
BY

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UNIVERSITY OF ZIMBABWE

SUPERVISOR: PROF. T. HAWKINS
DEDICATION

This dissertation is dedicated to my husband, Oziwell, son, Kuziva and daughters Chido and Nomsa. You are my inspiration.
DECLARATION

I, CHEERS CHIKOMWE, do hereby declare that this dissertation is the result of my own investigation and research except to the extent indicated in the acknowledgements, references and by comments included in the body of the report, and that it has not been submitted in part or in full for any other degree to any other University.

Student signature…………………… Date……………………

Supervisor’s Signature Name……………… Date……………………
ACKNOWLEDGEMENTS

I acknowledge and sincerely thank Professor Hawkins of the Graduate School of Management for agreeing to supervise me and spending much of his precious time reading and commenting on the various scripts that culminated in this research document. The constructive comments made by Professor Hawkins and his encouragement gave the inspiration to complete this dissertation under very challenging circumstances. I also record my appreciation to all my lecturers on the programme who collectively contributed in giving me the courage to persevere.

I am grateful to Farai Matuzure for his assistance in dispatching and collecting the questionnaires. I also pay tribute to colleagues in the pensions industry, particularly those who found time to complete the questionnaires.

Above all, I thank the Almighty God for being my pillar of strength and giving me the courage to go through the programme.
ABSTRACT

The viability of pension funds in Zimbabwe was threatened by the hyperinflationary environment that prevailed in the period January 2000 – January 2009. A multi-currency regime was introduced to curb hyperinflation in Zimbabwe, however it brought its own challenges to the survival of pension funds. The overall objective of the study was to investigate how pension funds managed to survive during the period of hyperinflation (January 2000 – January 2009) and how they adjusted to a multi-currency regime over the period February 2009 –December 2012. The researcher adopted a qualitative research methodology. Primary data collection involved collection of data from a sample of 74 respondents, with 42 respondents returning the self-administered questionnaire. This was triangulated by data collected through interviews with 18 key informants. Secondary data in the form of literature relevant to the topic as well as document review was utilised.

The following were the major findings of the study; In order to survive during the period of hyperinflation pension funds changed portfolio composition and diversified investments into non-core activities. Pension funds also adopted decentralisation of decision making in order to make faster decisions and allow for quick adaptation to changes in the economic environment. Retrenchment strategies, differentiation of services and short term planning horizons were adopted as survival strategies in the hyperinflation period. Conversion of Zimbabwe dollars to foreign currencies and speculation in commodities were also adopted as survival strategies. Under sudden currency change in the economy pension funds changed their costing structures through variation in the level of charges, employing innovation strategies and changing planning horizons to medium term and long term plans. The researcher made the following recommendations; To survive pension funds should consider investment portfolio composition to hedge against inflation and venture into non-core activities offering higher returns above inflation; In a hyperinflation period pension funds should also adopt decentralised decision making, differentiated services and short term planning horizons. The researcher further recommended that the regulatory framework’s adequacy during hyperinflation and upon sudden change of currency be investigated.
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<tr>
<td>Acronym</td>
<td>Description</td>
<td></td>
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<tr>
<td>---------</td>
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<td></td>
</tr>
<tr>
<td>DC</td>
<td>Defined Contribution scheme</td>
<td></td>
</tr>
<tr>
<td>DB</td>
<td>Defined Benefit Scheme</td>
<td></td>
</tr>
<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
<td></td>
</tr>
<tr>
<td>IOPS</td>
<td>International organisation of Pension Supervisors</td>
<td></td>
</tr>
<tr>
<td>Z$</td>
<td>Zimbabwean dollar</td>
<td></td>
</tr>
<tr>
<td>IPEC</td>
<td>Insurance and Pensions Commission</td>
<td></td>
</tr>
<tr>
<td>NSSA</td>
<td>National Social Security Scheme</td>
<td></td>
</tr>
<tr>
<td>PESTEL</td>
<td>Political, Economic, Social, Technological and Legal</td>
<td></td>
</tr>
<tr>
<td>GNU</td>
<td>Government of National Unity</td>
<td></td>
</tr>
<tr>
<td>IMF</td>
<td>International Monetary Fund</td>
<td></td>
</tr>
<tr>
<td>ZESA</td>
<td>Zimbabwe Electricity Supply Authority</td>
<td></td>
</tr>
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</table>
CHAPTER ONE

INTRODUCTION AND BACKGROUND

1.0 INTRODUCTION

This chapter covers the following areas; background to the study, research problem, research objectives and research questions, scope of research and the dissertation structure.

1.1 Introduction to the study

The researcher investigated pension funds survival strategies during the period of hyperinflation (2000-2009) in Zimbabwe and how the funds adjusted to a multi-currency regime in the post hyperinflation period 2009 -2012. This research is centred on occupational pensions provided by employers to their workers, and not state pensions and the national social security scheme. The pension industry in Zimbabwe is dominated by life assurance companies, fund administrators and self administered schemes. Life assurance companies include Old Mutual Life Assurance Company, First Mutual Life Assurance Company, Fidelity Life Assurance Company, Zimnat Life Assurance Company and ZB Life Assurance Company. There are employee benefit companies or fund administrators which cater for the administration of self-administered funds. Employee benefits companies in Zimbabwe are Marsh Employee Benefits, Aon Consulting and Comarton Consultants. Industrial schemes are those schemes which cater for the provision of pension funds benefits to workers within the same industry. The major industrial schemes in Zimbabwe are Construction Industry Pension Funds, Mining Industry Pension Funds, Local Authorities Pension Fund, Zesa Pension Fund, Communications and Allied Industry Pension Fund and National Railways of Zimbabwe Pension Fund (Registrar of Pension and Provident Funds, 2004).
Due to high cost of living and inflationary salaries, most employers found it too costly to continue to run defined benefit schemes which resulted in the conversion of a large number of the defined benefit schemes to defined contribution basis (Registrar of Pensions and Provident Funds, 2001). In the year 2000 the number of pension funds in Zimbabwe stood at 2447 (Registrar of Pension and Provident Funds, 2004). The active members who were contributing to pension funds were 926,894 and there were 149,837 pensioners including widows and other dependants. There were also a total of 12,805 pensioners outside Zimbabwe who were receiving pension from their pension funds in Zimbabwe (Registrar of Pensions and Provident Funds, 2001). In the year 2011 the number of pension funds in Zimbabwe stood at 919 (Insurance and Pensions Commission, 2011).

