AN INVESTIGATION INTO THE DIFFERENCES OF ASSET ALLOCATION STRATEGIES OF THE GOVERNMENT INSTITUTIONS PENSION FUND AND CAPRICORN ASSET MANAGEMENT COMPANY

A THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION OF THE UNIVERSITY OF NAMIBIA

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Abstract

The study investigates the differences of asset allocation strategies between the Government Institutions Pension Fund (GIPF) and Capricorn Asset Management Company, focusing on the strategies used when allocating investors’ funds among various asset classes. The study also compares the similarities and differences between the two investment firms regarding their allocation of investors’ funds, along with looking at their performance, considering the fact that the GIPF is a public company that deals with a defined benefit plan for government employees while Capricorn Asset Management Company is a private company that deal with private investors.

The researcher used qualitative and quantitative approaches to determine asset allocation strategies investment management firms use in allocating funds to different asset classes, and to measure the risk and return correlation of the securities. The researcher found that the portfolio managers from the two investment firms use different asset allocation strategies as default investment options for their investors and members. The research established that the Government Institutions Pension Fund and Capricorn Asset Management Company have differences and similarities in how their portfolio managers handle their portfolios and how they allocate funds among different asset classes. The GIPF and Capricorn Asset Management Company spread investors’ funds across various asset classes such as equity, bonds, cash and property. Although both firms had different percentage allocations to various asset classes, both firms’ portfolio managers had a similarity in the amount they allocate to each asset class. The Government Institutions Pension Fund is a public organisation that offers retirement or saving plans for government employees while Capricorn Asset Management Company is a private investment fund that offers saving plans and investments for private investors.
Table of Contents

Abstract ............................................................................................................. i

LIST OF TABLES .............................................................................................. vi

LIST OF FIGURES ........................................................................................... vii

DECLARATION .................................................................................................. viii

CERTIFICATION ............................................................................................... ix

DEDICATION ....................................................................................................... x

ACKNOWLEDGEMENT .................................................................................... xi

LIST OF ACRONYMS ....................................................................................... xii

CHAPTER 1 ......................................................................................................... 1

  1.1 Introduction ............................................................................................... 1
  1.2 Orientation of the study ........................................................................... 1
  1.3 Statement of the problem ......................................................................... 2
  1.4 Research Objectives ................................................................................. 3
  1.5 Significance of the study .......................................................................... 3
  1.6 Limitations of the study .......................................................................... 4
  1.7 Summary .................................................................................................. 4

CHAPTER 2: LITERATURE REVIEW ................................................................. 5

  2.1 Introduction................................................................................................ 5
  2.2 Asset allocation and diversification ......................................................... 5
  2.3 Asset allocation strategy ......................................................................... 7
  2.4 Stock market performance ..................................................................... 9
  2.5 Performance of Real Estate ................................................................... 9
  2.6 Investment management process ............................................................ 10
  2.7 Rebalancing of a portfolio ..................................................................... 12
  2.8 Risk and Return ...................................................................................... 12
  2.9 Measures of investment performance .................................................... 13
  2.10 Measures of investment risk ................................................................ 14
  2.11 Summary .............................................................................................. 15

CHAPTER 3: METHODOLOGY ......................................................................... 16

  3.1 Introduction ............................................................................................... 16
  3.2 Research Design ....................................................................................... 16
  3.3 Research Instruments ............................................................................. 16
  3.4 Procedure ................................................................................................. 17
4.24 Measures used to evaluate investment performance of various securities in a portfolio

4.25 The guidelines for diversification parameters regarding the percentage of the investment portfolio

4.26 Circumstances portfolio managers should consider when rebalancing the portfolio

4.27 Method(s) used in analysing the risk-return component of the assets classes in the portfolio

4.28 Returns on asset classes between 2009 and 2013

4.29 Summary

CHAPTER 5: DISCUSSION

5.1 Introduction

5.2 Types of asset classes that a portfolio manager comprises and their approximate percentages

5.3 Reasons for present percentage allocation to these various asset classes in your portfolio

5.4 Is it wise to invest all your money in one security

5.5 Asset allocation strategies portfolio managers use to allocate funds among securities

5.6 Why diversification is considered necessary in the company investment strategy

5.7 Pattern of the allocation process over the past five years

5.8 Method(s) used in the portfolio allocation process

5.9 The primary source of strategic advice for the asset allocation process

5.10 Internal rules or regulations that affect the allocation process

5.11 The amount of risks portfolio managers can tolerate

5.12 Type of risks portfolio managers have to be aware of

5.13 How portfolio managers measure risks

5.14 How does asset allocation affect the risk and return expectation relationship

5.15 The relation between risk and returns of the different asset classes in the portfolio. On what data do you base your evaluation?

5.16 How are the market risk and risk on individual security related?

5.18 Do you as a portfolio manager reduce investment percentage in an asset class when the market volatility changes

5.19 How much risk or market volatility are you as a portfolio manager willing to accept

5.20 Measures used to evaluate investment performance of various securities in a portfolio
5.21 The guidelines for diversification parameters regarding the percentage of the investment portfolio ................................................................. 56
5.22 The circumstances which portfolio managers consider when rebalancing the portfolio ...................................................................... 57
5.23 Method(s) used in analysing the risk-return component of the asset classes in the portfolio ............................................................... 58
5.24 The returns on asset classes between 2009 and 2013 .......................... 58
5.25 Summary .................................................................................................................. 60
CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS ............................ 61
6.1 Conclusions .............................................................................................................. 61
6.2 Recommendations .................................................................................................. 65
6.3 Research Limitations ............................................................................................... 65
6.4 Areas of further study .............................................................................................. 66
REFERENCES .................................................................................................................. 67
APPENDIX ....................................................................................................................... 70
LIST OF TABLES

Table 4.1. Qualification level
Table 4.2. Life span N=2
Table 4.3. Reasons for present allocation to different asset classes
Table 4.4. The importance of diversification N=2
Table 4.5. Primary source of strategic advice for asset allocation process
Table 4.6. Types of risk to be aware of when structuring a portfolio
Table 4.7. The Government Institutions Pension Funds
Table 4.8. Capricorn Asset Management Company
Table 4.9. The Government Institutions Pension Fund data
Table 4.10. Capricorn Asset Management Company data
Table 4.11. Returns on asset classes for GIPF
Table 4.12. Returns on asset classes for Capricorn Asset Management
LIST OF FIGURES

Figure 4.1. Asset classes Portfolio composition
Figure 4.2. Asset allocation strategies
Figure 4.3. Pattern of allocation process over the past five years
Figure 4.4. Regulations that affect allocation process
Figure 4.5. Risk tolerance
Figure 4.7. Risk and return relationship GIPF
Figure 4.8. Risk and return relationship CAM
Figure 4.9. Comparison of returns from 2009 to 2013 for GIPF
Figure 4.10. Comparison of returns from 2009 to 2013 for Capricorn Asset Management
DECLARATION

I, undersigned, Tuuliky Hambeleleni Amwele student number 200903471, hereby declare that this thesis handed in at the University of Namibia in fulfilment of a Master of Business Administration - Finance is my own work and I apologise for any errors incurred. All additional information used in this project is given reference.

Date

Tuuliky H Amwele
CERTIFICATION

I certify the content of the research project to be my own and original work and that all sources have been accurately reported and acknowledged, and that this document has not previously been submitted in its entirety or in part at any educational establishment.

---------------------------------------------
Date                                   Tuuliky H Amwele
---------------------------------------------
DEDICATION

I dedicate this work entirely to my late mother Rauha Gandja aihe Amwele and my late father Gideon Mbulu Amwele and the almighty God for giving me strength to complete my research.
ACKNOWLEDGEMENT

This thesis is the outcome of a miraculous journey during which I have been supported by many people. I wish to acknowledge the efforts of these amazing individuals who have believed in me and enriched my journey in numerous ways.

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Student’s Signature          Supervisor’s Signature

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<table>
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<tr>
<th>Acronym</th>
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<tr>
<td>GIPF</td>
<td>Government Institutions Pension Fund</td>
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<td>CAM</td>
<td>Capricorn Asset Management</td>
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<td>BW</td>
<td>Bank Windhoek</td>
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<td>TAA</td>
<td>Tactical Asset Allocation</td>
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<td>SAA</td>
<td>Strategic Asset Allocation</td>
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<td>DB</td>
<td>Defined benefit plan</td>
</tr>
<tr>
<td>NAMFISA</td>
<td>Namibia Financial Institutions Supervisory Authority</td>
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CHAPTER 1

1.1 Introduction

This chapter covers the orientation and the setting of the study, along with giving the statement of the problem upon which the research is based. Thereafter, the research objectives and significance of the study are propounded and lastly the researcher gives the limitations of the study, before concluding with a summary of the chapter.

1.2 Orientation of the study

Asset allocation is the process of spreading investors’ funds among various asset classes such as equity, bonds, cash and property. In addition to the above mentioned asset classes, some investment professionals add commodities and derivatives to their portfolios. An asset class is comprised of securities that have similar characteristics, attributes, risk and return relationships. Asset allocation is the most prominent factor motivating investment performance. According to Reilly and Brown (2003, p. 35) stated that “Asset allocation is the process of deciding how to distribute an investor’s wealth among different asset classes for diversification purposes”. Asset allocation is an essential tool portfolio managers use to meet the objectives of investment funds. Asset allocation strategies are strategies used by portfolio managers when allocating funds among various asset classes. According to Campbell and Viceira (2002, p. 120)“Portfolio managers can choose from various strategies for asset allocation management such as strategic asset allocation, constant-weighting asset allocation, tactical asset allocation, dynamic asset allocation, insured asset allocation and integrated asset allocation”.

The study investigated the way investors’ funds are allocated to different asset classes and what strategies the Government Institutions Pension Fund and Capricorn Asset Management
Company use to allocate funds to these asset classes. The Government Institutions Pension Fund is a public organisation that offers retirement or saving plans for government employees while Capricorn Asset Management Company is a private investment fund that offers saving plans and investments for individual investors. There is now adequate evidence suggesting that the two investment firms’ portfolio managers select an asset allocation strategy for their investments. Asset allocation strategies influence the allocation of funds invested and outcomes.

The difference between Government Institution Pension Fund and Capricorn Asset Management Company is that, GIPF portfolio managers make investment decisions for their members and GIPF offers their clients a defined benefit plan while Capricorn Asset Management Company creates a range of investment options for their investors to choose from and the portfolio manager only manages and protects their portfolio. This is in line with the worldwide trend of giving individual investors’ more control over the way their funds are invested. The asset allocation strategies that are at present accessible by the two investment firms’ used in this study, and suggested in literature represent the focal point of the researcher’s investigation in this study.

1.3 Statement of the problem

Public companies are different from private companies and therefore they tend to use different asset allocation strategies to influence the performance of a portfolio. Brinson, Hood, and Beebower (1986) accept that asset allocation is the principal driver of a portfolio’s investment returns over long horizons. According to Dyck and Pomorski (2011, p. 10) “Larger public pension and investment funds outperform the smaller funds”. While Tonks (2002, p. 8) is of the view that “the returns earned by assets in pension and investment funds
depend upon the investment strategy and asset allocation decisions of the pension and investment funds”. Asset allocation strategy is more important from a practical viewpoint and deserves serious attention when allocating funds among various asset classes. This raises questions as to whether differences in asset allocation strategies between public and private investment firms determine the investment performance result of the firms. This research aimed to investigate the differences in asset allocation strategies of the Government Institutions Pension Fund and Capricorn Asset Management Company so as to measure how these strategies influence the performance of funds.

