ensure that fund managers find an appropriate balance between risk and returns when investing pension contributions. Poor decisions made by service providers may result in loss of contributions or abysmal investment performance.

Since the amount of accrued benefits a retiree enjoys under a defined contribution scheme highly relies on investment performance, it is imperative to investigate how pension portfolios are managed. Pension fund managers play a critical role in determining how well pension portfolios perform. Market conditions, asset allocation and security selection expertise of fund managers highly influence the performance of investment portfolios. "Ibbotson and Kaplan (2000) presented a cross-sectional regression on annualised cumulative returns across a large universe of balanced funds over ten years and found that about 40 percent of the variation of returns across funds was explained by policy" (Ibbotson, 2010).

Further research broke down portfolio performance into the market returns, asset allocation policy returns and active portfolio management return. The research established that the market returns and allocation policy dominate in explaining total return variations of investment portfolios (Xiong, Ibbotson, Idzorek, & Chen, 2010). These research outcomes formulate the basis of this study. This study, therefore, seeks to assess the asset allocation decision-making behaviour of pension fund managers in a developing economy like Ghana.

1.3 Research Purpose

The purpose of this study is to assess the asset allocation decision-making behaviour of pension fund managers in the investment of private pension funds in Ghana. Largely, asset allocation decisions influence investment performance. Understanding factors that influence asset allocation decisions will allow stakeholders to understand the causes of variations in the performance of private pension funds.

1.4 Research Objectives

This research will primarily determine the factors influencing asset allocation decision-making behaviour of pension fund managers in the investment of private pension funds in Ghana. The study will further specifically seek to:

1. Determine the factors influencing the asset allocation decision of pension fund managers in Ghana.
2. Determine the general appetite for risk of pension fund managers and how risk appetite impacts asset allocations decisions.

1.5 Research Questions

The study will provide answers to several questions relating to asset allocation decision making of private pension fund managers in Ghana. These questions include:

1. What factors influence the asset allocation decisions of private pension fund managers in Ghana?

2. What is the general risk appetite of pension fund managers in Ghana, and how does their risk appetite impact asset allocation decisions?

1.6 Motivation and Significance of the Research

This study will offer useful insights to several stakeholders of the capital market in Ghana. Institutions in search of debt or equity capital, capital market stakeholders, authors and students of finance, policymakers, Bank of Ghana, Government of Ghana will use the findings of this research as input for decision making. The study would also assist investment banks in creating innovative assets to take advantage of asset classes available to pension fund managers. The study would also provide the opportunity for the students of finance to appreciate theoretically better and practically the investment landscape in Ghana. For asset managers, this research will enable them to estimate the amount of capital available for long term project finance. The findings would also provide adequate information for policymakers to take actions that will either expand investible asset classes or steer the direction of asset allocation decision making through policy reforms. Also, the outcomes of this study will provide the National Pensions Regulatory Authority (NPRA) with information and recommendations to guide reforms on guidelines for the investment of private pension funds. Bank of Ghana (BOG) and the government could also rely on the results of the study to plan for debt issuances and refinancing.

1.7 Limitations of the study

This study seeks to explore a relatively new area of study hence existing literature on the Ghanaian pensions industry will be challenging to ascertain. Hesitance from the respondents and unnecessary bureaucracies are anticipated to delay the research process.

1.8 Chapter Disposition

This study will make use of five chapters to account for this comprehensive research on the asset allocation decision making behaviour of private pension fund managers in Ghana. Chapter one covers the introduction which includes the background to the study, statement of the problem, the purpose of the study, objectives of the study, research questions, significance of the study, limitations and chapter disposition of the study. Chapter two will focus on a review of relevant literature on pension structures, the pensions industry in Ghana and then look further into the concept of investment, theories around asset allocation, investment decision making and factors influencing asset allocation decisions. Chapter three will delve into the methodological approaches which highlight on the study area, source and study population, sampling techniques and sample size, data collection instrument and method, data processing and mode of analysis, ethical considerations and study area. This research will employ a qualitative approach to assess the asset allocation decision-making behaviour of private pension fund managers in Ghana. The population comprises all pension fund managers in Ghana. A sample of 5 fund managers will be interviewed to explore the factors that influence asset allocation decisions of private pension fund managers in Ghana. Chapter four entails discussion of findings of this study. Finally, chapter five comprises the summary, conclusions and recommendations of the study. The references and appendices follow this chapter.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter elaborates on literature that explains the fundamental concepts of this study. First, this chapter delves deeper into the essence of pensions and the different types of pension structure. Secondly, the chapter provides an overview of the pensions industry in Ghana and relevant statistics as at the end of 2017. Next, the chapter reviews the concept of investment, theories of investment decision making, asset allocation theories and factors determining asset allocation decisions.

2.2 Pensions

A pension refers to a structured benefit system funded to provide stable income to workers upon retirement. This system offers a stream of income when salary stops because of mandatory age retirement, ill-health or any disability that brings an end to the income-earning ability of an individual. It is also an arrangement to prevent old-age poverty and to support basic needs such as health, food and shelter when income-earning ability stops.

2.2.1 Purpose of Pensions

The beginning of social security regulation is motivated by the drive to reduce poverty in the elderly populace and to assure them of income when one is worn-out to work. Financial strain, as a result of responsibility towards children and family members during one's working life, usually

leads to improper planning for retirement. Without a structured compulsory pension arrangement, the demands of life will always deplete pension savings.

According to Samuelson (1975), Aaron & Reischauer (1998), the principal reason for the state to provide pensions is, the belief that many citizens do not accumulate enough funds for retirement. Hence, there is the need to help households achieve life resource allocation by smoothing consumption as propounded in the life cycle hypothesis theory (LC H) by transferring resources from working life to post-retirement when income-earning stops. Establishing a mechanism that transfers income from working life to post-retirement is necessary because many segments of society are viewed to be unsophisticated enough to be able to set up appropriate post-retirement arrangements. Thus, pension systems are established to prevent the state from having to support large segments of retirees (Blahous, 2000). Thus, at a macro level, a pension plan permits individuals to adopt a life-cycle model of consumption and hence protect myopic and unsophisticated individuals (Modigliani & Ando, 1957). A pension plan generates savings during working life to provide for post-retirement.