The fundamental objective of a pension scheme is to pay correct benefits to members and beneficiaries on the due date (Sienkiewicz, 1990). The purpose of occupational pension schemes is to ensure that workers have greater means to support themselves after they leave employment.

There are two main types of pension schemes namely Defined Benefit schemes (DB) and Defined Contribution schemes (DC). Under DB schemes the sponsoring employer is committed to providing the retirees with pensions of a fixed or ascertainable amount (Friedberg, 2011). The level of the pension benefit is calculated by reference to a specified benchmark most commonly some combination of the level of the employee’s earnings and his or her length of service. In some cases, DB pensions are calculated as a proportion of the wages the employee earned during the final years of their employment. Any shortfall arising from poor investment returns on pension assets becomes a liability of the schemes’ sponsor (Friedberg, 2011).

Under DC plans, employers agree to contribute a fixed percentage of salary or dollar sum per month toward an employee’s salary or dollar sum per month toward an employee’s pension and the employee contributes the same or a different percentage towards the pension. The accumulated contributions are invested on behalf of that employee and the total proceeds of contributions and investment earnings are then used to provide the employee with a pension on retirement. It is
widely believed that DB plans produce better financial outcomes for retirees than DC plans though they are likely to cost the sponsoring employer more (Friedberg, 2011). With DB schemes workers can calculate their future yield on contributions put in the pension fund with relative accuracy because they are predetermined in the formula. They can plan for their own retirement with greater certainty that they will not experience a dramatic decline in their living standards. However, inflation can impact negatively on benefits.

Cagan (1956) stated that hyperinflation is considered as one of the most socially destructive economic phenomenon. On the other hand the Reserve Bank of Zimbabwe (2009) observed that hyperinflation environment in Zimbabwe undermined the low income groups, pensioners and others on fixed income. Inflation reduces the buying power of pension benefits provided by pension funds.

1.2 BACKGROUND TO THE STUDY

1.2.1 Pensions Industry in Zimbabwe and Hyperinflation
In Zimbabwe the pensions industry is characterised by two pensions systems, the National Social Security Authority (NSSA) scheme and private pension funds. NSSA was introduced in October 1994 and it is a compulsory scheme for all the registered companies operating in Zimbabwe. In this study the researcher concentrated on occupational pension schemes.

A pension fund means any fund whose principal object is to provide for the payment of pension to a person who is or has been a member of the fund on his retirement (Pension and Provident Funds Act Chapter 24:09, 1976). Macroeconomic stability and low inflation are important because no financial markets can function effectively in situations of financial instability such as those triggered by volatile inflation (Reserve Bank of Zimbabwe, 2009).

During the period under study (2000-2009) cumulative inflation during the period 2000-2008 was over three billion percent (Hanke and Kwok, 2009). The Zimbabwean Government managed hyperinflation through the introduction of the multi – currency regime (International Monetary Fund, 2010).
1.2.2 Hyperinflation Trends Over period (2000-2009) and After Introduction of Multicurrency Regime (2009-2012)

The hyperinflationary trends for the period 2000-2008 are shown in figure 1.1a. Figure 1.1a shows the rate of cumulative inflation over the period 2000 - 2008. Figure 1.1b shows inflation figures after the introduction of mult-currency regime.

In figure 1.1a below the inflation rates were escalating at unprecedented levels and pension funds had to come up with survival strategies to remain in the business of providing pension benefits to employees after leaving employment.

![Annual Percentage of inflation 2000-2008](image)

**Figure 1.1a: Zimbabwean Inflation rates period (2000-2008)**

Prices of goods and services rose to unprecedented levels until 2008, reflecting the escalation in production costs, shortages of basic goods and services, and the adverse effects of parallel market activities (Hanke and Kwok, 2009). In the year 2008 hyperinflation reached 417823% in March (Hanke and Kwok, 2009). Consequently, the local currency’s role as a medium of exchange, store of value and standard for deferred payments was severely undermined (Reserve Bank of Zimbabwe, 2009). Swanson (1989) asserts that during hyperinflation historical cost becomes meaningless as a means of comparison, and multiple sets of books are necessary to get an accurate picture of performance. The researcher agrees with the author’s sentiments because the key to operating in a hyperinflationary economy is to stay ever mindful that the real value of money erodes significantly over very short periods of time. The average inflation for the year 2009 was -7.7%, for the year 2010 the average inflation was -3.1% and the average inflation for the year 2011 was estimated at 3.5% (Ministry of Finance, 2012). Although inflation was stabilized by a multi – currency regime, pensioners could not enjoy a standard of living equal to the one they were used during employment as observed by the volume of complaints received by the regulator (IPEC, 2012).
1.2.3 Deteriorating scenarios of Zimbabwean dollar against other currencies

Table 1.1 below provides data up to 2006 because thereafter the central statistics office did not produce statistical inflation until the introduction of the multi-currency regime of 2009.