1.4 Research Objectives

The objectives of this research were to investigate the differences in asset allocation strategies of GIPF and Capricorn Asset Management Company, to determine how investment management firms’ portfolio managers allocate funds among various asset classes, to observe the investment performance of the two investment firms and to establish the concept of risk and returns relationships for the asset classes of the Government Institutions Pension Fund and Capricorn Asset Management Company.

1.5 Significance of the study

The findings of the study will provide information and knowledge that will help investment management firms in determining how to allocate funds among different asset classes for diversification purposes and fund return. It will provide investment guidelines that will define the level of risk that is acceptable in investment portfolios for both GIPF and Capricorn Asset Management Company.
1.6 Limitations of the study
This study used a small sample of portfolio managers from the Government Institutions Pension Fund and Capricorn Asset Management Company. The study took place in Windhoek. The other limiting factors were lack of openness, accuracy as well as the flow of information for the study: competition among firms leads to information being withheld by those involved in portfolio management or those who have relevant skills and experience in the area, and lastly the scope of the research itself was limited because was targeting investment firms in Windhoek.

1.7 Summary
This chapter covered the orientation of the study, the problem statement, the research objectives, significance and limitations of the study.
CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter presents a review of the research work that was done by various scholars on asset allocation strategies then concludes with a summary of the chapter.

2.2 Asset allocation and diversification

According to Brinson, Hood and Beebower (1998, p.97) “Asset allocation is also known as an investment approach with the purpose of optimising investment performance for a specific risk tolerance. Instead of putting all the harvests in one basket, or putting the money in one asset class, the portfolio managers should diversify across different asset classes”. The investments of a firm will not be subjected to the instability of any one asset class. Various kinds of investments perform independently under different political and economic conditions. Transitions in the financial environment will not have the same effect on all asset classes. A diversified investment will decrease the effect of underperformance from any financial environment. Portfolio diversification is one of the best approaches to meet the needs of investment firms. Strong (2009, p. 91) points out that “Asset allocation affects long term rates of return far more than security selection, market timing, or taxes. Consequently, portfolio managers should consider asset allocation requirements of the single most important aspect of the investment policy statements”.

Furthermore, Strong (2009, p. 148) says that “diversifying an investment portfolio is a logical idea. Diversification is indeed a good idea and virtually all managers seek to diversify in one respect or another”. It is virtually never a good idea to put a large percentage of investment funds into a single security, several things can happen if you do such as losing all the funds, investments never move and investments decline in value. He further states that
“diversification is not only logical but also a mathematically sound practice. Investors do not like risk and vast reductions in risk are associated with even modest diversification”.

Most people are risk averse. Portfolio managers take risks but only if they believe they will be rewarded for taking them. Unnecessary risks are unattractive. It is easy enough to put your eggs in several baskets. Strong (2009, p. 152) argues that “the point of diversifying is to reduce total risk so that only systematic risk remains. The aim of diversification is to attain a given level of expected return while bearing the least possible risk”.

Brinson et al (1986) accept that “asset allocation is the principal driver of a Portfolio’s investment returns over long horizons”.

**Aggressive Portfolio**

Carther (2012) states that “Aggressive portfolios mainly consist of equities, so their value tends to fluctuate widely. If you have an aggressive portfolio, your main goal is to obtain long-term growth of capital. As such, the strategy of an aggressive portfolio is often called a capital growth strategy”. To provide some diversification, investors with aggressive portfolios usually add some fixed-income securities.
2.3 Asset allocation strategy

Tonks (2002, p. 8) is of the view that “the returns earned by assets in pension and investment funds depend on the investment strategy and asset allocation decisions of the pension and investment funds”. Campbell and Viceira (2002, p. 120) argue that “Portfolio managers can choose from various strategies for asset allocation management. One of these strategies is the Strategic Asset Allocation”. This type of approach establishes and addresses base policy mix. This strategy uses a proportional combination of assets which is basically based on expected rates of return for each asset class. Aside from this strategy, another investment asset allocation technique is the Constant-Asset Allocation. Such approach typically involves the buy-and-hold approach even as the change in the values of assets generates a drift from the principally created policy mix. In this regard, portfolio managers may choose to use a constant-weighting technique to asset allocation.

The portfolio manager continually rebalances their investment portfolio. Strong (2009, p. 420) states that “the equity market frequently is volatile. This means that prices rise for a period, then fall and then rise again. As the stock market falls, the constant mix strategy requires the manager to buy more stock. When it begins to raise again, the manager must reduce the equity holding”. This is a winning solution because the manager buys stock at low prices and then sells it at high prices.

The next strategy is the tactical asset allocation. According to Cohen (2003, p. 112), “The strategic asset allocation approach may seem relatively inflexible, portfolio managers may find it important to frequently be involved in short-term tactical deviations from the mix so as to capitalize on untypical investment chances”. He further states that the dynamic asset allocation is considered as another active asset allocation approach. The portfolio manager
constantly adjusts the mix of assets as the financial environment increases and falls, and the economy gets stronger or weaker. In this active approach, the investment firm sells assets which are reducing in value? and buys assets which are increasing or growing, making dynamic asset allocation the polar reverse of a constant-weighting approach. The insured asset allocation strategy can be implemented with a formula or a portfolio insurance approach. The formula approach is a graduated strategy as the portfolio value decreases more risk free assets are purchased so that when the portfolio reaches its base level, the investor is entirely invested in risk-free assets. With the portfolio insurance approach, the investor can use put or call options and future contracts to preserve the base capital. Both approaches are considered active management strategies, but when the base amount is reached the strategy becomes passive. Portfolio managers are able to generate a base investment portfolio value under which the portfolio is not permitted to decrease. As long as the investment portfolio attains a return above its base, the fund manager tends to apply active management to attempt to have an increase in terms of the portfolio value.

Maginn, Tuttle, McLeavey and Pinto (2007, p. 5) describe “Investment management as a continuous and systematic process complete with feedback loops for monitoring and rebalancing”. They explain that the process can be as loose or as disciplined, as quantitative or as qualitative. Rowland (2000, p. 104) explains that “for both internal managers and external advisers, the mandate will be for an initial amount and will define the criteria for investing”. Each fund will have its own strategies and guidelines for determining the suitability of an asset class for inclusion in an investment portfolio. Studies conducted by Brinson et al (1986, p.39) and Blake, Lehmann and Timmerman (1999, p. 429) state that “Asset allocation strategies decisions demonstrate more than 90% of the variation in terms of the returns of pension funds. The establishment of an appropriate asset mix is considered as a dynamic approach and it plays a very important role in identifying an individual portfolio’s
return and risk. In this regard, the portfolio’s asset mix of an individual should reflect their goals at any point in time”.

2.4 Stock market performance

Stock market performance impacts the equity allocation of pension funds: (i) in the short term, as a result of market timing or imperfect rebalancing, and (ii) in the medium term, as a result of adjustments to the strategic asset allocation. Pension fund investment policy includes the strategic asset allocation decision which refers to choosing the investment percentages in each asset class. Of the aforementioned asset classes, equities have the highest expected return but also the highest volatility. For most pension funds, equities are the largest asset category. Consequently, equity allocation is one of the key policy variables determining the risk-return profile of a given pension fund. According to Campbell and Viceira (2002), “Pension funds generally determine their strategic asset allocation policies using asset and liability management studies in which they consider long-term expected returns, return variances, and covariance’s of broad asset classes, given the size and characteristics of their pension liabilities”.

2.5 Performance of Real Estate

Roberts and Henneberry (2007) note that the property investment decision-making process is neither clinical nor methodical, but is undertaken by imperfect players in imperfect markets using imperfect information. Gallimore and Gray (2002) state that asset allocation decision-making is typically characterised as a structural rational process, using factual data and leading to optimal decision-making. Real Estate investors have long been aware of the challenges of translating the returns of property investment into reliable time-series data (Fisher and Goetzmann, 2005).
“For investors, asset allocation decisions refer to the appropriate asset mix and relative weighting of asset classes in an investment portfolio, asset allocation is about setting minimum and maximum trade-offs to ensure sufficient representation, but not overconcentration, of various kinds of investments” (Ragsdale & Rao 1994). Given the importance of asset allocation, the investment management industry dedicates significant amounts of resources to developing and operating asset allocation policies.

Maginn et al. (2007, p. 5) describe investment management as a continuous and systematic process complete with feedback loops for monitoring and rebalancing. They explain that ‘the process can be as loose or as disciplined, as quantitative or as qualitative, and as simple or as complex as its operator’s desire”. Rowland (2010) explains that for both internal managers and external advisers, the mandate will be for an initial amount and will define the criteria for investing. Each fund will have its own policies and guidelines for determining the suitability of an asset class for inclusion in an investment portfolio. The choice of whether property is included or not is mostly constrained by the target mix and selection criteria. Similar to other assets, the fund manager needs to justify that the inclusion of property provides reasonable prospects of earning the hurdle rate of return set by the board and exceeding its benchmark.

2.6 Investment management process

Fabozzi and Markowitz (2011, pp. 3-4) categorised “the investment management process into five key tasks: Setting investment objectives, establishing an investment policy, selecting an investment strategy, constructing the portfolio, and measuring and evaluating investment performance”. Setting the investment objectives begins with a thorough analysis of the investment objectives of the entity whose funds are being managed. Establishing an
investment policy starts with the asset allocation decision. This process is known as strategic asset allocation (SAA). The development of the investment policies is influenced by factors such as client constraints, regulatory constraints, and tax and accounting issues. Selecting an investment strategy needs to be consistent with investment objectives and the investment policy guidelines of the managed fund.

The selection of a strategy can be made from a wide range of portfolio strategies, such as active or passive. Once the investment strategy is selected, the next step is to construct an efficient portfolio. This phase generally involves selecting specific assets to include in the portfolio. Finally, the investment performance needs to be measured and evaluated. Institutions may decide to implement shorter term (tactical and dynamic) policies which generally are set against the investment board guidelines for SAA. Performance evaluation helps determine whether the portfolio manager added value by outperforming the stated benchmark, it also identifies how the portfolio manager achieved those returns, and assesses whether the portfolio manager achieved superior performance by skill or by luck.

“Institutions regularly review the SAA framework to ensure the investment objectives and targets match the outlook for each of the respective asset classes, and are in line with recent financial market developments” (Darst 2003; Fabozzi & Markowitz 2011). Fund managers operate with strategic targets and policies set by the investment board and senior executives, which guide their property resource allocation.
2.7 Rebalancing of a portfolio

“Rebalancing refers to the investment process applied to ensure that a fund’s actual equity allocation continuously equals its strategic equity allocation, which implies selling equities after relatively high stock market returns and buying after relatively low equity returns, this might also be indicated as a form of negative-feedback trading, referring to buying past losers and selling past winners” (Lakonishok, Schleifer, and Vishny 1992).

Strong and Charles (2009, pp. 417-423) concluded that “when a portfolio contains both stocks and bonds there are two principal rebalancing strategies called constant mix and constant proportion portfolio insurance, the constant mix strategy is one in which the portfolio manager makes adjustments to maintain the relative weighting of the asset classes within the portfolio as their prices change, a constant proportion portfolio insurance strategy requires the manager to invest a percentage of portfolios in stocks that managers should buy stock as it rises”. According to Strong (2009, p.436) “Portfolio managers from the two firms rebalance a portfolio because changing security values can cause the portfolio manager to sell shares but not necessary because they are doing poorly”.