Pensions or retirement benefits as used in this study have also been used as a tool for enticing and retaining workers with specific qualifications, for producing higher work effort, for realising anticipated goals and also for promoting age retirement (Hurd, 1990). Employers hold pensions as deferred wages that are payable only if an employee exhibits desirable traits such as honesty and hence companies can elicit the desired characteristics by offering matching contributions to ensure that their employees go on retirement without anxiety. Company pensions involve three aspects: insurance (for the aged income-earning disability), compensation (as an incentive for a realistic career service), and compensation (disbursement to allow termination). Pensions and insurance

growth arose as a bribe to forestall labour agitation without huge increases in wages. They helped to defer income and reduce the effect of high marginal tax rates for salaried employees (Bertocchi, Schwartz, & Ziemba, 2010)

Lastly, from economic theory, countries require savings for capital formation, and individuals require savings to support themselves in the phase of their lives when they do not earn income. Using a variety of inducements (such as tax deferrals and tax credits) and mandatory contribution rules, governments encourage citizens to increase their rate of savings. The greater the need for such savings, the higher the contribution rate required and potentially, the higher the benefits. Thus, pensions are also a vehicle for capital formation (Choi, Laibson, Madrian, & Metrick, 2002).

2.2.2 Types of Pension Schemes

Pension schemes can be differentiated by their benefit obligations and the way they fund the discharge of such obligations. Although employer pension schemes vary in design, they can be divided into two types based on the promised benefits as; defined contribution (DC) and defined benefit (DB) schemes, with financing methods described as; unfunded (“pay-as-you-go”) and funded or contributory.

Defined contribution and defined benefit plans differ significantly based on the risks employees encounter at the hand of employers, the flexibility of funding, the sensitivity of benefits to inflation, and the purpose of government regulation.

2.2.3 The Defined Contribution Scheme

Under defined contribution (DC) scheme, every beneficial employee has a different account where the employee and in some cases, the employer make regular contributions. DC schemes are

hence fully funded and accrue tax savings to employees since contributions are a fixed percentage of pre-tax earnings. The value of the pension benefit depends on the total contributions and investment earnings on the account. The DC plan is the theoretically more straightforward retirement plan when compared with the defined- benefit arrangement. In DC pension arrangement, participants, sponsors, or both make specific contributions either in a specific amount or as a portion of monthly income. These contributions may also be partly voluntary. Pension schemes invest these contributions in assets. The ultimate pension is uncertain (before to retirement) because it depends entirely on the investment performance of the accumulated contributions on the market. Accordingly, two plan participants with identical contributions but dissimilar investment portfolios can receive widely different pensions. Also, two plan participants with identical contribution profiles can receive different pensions over different periods.

2.2.4 The Defined Benefit Scheme

Benefit entitlement in a defined benefit (DB) scheme is calculated by a formula which takes into account years of service and salary of the participant. DB plan formulas also take into account the Social Security benefits to which a plan participant is entitled. In the traditional DB plans, the plan sponsor (employer) promises benefits and funds the plan during the working cycle of the participant (employee); consequently, the sponsor bears most of the risk.

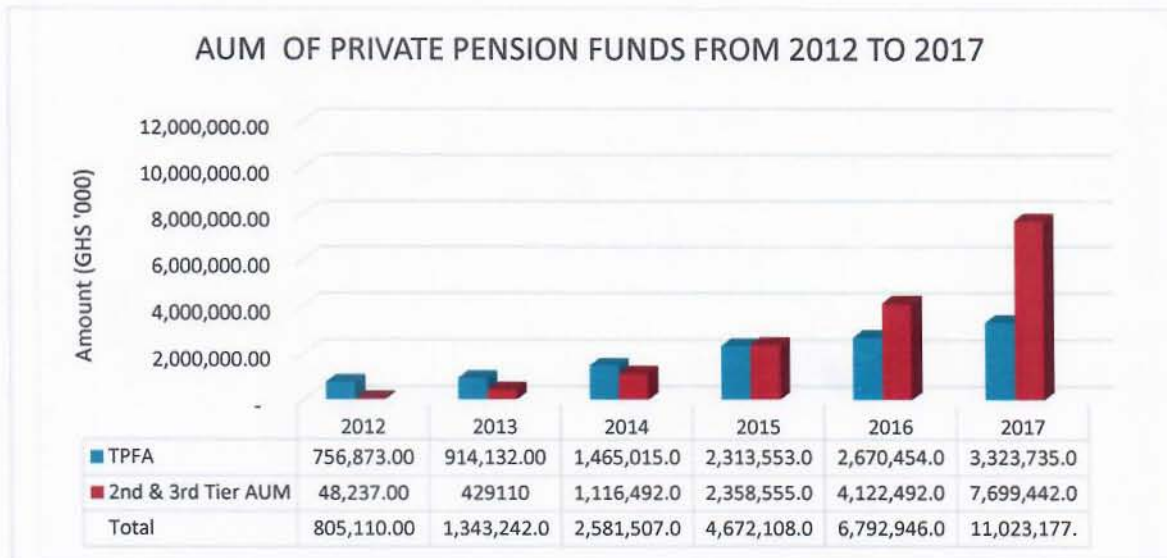
The primary purpose of the DB pension scheme is the provision of regular payments in either absolute currency or as a fraction of a salary measure, for example, a defined proportion of the final salary or an average of some past years of salary. The pension benefit payout could be in either nominal or real terms. In defined pension plans, employees, sponsors, or both make contributions to the plan that can change over time.