Table 1.1: Exchange Rates and Trade Balances

<table>
<thead>
<tr>
<th>Year</th>
<th>Exchange Rate ZS/US$ - As at 31 December</th>
<th>Gross Official Reserves (US$M) - As at 31 December</th>
<th>Total External Debt (US$ Million) as At 31 December</th>
<th>Debt Repayments (US$ M) As at 31 December</th>
<th>External Payment Arrears (US$M) As at 31 December</th>
<th>Import Cover (Months) - As at 31 December</th>
<th>Exports (US$M)</th>
<th>Imports (US$M)</th>
<th>Trade Balance (US$ Million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>0.63</td>
<td>406.4</td>
<td>1,068.1</td>
<td>Not Available</td>
<td>-</td>
<td>3.64</td>
<td>1,445.50</td>
<td>1,339.00</td>
<td>106.50</td>
</tr>
<tr>
<td>1981</td>
<td>0.72</td>
<td>340.6</td>
<td>1,384.2</td>
<td>150.0</td>
<td>-</td>
<td>2.66</td>
<td>1,451.40</td>
<td>1,534.00</td>
<td>(82.60)</td>
</tr>
<tr>
<td>1982</td>
<td>0.92</td>
<td>316.7</td>
<td>1,793.0</td>
<td>237.3</td>
<td>-</td>
<td>2.58</td>
<td>1,312.10</td>
<td>1,472.00</td>
<td>(159.90)</td>
</tr>
<tr>
<td>1983</td>
<td>1.11</td>
<td>133.4</td>
<td>1,996.0</td>
<td>315.7</td>
<td>-</td>
<td>1.50</td>
<td>1,153.70</td>
<td>1,069.60</td>
<td>84.10</td>
</tr>
<tr>
<td>1984</td>
<td>1.50</td>
<td>70.1</td>
<td>2,305.0</td>
<td>351.8</td>
<td>-</td>
<td>0.85</td>
<td>1,173.60</td>
<td>989.30</td>
<td>184.30</td>
</tr>
<tr>
<td>1985</td>
<td>1.64</td>
<td>123.8</td>
<td>2,231.8</td>
<td>368.8</td>
<td>-</td>
<td>1.62</td>
<td>1,119.60</td>
<td>918.90</td>
<td>200.70</td>
</tr>
<tr>
<td>1986</td>
<td>1.68</td>
<td>129.8</td>
<td>2,339.9</td>
<td>428.5</td>
<td>-</td>
<td>1.54</td>
<td>1,322.70</td>
<td>1,011.60</td>
<td>311.10</td>
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<tr>
<td>1987</td>
<td>1.66</td>
<td>242.7</td>
<td>2,595.0</td>
<td>534.9</td>
<td>-</td>
<td>2.72</td>
<td>1,452.00</td>
<td>1,071.00</td>
<td>381.00</td>
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<td>1988</td>
<td>1.94</td>
<td>344.3</td>
<td>2,373.3</td>
<td>482.0</td>
<td>-</td>
<td>3.55</td>
<td>1,664.86</td>
<td>1,163.61</td>
<td>501.25</td>
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<td>1989</td>
<td>2.27</td>
<td>294.4</td>
<td>2,428.8</td>
<td>400.6</td>
<td>-</td>
<td>2.68</td>
<td>1,686.94</td>
<td>1,319.25</td>
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<td>1990</td>
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<td>287.0</td>
<td>2,861.8</td>
<td>467.1</td>
<td>-</td>
<td>1.72</td>
<td>1,750.60</td>
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<td>1991</td>
<td>5.05</td>
<td>367.0</td>
<td>3,135.4</td>
<td>329.0</td>
<td>-</td>
<td>2.10</td>
<td>1,695.40</td>
<td>1,614.74</td>
<td>80.66</td>
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<td>1992</td>
<td>5.48</td>
<td>383.0</td>
<td>3,796.8</td>
<td>550.0</td>
<td>-</td>
<td>2.04</td>
<td>1,530.59</td>
<td>1,781.08</td>
<td>(230.49)</td>
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<td>1993</td>
<td>6.94</td>
<td>590.0</td>
<td>3,988.2</td>
<td>595.0</td>
<td>-</td>
<td>3.76</td>
<td>1,636.71</td>
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<td>1994</td>
<td>8.39</td>
<td>814.0</td>
<td>4,236.2</td>
<td>590.0</td>
<td>-</td>
<td>4.46</td>
<td>1,963.77</td>
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<td>1995</td>
<td>9.31</td>
<td>814.0</td>
<td>5,269.1</td>
<td>536.2</td>
<td>-</td>
<td>3.36</td>
<td>2,247.70</td>
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<td>1996</td>
<td>10.84</td>
<td>830.0</td>
<td>4,691.2</td>
<td>551.0</td>
<td>-</td>
<td>3.17</td>
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<td>1997</td>
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<td>4,966.0</td>
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<td>2,654.00</td>
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<td>1998</td>
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<td>4,491.2</td>
<td>633.5</td>
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<td>1,925.00</td>
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<td>1999</td>
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<td>2000</td>
<td>55.07</td>
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<td>3,525.0</td>
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<td>1.44</td>
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<td>2001</td>
<td>55.04</td>
<td>121.0</td>
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<td>360.1</td>
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<td>0.65</td>
<td>2,113.70</td>
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<td>322.50</td>
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<td>2002</td>
<td>55.04</td>
<td>128.4</td>
<td>3,510.0</td>
<td>442.7</td>
<td>1,333.3</td>
<td>0.69</td>
<td>1,802.30</td>
<td>1,830.50</td>
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<td>2003</td>
<td>824.00</td>
<td>131.1</td>
<td>3,813.0</td>
<td>31.6</td>
<td>1,776.5</td>
<td>0.72</td>
<td>1,669.90</td>
<td>1,778.20</td>
<td>(108.30)</td>
</tr>
<tr>
<td>2004</td>
<td>5,729.27</td>
<td>255.0</td>
<td>4,071.0</td>
<td>190.2</td>
<td>2,016.0</td>
<td>1.27</td>
<td>1,684.20</td>
<td>1,989.40</td>
<td>(305.20)</td>
</tr>
<tr>
<td>2005</td>
<td>85,158.02</td>
<td>60.5</td>
<td>3,977.7</td>
<td>320.8</td>
<td>2,073.8</td>
<td>0.30</td>
<td>1,601.80</td>
<td>1,994.00</td>
<td>(392.20)</td>
</tr>
<tr>
<td>2006f</td>
<td>250,000.00</td>
<td>136.5</td>
<td>4,209.0</td>
<td>300.2</td>
<td>2,387.9</td>
<td>0.80</td>
<td>1,570.60</td>
<td>2,118.20</td>
<td>(547.60)</td>
</tr>
</tbody>
</table>