2.8 Risk and Return

Wheaton, Torto, Sivitanides, and Southard (1999, pp. 15-22) state that “Risk is expressed as an increase in the spread of the probability distribution of future outcomes, whether the outcome is that of a space market or an asset market”. “Investors need to consider the risk/return characteristics of the investments available to them before investing in asset classes” (Considine, 2007).
The Capital Asset Pricing Model (CAPM) states that the total expected return for an asset is equal to the risk-free rate plus beta times the market return net of the risk free rate. Specifically, the expected return for an asset is determined by the covariance of its return with the return of the market portfolio (beta), the expected return of the market portfolio, and the risk-free rate of return. Markowitz (1952) defines efficiency as a “portfolio that maximizes expected return for a given level of risk, or minimizes the level of risk for a given return”. He further explains that the resulting portfolio reduces the unsystematic risk of the portfolio through diversification of various assets. The market risk affects the entire market not just an individual security, while the risk in individual security affects a particular asset.

2.9 Measures of investment performance

According to Sharpe (1992, pp. 7-19), “Sharpe ratio measures the excess return (or risk premium) per unit of risk in an investment strategy. Consequently, if every investor combines a single riskless asset (supposedly well defined) with the portfolio whose performance is being evaluated, and that the relevant risk measure is the same for all investors (volatility), then the unique measure of performance that should be used to rank alternative investment opportunities is the so-called Sharpe ratio”. Pension funds with an investment strategy with the highest Sharpe ratio are the best performers. Economist Treynor (1965, pp.63-75) suggested a new predictor of mutual fund performance that differs from virtually all those used previously by incorporating the volatility of a fund’s outcome. Sharpe ratio is an evaluation method which considers return of fund and standard deviation of returns. Measuring of portfolio performance is the best example of this(Sharpe, 1966, pp. 119-138). What is popularly known as the Sharpe ratio (SR) is given by:

$$SR = \frac{(R_p - R_f)}{\sigma_p}$$
Where $R_p$ is the return on the portfolio, $R_f$ is the risk less rate of return, and $\sigma_p$ is the standard deviation of the portfolio (Sharpe, 1966). A similar reward to risk ratio which is exactly the same as Sharpe Ratio expect that it employs beta has also been given by Treynor, and this employs a measure of portfolio instead of standard deviation in its denominator, represented mathematically as: \[ \text{Treynor} = \frac{(R_p - R_f)}{\beta_p} \]

In addition to the Sharpe and Treynor measures, a number of other performance measures have been developed from the modern portfolio theory and the Capital Asset Pricing Model (CAPM) most of these measures employ a benchmark portfolio to calculate the performance. The CAPM provides an elegant model of the determinants of the required return on any individual risky asset. Where $ER_i$ is the expected return on risky asset, $R_f$ is the risk free rate, $\beta_i$ is the asset beta and $ER_m$ is the market return.

\[ ER_i = R_f + \beta_i(ER_m - R_f) \]

The investment performance needs to be measured and evaluated. Performance evaluation helps determine whether the portfolio manager added value by outperforming the stated benchmark and it also identifies how the portfolio manager achieved those returns. Both GIPF and CAM portfolio managers frequently review the strategic asset allocation construction to ensure that investment objectives and targets match the viewpoint for each of the individual asset classes.

### 2.10 Measures of investment risk

Ludvik (1994) states that “the perception of risk and its measurement is critical to the choice of an investment strategy. Standard deviation has been the most widely used measure risk total in finance”. Markowitz (1952, pp. 77-91) adopted “the use of standard deviation to
measure portfolio risk and it has been used as a general measure of risk by finance researchers ever since”. Balzer (1994, pp. 47-58) asserts that “standard deviation as a measure of investment risk is that it leads to misleading propositions when return distributions are not normal”.

2.11 Summary

This chapter covered the findings of different scholars on how portfolios are managed and the asset allocation strategies used by investment firms. The studies were done on asset allocation and portfolio diversification, asset allocation strategies, performance of asset classes, measurement of risk and returns. Asset allocation strategies are very useful strategies when allocating funds among various asset classes. Each asset class has an investment strategy used when investing and a high return is expected. When an asset class underperforms a portfolio is rebalanced. Performance of each asset class is measured and some portfolio manager’s use Sharpe ratio while others use Treyno ratio and the Capital Asset Pricing Model (CAPM). However, the frequently used methods are the Sharpe ratio and CAPM.
CHAPTER 3: METHODOLOGY

3.1 Introduction
This chapter focuses on the research methodology adopted to carry out the study. The chapter covers the research design, research instruments, procedure, data analysis, and research ethics and concludes with a short summary of the chapter.

3.2 Research Design
The study utilized both quantitative and qualitative research approaches. The quantitative approach was used to measure the risk and return relationship between asset classes of the Government Institutions Pension Fund and Capricorn Asset Management Company. The questionnaire was the main instrument used to collect the primary data in this approach and the questionnaire design that was used includes both closed and open-ended questions. Secondary data was collected from the two firms’ annual reports. The researcher collected annual reports for the period of five years from 2009 to 2013, to measure and evaluate investment performance outcomes of the two investment firms.

The qualitative approach was used to determine what asset allocation strategies investment management firms use when allocating funds to different asset classes. This was done through personal interviews with portfolio managers from the two institutions in order to collect primary data. Secondary data was collected by reviewing written documents on the investment firms’ opinions and attitudes towards asset allocation strategies.

3.3 Research Instruments
The questionnaire was the main instrument to collect the quantitative data. In addition, the researcher used the past five years’ annual reports from 2009 to 2013 of the Government
Institutions Pension Fund and Capricorn Asset Management Company. Personal interviews were used to gather qualitative data for the researcher to get in depth information from the portfolio managers.

3.4 Procedure
The research used both primary and secondary data. The primary data was collected using a questionnaire with open-ended and closed questions administered to portfolio managers of the Government Institutions Pension Fund and Capricorn Asset Management Company, and through interviews with portfolio managers of the two institutions. Secondary data was collected from company annual reports.

3.5 Data analysis
Qualitative and quantitative data were collected and the data were analysed using Microsoft Excel. The analysis was based on the questionnaires that were collected from the field and the findings were interpreted to generate descriptive statistics such as correlation coefficient of the risk and return of each asset class. The risk was measured by calculating the standard deviation of actual returns using the five years of data from the annual reports. The Capital Asset Pricing (CAPM) model was used to calculate the expected returns for the funds. This was used to compare and measure the two investment firms’ returns and risk of asset classes such as fixed income, equity and cash. Quantitative data was analysed to generate statistics, such as correlation coefficient to show the relationships between risk and returns of asset classes in the two investment firms. Qualitative data was analysed using frequency distribution. The results were presented in tables and charts.
3.6 Research Ethics

Ethical considerations were taken into account throughout the research process. The researcher made appointments with portfolio managers of the Government Institutions Pension Fund and Capricorn Asset Management Company. Each portfolio manager was given an information sheet that clearly explained the purpose of the research. The portfolio managers were shown the permission letter from the Namibia Business School, declaring that the researcher was allowed to carry out the study. These portfolio managers voluntarily agreed to take part in the research. Plagiarism was avoided and the work of other scholars was acknowledged at all times. Confidentiality of information revealed by the respondents was protected.

3.7 Summary

This chapter covered the research design the researcher used to measure the data, such as quantitative and qualitative approaches. Secondary and primary data were collected and the questionnaire was the main instrument used to collect the data. The data were analysed using Microsoft Excel. The risk was measured by a standard deviation while returns were measured using the Capital Asset Pricing Model. Lastly, ethical considerations were taken into account throughout the research process.
CHAPTER 4: DATA ANALYSIS

4.1 Introduction

This chapter presents the results of the study and it also interprets these results as they relate to the research objectives. It summarises the results and findings of the entire study while at the same time setting grounds for the next chapter.

4.2 The gender of the respondents

The researcher interviewed two portfolio managers and both were male, one from GIPF and the other from Capricorn Asset Management Company.

4.3 Qualification level of each portfolio manager

<table>
<thead>
<tr>
<th>GIPF</th>
<th>Capricorn Asset Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master’s degree</td>
<td>Honours degree</td>
</tr>
<tr>
<td>Other professional qualifications</td>
<td>CFA</td>
</tr>
</tbody>
</table>

Table 4.1. Qualification level

The table above indicates that both portfolio managers of the two investment firms have qualifications to manage investors’ funds.

4.4 Investment management experience

<table>
<thead>
<tr>
<th>GIPF</th>
<th>Capricorn Asset Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>7-10 years</td>
<td>1-3 year</td>
</tr>
</tbody>
</table>

Table 4.2. Life span N=2
Table 4.2 above indicates that the portfolio manager from GIPF has been managing government employees’ pension funds for 7 to 10 years while the portfolio manager from Capricorn Asset Management Company has been managing investors’ funds for 1 to 3 years.

4.5 An investment committee with experience to oversee the management of the asset classes in the portfolio.

Both portfolio managers from the two investment firms responded that they had an investment committee with experience to oversee how the asset classes in the portfolio are managed. The Government Institutions Pension Fund portfolio manager said that experience is acquired during the time spent on the committee. Capricorn Asset Management Company has members of the investment committee of four portfolio managers, one of the managers has 23 years of experience and the rest of the managers have 3-5 years’ experience.

4.6 Types of assets classes that a portfolio manager comprises and their approximate percentages

![GIPF Asset class portfolio composition](image1)

![CAM asset class portfolio composition](image2)

Figure 4.1. Asset classes’ portfolio composition
The pie charts above in Fig 4.1 provide a breakdown of the asset investments spread across various asset classes, which show an average investment of 68.56% in equities for GIPF and 50.14% for CAM, 25.73% in bonds for GIPF and 20.76% for CAM. GIPF invested 3.98% in cash while CAM invested 2.97%, whereas in property GIPF invested 0.25% while CAM invested 8.34%.

4.7 Reasons for present percentage allocation to these various asset classes in your portfolio.

<table>
<thead>
<tr>
<th>GIPF</th>
<th>Capricorn Asset Management Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diversification</td>
<td>Diversified portfolio covering all major asset classes</td>
</tr>
<tr>
<td>Capital return</td>
<td>High Growth of capital over the long term</td>
</tr>
<tr>
<td>Matching liabilities</td>
<td>Maximise long term performance</td>
</tr>
</tbody>
</table>

Table 4.3. Reasons for present allocation to different asset classes

As it can be seen from table 4.3 above, the respondents gave different reasons for their present allocation to different asset classes. GIPF indicated that diversification, capital return and matching liabilities were the main reasons for their present allocation while Capricorn Asset Management Company said that the present allocation to different asset classes was to provide the investors with high growth of capital over the long term, diversified, covering all major asset classes and maximising long term performance.

4.8 Is it wise to invest all your money in one security?

The GIPF portfolio manager said that it is not wise to invest all the funds in one security. The portfolio manager said that diversification is important and it provides capital protection.
Capricorn Asset Management Company also said that it is not wise to invest all the funds in one security. Capricorn Asset Management Company portfolio manager further said that diversification is very important, he combines two securities to get a high return at a lower risk.

4.9 Asset allocation strategies portfolio managers use to allocate funds among securities

Figure 4.2. Asset allocation strategies

Figure 4.2 illustrates that both institutions use strategic asset allocation (SAA) to allocate funds among various asset classes. The Government Institutions Pension fund said that they use strategic asset allocation (SAA), constant-weighting asset allocation, and dynamic and
tactical asset allocation (TAA) to allocate funds among asset classes. Portfolio managers indicated that they use the strategies for absolute return, alpha enhance, stable growth for long term only, and emerging market and global equity blend. Fund managers said that they use TAA because it works well on fixed income such as bonds and cash level, they also use constant-weighting asset allocation on underperforming asset classes and dynamic asset allocation to protect their investments against the Rand because when the equity market is going up it is risky. Capricorn Asset Management Company also uses SAA and TAA to allocate funds among different asset classes. Portfolio managers use more of SAA because it is the best for long term investments and they also use TAA for short term investments.