2.3 Pensions Industry in Ghana

The (National Pensions Act (Ghana) Act766, 2008). Following the enactment of the National Pensions Act, 2008 Act 766, a sector worker in Ghana presently has the chance to benefit from the new 3-level benefit structure upon retirement. The previous SSNIT structure required workers to contribute 17.5% of their salaries towards their pension. This 17.5% was split between the employer and employee each contributing 12.5% and 5% respectively. The dynamic of this changed with the new three-tier pension structure. The total contribution increased to 18.5% with 5% being a tier 2 pension and 13.5% being a tier 1 pension. Employees are mandated by law to pay 5.5% while employers are mandated to contribute 13% of employees' basic salary towards the 18.5% pension contribution. The third tier represents a voluntary additional 16.5% for the provident fund or personal pension contributions. SSNIT manages tier 1 pensions while the private sector manages Tier 2 and 3 pensions. Tier 2 and 3 pensions represent defined contribution schemes managed by trustees, fund managers, administrators, and custodians. Trustees are required to play a fiduciary role for tier 2 & 3 pension contributors. Administrators provide accounting and record-keeping services and fund managers are tasked to advise trustee on investments while custodians who are banks hold pension assets on behalf of scheme members and trustees. All pension schemes and service providers are regulated and monitored by the National Pensions Regulatory Authority(NPRA).

Since the reform in 2008, Ghana's pensions have grown significantly to GHS 20,794,318,469.40, with private pension assets reaching GHS11 billion constituting about 53% of the market (National Pensions Regulatory Authority, 2017).

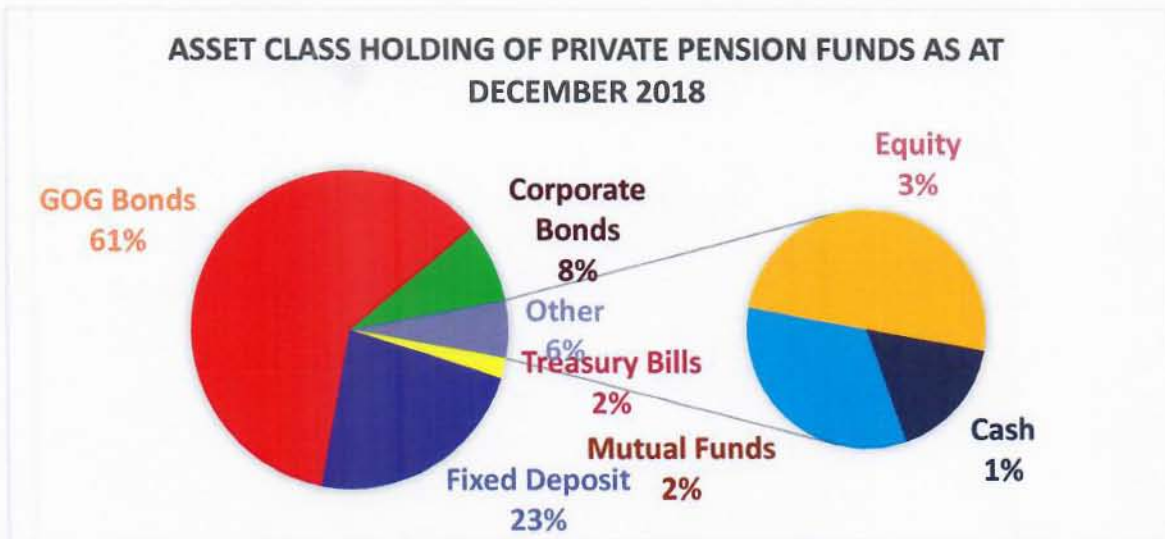
Figure 2.1 AUM of Private Pension Funds From 2012 to 2017.



(National Pensions Regulatory Authority, 2017)

These assets are distributed among various investible asset classes as prescribed by the guidelines on investment of pension funds. Figure 2.2 illustrates the distribution of pension funds per asset class as at the end of 2017. Pension fund managers are allocating 63% of private pension fund assets to government securities, which may be interpreted as a conservative approach given the long-term focus of pension fund investments.

Figure 2.2 Asset Class Holding of Private Pension funds as of December 2017



(National Pensions Regulatory Authority, 2017)

As at 2017, 58,745 employers had been enrolled under the mandatory 1st tier Basic National Social Security Scheme (BNSS) while 20,876 employers had been enrolled under the 2nd tier mandatory Occupational Pension Scheme (National Pensions Regulatory Authority, 2017). The difference in the number of employers enrolled shows that there is a massive opportunity for growth in the private pension space since about 65% of employers enrolled under the BNSS have not been enrolled under the mandatory 2nd Tier scheme. The number of contributors under the 1st Tier, 2nd Tier and 3rd Tier was 1,315,499, 1302,223 and 308,521 respectively as at 2017. The industry was administered by 23 Corporate Trustees, 64 Pension Fund Managers, 14 Pension Fund Custodians and 903 Individual Trustees.

2.4 Investment of Pension funds in Ghana

Provisions of the National Pensions Act, 2008 (Act 766) as amended, and Occupational and Personal Pension Schemes (General) Regulations, 2011 (LI 1990) as well as the guidelines on investment of pension funds stipulate how tier 2 and 3 pension contributions should be invested. Pension funds in Ghana are not allowed to invest in securities with unlimited liability. Investible asset classes include Government of Ghana Securities, Local Government and statutory Agency Securities, Corporate Debt Securities, Ordinary Shares/Non- Redeemable Preference Shares, Bank Securities and Other Money Market Securities, Collective Investments Schemes (CIS) and Alternative Investments. Table 2.1 shows the maximum allowable holdings of an asset class per pension fund.

Table 2.1 Investment Allocation Limits Per NPRA Guidelines

Asset Class	Max %
Government of Ghana Securities	60%
Local government and statutory Agency Securities	15%
Corporate Debt Securities	35%
Ordinary Shares/Non- Redeemable Preference Shares	20%
Bank Securities and Other Money Market Securities	35%
Collective Investments Schemes (CIS)	15%
Alternative Investments	15%

Source (National Pensions Regulatory Authority, 2016)

2.5 The Concept of Investment

The concept of investment originated from the word "vestment", which is explained as committing something into another thing. Capital goods refer to goods used in further and future production. Examples of such goods include railroads, factories, land, and putting oneself through education (Khan, Afrin, & Rahman, 2015). Shafi (2014) also described investment as the flow of capital, which is designated for production. Investment is usually defined as the allocation of monies generated through long-term savings to the current financial opportunities within a particular economy with an expectation of earning a higher rate of return in future (Khan, Afrin, & Rahman, 2015). There is a significant premium placed on investment as the primary instrument of economic growth and financial development for particularly a developing country. This is mainly due to the perception that investment helps a country attain some financial independence through channelling surplus funds to deficit units which undertake productive ventures in order to generate high rates of returns to fuel the economy. This is to say that investment leads to an increase in capital spending and the creation of a robust economy. In personal finance, the concept of investment often refers to monies used to acquire shares or purchase any financial asset. Ahmed (2002) defines it in a simple way as "putting money into some venture in order to make a profit". There are several other explanations of this all-important concept. However, almost all the explanations of the concept of investment explain that there is an absolute financial commitment to increase one's stock of wealth in the future. Pollack and Heighberger (1998), for instance, offered the view that investment was synonymous to committing money into financial assets that appreciate significantly in worth. To Raily (1992), investment involves the purchase of financial assets in order to derive future payments that would offer compensation to the investor for the time frame

within which the monies were locked, the variable rate of inflation and the risk associated with future payments.