**NB: 2006 figures are forecasts**

Repayments to IMF from 2004 to Date Amount to US$ 210.6 Million, the balance was repaid to World Bank, AfDB and in respect of private sector debt


Table 1.1 shows that for a contributing member who contributed Z$ 0.63 in 1980, the amount was equivalent to US$1 that was put into the fund. For a contributing member in 2006 to contribute US$1 he required Z$250 000.00. Table 1.1 indicates that workers who contributed to pension funds before the year 2000 were putting contributions with some value into the pension fund. The trade balances reflect the...
decline of capital inflows over the period. These balance of payments developments resulted in shortages of foreign currency which inevitably put pressure on the exchange rate and also impacted on those pensioners paid in foreign currency.

1.3 MULTI-CURRENCY REGIME
Schuler (2005) defined multi-currency system as any case where a country has no locally issued currency and officially uses a foreign currency instead. The currency need not be United States dollar. According to the Central Bank of Montenegro (2004) a multi-currency system is an option where several currencies are used as legal tender within an economy.

While the adoption of the multicurrency regime ushered a more stable and predictable operating environment, it also brought a new set of challenges which the pensions industry has been grappling with over the period 2009-2012. This was echoed by the Zimbabwe Actuarial Consultants (2010) when they commented that following the introduction of the multi-currency in Zimbabwe in February 2009, conversion of pension liabilities from Zimbabwe dollar to United States dollar became an issue in the pension industry where the calculation of liability heavily depended on previous valuation data which was in Zimbabwean dollars.

After the introduction of a multi-currency regime pension funds were dogged by liquidity challenges and loss of asset values in United States Dollars (Zimbabwe Actuarial Society, 2010). Only a handful of companies have any kind of pension program.

In Zimbabwe the pensions industry has been reeling under the weight of hyperinflation and the conversion of currency from Zimbabwe dollars to US$ left pensioners with low pension values. The Insurance and Pensions Commission in 2009 set the minimum monthly pension at US$10 and all those with pensions below $10 were allowed to commute their pensions in full (IPEC, 2010).

1.4 MACRO ENVIRONMENTAL ANALYSIS
The researcher used PESTEL analysis model in analysing the impact of hyperinflation on pension funds. According to Johnson et al., (2008) a PESTEL
framework is used to analyse the remote environment of an organization and the framework was used to analyse the pensions industry’s remote environment as indicated in table 1.2 below.

**Table 1.2. PESTEL Framework**

<table>
<thead>
<tr>
<th>FACTOR</th>
<th>IMPACT ON PENSIONS INDUSTRY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>POLITICAL</strong></td>
<td>The period 2000 to 2008 was politically volatile. The politically volatile environment raised a lot of uncertainty for all players in the economy. The coalition of parties that formed the GNU in March 2009 brought stability to the external environment. Macroeconomic stability and low inflation are important because neither financial markets nor institutional investors can function effectively in situations of financial instability. The political environment is characterised by high political tension between political parties and the Indigenization Bill increased the country’s political risk (KPMG, 2012).</td>
</tr>
<tr>
<td><strong>ECONOMIC</strong></td>
<td>The health of the pensions industry is dependent on the health of the economy. During the period of economic uncertainty and inflation the financial health of the pensions industry was affected. The introduction of multi-currency brought down inflation and thus pension funds could find safe investment avenues. Introduction of multi-currency resulted in unsustainably high costs of operating against constrained income. As a result pension Administrators sought to commute low monthly pensions (IPEC, 2011).</td>
</tr>
<tr>
<td><strong>SOCIAL</strong></td>
<td>Pensioners had their lifetime contributions lost during the hyperinflationary period resulting in them losing confidence to pension funds.</td>
</tr>
<tr>
<td><strong>TECHNOLOGICAL</strong></td>
<td>With technological advancements in the world, the pensions industry can take advantage of this to give pensioners a good service. However, foreign currency shortages affect the</td>
</tr>
</tbody>
</table>
importation of most of the required technological equipment.