4.10 Why diversification is considered necessary in the company investment strategy.

<table>
<thead>
<tr>
<th>GIPF</th>
<th>Capricorn Asset Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>To reduce risk</td>
<td>To reduce risk</td>
</tr>
<tr>
<td>Concentration ratio</td>
<td>High return</td>
</tr>
<tr>
<td>Liability Matching</td>
<td></td>
</tr>
<tr>
<td>Capital growth</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.4. The importance of diversification N=2

As indicated in table 4.4 above, GIPF stated that diversification is necessary to reduce risk, for concentration ratio, liability matching and for capital growth. Capricorn Asset Management Company also said that it is to reduce risk and for high return.
4.11 Pattern of the allocation process over the past five years

![Bar chart showing allocation process over the past 5 years]

**Figure 4.3. Pattern of the allocation process over the past five years**

Both portfolio managers from the two firms indicated that they have followed the same pattern of asset allocation strategies in the past five years. Both portfolio managers further indicated that they would follow the same strategy of allocation practices in the future because it works well and therefore there is no reason to change.

4.12 Method(s) used in the portfolio allocation process

The GIPF portfolio manager said that their firm uses balanced mandate, the buy and hold strategy, while the Capricorn Asset Management Company portfolio manager said that their firm uses strategic asset allocation for long term view. Capricorn Asset Management Company manager further said that if equity is going to do well in a specific month, portfolio managers put their cash into equity.
4.13 The primary source of strategic advice for the asset allocation process

<table>
<thead>
<tr>
<th>GIPF</th>
<th>Capricorn Asset Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asset consultants</td>
<td>Historic performance</td>
</tr>
<tr>
<td>Internal researcher</td>
<td></td>
</tr>
<tr>
<td>Historic performance</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.5. Primary source of strategic advice for asset allocation process

Both portfolio managers indicated that they each had their own primary source of strategic advice as regards to the asset allocation process. GIPF mentioned that they use asset consultants, internal research and they also look at the historic performance, that is, if they performed well or underperformed previously, before they start with the asset allocation process. The Capricorn Asset Management Company portfolio manager said that CAM also uses the historic performance before they start with the asset allocation process.

4.14 Internal rules or regulations that affect your allocation process

With regards to binding rules concerning asset allocation, both portfolio managers indicated that they were guided by regulations during their asset allocation processes. The respondents
had certain investment rules regarding portfolio allocation. The survey indicated that although they were all bound by regulations, they had different regulations. GIPF indicated that they were guided by regulations 28, 29, 27 and 15 issued in terms of the Namibian Pension Fund Act No 24 of 1956 and subsequent regulations, while Capricorn Asset Management Company indicated that they were guided by regulations 28 and 15 compliant.

4.15 Risks portfolio managers can tolerate

![Risk Tolerance Graph]

**Figure 4.5. Risk tolerance**

Figure 4.5 above indicates that the appropriate risk tolerances the GIPF portfolio tolerates in terms of tracking error or active risk for the fund is ICPI + 3% roughly around prime rate. While Capricorn Asset Management Company tolerates 4% but this depends on what investors want since investors are aware of the risk. The International fund has the highest risk.
4.16 Types of risk portfolio managers have to be aware of

<table>
<thead>
<tr>
<th>Types of risk to be aware of when structuring a portfolio</th>
</tr>
</thead>
<tbody>
<tr>
<td>GIPF</td>
</tr>
<tr>
<td>Market risk</td>
</tr>
<tr>
<td>Liquidity risk</td>
</tr>
<tr>
<td>Currency risk</td>
</tr>
<tr>
<td>Credit risk</td>
</tr>
<tr>
<td>Benchmark risk</td>
</tr>
</tbody>
</table>

Table 4.6. Types of risk to be aware of when structuring a portfolio

Both portfolio managers from the two firms indicated that they have to be aware of various risks when structuring their portfolios. As seen from table 4.6 above, GIPF indicated that it has to be aware of Market risk, Liquidity risk, Currency risk, Credit risk and Benchmark risk when structuring their portfolios while Capricorn Asset Management Company indicated that they have to be aware of credit and market risk. Portfolio managers take more risk to get a high return.

4.17 How portfolio managers measure risks

Both portfolio managers from GIPF and Capricorn Asset Management Company indicated that they use standard deviation to measure the risks by calculating the standard deviation of actual returns. Calculating the standard deviation of GIPF and Capricorn Asset Management Company Standard deviation equation for an entire population:

$$\sigma = \sqrt{\frac{\sum(x - \bar{x})^2}{N}}$$

Where
\(\sigma\) = the standard deviation

\(X\) = each value in the population

\(\bar{X}\) = the mean of the values

\(N\) = the number of values (the population)

**Table 4.7. The Government Institutions Pension Funds**

<table>
<thead>
<tr>
<th>Fund</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>2%</td>
<td>3.3%</td>
<td>0.45%</td>
<td>0.47%</td>
<td>0.97%</td>
</tr>
<tr>
<td>Bonds</td>
<td>3.27%</td>
<td>6.6%</td>
<td>3.43%</td>
<td>3.67%</td>
<td>6.25%</td>
</tr>
<tr>
<td>Equity</td>
<td>8.8%</td>
<td>18.28%</td>
<td>8.95%</td>
<td>8.78%</td>
<td>16.64%</td>
</tr>
<tr>
<td>Property</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0.033%</td>
<td>0.061%</td>
</tr>
</tbody>
</table>

**Source:** Research Results (2014)

**Cash**

Mean \((\bar{X})\) = \(\frac{2 + 3.3 + 0.45 + 0.47 + 0.97}{5} = 1.438\)

Variance \((\sigma^2)\) = \(\frac{(X - \bar{X})^2}{N}\)

\(\frac{5.91508}{5} = 1.183016\)

Standard deviation = \(\sigma = \sqrt{1.183016} = 1.0877\)

**Bond**

Mean \((\bar{X})\) = \(\frac{3.27 + 6.6 + 3.43 + 3.67 + 6.25}{5} = 4.644\)

Variance \((\sigma^2)\) = \(\frac{(X - \bar{X})^2}{N}\)

\(\frac{10.71552}{5} = 2.14\)
Standard deviation $\sigma = \sqrt{2.14} = 1.46$

**Equity**

Mean $(\bar{X}) = \frac{8.8 + 18.28 + 8.95 + 8.78 + 16.64}{5} = 12.29$

Variance $(\sigma^2) = \frac{(X - \bar{X})^2}{N}$

$= \frac{90.46}{5} = 10.92$

Standard deviation $\sigma = \sqrt{18.092} = 4.25$

**Property**

Mean $(\bar{X}) = \frac{0 + 0 + 0.033 + 0.061}{5} = 0.0188$

Variance $(\sigma^2) = \frac{(X - \bar{X})^2}{N}$

$= \frac{0.003033}{5}$

$= 0.00060856$

Standard deviation $\sigma = \sqrt{0.00060856} = 0.025$

**Table 4.8. Capricorn Asset Management Company**

<table>
<thead>
<tr>
<th>Fund</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>1.0%</td>
<td>2.6%</td>
<td>5.6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bond</td>
<td>2.5%</td>
<td>5.8%</td>
<td>7.2%</td>
<td>9.3%</td>
<td></td>
</tr>
<tr>
<td>Equity</td>
<td>-4.7%</td>
<td>2.9%</td>
<td>13.7%</td>
<td>24.2%</td>
<td>22.4%</td>
</tr>
<tr>
<td>Property</td>
<td>9.1%</td>
<td>13.9%</td>
<td>16.1%</td>
<td>24.8%</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Research Results (2014)*
Cash

Mean ($\bar{X}$) $= \frac{1+3.6+5.6+0+0}{5} = 2.04$

Variance ($\sigma^2$) $= \frac{(X-\bar{X})^2}{N}$

$= \frac{24.512}{5}$

$= 4.9024$

Standard deviation $= \sigma = \sqrt{4.9024} = 2.21$

Bond

Mean ($\bar{X}$) $= \frac{2.5+5.8+7.2+9.3+0}{5} = 4.96$

Variance ($\sigma^2$) $= \frac{(X-\bar{X})^2}{N}$

$= \frac{55.212}{5}$

$= 11.0424$

Standard deviation $= \sigma = \sqrt{11.0424} = 3.32$

Equity

Mean ($\bar{X}$) $= \frac{-4.7+2.9+13.7+24.2+22.4}{5} = 11.7$

Variance ($\sigma^2$) $= \frac{(X-\bar{X})^2}{N}$

$= \frac{621.14}{5}$

$= 124.228$

Standard deviation $= \sigma = \sqrt{124.228} = 11.15$

Property
Mean \( (\bar{X}) = \frac{9.1+13.9+16.1+24.8}{5} = 12.78 \)

Variance \( (\sigma^2) = \frac{(X-\bar{X})^2}{N} \)

\[
= \frac{333.628}{5} \\
= 66.7256
\]

Standard deviation \( = \sigma = \sqrt{66.7256} = 8.17 \)

4.18 How does asset allocation affect your risk and return expectation? Or How asset allocation affects risk and return expectations.

Both portfolio managers said there is a relationship between risk and return. The higher the return they expect, the higher the risk. The GIPF portfolio manager said that asset allocation is the greatest weapon they use to achieve a certain risk appetite considering all the risk aspects. For example, if they want 25% return they have to deploy assets optimally. The Capricorn Asset Management Company portfolio manager said that asset allocation is the best tool for allocating funds among asset classes. He further said that the higher the risk, the higher the return but it depends on the asset you are investing in, the best are equity and cash.

4.19 A relationship between risk and returns of the different assets in the portfolio.

On what data do you base your evaluation?

The GIPF portfolio manager stated that their evaluation is based on market data, historical return, liquidity profile of instruments’ tradability and guarantees, while Capricorn Asset Management Company stated that their evaluation is based on historical returns, how much the return is for that period, the correlation of risk and return, and how much it varies, and standard deviation correlation between assets to reduce the risk. Below are the scatter plots and a correlation coefficient of risk and return for both investment firms.
Table 4.9. The Government Institutions Pension Fund data

<table>
<thead>
<tr>
<th>Asset Classes</th>
<th>Risk</th>
<th>Returns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>1.0877</td>
<td>7.19</td>
</tr>
<tr>
<td>Bonds</td>
<td>1.46</td>
<td>23.22</td>
</tr>
<tr>
<td>Equity</td>
<td>3.30</td>
<td>61.45</td>
</tr>
<tr>
<td>Property</td>
<td>0.025</td>
<td>0.094</td>
</tr>
</tbody>
</table>

Figure 4.7. Risk and return relationship

The above graph figure 4.7 is the scatter plot for GIPF and coefficient correlation of which the result was $r = 0.985826$ this was calculated using Microsoft Excel. This is showing that there is very strong positive correlation between risk and return. The above graph shows that the higher the return, the higher the risk. Equity showed the highest return and risk.
Table 4.10. Capricorn Asset Management Company data

<table>
<thead>
<tr>
<th>Asset Classes</th>
<th>Risk</th>
<th>Returns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>2.21</td>
<td>9.2</td>
</tr>
<tr>
<td>Bonds</td>
<td>3.32</td>
<td>24.8</td>
</tr>
<tr>
<td>Equity</td>
<td>11.15</td>
<td>58.5</td>
</tr>
<tr>
<td>Property</td>
<td>8.17</td>
<td>63.9</td>
</tr>
</tbody>
</table>

Figure 4.8. Risk and return relationship

The above graph, figure 4.8, is the scatter plot for Capricorn Asset Management Company and the coefficient correlation which is $r = 0.92105$. This was calculated using Microsoft Excel. This figure shows that there is very strong positive correlation between risk and return. The above graph indicates that the higher the return and the higher the risk.