Most economies all over the world have different kinds of investment opportunities that are available for individuals to patronise. Raman (2002) intimated that there are three broad classes of investment that households and individuals could patronise in any economy. These are real investments, contingent investments and titular investments. Real investment widely refers to investments which connote physical existence. Other types of real investments include buying of jewellery, beads and precious minerals such as gold and bauxite. In Ghana, real investments appreciate significantly compared to deposits or savings funds as well as stocks and bonds (Raman, 2002). Contingent investment refers to investments whose values depend on a contingency. The assumption is that whenever contingency arises, money contributed towards investment is paid back to the investor or his nominee. However, if nothing triggers the occurrence of the contingency during the period within which the funds are committed (i.e. holding period), the investor loses the money contributed, and this might be regarded as a financial loss to the investor. Lastly, the concept of Titular investment is often explained by many financial analysts as the kind of investment that is associated with titles usually through certificates issued by a government as a result of committing a specified amount of funds to a commercial venture for a period (Ahmed, 2002). Pension fund managers are confronted with several investment opportunities within which they have to make an investment decision based on the appraisal done. As elaborated earlier, pension fund investments in Ghana are guided by law and restricted to asset classes and securities stipulated in the guidelines on the investment of pension schemes in Ghana approved by the NPRA.

2.6 Theories of Investment Decision Making

No single theory wholly explains the rationale behind an investor's investment decision. Many Scholars have developed several theories in an attempt to explain investor's investment decision taking into consideration a host of factors, both personal and psychological factors. Among the various theories proposed as being the basis of the various investment decisions investors make are the regret theory, theory of mental accounting, prospect/loss-aversion-theory, over/under reacting theory and the theory of overconfidence. The regret theory of investment explains the emotional reaction of investors who assume they will make an error in the pricing of the security before its sale. Investors, therefore, avoid the bad regretful emotion by avoiding the sale. The regret theory is also correct for a situation under which an investor fails to purchase a security that later sees the value rise. In an attempt to avoid the emotions of regret, some investors prefer to purchase securities that are being demanded by the majority of investors (Pareto, 1997 cited in (Rakesh & Nalina, 2015). De Bondt and Thaler's (1985) theory of mental accounting indicates that investors measure of value is in relative terms than absolute terms. Thus, investors obtain pleasure not from just the value but the quality of a transaction (Thaler, 2013). The theory stipulates that investors tend to put investment outcomes into mental compartments with the difference amongst the compartments affecting how investments are made. For instance, price acquired for a sale of stock in a boom period could affect an investor's willingness to sell similar stock in a lean period. Thus, investors create mental compartments for the profits achieved once and therefore, would wait patiently for the periods of high gains to resurface again (Thaler, 2013). The prospect-loss aversion theory stipulates that investors react differently towards gains than losses. With the loss aversion theory, losses always appear more significant than gains. The over/under reacting theory explains that investors get optimistic with performing market with the assumption that the performance will

be persistent. Likewise, individual investors are mainly pessimistic in the event of downturns or market depressions. Thus, a significant lapse associated with this theory is that the individual investor accords much attention to the present situation while completely ignoring historical data. The theory further explains that at the apogee of optimism, investor greed results in stocks moving beyond their intrinsic value (Hong, Kubik, & Stein, 2004). The overconfidence theory also opines that investors perceive themselves as having extraordinary capabilities. They often end up overestimating the precision and accuracy of their knowledge relative to others and view all other people as below them in terms of abilities. Many investors believe they can outperform the market - a situation which may never happen due to the theory of Efficient Market Hypothesis (EMH) which postulates that markets are efficient and hence investors cannot beat the market. More often than not, overconfidence leads to excess trades, with unnecessary trading costs, which could have been avoided but end up reducing profits (Tapia & Yermo, 2007). The consideration of these theories provides a better explanation of investment decision making behaviour.

2.7 Portfolio Management and Asset allocation theory

Harry Markowitz' modern portfolio theory suggests that an efficient portfolio is a group of stocks that generate an optimum return for a given level of risk. The efficient market hypothesis (EMH) states that market securities prices reflect all information, and as a result, portfolio managers are unable to outperform the market consistently. Behavioural finance goes a step further to investigate the thinking process of investors and how emotions influence investment decision making (Simon & Ricciardi, 2000). These theories greatly influence the area of finance and practice of investment portfolio management. Portfolio management usually takes either an active or passive approach. Passive managers engineer an optimal asset allocation, and these allocations usually mirror already

established index or combination of indexes. The active approach to portfolio management goes through a process of asset allocation, security selection and market timing.