<table>
<thead>
<tr>
<th>ENVIRONMENTAL</th>
<th>No factors affecting the pensions industry.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEGAL</td>
<td>The legal framework that is in place was enacted during the pre-independence era when the Zimbabwean dollar was more valuable than other foreign currencies. The Pensions and Provident Fund Act [Chapter 24: 09] prohibits the investment of a pension funds in a foreign environment.</td>
</tr>
</tbody>
</table>

### 1.5. PLAYERS IN THE PENSIONS INDUSTRY

#### 1.5.1 The Players

The Zimbabwe Pensions Industry is made up primarily of:

1. Insurance and Pensions Commission (IPEC), the regulator for the industry
3. Insurance administered private occupational Pension Funds numbering about 900
4. Self-administered private occupational Pension Funds, such as Local Authorities Pension Fund, NRZ Pension Fund, ZESA Pension Fund run internally, and others run mainly by Pension Administration Companies, and totalling not more than 100 schemes
5. Industrial Pension Funds – set up by Acts of Parliament to cater for specific industries such as the Mining Industry Pension Fund, the Motor Industry Pension Fund, the Construction Industry Pension Fund and Catering Industry Pension Fund
6. The National Social Security Scheme (NSSA)
7. The Public Service Pension Fund
8. Fund Administrators namely; Comarton Consultants, AON Employee Benefits Administration and Marsh Employee Benefits Administration
As at 31 December 2008, 20% of the aggregate assets held by the occupational pension funds were in government–held prescribed assets (i.e. government issued Treasury Bills, Municipal Bonds and other government issued paper). All the prescribed assets at that date were completely rendered valueless by inflation before their maturities (Zimbabwe Association of Pension Funds, 2009).

### 1.5.2 Industry Size by Annual Contributions and Assets

Contributions and assets in the Pensions Industry for the period 2000 to 2004 are shown in table 1.3a below. The other years 2005 to 2008 during the escalating hyperinflation are not shown because the Registrar of Pensions and Provident Funds did not produce any reports. Table 1.3b shows contributions and assets statistics during the multi-currency regime in the pensions industry over the period 2009-2011.

#### Table 1.3a: Schedule of Contributions, Assets and Investments: 2000-2004

All monetary values are in $000

<table>
<thead>
<tr>
<th>Year</th>
<th>Self Administered</th>
<th>Life Assurers</th>
<th>Total</th>
<th>Self Administered</th>
<th>Life Assurers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>3 491 338</td>
<td>5708396</td>
<td>9200680</td>
<td>26 076 682</td>
<td>44645472</td>
<td>70737135</td>
</tr>
<tr>
<td>Market Share</td>
<td>38%</td>
<td>62%</td>
<td>100%</td>
<td>37%</td>
<td>63%</td>
<td>100%</td>
</tr>
<tr>
<td>2001</td>
<td>7 298 714</td>
<td>9052649</td>
<td>16352309</td>
<td>47 520 453</td>
<td>61829959</td>
<td>109365393</td>
</tr>
<tr>
<td>Market Share</td>
<td>45%</td>
<td>55%</td>
<td>100%</td>
<td>43%</td>
<td>57%</td>
<td>100%</td>
</tr>
<tr>
<td>2002</td>
<td>36 822 649</td>
<td>60569515</td>
<td>97392164</td>
<td>81876787</td>
<td>682583271</td>
<td>764460058</td>
</tr>
<tr>
<td>Market Share</td>
<td>38%</td>
<td>62%</td>
<td>100%</td>
<td>11%</td>
<td>89%</td>
<td>100%</td>
</tr>
<tr>
<td>2003</td>
<td>56 244 981</td>
<td>60837248</td>
<td>117082229</td>
<td>834 699613</td>
<td>916596678</td>
<td>1751296291</td>
</tr>
</tbody>
</table>

10
<table>
<thead>
<tr>
<th>Year</th>
<th>Self Administered</th>
<th>Life Assurers</th>
<th>Total</th>
<th>Self Administered</th>
<th>Life Assurers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>37159145</td>
<td>40132905</td>
<td>77292050</td>
<td>412806177</td>
<td>946443314</td>
<td>1350</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2514</td>
</tr>
<tr>
<td></td>
<td>48%</td>
<td>52%</td>
<td>100%</td>
<td>8%</td>
<td>47%</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>291</td>
<td>91</td>
<td>382</td>
<td>69%</td>
<td>53%</td>
<td>100%</td>
</tr>
<tr>
<td>Market Share</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>798733943</td>
<td>812119726</td>
<td>1610853669</td>
<td>766052971</td>
<td>866482958</td>
<td>1632</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5359</td>
</tr>
<tr>
<td></td>
<td>49%</td>
<td>51%</td>
<td>100%</td>
<td>47%</td>
<td>53%</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>192</td>
<td>293</td>
<td>485</td>
<td>100%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Market Share</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>849116176</td>
<td>1089785437</td>
<td>1942043613</td>
<td>737894395</td>
<td>1138931997</td>
<td>1820</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1743</td>
</tr>
<tr>
<td></td>
<td>43%</td>
<td>57%</td>
<td>100%</td>
<td>41%</td>
<td>59%</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>536</td>
<td>327</td>
<td>863</td>
<td>100%</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

**Source:** Registrar of Pension and Provident Funds (2000 -2004)

Key: The self-administered funds include funds administered by fund administrators and all industrial schemes.

**Table 1.3b: Schedule of Contributions, Assets and Investments: 2009-2011**

All monetary values are in US$

<table>
<thead>
<tr>
<th>Year</th>
<th>Contributions</th>
<th>Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Self Administered</td>
<td>Life Assurers</td>
</tr>
<tr>
<td>2009</td>
<td>37159145</td>
<td>40132905</td>
</tr>
<tr>
<td></td>
<td>48%</td>
<td>52%</td>
</tr>
<tr>
<td>Market Share</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>798733943</td>
<td>812119726</td>
</tr>
<tr>
<td></td>
<td>49%</td>
<td>51%</td>
</tr>
<tr>
<td>Market Share</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>849116176</td>
<td>1089785437</td>
</tr>
<tr>
<td></td>
<td>43%</td>
<td>57%</td>
</tr>
</tbody>
</table>

**Source:** Insurance and Pensions Commission (2009 -2011)

Key: The self-administered funds include funds administered by fund administrators and all industrial schemes.
1.6 RESEARCH PROBLEM

As indicated in the background section the viability of pension funds in Zimbabwe was threatened in a hyperinflationary economic environment (Reserve Bank of Zimbabwe, 2009).