4.20 The relationship between market risk and risk in individual security.

The portfolio manager from GIPF said that the market and the individual risk correlate. The correlation for some is positive, some negative and others neutral. Capricorn Asset
Management Company portfolio manager said that they look at the systematic and
unsystematic risk. Capricorn Asset Management Company returns depend on systematic
factors and the individual security on the company itself.

4.21 How are the market returns and expected return on individual securities related?
The portfolio manager from GIPF said that they have a benchmark return measure with
international investors which they use to compare to their individual performance for periods
of one month, three months, six months and 12 months. The portfolio manager from
Capricorn Asset Management Company said that systematic risk is measured by beta and
unsystematic risk is measured by the standard deviation of the individual security.

4.22 Does the portfolio manager reduce the investment percentage in an asset class
when the market volatility changes?
The respondents agreed that, if there are changes in the market volatility they reduce an asset
class and also portfolio managers do not agree that it depends on the market movements. The
GIPF portfolio manager said that it depends mostly on the reason they hold the share. They
deal with long term investors and the time horizon is more important compared to market
movements. The Capricorn Asset Management Company portfolio manager stated that if
market volatility increases they reduce the percentage of an asset class unless it is a risk
worth taking, if the risk increases and the return does not then they reduce the percentage.

4.23 Risk or market volatility portfolio managers are willing to accept
The GIPF portfolio manager stated that he will accept the risks that fit within their risk
budget for a particular stock while the Capricorn Asset Management Company portfolio
manager said that they look at the age of the investor, that is, whether they are young or old.
The assumption is that young people can handle risks better as they have more time to take risks compared to older people.

4.24 Measures used to evaluate investment performance of various securities in a portfolio

The portfolio managers from the two investment firms responded that each firm has its own method of evaluating investment performance of various securities. GIPF indicated that they use the liability driven investing that informs them how much return the company could target and the index of stock exchange, while Capricorn Asset Management Company indicated that they used the Sharpe ratio method. They measure the performance by Return less Risk free, divided by Standard Deviation.

4.25 The guidelines for diversification parameters regarding the percentage of the investment portfolio

Both portfolio managers stated that they have guidelines for diversification. The GIPF portfolio manager said that the investment policy strategy guides them. While the Capricorn Asset Management Company portfolio manager stated that each fund has its own metrics and there are guidelines that help them to diversify properly.

4.26 Circumstances portfolio managers should consider when rebalancing the portfolio

The portfolio managers from both firms said that rebalancing depends on the market conditions such as inflation, interest rate and growth rate. GIPF said that when the market faces major event driven circumstances such as recession, bullish or bearish, the asset allocation should be rebalanced whenever the exposure is in breach. Rebalancing will involve
transacting in the asset class in breach, taking the exposure toward the strategic asset allocation. Capricorn Asset Management Company said that 100% of funds are rebalanced once a month, when there is too much cash, portfolio managers rebalance every day or every second day towards strategic asset allocation.

4.27 Method(s) used in analysing the risk-return component of the assets classes in the portfolio

The GIPF portfolio manager said that they invest on the liability profile that informs how much return they can target. The Capricorn Asset Management Company portfolio manager said that they use Sharpe ratio correlation which shows how much risk they are introducing into the asset when buying.

4.28 Returns on asset classes between 2009 and 2013

<table>
<thead>
<tr>
<th>Fund</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>2%</td>
<td>3.3%</td>
<td>0.45%</td>
<td>0.47%</td>
<td>0.97%</td>
</tr>
<tr>
<td>Bonds</td>
<td>3.27%</td>
<td>6.6%</td>
<td>3.43%</td>
<td>3.67%</td>
<td>6.25%</td>
</tr>
<tr>
<td>Equity</td>
<td>8.8%</td>
<td>18.28%</td>
<td>8.95%</td>
<td>8.78%</td>
<td>16.64%</td>
</tr>
<tr>
<td>Property</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0.033%</td>
<td>0.061%</td>
</tr>
</tbody>
</table>

Table 4.11. Returns on asset classes for GIPF
Figure 4.9. Comparison of returns from 2009 to 2013

The above graph shows the GIPF asset classes’ performance for the 5 years from 2009 – 2013. The portfolio manager recorded that equity had the highest return than other securities from 2009 to 2013, they therefore allocate more percentage on equity because they believe the return on equity is high. Bonds are the second highest, followed by cash and then property.

<table>
<thead>
<tr>
<th>Fund</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>1.0%</td>
<td>2.6%</td>
<td>5.6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bonds</td>
<td>2.5%</td>
<td>5.8%</td>
<td>7.2%</td>
<td>9.3%</td>
<td></td>
</tr>
<tr>
<td>Equity</td>
<td>-4.7%</td>
<td>2.9%</td>
<td>13.7%</td>
<td>24.2%</td>
<td>22.4%</td>
</tr>
<tr>
<td>Property</td>
<td>9.1%</td>
<td>13.9%</td>
<td>16.1%</td>
<td>24.8%</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.12. Returns on asset classes for Capricorn Asset Management
The graph in Figure 4.10 shows the annual performance or returns of various asset classes for the Capricorn Asset Management Company. Equity return in 2009 was in minus but as from 2010 to 2013 equity increased. Property return is the second highest but in 2012 property return was higher than equity. The returns of bonds and cash are less than those for stock and property. This data was given to the researcher by both portfolio managers from the two investment firms.

4.29 Summary

The results show that there is a difference in allocating funds among different asset classes of the Government Institutions Pension Fund and Capricorn Asset Management Company and there are several asset allocation strategies used by the two firms. Portfolio managers from both firms take more risk to get a high return. The results show that both firms use standard deviation to measure the risk. Both portfolio managers indicated that they use almost the same asset allocation strategies when allocating funds among various asset classes. This chapter presented the results that the researcher acquired from the two portfolio managers from GIPF and Capricorn Asset Management Company.
CHAPTER 5: DISCUSSION

5.1 Introduction

This chapter provides the discussion for the research findings, presented in accordance with the research objective. The discussion also emanates from the results of the study as they relate to reviewed literature.

5.2 Types of asset classes that a portfolio manager comprises and their approximate percentages

Figure 4.1 of the data analysis chapter provides a breakdown of the asset investments spread across various asset classes, showing an average investment of 68.56% in equities for GIPF and 50.14% for Capricorn Asset Management Company, 25.73% in bonds for GIPF and 20.76% for Capricorn Asset Management Company. GIPF invested 3.98% in cash while CAM invested 2.97%, whereas in property GIPF invested 0.25% while CAM invested 8.34%. Although both firms had different percentage allocations to various asset classes, both firms had the highest allocation on equity.

The researcher compared how the portfolio managers of the two investment firms allocate funds to asset classes, figure 4.1 shows that both firms allocate high percentages on equity even though GIPF’s allocation on equity is more than that of Capricorn Asset Management Company. The firms understand that equity often provides high return compared to other asset classes but also often has high risk, equity is suitable for long term investment. Both portfolio managers from the two investment firms indicated that the second largest percentage goes to bonds. Bonds returns have historically been better than cash and are less volatile than equity.
GIPF allocates a very small percentage on property because GIPF is a defined benefit plan that deals mostly with government employees who contribute a certain percentage of their salary to the scheme and thus GIPF usually uses an aggressive portfolio allocation which allocates more to equity and does not really take chances in alternative investments such as property. This is in line with Carther (2012) who states that, “Aggressive portfolios mainly consist of equities, so their value tends to fluctuate widely. If you have an aggressive portfolio, your main goal is to obtain long-term growth of capital. As such, the strategy of an aggressive portfolio is often called a "capital growth" strategy. To provide some diversification, investors with aggressive portfolios usually add some fixed-income securities”.

Capricorn Asset Management Company is a private company that deals with private investors who are always looking for higher returns which can be obtained through property because property often gives a high return. Private investors are risk takers. The risk and return of property has historically been between that of equities and bonds but can also outperform or underperform these asset classes. Both firms invest lower percentages on cash because it has minor risk of losing capital but the highest risk of losing purchasing power due to inflation. Cash does, however, provide stable growth and it is the best for short-term investments. This is in line with Reilly and Brown (2003, p. 35) who say “Asset allocation is the process of deciding how to distribute an investor’s wealth among different asset classes for diversification purposes”. Asset allocation is an essential tool portfolio managers use to meet the objectives of investment funds.
5.3 Reasons for present percentage allocation to these various asset classes in your portfolio

As highlighted in table 3 in the data analysis chapter, the respondents gave different reasons for their present allocation to different asset classes. GIPF indicated that Diversification, Capital return and Matching liabilities were the main reasons for their present allocation while Capricorn Asset Management Company said that the present allocation to different asset classes was aimed at providing the investors with high growth of capital over the long term, diversifying by covering all major asset classes and maximising long term performance. The managers apply discretion in terms of the funds allocated to each asset class from time to time.

Portfolio managers believe that diversification is important and one cannot put all their eggs in one basket. Portfolio managers cannot put all the funds in one asset class, so they allocate the funds to different asset classes to reduce volatility. Both portfolio managers diversify their funds for a high capital return. This is in line with Brinson, Hood and Beebower (1998, p.97) who state that “asset allocation is also known as an investment approach with the purpose of optimising investment performance for a specific risk tolerance. Instead of putting all the harvests in one basket, or putting the money in one asset class, the portfolio managers should diversify across different asset classes”. A diversified portfolio will decrease the effect of underperformance from any financial environment. Portfolio diversification is one of the best approaches to meet the needs of investment firms.

5.4 Is it wise to invest all your money in one security

The GIPF portfolio manager said that it is not wise to invest all the funds in one security. The
portfolio manager said that diversification is important and it provides capital protection. The Capricorn Asset Management Company portfolio manager also said that it is not wise to invest all the funds in one security. The portfolio manager further said that diversification is very important and he combines two securities to get a high return at a lower risk. Both portfolio managers agreed that it is not wise to invest all investor’s funds in one security, mainly because they want to avoid the risk of losing all the funds.

Both portfolio managers believe that diversification was the reason for investing in different securities. The GIPF portfolio manager said that he diversifies for capital protection. While the Capricorn Asset Management Company portfolio manager said that diversification is very important and their firm combines two securities to get a high return at a lower risk. This is in line with Strong (2009, p. 148) who said that, “diversifying an investment portfolio is a logical idea. Diversification is indeed a good idea and virtually all managers seek to diversify in one respect or another. Don’t put all your eggs in one basket is a good advice.

It is virtually never a good idea to put a large percentage of investment funds into a single security, several things can happen if you do, such as losing all the funds, investments never move and investments decline in value. When you put your faith and hopes in one security and it turns out to be a loss, your ego may have a very difficult time letting go”. Diversification is not only logical but also a mathematically sound practice. Investors do not like risk and vast reductions in risk are associated with modest diversification. Most people are risk averse. Portfolio managers take risks but only if they believe they will be rewarded for taking them. Unnecessary risks are unattractive. It is easy enough to put your eggs in several baskets. From the above it can be concluded that both managers from both firms are aware of the importance of diversification and the risks of investing in a single security.
5.5 Asset allocation strategies portfolio managers use to allocate funds among securities

Both portfolio managers said that they use strategic asset allocation (SAA) to allocate funds among various asset classes. The Government Institutions Pension Fund said that they use strategic asset allocation (SAA), constant-weighting asset allocation, dynamic and tactical asset allocation (TAA) to allocate funds among asset classes. The portfolio manager indicated that they use the strategies for absolute return, alpha enhance, stable growth for long term only, emerging market and global equity blend. The portfolio manager from GIPF further said that he uses TAA because it is good on fixed income such as bonds and cash level, he uses constant-weighting asset allocation on asset classes that are underperforming and dynamic asset allocation to protect their investments against the Rand because when the equity market goes up it is riskier.