Asset Allocation is the process of distributing the money amongst different classes of assets to optimise return and reduce risk exposure. Asset classes mainly include stocks, collective investment schemes, bonds, commodities and alternative investments. Asset allocation allows investors to diversify investments across different investment vehicles to mitigate downside risk. Portfolio managers adopt various strategies in implementing asset allocation decisions. Strategic asset allocation takes into account all market information to establish a strategic mix of assets based on the desired risk and return combination during the setup stage of a portfolio. Strategic asset allocation is usually reviewed annually to incorporate changes in market trends. Tactical asset allocation involves making a deliberate effort to deviate from allocation targets. Tactical asset allocation decisions are made in most cases to benefit from short term fluctuations or opportunities in the market (Schultz Collins, Inc., 2016). Successful tactical asset allocation shifts require a manager to understand better the economic environments, market sentiments and market valuation of assets (NEIinvestments, 2017). The insured asset allocation strategy refers to a strategy where managers establish a minimum value for a portfolio. Managers increases or reduces the level of risk a portfolio assumes when the portfolio performs above or below this predetermined value. This strategy makes use of the efficient market hypothesis. This approach is called the Floor + Multiplier approach (Schultz Collins, Inc., 2016)

2.8 Factors determining asset allocation decision

A study of asset allocation data by the International Monetary Fund (IMF) of some 50,000 equity and bond funds established that, the main pull and push factors of asset allocation were long term growth prospects and the risk appetite of investors (International Monetary Fund, 2011). The data gathered captured asset allocation information from 2005 to 2011. The variables used to explain global asset allocation included return factors, volatility factors concerning macroeconomic indicators and risk tolerance concerning country risk. Research conducted on the most significant pension funds in Europe, Canada, Australia and the United States of America found that returns, diversification and asset & liability management were three significant drivers of asset allocation decisions for pension funds (PricewaterhouseCoopers, 2016). The results of a qualitative study by Akinwale and Fabiola (2007) concluded that consistency of return, security, management competency, association and relationship, legal and regulatory control, and a stable political environment were primary drivers of asset allocation decisions (Akinwale & Abiola, 2007).

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter elaborates on the methodologies employed in the study. It captures the research approach, research strategy, research philosophy, type of research, research population, sampling procedure, data collection method, data analysis, ethical consideration and study area.

3.2 Research Design

The plans, procedures and structure required to provide salient answers to research questions describe the research design of a study (Creswell, 2015). In this study, the areas covered under the research design include the research approach, research strategy, research philosophy and the research type.

3.2.1 Research Approach

The study of factors influencing asset allocation decisions of private pension fund managers in Ghana is mainly qualitative in nature as it involves developing explanations for social phenomena (Creswell, 2015). This approach is necessary as the study is based on inductive reasoning and objectivism. This method is necessary as the current study seeks to comprehend fund manager asset allocation decision making behaviour.

3.2.2 Research Strategy

Several modes of carrying out a qualitative study exist. This study seeks to explore factors influencing asset allocation decisions of private pension fund managers in Ghana. An exploratory case study strategy was employed to answer the underpinning research questions. Face to face interviews were conducted with 5 fund managers to gather data for this study. Interviews are beneficial because they allow the researcher to collect more accurate data and fall back on recordings for more precise interpretations. The researcher ensured that interviews were free from interviewer biases to ensure the validity and reliability of the data collected.

3.2.3 Research Philosophy

The clarification of the research design and strategy, method of data collection and analysis is mainly dependent on the philosophical underpinning of the study (Blumberg, Cooper, & Schindler, 2005). In the discussion of research philosophy underpinning all studies, the thematic areas that need elaboration are, ontology (the nature of reality), epistemology (acceptable knowledge or standards) and axiology (role of values) (Collis & Hussey, 2009). This research is primarily underpinned by objectivism in terms of ontology. Objectivism indicates that the researcher is external to social reality. Thus, the research is not influenced by the subjective perceptions of the researcher (Bryman & Bell, 2007). The appropriateness of the objective approach also emanates from the aim of the study to determine the factors influencing asset allocation decisions of private pension fund managers in Ghana, and these decisions are perceived to be outside the researcher's control.

3.2.4 Type of Research

Based on the nature of the research questions and objectives, the study is dependent on the exploratory research method. In the context of this study, the choice of the exploratory method is based on the aim of the study to investigate factors influencing pension fund manager asset allocation decisions. This type of research is necessary for the employed inductive approach of the study. Inductive reasoning involves making broad generalisations after observing datasets in research. The data gathered forms the foundations of an explanation or theory.

3.3 Research Population

The population of the study constitutes approved active fund managers in the private pension industry in Ghana. These fund managers must have received approval from the National Pensions Regulatory Authority in Ghana to engage in pension fund management. There are sixty-four (64) approved fund managers (National Pensions Regulatory Authority, 2017). These Fund managers must have been “licensed by the Securities & Exchange Commission as an Investment Adviser under the Securities Industry Act, 1993 (PNDCL 333) and have paid up stated capital of not less than GHS 200,000.00 and net assets of at least the same amount” (National Pensions Regulatory Authority, 2011). The distribution of funds under the management of the approved fund managers for the study is shown in Table 3.1 below:

Table 3.1 Top 20 Pension Fund Managers by total assets under management for 2015

Name of Pension Fund Manager	Market Share
Stanlib Ghana Limited	20.03%
Firstbanc Financial Services Limited	13.54%
Databank Asset Management Services Limited	12.02%
Cal Asset Management Company Limited	7.42%
Fidelity Securities Limited	6.06%
EDC Investments Limited	5.56%
UMB Investment Holdings Limited	5.04%
NDK Asset Management Limited	3.33%
Frontline Capital Advisors Limited	3.26%
IC Asset Managers Ghana Limited	2.79%
HFC Investments Services Limited	2.39%
Wealth Management Limited	2.37%
Bora Capital Advisors Limited	1.37%
Sic Financial Services Limited	1.34%
SAS Investment Management Limited	1.28%
SDC Capital Limited	1.27%
Prudential Securities Limited	1.27%
QFS Securities Limited	1.16%
Unisecurities Ghana Limited	1.06%
Sirius Capital Limited	0.86%
Rest	6.59%
Total	100%

Source: National Pension Regulatory Authority 2015

3.4 Sampling Procedure

The researcher employed a purposive sampling procedure in the selection of private pension fund managers for this study. This sampling method is the most appropriate since private pension fund managers have the knowledge and expertise as well as the mandate to influence asset allocations decisions for private pension schemes in Ghana. The researcher contacted three out of the top ten fund managers based on the NPRA's 2015 ranking of fund managers. The ranking was constructed using the assets under management. The other two fund managers contacted for the study represented the fund managers outside of the top ten.

3.5 Data Collection Method

Researchers in the collection of data employs several procedures. These procedures depend on the type of research under consideration. As the current study is mainly qualitative in approach, semi-structured interviews were conducted to gather data for this research.