Given that pension funds have an important developmental role in any economy, it is therefore important to find out the survival strategies pension funds used to survive hyperinflation and how they adjusted to a multi – currency regime. As indicated by Hurd, (1990) pension funds are an important tool for domestic savings mobilisation. However, as Hurd, (1990) also observed, a hyperinflationary period affects both consumption and savings.

What lessons therefore, can be drawn from the point of view of pensions funds from the hyperinflation they experienced? If lessons are not drawn from important developments in society as was the case with hyperinflation, then history may repeat itself in an unforgiving manner. When appropriate lessons are drawn from particular events then society is in a better position to pre-empt the threats or at the very least mitigate them.

1.7 OVERALL OBJECTIVE

The main objective of this study was to investigate how pension funds managed to survive during the period of hyperinflation (January 2000- January 2009) and how they adjusted to a multi – currency regime over the period February 2009 – December 2012.

1.7.1 Specific Research Objectives

The specific objectives of this study were;

1. To investigate the survival strategies that were adopted by pension funds during hyperinflation (January 2000- January 2009).
2. To investigate the challenges faced by pension funds due to sudden currency change in the economy.
3. To investigate how pension funds adjusted to a multi – currency regime.
4. To make any necessary recommendations following findings from the study.
1.8 MAIN RESEARCH QUESTION
The main research question was;
How did pension funds survive the hyperinflationary era of 2000 to 2009 and how did they adjust to a multi – currency regime from 2009 to 2012?

1.8.1 Research Sub Questions
The following were the research sub questions of this study;
1. What were the survival strategies that pension funds adopted during the hyperinflationary period (2000- 2009)?
2. What were the challenges faced by pension funds due to a sudden currency change in the economy?
3. How did pension funds adjust to the change to a multi – currency regime?
4. What recommendations can be made following findings from the study?

1.9 THE STUDY’S PROPOSITION
The study’s proposition was;
The economic meltdown brought by hyperinflation (2000 -2009) forced pension funds to change their investment strategies and costing structures.

1.10 JUSTIFICATION
The research is important as it will benefit the pension industry players such as the Life Insurance companies, self – administered funds, and the pension’s industry regulator both directly and indirectly. The issue of a sudden currency change still remains topically alive. For instance, some politicians have been cited in the media stating the need for the introduction of the Chinese Yen. This serves to emphasise the importance for organisations such as pension funds to be alert to the dynamics of a sudden currency change. The research is important for stakeholders as indicated below:

1.10.1 Pension Industry Players
Pension industry players including the regulator IPEC can draw lessons that will assist them to be more effective in the promotion of their mandates.
1.10.2 The Government
Lessons drawn from the study can assist the Government in coming up with relevant policies and strategies.

1.10.3 Pensioners
The study is also likely to benefit pensioners to the extent that lessons drawn will help in protecting their interests.

1.10.4 The Researcher
The study will assist the researcher to meet the requirement for the Degree of Master in Business Administration at the University of Zimbabwe.

1.11 SCOPE OF RESEARCH

The study investigated pension funds survival strategies during hyperinflation (January 2000 – January 2009) and how they adjusted to a multi-currency regime over the period (February 2009 – December 2012). The study focussed on occupational pensions provided by employers to their workers and not State Pensions and NSSA.

The study focussed on occupational pensions in Harare (the capital city of Zimbabwe) provided by employers to their workers. The occupational pension funds were in the form of insurance administered funds and self-administered funds.

1.12 Dissertation Structure
Chapter 1: Introduction and Background - focuses on the introduction to the study, background information pertaining to the area of study and background, research problem, research objectives and research questions. The chapter also provides justification and scope of the study.

Chapter 2: Literature Review - reviews other scholars’ works in relation to the topic at hand and provides benchmarks for the discussion of results in chapter 4.

Chapter 3: Research Methodology - provides and justifies the methodology adopted in carrying out the study.
Chapter 4: Results Presentation, Analysis and Discussion – Presents and analyses the findings from the study.

Chapter 5: Conclusions and Recommendations - concludes the study and provides relevant recommendations in line with findings from the study.

1.13 CHAPTER SUMMARY
The chapter looked at the introduction and background of the study. It forms the foundation of the study through the research problem, research objectives and research questions. Justification of the research study was given and the research structure was laid down.
CHAPTER TWO

LITERATURE REVIEW

2.0 INTRODUCTION

This chapter reviews literature in line with the study objectives. Focus in this chapter is on the background history of impact of hyperinflation on pension funds, pension funds’ survival strategies during hyperinflation and adjustment strategies under multi-currency regimes. Knowledge of related literature helps the researcher to carefully select meaningful and relevant research methodology and data collection instruments for use during the period of study (Thompson and Strickland, 2001). The literature review was used in the discussion of findings in chapter 4.