The Capricorn Asset Management Company portfolio manager said that he also uses SAA and TAA to allocate funds among different asset classes. The portfolio manager uses more because it is the best for long term investment and the firm also uses TAA for short term investments. This is in line with Campbell and Viceira (2002, p. 120) who argue that “Portfolio managers can choose from various strategies for asset allocation management. Strategies such as the Strategic Asset Allocation, this strategy use a proportional combination of assets which is basically based on expected rates of return for each asset class, aside from this strategy, another investment asset allocation technique is the Constant-Asset Allocation which is a strategy that typically entails or involves buy-and-hold approach”. This is also in line with Cohen (2003, p. 112) who concluded that “The investment that goes on a strategic asset allocation approach may seem relatively inflexible. Portfolio managers may find it
important to frequently be involved in short-term tactical deviations from the mix so as to capitalize on untypical investment chances. The dynamic asset allocation is considered as another active asset allocation approach”. The investment firms sell assets which are reducing in value and buy assets which are increasing or growing, making dynamic asset allocation. It can be concluded that both portfolio managers use SAA for long term investments such as equity and TAA for short term investments such as cash and bonds.

5.6 Why diversification is considered necessary in the company investment strategy.

As can be seen from table 4.4 in the data analysis chapter, GIPF stated that diversification is necessary to reduce risk, for concentration ratio, liability matching and for capital growth. Capricorn Asset Management Company also said that it is to reduce risk and for high return. This in line with Strong (2009, p. 152) who states that “The point of diversifying is to reduce total risk so that only systematic risk remains. The aim of diversification is to attain a given level of expected return while bearing the least possible risk”.

5.7 Pattern of the allocation process over the past five years

Both portfolio managers from the two investment firms indicated that they have followed the same pattern of asset allocation strategies in the past five years. Both portfolio managers further indicated that they would follow the same strategy in the future because it has been working so well for them that there is no reason to change. Based on Figure 3 in the data analysis chapter, the strategies that the portfolio managers have been using are productive and thus the desire to continue using them. Both firms intend to continue using the same patterns for next five years and beyond.
5.8 **Method(s) used in the portfolio allocation process.**

The GIPF portfolio manager said that they use balanced mandate, buy and hold strategy which is known as Constant-Asset Allocation strategy, this in line with Campbell and Viceira (2002, p. 120) who argue that “the Constant-Asset Allocation is a strategy that typically entails or involves buy-and-hold approach”. On the other hand, the Capricorn Asset Management Company portfolio manager said that they use strategic asset allocation for long term view. The manager further said that if equity is going to do well in a specific month, portfolio managers put their cash into equity. Both portfolio managers have methods they use in their portfolios during the allocation process and this is the same as the asset allocation strategies.

5.9 **The primary source of strategic advice for the asset allocation process**

Both portfolio managers indicated that each firm had its own primary source of strategic advice with regards to the asset allocation process. GIPF mentioned that they use asset consultants, internal research and they also look at the historic performance, that is, if they performed well or underperformed previously, before they start with the asset allocation process. The Capricorn Asset Management Company portfolio manager said that they also use their historic performance before they start with the asset allocation process. It can therefore be concluded that there is a difference in the primary source of strategic advice for the two firms, with clear indication that GIPF uses asset consultants and internal research while Capricorn Asset Management Company only uses historical performance.

5.10 **Internal rules or regulations that affect the allocation process**

With regards to binding rules concerning asset allocation, both portfolio managers indicated
that they are guided by regulations during their asset allocation processes. The respondents had certain investment rules regarding portfolio allocation. The survey indicated that although they were all bound by regulations, they each had different regulations. GIPF indicated that they were guided by the regulations 28, 29, 27 and 15 issued in terms of the Namibian Pension Fund Act No 24 of 1956 and subsequent regulations, while CAM indicated that they were also guided by the regulations 28 and 15 compliant. Regulations are important and each firm’s portfolio manager follow the same regulations, that is regarding regulations 28 and 15 issued in terms of the Namibian Pension Fund Act No 24 of 1956. “The principal provision of the rule prevents companies from giving material information to security analysts, mutual funds or institutional investors unless the company simultaneously issues the same information to the general public” (Strong, 2009, p. 673).

5.11 The amount of risks portfolio managers can tolerate.

Figure 4.5 in the data analysis chapter indicated that the appropriate risk tolerance the GIPF portfolio manager tolerates in terms of tracking error or active risk for the fund is ICPI + 3% roughly around prime rate. While the Capricorn Asset Management Company portfolio manager tolerates 4% but this depends on what investors want since investors are aware of risk. The International Fund has the highest risk. The Bank Windhoek Premier Fund aims to provide investors with a return of 4% above inflation over 3 years rolling period. The researcher compared the two investment firms and the risk that portfolio managers can tolerate, the GIPF portfolio manager said 3% while the Capricorn Asset Management Company portfolio manager said the company can only tolerate 4% but this depends on what investors want, the higher the returns investors want, the higher the risk.
5.12 Type of risks portfolio managers have to be aware of

Both portfolio managers from the two firms indicated that they have to be aware of various risks when structuring their portfolios. As seen from table 4.6 in the data analysis chapter, GIPF indicated that it has to be aware of market risk, liquidity risk, currency risk, credit risk and benchmark risk when structuring their portfolios while Capricorn Asset Management Company indicated that they have to be aware of credit and market risk. Portfolio managers take more risk to get a high return. Risk plays a crucial role along with expected return in analysing the desirability of different outcomes.

When making a long term investment, the higher the returns, the higher the risk. There are different types of risks portfolio managers have to be aware of as mentioned above. This is in line with Amenc and Le Sourd (2003) who assert that “An investor’s goal is to achieve a certain predetermined range of return (normally high) with a predetermined level of risk (usually low) involved. Therefore, besides looking at a portfolio’s performance in generating returns, it is also important to monitor and manage its associated risk regularly in order to be in line with the aforementioned goal”. Risk management gets even more crucial for entities whose investments are heavily dependent on the movements of financial markets, as well as other factors that potentially have impacts on such movements. Market Risk arises from movements in the level or volatility of market prices.

Credit Risk originates from counterparties’ unwillingness or inability to fulfil their contractual obligations. These parties can be an individual, corporation, or government. Credit risk has been historically more difficult to measure and manage due to the relatively low frequency of default of corporations or governments, which makes it harder to find
sufficient data to model such behaviour. Liquidity Risk can be broken down into market liquidity and funding liquidity risks. The former refers to the inability to conduct a transaction at prevailing market prices due to the size of the position relative to normal trading lots. Although both portfolio managers from the two investment firms have to be aware of various types of risks, the results from the data analysis chapter show that the GIPF portfolio manager has to be aware of much more types of risks than the Capricorn Asset Management Company portfolio manager, such as liquidity risk, currency risk, and benchmark risk. This need to be aware of a wider range of risks is because GIPF is a public company that deals with government employees.

5.13 How portfolio managers measure risks

Both portfolio managers from GIPF and Capricorn Asset Management Company indicated that they use standard deviation to measure risks by calculating the standard deviation actual returns. As indicated in the results in chapter 4, figure 4.16 shows the standard deviation calculation for the GIPF investment firm. The calculations show that cash has the lowest risk and the lowest returns. The GIPF portfolio manager indicated that equity has the highest returns compared to all the asset classes they invested in, which are cash, property and bonds. The data collected shows that the returns on equity have been high for the past five years compared to the other asset classes. From 2009 – 2011 there was no return on property because fund managers did not allocate any percentage on property but from 2012 –2013 there was a return of which the standard deviation was too low compare to cash. GIPF portfolio managers don’t really invest in property securities compared to Capricorn Asset Management Company because GIPF is a public pension fund with a defined benefit plan.
As can be seen from the results in chapter 4, figure 4.16.2, the standard deviation calculation for Capricorn Asset Management Company shows that cash has had the lowest risk and the lowest returns from 2009 to 2013. The Capricorn Asset Management Company portfolio manager indicated that equity had a -4.7% in 2009 due to the economic crisis that was going on during that year. As from 2009 to 2013, equity returns started increasing and the risk also increased. On average between 2009 and 2013 property gave the highest returns of 12.78% compared to other asset classes. The data collected shows that the returns on property were high for the past four years, then in 2013 equity returns increased while there was no return on property so the risk was very high on equity and there was none on property.

Both portfolio managers stated standard deviation is the best tool to measure the risk of a portfolio and it works well for them. In investment management, risk plays an essential role, along with expected return in analysing the desirability of different outcomes. This is in line with Ludvik (1994) who states that “the perception of risk and its measurement is critical to the choice of an investment strategy. Standard deviation has been the most widely used measure of risk in finance”. Markowitz (1952) adopted the use of standard deviation to measure portfolio risk and it has been used as a general measure of risk by finance researchers ever since.

5.14 How does asset allocation affect the risk and return expectation relationship

Both portfolio managers said there is a relationship between risk and return. The higher the returns they expect, the higher the risk. The GIPF portfolio manager said asset allocation is the greatest weapon they use to achieve a certain risk appetite considering all the risk aspects. For example, if they want 25% return on stock they have to deploy assets optimally. The
Capricorn Asset Management Company portfolio manager said that asset allocation is the best tool for allocating funds among asset classes, he further said that the higher the risk the higher the return but it depends on the asset one is investing in, the best are equity and cash.

Both portfolio managers said that asset allocation is the best tool to use when allocating funds among various asset classes, if managers do not spread their allocations across various asset classes there is a high risk of losing funds and there will be no returns. Managers cannot risk allocating funds in one asset class only. Asset allocation is an most important investment decision, a proper allocation of funds to securities is crucial as it can affect the risk and expected returns in a positive or negative way. However, the returns will depend on the investors risk appetite. The risk might be higher and the returns very low, or both risk and returns will be high depending on what the investors want and how much funds the investors have invested in the portfolio. This in line with Strong (2009, p. 91) who states that “the asset allocation affects long term rates of return far more than security selection, market timing, or taxes. Consequently, portfolio managers should consider asset allocation requirements the single most important aspect of the investment policy statements”.

5.15 The relation between risk and returns of the different asset classes in the portfolio. On what data do you base your evaluation?

The GIPF portfolio manager stated that they base their evaluation on market data historical return, liquidity profile of instruments tradability and guarantees, while the Capricorn Asset Management Company portfolio manager stated that they base their evaluation on historical returns, that is, on how much the return is for that period, the correlation of risk and return,
how much it varies and standard deviation correlation between assets to reduce the risk. As can be seen from the results in chapter 4, there are some similarities in what the managers from the two firms base their evaluation on. Both portfolio managers said that they evaluate the data based on historic performance of asset classes. Some differences could also be noted in how they evaluate their data in some cases. Besides using the historical performance, the GIPF portfolio manager also evaluates the liquidity profile of instruments tradable while the Capricorn Asset Management Company portfolio manager evaluates the correlation between the risks and return and how they vary in order to reduce the risk.

As evidenced in the results in chapter 4, figure 18.1, the scatter plot and the coefficient correlation shows the result of $r = 0.985826$, calculated using Microsoft Excel. The data was provided to the researcher by the portfolio manager from GIPF. This shows that there is very strong positive correlation between risk and return. This is the degree of association between two variables. Portfolio managers evaluate and measure the relationship between the two variables (risk and return) in order to reduce the risk. Figure 4.8 in chapter four shows that the higher the return, the higher the risk. Equity showed the highest return and risk, while property had the lowest return and risk. This is because GIPF does not invest a high percentage on real estate.