3.5.1 Interviews

An interview is a data collection tool usually employed in qualitative research. An interview involves a process of collecting information from a respondent often called an interviewee through a conversation that is guided by a set of questions. Interviews may be structured, semi-structured or unstructured. Semi-structured interviews were conducted to gather information for analysis and interpretation. The selected fund managers were asked open-ended questions to find answers to the research questions of this study.

The developed interview guide was in three parts. The first section (Section 1) captured the details of the pension fund manager. The information considered included name of institution, an

indication of AUM, status with NPRA, number of pension portfolios managed and license status with the SEC. The second section (Section 2) captured factors influencing asset allocation decisions for permitted asset classes. (Section 3) focused on soliciting policy recommendations on the investment of pension funds.

The researcher interviewed senior managers of the selected institutions to gather data to answer the underpinning research questions of the study. The interviews were conducted with a representative of IC Asset managers, Fidelity Securities Limited, Stanlib Ghana Limited, Black Star Advisors and Intrepid Investment Advisory & Asset Management Ltd formerly Bullion Financial Advisors Ltd. All fund managers interviewed are duly approved as private pension managers in Ghana.

3.6 Data Processing and Analysis

The researcher coded the data collected for further analysis. Interviews conducted with the selected fund managers were audio-recorded to ensure that the researcher maintained the integrity of data gathered. The researcher also took field notes of key areas highlighted by respondents. This data was then coded to create or identify similarities. A thematic analysis was conducted to develop shared ideas or patterns in the data collected to arrive at the findings of the research.

3.7 Ethical Consideration

The consideration of ethical issues that could arise during the studies is essential in the proposal presentation process (Hesse-Biber & Leavy, 2011). Ethical considerations are needed to examine the credibility, authenticity and personal disclosures of the research report; issues of personal privacy and the role of researchers in cross-cultural context (Israel & Hay, 2006). Before the

conduct of the study, the researcher observed professional association standards. The researcher initially requested for the approval of the supervisor by presenting a proposal. The fund managers were selected without any form of vested interest. Participants were not coerced into partaking in the interviews. The researcher also observed the scientific honesty of research studies by avoiding data falsification.

3.8 Study Area

As of 2017, the NPRA had sixty-four (64) approved fund managers operating in the pensions industry (National Pensions Regulatory Authority, 2017). The study focused on the private pension fund managers in the Greater Accra Region. All fund managers in the private pension industry operate in the Greater Accra Region except New Generation Investment Services (NGIS) Ltd whose principal address is in the Ashanti Region.

CHAPTER FOUR

FINDINGS AND DISCUSSIONS

4.1 Introduction

This chapter presents the findings of data collected with the primary objective of assessing factors influencing asset allocation decisions of private pension fund managers in Ghana.

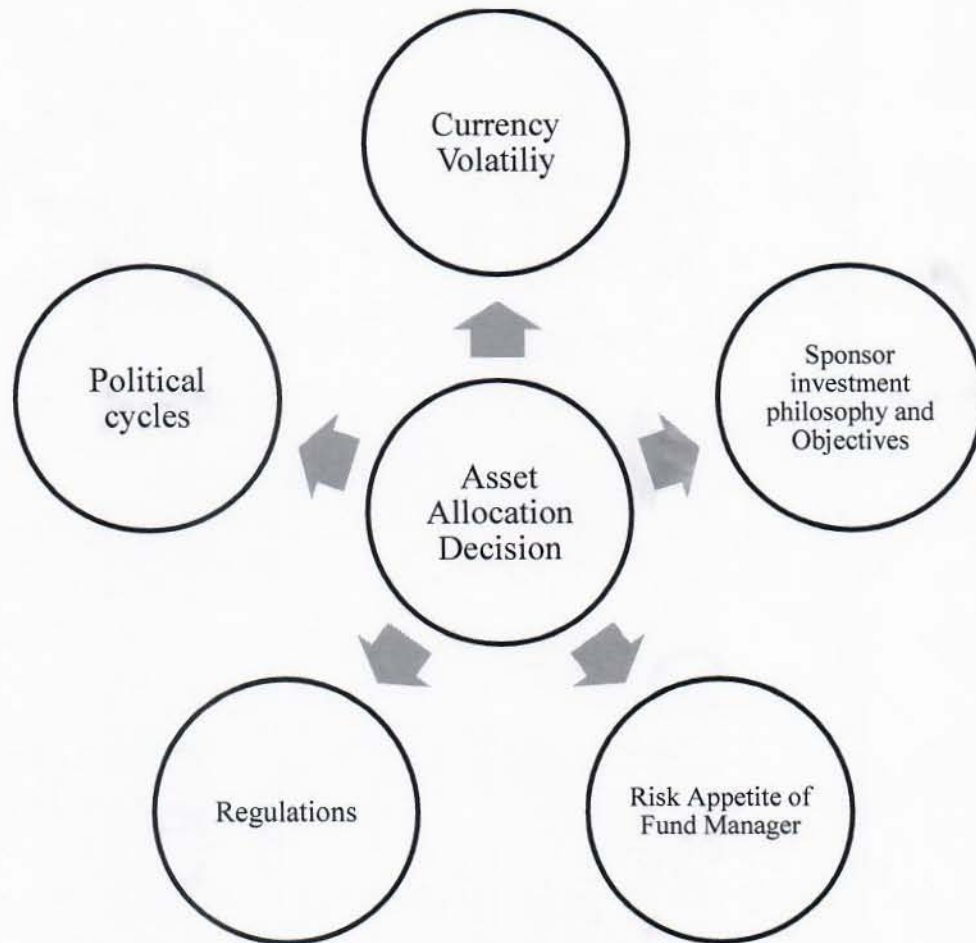
More specifically, this research aims to seek the following:

1. Determine the factors influencing the asset allocation decisions of pension fund managers in Ghana.
2. Determine the general appetite for risk of pension fund managers and how risk appetite impacts asset allocations decisions.