2.1 Hyperinflation in other economies

Schiller (2000) defined hyperinflation as inflation rate in excess of 200% lasting at least one year. The immediate consequences of high inflation levels, at both the individual and macro levels are uncertainty and shortened decision making time horizons (Schiller, 2000). Instances of hyperinflation in history follow a similar trend of rising prices, slowing demand, rising unemployment and, lowered production with associated currency failure (Schiller, 2000). There is enormous debate on the root causes of the hyperinflation; it becomes evident when there is an uncontrolled increase in the supply of money or drastic debasement of coinage (Kotze, 2003). The debasement of coinage was experienced in Zimbabwe (Reserve Bank of Zimbabwe, 2009). Hyperinflation is often associated with economic depressions and political upheavals (Thondhlana, 2002). International Accounting Standard 29 describes four signs that may reflect that an economy is in hyperinflation:

i) The people of a nation prefer to keep their wealth in other forms of assets or in other relatively stable foreign currency than their own currency. Money in foreign currency held is invested to preserve purchasing power and value.
ii) The people of a nation experiencing inflation view monetary amounts not in the form of their own local currency but in terms of a more stable foreign currency that can be available.

iii) In a nation experiencing hyperinflation people would prefer purchasing goods and services on credit in order to compensate for the expected loss of purchasing power before settling of the account credit period, even if the period is short. The population of a nation will be avoiding cash sales preferring credit buying.

iv) Over a period of three years cumulative inflation approaches 100%. Salaries and interest rate are linked to a price index.

Cagan (1956) argues that the main driver of hyperinflation is a huge rapid rise in the supply of money that is not matched by a corresponding growth in the output and production of goods and services. The result of this would be an imbalance of supply and the demand for money that often brings a complete loss of confidence in local currency which equates to a bank run. Zimbabwe tried to lessen demand for cash by imposing daily withdrawal limits which brought untold hardship with limited success (Hanke and Kwok, 2009). The enactment of laws on legal tender and the enforcement of some price controls aiming to preserve the value of money sometimes fail to force acceptance of paper money (Thondlana, 2002). When the organisation printing money promotes uncontrolled money printing, where there are other contributory reinforcing effects, hyperinflation persist (Hanke, 2009). Printing of money is often a responsibility of a Central Bank which often fails to print physical money faster than the rate money is devalued neutralizing its efforts to simulate an economy (Pugel & Lindert, 2000).

Runaway inflation is also associated with velocity of paper money growth that can easily be used to grow money supply (Makochekeanwa, 2009). This is what happened to Zimbabwe and eventually led to the demise of the local currency (Hanke, 2003). History has proven that there have been a lot of hyperinflation experiences in many nations followed by a return to hard currency. Older nations would go back to barter and hard money when the operating medium of exchange was extremely devalued, usually after a "run" (Rocha, 2002).
Latin American countries experienced hyperinflation between 1987 and 1996. At its peak Peru’s annual inflation was 7481%. Bolivia met the hyperinflation criterion in 1985, Argentina’s and Brazil’s inflation peaked at 20 to 25 percent monthly, or 800 to 1400% annualized (Blake, Wraith and Amat, 1998).

Argentina experienced several bouts of currency devaluation and hyperinflation which resulted in the forced resignation of the president in 1989 leading to a successful introduction of an anti-inflation programme and the currency peg (Pugel and Lindert, 2000).

### 2.2. GLOBAL HYPERINFLATION EPISODES AND THEIR IMPACT ON BUSINESS

According to Schiller (2000), central banks in countries experiencing hyperinflation often print money in larger denominations as the smaller denominations notes become worthless. Zimbabwe ended up with a Z$100 000 000 000 000 note at which stage all businesses simply stopped accepting the local currency (Hanke and Kwok, 2009). Below are a few examples of hyperinflation episodes and how these affected the nationals in those countries and how the pensions industry was affected:

#### 2.2.1 Hungary

According to Makinen (1986) the largest currency denomination that was ever officially issued for circulation was in the Hungarian pengo by the Hungarian National Bank in 1946. The Hungarian highest bank note of 100 quintillion pengo” (100 000 000 000 000 000 or 1020; 100 million million million) was issued. These banknotes did not depict the numbers, however, (hundred million billion pengo”) and one milliard b. - pengo” were written on the notes instead (Bomberger and Makinen, 1983). This leaves the 500 000 000 000 Yugoslav October dinar and 100 000 000 000 000 Zimbabwean dollar banknotes the notes with the greatest number of zeroes shown (Hanke and Kwok, 2009).
2.2.2 Chile

At the beginning of 1971 when Salvador Allende was the president, the inflation of that economy began to rise to the extent of reaching a peak of 1200% in the year 1973. As a result, food became scarce and because of the mismatch of demand and supply the food became overpriced; there were riots, strikes and general civil unrest (Borzutzky, 2002). A coue d’etat of 1973 removed president Salvador Allende and a military government took power led by Augusto Pinochet. Augusto Pinochet introduced free market policies which halted the inflation. Except for the economic depression of 1981 the economy fully recovered (Walker, 1999).

2.2.3 Brazil

Brazil experienced inflation levels above 1000% a year from 1988 (except in 1990) until the Real Plan (1 July 1994) Rocha (2002). Brazil experienced hyperinflation between December 1989 and March 1991 (Sachs and Larrain, 1993). The Brazilian economy exhibited resilience to high and persistent inflation rates. Two elements played key roles in differentiating the Brazilian case from the classical hyperinflationary experiences: indexation and the provision of a reliable domestic currency substitute, an interest –bearing asset with near money liquidity (Barbosa, 2008). Brazilians that had access to the domestic currency substitute were protected from the inflation tax without sacrificing liquidity. During the hyperinflation periods in Argentina, Bolivia and Brazil all at one time or another addressed their hyperinflationary problem by legislating it out of existence (IMF Working Paper 07/294).