As can be seen from the results in chapter 4, figure 18.1 is the scatter plot and the coefficient correlation of which the result was $r = 0.92105$, this was calculated using Microsoft Excel. The data was provided to the researcher by the portfolio manager from Capricorn Asset Management Company. This shows that there is very strong positive correlation between risk and return. This is the degree of association between two variables. Portfolio managers evaluate and measure the relationship between the two variables (risk and return) in order to
reduce risk. The above graph shows the higher the return and risk. Property has the highest return while equity has the second highest return and the risk is also higher than in real estate because of the economic crisis that happened in 2009; Capricorn Asset Management Company experienced a return of -4.7% in 2009.

5.16 How are the market risk and risk on individual security related?

The portfolio manager from GIPF said that the market and the individual risks correlate. In some cases the correlation is positive, in some negative and in others neutral. The Capricorn Asset Management Company portfolio manager said that they look at the systematic and unsystematic risks. The bank return depends on systematic factors and the individual security on the company itself. Both portfolio managers have different views on market risk and risk on an individual security. The GIPF portfolio manager believes that the market risk and risk in individual securities correlate in a positive, negative and sometimes neutral way, while the Capricorn Asset Management Company portfolio manager stated that the market risk and risk in individual securities are related but they look at the systematic and unsystematic risks. A systematic risk is both unpredictable and impossible to completely avoid. It cannot be mitigated through diversification, but only through hedging or by using the right asset allocation strategy.

The researcher found out that unsystematic risk can be diversified away until only systematic risk remains, and the market rewards investors bearing the risk. This is in line with Markowitz (1952) who defines efficiency as a “portfolio that maximizes expected return for a given level of risk, or minimizes the level of risk for a given return. The resulting portfolio reduces the unsystematic risk of the portfolio through diversification of various assets. The
market risk affects the entire market not just an individual security while the risk in an individual security affects a particular asset.” It can be concluded that both portfolio managers indicated that market risk and risk in individual security do not related.

5.17 **How are the market returns and expected returns on individual securities related?**

The portfolio manager from GIPF said that they have a benchmark return measure of their individual performance for a period of one month, three months, six months and 12 months which they compare with international investors. The portfolio manager from Capricorn Asset Management Company said that systematic risk is measured by beta and unsystematic risk is measured by the standard deviation of the individual security. Both portfolio managers have different strategies on market return and expected return on individual securities. The GIPF portfolio manager said that they measure the benchmark returns with the international investors’ benchmark returns by comparing expected return on individual security with the market return, while the portfolio manager for Capricorn Asset Management Company said they measure the systematic by beta and unsystematic by standard deviation.

5.18 **Do you as a portfolio manager reduce investment percentage in an asset class when the market volatility changes**

The respondents agreed that if there are changes in the market volatility they reduce the percentage of an asset class and they also said reduction depends on the market movements. The GIPF portfolio manager said that it depends mostly on the reason of the movement of shares, they deal with long term investors and the time horizon is important compared to
market movements. The Capricorn Asset Management Company portfolio manager stated that if market volatility increases they reduce the percentage of an asset class unless it is a risk worth taking, if the risk increases and the return does not then they reduce the percentage. Portfolio managers are required to invest a percentage of the portfolio in asset classes such as equity, bonds, cash and property and this is called a Constant Proportion Portfolio Insurance (CPPI) if the market is volatile.

The GIPF portfolio manager said that if the stock market falls, managers buy more stock and when the price begins to rise again, they hold the shares. Capricorn Asset Management Company stated that if the prices increase they reduce the percentage of stock because stock is one of the asset classes that give a high return compared to other asset classes. Both managers stated that it depends on the performance of the market during the evolutional period. In the very long run, it is probably safe to say that the market is going to rise. This is in line with Strong (2009, p. 420) who states that “the equity market frequently is volatile. This means that prices rise for a period, then fall and then rise again. As the stock market falls, the constant mix strategy requires the manager to buy more stock. When it begins to rise again, the manager must reduce the equity holding. This is a winning solution because the manager buys stock at low prices and then sells it at high prices”.

5.19 How much risk or market volatility are you as a portfolio manager willing to accept?

The GIPF portfolio manager stated that he is willing to accept the risk that fits within the firm’s risk budget for a particular stock while the Capricorn Asset Management Company portfolio manager said that they look at the age of an investor. A young person can tolerate
more risk than an elderly person because they have more years ahead of them in which they can recover if they were to make or incur losses with the preferred investment. The portfolio manager from GIPF said that he can tolerate the risk that fits within their budget, if the risk is more than their budget the fund manager will not invest their funds in that asset. The GIPF portfolio manager suggested that the risk tolerance of the fund is defined as being generally low and a number of prudential limits have been defined. While the Capricorn Asset Management Company portfolio manager said that it depends on what investors want, older investors cannot tolerate risk compared to the younger investors because of their age.

5.20 Measures used to evaluate investment performance of various securities in a portfolio

The portfolio managers from the two investment firms responded that each firm has its own method of evaluating investment performance of various securities. The GIPF portfolio manager indicated that he uses the liability driven investing that informs them how much return the company could target and the index of the stock exchange while the Capricorn Asset Management Company portfolio manager indicated that he uses the Sharpe ratio method. They measure the performance by return less risk free divided by standard deviation. This in line with the Sharpe measure (Sharper, 1966), and is popularly known as the Sharpe ratio (SR).

The investment performance needs to be measured and evaluated. Performance evaluation helps determine whether the portfolio manager added value by outperforming the stated benchmark, furthermore, it identifies how the portfolio manager achieved those returns. Both investment firms’ portfolio managers frequently review the strategic asset
allocation construction to ensure that investment objectives and targets match the viewpoint for each of the individual asset classes. There is a difference in measuring and evaluating the performance for both investment firms and this is because GIPF is a public company that deals with pension funds for government employees while Capricorn Asset Management Company is a private company the deal with individual investors that are not as many as GIPF investors.

GIPF investment policies guidelines state that performance within asset classes and for the total portfolio will be measured against the benchmarks. Portfolio managers are encouraged to aim for long term outperformance. However, not all performance measures strictly work within the risk-return framework of the portfolio theory. It can be concluded that both portfolio managers measure their performance on each asset class but they use different methods. Both portfolio managers could not provide all the information the researcher requested regarding this question. Furthermore, both portfolio managers said that some information is not meant for public exposure therefore, the researcher could not calculate the CAPM for both investment firms.

5.21 The guidelines for diversification parameters regarding the percentage of the investment portfolio

Both portfolio managers stated that they have guidelines for diversification. The GIPF portfolio manager said that the investment policy strategy guides them while the Capricorn Asset Management Company portfolio manager stated that each fund has its own metrics and there are guidelines that help them to diversify properly. Diversification guidelines are needed to help portfolio managers allocate funds among various asset classes. GIPF has pension plans that guide portfolio managers when diversifying and assets are allocated to
reduce the risk of the portfolio. Both portfolio managers agreed that they have guidelines for diversification, if there are no guidelines it is clearly prudent not to diversify. The guidelines require the investment manager to handle the fund in accordance within the stipulated regulations.

5.22 The circumstances which portfolio managers consider when rebalancing the portfolio

The portfolio managers from both firms said that rebalancing depends on the market condition such as inflation, interest and growth rates. GIPF said that when the market faces major event driven circumstances such recession, bullish or bearish, the asset allocation should be rebalanced whenever the exposure is in breach. Rebalancing would involve transacting in the asset class in breach, taking the exposure toward the strategic asset allocation. Capricorn Asset Management Company said that 100% of funds are rebalanced once a month. When there is too much cash, portfolio managers rebalance every day or every second day toward strategic asset allocation. This is in line with Charles (1993) who states that, “when a portfolio contains both stocks and bonds there are two principal rebalancing strategies called constant mix and constant proportion portfolio insurance. The constant mix strategy is one in which the portfolio manager makes adjustments to maintain the relative weighting of the asset classes within the portfolio as their prices change. A constant proportion portfolio insurance strategy requires the manager to invest a percentage of portfolios in stocks that managers should buy stock as it rises”.

“Portfolio managers rebalance a portfolio because changing security values can cause the portfolio manager to sell shares but not necessarily because they are doing poorly” said
Strong (2009, p. 436). Portfolio managers indicated that rebalancing and monitoring a portfolio is important when the market faces major events such as a recession, this is done to avoid the risk of losing investors’ funds. Important changes in investors’ objectives demand that portfolio managers consider rebalancing.

5.23 Method(s) used in analysing the risk-return component of the asset classes in the portfolio

The GIPF portfolio manager said that the method used in analysing the risk-return component of the asset classes in the portfolio is liability driven investing, investing on the back or liability profile that informs them how much return they could target. The Capricorn Asset Management Company portfolio manager said that they use the Sharpe ratio correlation which shows how much risk they are introducing into the asset when buying. As shown by the responses that were given, the portfolio managers use different methods when analysing the risk and return of various asset classes. The responses that were given for this question by the portfolio managers were similar to the ones that were given in point 5.24.

5.24 The returns on asset classes between 2009 and 2013

As can be seen in the graph shown in figure 8 in the data analysis chapter, GIPF asset classes’ performance for the 5 years from 2009 to 2013 indicates that cash returns were high as from 2009 to 2010 then from 2011 to 2013 the returns dropped. Bonds returns were low in 2009 then they increased in 2010 then dropped again in 2011 to 2012, then increased again in 2013. Equity has the highest returns compared to other securities, this could be due to the fact that portfolio managers allocate more funds to equity because they believe that returns on equity are always high. The GIPF portfolio manager said that as a firm, they do not really
invest in real estate.

The graphs in figure 4.9 show the annual performance or returns of various asset classes for the Capricorn Asset Management Company. Equity returns in 2009 gave a negative value which was -4.7 but as from 2010 to 2013 equity returns increased. Property returns are the second highest but in 2012 property returns were higher than stock. In general the average returns for bonds and cash were less than stock and property. This data was given to the researcher by both portfolio managers from the two investment firms. Capricorn Asset Management Company portfolio managers invest in real estate because they are a private company that deals with individual investors that are interested in real estate.

Both graphs in figure 4.9 and 4.10 show the annual performance or returns of various asset classes for the two firms. According to the survey, GIPF recorded that equity had the highest return than other securities, in 2009 it had a return of 8.8%, while Capricorn Asset Management Company recorded that equity return in 2009 was a -4.7% but as from 2010-2013 equity returns for both firms increased. GIPF recorded 0% return on property from 2009-2011 but as from 2012 to 2013 the return on property was very low compared to Capricorn Asset Management Company. The Capricorn Asset Management Company portfolio manager indicated that property had the highest return until 2012.

Both firms indicated that bonds had a high return compared to cash from 2009-2013. From the above results it is evident that there was a difference in the performance of various asset classes of these two firms. When the researcher compared the two companies’ performance, the researcher found out that the portfolio managers allocate a larger amount on equity because the equity performance outcome is always high compared to other securities. There
is a slight difference in the performance of equity for both companies. GIPF is expected to perform better than Capricorn Asset Management Company because the GIPF portfolio manager has more years of experience than the Capricorn Asset Management Company portfolio manager. GIPF is a big company and they outsource their funds management to 32 investment companies in Namibia and South Africa. The performance of the asset classes of GIPF is higher than that of Capricorn Asset Management Company securities.