4.2 Findings

The semi-structured interviews conducted generated data that was coded and summarised into five themes. The interviews were conducted in an informal setting to allow interviewees to communicate with ease. The interview sessions took between fifteen (15) to 30 minutes, depending on the level of information interviewees were willing to offer. The figure below highlights the themes identified in the responses of the fund managers interviewed:

Figure 4.1 Factors Influencing Fund Manager Asset Allocation Decisions



Source: Author's construct

4.2.1 Currency Volatility

Money or currency refers to a legal tender used as a medium of exchange, store of value and store of value (Szulczyk, 2010). Exchange rates refer to the value of a currency in terms of another currency. Most currency exchange rates are quoted in terms of the dollar. If the value of a currency increases in terms of the dollar, the currency is said to have appreciated. On the other hand, if a currency decreases in terms of the dollar, the currency is said to have depreciated. The study gathered that the relative stability of the Ghanaian cedi versus the US dollar is a major factor that influences asset allocations of private pension fund managers. One interviewee explained that Ghana is an import-dependent economy; hence, the volatility of the currency is the most significant decision making factor in allocating pension fund assets. The currency has a pass-through effect on disposal income, inflation, interest rate, government and private sector borrowing and general business across all sectors of the economy. A depreciating currency usually results in inflationary pressures on the economy, and this translates into increased interest rates and a higher probability for the government to issue more longer-dated papers or borrow in the foreign market to stabilise the currency. The import driven nature of Ghana's economy means that the movement of the currency affects the valuation of the securities held by a pension fund. The depreciation of the currency affects how the government borrows; that is the volume, frequency and maturity profile of government instruments. Also, the movement of the currency affects the financial performance of both listed and unlisted companies. Currency depreciation has a ripple effect on the ability of financial institutions to repay loans and deploy capital efficiently. The overall effect of a rapidly depreciating local currency negatively affects the performance of all investible asset classes. Based on this premise, a stable outlook on the Ghana Cedi means that a fund manager will make efforts to invest in riskier assets classes like equity, corporate debt and fixed deposits to generate higher

returns for pension funds. On the contrary, an unfavourable outlook on the currency informs the decision to allocate funds to the government of Ghana securities asset class or asset classes with shorter maturity profiles.

4.2.2 Regulations

The regulations in the pensions industry primarily define the breadth and scope of investments a private fund manager can make. These regulations inherently direct how much a private pension fund manager can allocate to a particular asset class. One interviewee explained that the regulations define how pension fund assets can be allocated to the various permissible asset classes and also the level of concentration to a particular issuer. Although this is a useful risk management framework, it restricts a fund manager's ability to generate a higher return when unique opportunities become available on the market. A common theme among interviewees was the conscious effort to remain compliant at all times. One interviewee was cautious about making tactical asset allocation decisions because of potential sanctions from the regulator and increased reputational risk. An area of concern for fund managers was the 60% cap on allocations to government securities. An interviewee explained that, in an unfavourable investment environment, it might be wise to allocate more than 60% of the portfolio to government securities in order to protect contributors from losses or unacceptable returns. The interviewee referred to the uncertainty in the banking sector in Ghana in 2018 as a good reason to allocate a significant part of a pension portfolio to government securities until such a crisis stabilises.

The defined contribution nature of private pension schemes informs the extent to which fund managers take risk within the investible asset classes. One common theme from the interviews was the need to generate an acceptable level of return for members under defined contribution pension

schemes as compared to defined benefit schemes. Under defined contribution structures, investments risks are borne by the contributors entirely. As a result, losses or poor returns have a direct impact on the quantum of accrued benefits a contributor receives at retirement. Following from this, fund managers take a conservative approach to asset allocation decisions for defined contribution schemes by allocating significant portions of the pension portfolios into the Government of Ghana asset class. This conservative approach is confirmed by the 2017 statistics of pension asset allocations where 63% of private pension funds were held in the Government of Ghana Securities asset class.

4.2.3 Sponsor Investment Philosophy and Objectives

The sponsor of a pension scheme is the entity that established the pension scheme and has the fiduciary responsibility towards contributors. Sponsors of pension schemes communicate their investment philosophy and objectives for the scheme through the scheme's investment policy statement. The investment policy statement clearly defines the schemes' investment strategy, structure, criteria, risk profile and investment process. The objectives of the scheme communicate the types of investments a fund manager can make as well as the upper and lower limits per asset class. Pension scheme sponsors use benchmarking as a useful tool to communicate the scheme's investment objective. Sponsors define a specific benchmark return for the scheme which is used to evaluate a fund manager over a specified period. Also, some institutions set specific restrictive investment criteria that direct the asset allocation decisions of pension fund managers. For example, some sponsors do not allow fund managers to invest in ordinary shares or securities of competitors. Some schemes with religious orientations restrict fund managers from investing in certain asset classes entirely. These restrictions, therefore constrain a pension fund managers

ability to utilise all investible asset classes. Some Sponsors also restrict fund managers to invest only in risk-free assets and blue chip bank securities.

4.2.4 Political Cycles

Political cycles in the Ghanaian economy have implications on the general performance of the economy. Fund managers interviewed for this study highlighted that election years are mostly characterised by increased government spending. In a bid to win political power, governing parties usually increase investments in infrastructure to convince the electorate that the country is moving in the right direction. Inadequate revenues result in excessive borrowing to fund increased government spending. This translates into higher interest rates and changes in the structure of the yield curve. Fund managers interviewed explained that political cycles make it difficult to allocate investments to assets classes with securities whose maturities extend beyond an election cycle. Tactical allocations become necessary during elections years to protect contributors from downside risk. Another critical area is the sentiment of the market towards certain political parties. One interviewee also explained that the capital market is more optimistic about the performance of the economy when a particular political party is at the helm of affairs in Ghana. This sentiment usually translates into more allocations to ordinary shares, bank securities and corporate debt with maturity profiles within forecasted political cycles.

4.2.5 Risk Appetite of the Fund Manager

Risk is the degree of uncertainty of returns on an asset/investment. Risk can also be defined as the standard deviation of the returns on investment. Risk appetite refers to the degree of risk a firm or investor is willing to accept for an investment option. All fund managers interviewed have a conservative stance towards private pension investments. This stance influences how funds are allocated to investible asset classes under the pension regulations. All fund managers reiterated that although the expected return is essential, the first plank on their ethos is the security of investments. The defined contribution structure of private pensions means that contributors take home what they have contributed, plus the gains on investment. Interviewees highlighted that the defined contribution structure makes preservation of capital most critical. Pension fund managers have to ensure that members' contributions are preserved first, before considering a certain level of return. The conservative nature of private pension fund managers is evident in the 2017 statistics on the distribution of pension fund assets across the investible asset classes. A total of 63% of private pension assets was invested in Government of Ghana securities.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter would give the overall summary of the findings from the previous chapter and also provide recommendations for further study.