5.25 Summary

The discussion shows that there are differences and similarities in how the Government Institutions Pension Fund and Capricorn Asset Management Company manage their portfolios and how they allocate funds across different asset classes. The objective for the research was to investigate whether there was a difference in the asset allocation strategies used by the two investment firms. Both portfolio managers use the same strategies such as strategic asset allocation (SAA) and tactical asset allocation (TAA). GIPF uses some strategies to allocate funds among various asset classes that Capricorn Asset Management Company does not use, such as dynamic asset allocation and constant-weighting asset allocation strategies. This is because GIPF is a defined benefit plan that deals mostly with government employees who contribute a certain percentage of their salary to the scheme and GIPF usually uses an aggressive portfolio allocation strategy, while Capricorn Asset Management Company is a private company that deals with private investors.
CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS

This chapter provides the conclusions and recommendations from the study. The conclusions and recommendations were made in accordance with the research objectives. This chapter is divided into four sections, section 6.1 will confer the conclusions correlated to the results and analysis and section 6.2 will present the recommendations to the Government Institutions Pension Fund and Capricorn Asset Management Company, section 6.3 will present the limitations of the findings and section 6.4 will highlight areas for further study.

6.1 Conclusions

It is evident that the Government Institutions Pension Fund and Capricorn Asset Management Company have some differences and similarities in the management of their portfolios and the allocation of funds among different asset classes.

The first objective of this research was to investigate the differences in asset allocation strategies between the Government Institutions Pension Fund and Capricorn Asset Management Company. The research study established that there were differences in the policies of asset allocation between the two firms. The reasons for these differences between the Government Institutions Pension Fund and Capricorn Asset Management Company are well understood. This could be due to the fact that the research results showed that the portfolio manager for GIPF had more experience in his position as portfolio manager than his counterpart from Capricorn Asset Management Company. The Government Institutions Pension Fund is a public organisation that offers retirement or saving plans for government employees while Capricorn Asset Management Company is a private investment fund that
offers saving plans and investments for individual investors. Both portfolio managers said that they use strategic asset allocation (SAA) to allocate funds among various asset classes along with other strategies. The Government Institutions Pension Fund said that they use strategic asset allocation (SAA), constant-weighting asset allocation, dynamic and tactical asset allocation (TAA) to allocate funds among asset classes. The GIPF portfolio manager indicated that they use the strategies for absolute return, alpha enhance, stable growth for long term only, emerging market and global equity blend. The portfolio manager from GIPF further said that he uses TAA because it is good for fixed income such as bonds and cash level, he uses constant-weighting asset allocation on asset classes that are underperforming, and dynamic asset allocation to protect their investments against the Rand because when the equity market goes up it is riskier. Capricorn Asset Management Company portfolio manager said that he also uses SAA and TAA to allocate funds among different asset classes.

Both GIPF and CAM company portfolio manager uses of SAA more because it is the best strategy for long term investments and they uses TAA for short term investments. The difference between the two firms is that GIPF uses other strategies such as constant-weighting and dynamic asset allocation that Capricorn Asset Management Company does not use. This is because GIPF is a large investment company and they allocate some of the investors’ funds to other investment firms to manage on behalf of the company, these firms are both local and international.

The second objective was to determine how investment management firms’ portfolio managers allocate funds across various asset classes. The survey results showed that both the GIPF and Capricorn Asset Management Company portfolio managers spread investors’ funds among various asset classes such as equity, bonds, cash and property. Although both firms had different percentage allocations to the different asset classes, both firms’ portfolio
managers showed similarities in how much funds they allocate to each asset class. They allocated more to equity than any other class because both portfolio managers believe that equity can be bought and sold on the stock market and prices can therefore vary quite dramatically based on supply and demand. The firms’ portfolio managers understand that equity often provides high return compared to other asset classes but also often has higher risk, equity is suitable for long term investment.

Both portfolio managers from the two investment firms indicated that the second largest percentage goes to bonds. Bonds returns have historically been better than cash and are less volatile than equity. GIPF allocate a very small percentage to property because GIPF is a defined benefit plan that deals mostly with government employees who contribute a certain percentage of their salary to the scheme and usually the firm uses an aggressive portfolio allocation which allocates more to equity and does not really take chances on alternative investments such as property. Capricorn Asset Management Company is a private company that deals with private investors who are always looking for higher returns which can be obtained through property because property has been proven to give high returns. The risk and return of property has historically been between that of equities and bonds but with the potential to outperform or underperform these asset classes at times. Both firms invest low percentages on cash because it has a lower risk of losing capital but the highest risk of losing purchasing power due to inflation. Cash does, however, provide stable growth and it is the best for short-term investments.

The third objective was to observe the investment performance of the two investment firms. The portfolio managers from the two investment firms responded that each firm has its own
method of evaluating the investment performance of various securities. The GIPF portfolio manager indicated that he uses liability driven investing that informs them how much return the company could target and the index of the stock exchange, while the Capricorn Asset Management Company portfolio manager indicated that he uses the Sharpe ratio method. They measure the performance by return less risk free divided by standard deviation. It can be concluded that both portfolio managers measure their performance on each asset class but they use different methods. The GIPF performance was high compared to Capricorn Asset Management. GIPF is a defined benefit plan that deals mostly with government employees who contribute a certain percentage of their salary to the scheme and the company usually uses an aggressive portfolio allocation, and Capricorn Asset Management Company is a private company that deals with private investors.

The last objective was to establish the concept of risk and returns relationships for the asset classes of the Government Institutions Pension Fund and Capricorn Asset Management Company. From the findings, both investment firms’ portfolio managers said that there is a very strong positive correlation between the risks and return of each asset class. This is the degree of association between two variables. Portfolio managers evaluate and measure the relationship between the two variables (risk and return) in order to reduce the risk. Both portfolio managers stated that the higher the return, the higher the risk. The findings showed that equity for both investment firms had the highest returns and more risk compared to other asset classes. The higher the return the investor expects, the higher the risk. Risk plays a crucial role along with expected return in the analysis of the desirability of different outcomes. Both portfolio managers said that diversification is very important and they combine two securities to get a higher return at a lower risk. Portfolio managers diversify a portfolio to reduce risk.
Finally both portfolio managers from the two investment firms said asset allocation is the best tool to use when allocating funds among various asset classes. If managers don’t spread their allocations to various asset classes there is a high risk of losing funds and there will be no returns. Managers cannot risk allocating funds to one asset class only. Portfolio managers indicated that rebalancing and monitoring a portfolio is important when the market faces major events such as a recession. Rebalancing and monitoring is done to avoid the risk of losing investors’ funds.

6.2 Recommendations

Based on the findings of the research, it is recommended that women should be encouraged and given development programmes in portfolio construction, management and protection in the two investment firms discussed in this study. The Government Institutions Pension Fund should try to venture more into real estate because property gives high returns than equity at times. The Government Institutions Pension Fund should invest more in local investment firms such as Capricorn Asset Management Company. Capricorn Asset Management Company should structure a portfolio for government employees, such as a defined benefit plan scheme. Capricorn Asset management Company should use more asset allocation strategies.

6.3 Research Limitations

The investigation was done on a small sample size of two portfolio managers, one from each investment firm. Both investment firms’ portfolio managers could not release all the information regarding their returns. The respondents thought that the data was going to be
used against them. The researcher had to use purposive sampling in order to get the questionnaires filled.

6.4 Areas of further study

Further research that involves asset allocation strategies and portfolio management in the two investment firms should be carried out.
CHAPTER 7: REFERENCE


Hammes & Chen. (2005). *Performance of European Real Estate Companies*


APPENDIX

Dear respondent

My name is Tuuliky H Amwele, I am an MBA-finance student at the Namibia Business School, University of Namibia. As part of my coursework, I am required to submit a Thesis for completion of my Masters of Business Administration - Finance program.

The area of the research study is an investigation into the differences of asset allocation strategies of the Government Institution Pension Fund and Capricorn Asset Management Company. The study will investigate the way investors’ funds are allocated to different asset classes and the objectives of this research are to investigate the differences in asset allocation strategies of the Government Institution Pension Fund and Capricorn Asset Management Company, to determine how investment management firms use asset allocation strategies in apportioning funds between different asset classes and to establish the concept of risk and returns relationships for the asset classes of the two institutions.

The findings of the study will provide information and knowledge that will help investment management firms in determining how to allocate funds among different asset classes for diversification purposes. It will provide investment guidelines for the Government Institution Pension Fund and Capricorn Asset Management Company that will define the level of risk that is acceptable in investment portfolios.

I kindly request you to provide information concerning this topic by filling the questionnaire. The information is purely confidential and will be used to purely this research study. If you have any questions concerning this study, you contact my supervisor Professor Heikki Heino on 0817741501.

Thank you for your cooperation

Yours Sincerely

Tuuliky H Amwele
An investigation into the differences of asset allocation strategies of the Government Institution Pension Fund and Capricorn Asset Management Company.

Thank you for your time and willingness to complete this questionnaire.

Confidentiality of your answers will be safeguarded and your answers will be used for the thesis purposes only.

**Instructions**

Please mark with a (X) sign in the appropriate box(s). Where possible write down your answer.

1. **What is your gender**

<table>
<thead>
<tr>
<th>Female</th>
<th>Male</th>
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2. **What qualification level do you have?**

<table>
<thead>
<tr>
<th>Education level</th>
<th>Tick (X)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 11-12</td>
<td></td>
</tr>
<tr>
<td>Diploma</td>
<td></td>
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<tr>
<td>Degree</td>
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<tr>
<td>Postgraduate</td>
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<tr>
<td>CFA</td>
<td></td>
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<tr>
<td>Other professional qualifications</td>
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</tbody>
</table>
3. How long have you been managing investor’s funds?

<table>
<thead>
<tr>
<th>Life span (years)</th>
<th>Tick (X)</th>
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</thead>
<tbody>
<tr>
<td>1 – 3</td>
<td></td>
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<tr>
<td>4 – 6</td>
<td></td>
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<tr>
<td>7 -10</td>
<td></td>
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<tr>
<td>11 and above</td>
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</tbody>
</table>

4. Do you have an investment committee with experience to oversee how the asset classes in the portfolio are managed?

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5. What assets classes does your portfolio comprise and what are their approximate percentages?

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6. What is the main reason for your present percentage allocation to these various asset classes in your portfolio?

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7. Is it wise to invest all your money in one security?

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8. What are the asset allocation strategies do portfolio managers use to allocate fund between securities. Why?

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9. Why diversification considered necessary in your investment strategy.

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10. Have you followed the same pattern of portfolio allocation in the past? a) Yes b) No

If No, can you please indicate, in brief, how your allocations were done?
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11. Which method(s) do you use in your portfolio allocation process?
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12. What is your primary source of strategic advice for asset allocation process?
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13. Do you have any rules or regulations that affect your allocation process? a) Yes b) No

If Yes, can you briefly indicate them.
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14. What is the appropriate amount of risks you as a portfolio manager can tolerate?
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15. What type of risks do investors have to be aware of and how do you as a portfolio manager measure these risks.

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16. How portfolio managers measure these risks?

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17. How does asset allocation affect your risk-and-return expectation?

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18. On the relation between risk and returns of the different assets in your portfolio, on what data do you base your evaluation?

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19. How are the market risk and risk in individual security related?

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20. How are the market returns and expected return on individual securities related?

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21. Do you as a portfolio manager reduce percentage of asset classes when there is volatility in the market? Yes or No why.

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22. Considering risk tolerance and time horizon: A number of factors affect how portfolio managers will allocate assets classes. How much risk or market volatility are you willing to accept?

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23. What are measures do you use to evaluate investment performance of different asset classes in your portfolio.

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24. Do you have guidelines for diversification-parameters regarding the percentage of the investment portfolio that can be invested in a particular company, issuer of bonds, stock, cash and real estate?

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25. Under what circumstances should portfolio managers consider rebalancing their portfolio? What corrective action should be taken when market trends cause the allocations to swing beyond the targeted ranges?

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26. Which method(s) do you use in analysing the risk-return component of the assets classes in your portfolio?

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27. What are your returns on asset classes between 2009 and 2013?

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