5.1 Summary of Findings

The private pensions industry in Ghana provides a huge source of capital for investment in the local economy as well as an avenue for local firms to raise capital for expansion. This study, first, sought to assess the factors influencing the asset allocation decisions of private pension managers. And then to determine the general risk appetite of private pension fund managers and how their risk appetite impacts asset allocations decisions.

The study employed a qualitative approach to answer the two main research questions for the study. Semi-structured interviews conducted generated data that was coded and organised into five main themes. The four main factors influencing asset allocation decisions of private pension fund managers include currency volatility, the pensions regulations, political cycles, and the pension fund sponsor's investment philosophy and objectives.

Currency Volatility

The study gathered that the volatility of Ghana Cedi is a critical factor in determining the allocation of pension fund assets. The import driven nature of Ghana's economy means that the movement of the currency affects the valuation of the securities held by a pension fund. The depreciation of the currency affects the volume, frequency of issuance and maturity profile of government

instruments as well as the financial performance of both listed and unlisted companies. Hence, the volatility of currency significantly influences how private pension fund managers allocate assets.

Regulations

The regulations in the pensions industry primarily define the breadth and scope of investments a private fund manager can make. These regulations inherently direct how much a private pension fund manager can allocate to a particular asset class. Under defined contribution structures, investments risks are borne by the contributors entirely. This means that losses or poor returns have a direct impact on the quantum of accrued benefits a contributor receives at retirement. Therefore, the regulations play a vital role in the asset allocation decisions of private pension fund managers.

Sponsor Investment Philosophy and Objectives

Sponsor's of pension schemes communicate their investment philosophy and objectives for the scheme through the scheme's investment policy statement. The investment policy statement clearly defines the schemes' investment strategy, structure, criteria, risk profile and investment process. The objectives of the scheme communicate the types of investments a fund manager can make as well as the upper and lower limits per asset class.

Political Cycles

Political cycles in the Ghanaian economy have implications on the general performance of the economy. Fund managers interviewed for this study highlighted that election years are mostly characterised by increased government spending. Increased government spending, coupled with insufficient revenues translates into higher interest rates and changes in the structure of the yield

curve. Fund managers interviewed explained that political cycles make it difficult to allocate investments to assets classes with securities whose maturities extend beyond an election cycle. Tactical allocations become necessary during elections years to protect contributors from downside risk.

Finally, this study aimed to determine the general risk appetite of private pension fund managers and how their risk appetite impacts asset allocations decisions. The study gathered that private pension fund managers are conservative and generally risk-averse. Their conservative nature confirms the considerable flow of funds into the Government of Ghana Securities asset class from the NPRA's 2017 annual report. A total of 63% of pension fund assets were allocated to the Government of Ghana Securities asset class in 2017. All private pension fund managers highlighted that the security of funds was the most crucial factor when making asset allocation decisions for pension funds.

5.2 Conclusions

This study sought to assess the factors influencing the asset allocation decisions of private pension managers in Ghana. And then to determine the general risk appetite of private pension fund managers and how their risk appetite impacts asset allocations decisions. The study gathered that four main factors influence asset allocation decisions of private pension fund managers in Ghana. The four main factors include currency volatility, pensions regulations, political cycles, and the pension fund sponsor's investment philosophy and objectives. Also, the study gathered that private pension fund managers in Ghana are conservative and generally risk-averse. The findings of this study highlight the importance of sound macroeconomic management of the economy of Ghana and its implications on the investment and performance of private pension funds.

5.3 Recommendations

Further study should be done on the factors that influence security selection decisions of private pension fund managers in Ghana. Such a study will help issuers structure security offers to match the needs of pension fund managers and other institutions investors.

Also, one area of concern for fund managers within the pensions industry was the lack of depth in the capital market. All fund managers sighted the lack of alternatives or options in the listed securities market. Further studies can be done on the challenges facing corporate entities who want to list securities on the Ghana Stock Exchange, GAX or the Ghana Fixed Income Market. Such a study will highlight issues for redress and provide significant input for the Securities and Exchange Commission.

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APPENDIX

SEMI-STRUCTURED INTERVIEW

Assessment of factors influencing the asset allocation decisions of pension fund managers in Ghana.

This interview is conducted to assess the factors influencing the asset allocation decisions of pension fund managers in Ghana. Your participation in this interview will assist the researcher in fulfilling requirements for the award of a Master of Science Degree in Development Finance from the University of Ghana Business School. Information gathered from this interview will be used solely for academic purposes

SECTION 1 – Details of respondent

1. Name of Institution: _____
2. Years of Existence: _____
3. Standing with NPRA: Approved/Unapproved
4. Status with SEC: Licensed/ Unlicensed
5. Kindly provide an indication of your current AUM GHS _____
6. Kindly indicate the number of pension schemes you manage:

SECTION 2 – Factors influencing asset allocation decisions

7. In making asset allocation decisions for private pension funds, what factors do you consider in your decision-making process?
8. How does the risk appetite of pension fund sponsors affect the asset allocation decision for private pension fund investments?
9. How often do you make tactical asset allocation decisions, and what conditions usually trigger these tactical asset allocation decisions?
10. Private pension funds in Ghana are strictly defined contribution schemes. How does a defined contribution structure affect the asset allocation for private pension fund investments?
11. What is your general appetite for risk, and how does that affect your asset allocation decision-making behaviour for private pension investments?
12. How do economic cycles affect your asset allocation decision-making behaviour?
13. Would you consider return expectations as a key factor in determining asset allocations?

SECTION 3 – Recommendations

14. What changes will you make to the current NPRA investment guidelines for private pension funds?
15. Are there any additional asset classes you want to add to the existing permissible investments in the private pensions industry?