2.2.4 Zimbabwe

Zimbabwe experienced something very similar, if not worse than the episodes already described in the above scenarios. The economic woes and sequence of events in Zimbabwe have been experienced and documented in other countries (Hanke and Kwok, 2009).

Pension funds were not spared from the devastating effects of the economic meltdown in Zimbabwe. The consequences of hyperinflation at both the individual
and macro levels called for the implementation of survival strategies (Thondhlana, 2002).

According to the IMF’s World Economic Outlook Report, (April 2008), ‘In the 1997-2007 period, cumulative inflation was nearly 3.8 billion percent, while living standards (as measured by real gross domestic product [GDP] per capita) fell by 38 percent.’ Such galloping inflation is beyond the mental grasp and imagination of many but incomes, even for the employed were soon decimated by this phenomenon. Companies resorted to making monthly salary adjustments but this was never enough to compensate for the loss in value. The salaries were completely worthless by the time they were withdrawn from the banks. Other companies resorted to running a fortnightly payroll without any appreciable benefits accruing to the workers (The Economist, 2008). The situation was worse for pensioners who were not getting any monthly pension increases (Mazhude, 2006). To worsen things, the amounts credited in the banks could not be withdrawn as one wished (Mazhude, 2006). There were daily cash withdrawal limits and pensioners had to queue as everyone else, sometimes sleeping outside banking halls in order to get their paltry pensions (ZAPF, 2010). The situation was worsened by the debasing of currency which brought the removal of 25 zeroes from the local currency which rendered virtually worthless all the pensions that were being paid by the various pension funds (Actuarial Society of Zimbabwe, 2010). Pension funds and insurance companies therefore stopped paying the retirement pensions to reduce administration costs as it became costly to pay the pensions than to keep them (ZAPF, 2010).

Pension systems involve very long –term financial commitments (Kolev, 2002). The promise to pay a benefit during retirement to today’s workers covers a period that can span many decades. The capacity to meet these promises is one of the most important issues in the design of retirement systems. All too often, policymakers mistakenly conclude that a pension system is financially healthy because it is generating short term surpluses (i.e., contributions exceeding benefits) (Marshall, 2011). A pension system is sustainable only when it has the capacity to pay current and future benefits over the long horizon under reasonable assumptions without shifting substantial burdens to future generations and without having to cut benefits,
increase contributions or change qualifying conditions (World Bank, 2012). The Zimbabwean pension system was severely affected by the decade of hyperinflation and the pension funds had to implement survival strategies to meet their operational mandates.

2.3 Types of Pension Schemes

Pension funds manage two main schemes of pension funds namely defined benefit schemes (DB) and defined contribution schemes (DC). Under DB schemes the sponsoring employer is committed to providing the retirees with fixed or ascertainable amount (Friedberg, 2011). The level of the pension benefit is calculated by reference to a specified benchmark most commonly some combination of the level of the employee’s earnings and his or her length of service (Stewart, 2005). Under DC plans, employers agree to contribute a fixed percentage of salary or dollar sum per month toward an employee’s salary or dollar sum per month toward an employee’s pension and the employee contributes the same or different percentage towards the pension. The accumulated contributions are invested on behalf of that employee, the total proceeds of contributions and investment earnings are then used to provide the employee with a pension on retirement (Friedberg, 2011).

2.3.1 Risks of Defined Contribution Schemes

OECD (2005) specifies that the differences between DB and DC schemes relate to the allocation of risks. The risks that impact on DC schemes are investment risk and longevity risks. During the hyperinflationary period in Zimbabwe Pension funds earned negative returns and in some instances the administration costs were more than 100% (ZAPF, 2010). Members of DB pension schemes are especially exposed to high levels of long term, firm specific risk as their pensions depend upon the sponsoring firm both staying in business and not making excessive risks that may jeopardise its ability to honour its pension obligations (Watson and Ezzamel, 2005). In a funded DB scheme, employers assume the investment risk. They are obliged to pay a benefit that is determined by some proportion of the employee’s final average salary upon or during retirement (Stewart, 2005). If investment gives a return that is higher than the expected return employers can retain the additional returns that would accrue to individuals under DC schemes. If the market underperforms they are
required to increase their contributions to maintain the value of accumulated assets required to meet the pension promise (Byrne et al., 2008). However, members of DB schemes run the risk that if their employer becomes insolvent, they could end up receiving little or nothing from their under-funded DB scheme (Byrne et al., 2008). The decline in asset markets means greater contributions are needed to provide a given level of benefits at retirement (Orla & Rod, 2008). Byrne et al. (2008) state that with DC funds individuals would see a drop in their retirement wealth if the market underperforms. DB scheme takes away the volatility in asset accumulation for individuals. In a DC plan the investment risk is borne by the individual.

Volatility of asset markets causes problems for sponsors of defined benefit plans because it leads to volatility in contributions. The ability of markets to adequately price pension liabilities is unclear in an inflationary environment (Clark & Monk, 2006).

2.3.2 Risks of Defined Benefit Schemes

OECD (2006) states that DB plans expose individuals to wage path risk and job tenure risk.

Wage path risk- DB schemes tend to subject employees to wage path risk by tying the pension payment to the final salary or an average of earnings towards the end of employees' careers. If wage path of an employee is ultimately better than expected, a defined contribution plan would deliver a larger than expected pension compared with the contributions made on behalf of that employee. In Zimbabwe most pension funds were converted from defined benefit schemes to defined contribution schemes during the period of galloping inflation as employers failed to meet increased deficits that were accruing on the pension funds (OECD, 2006).

Changes in asset markets

The low interest rates, which raise the value of pension’s liabilities and the stock market declines during the early years of 2000s in OECD countries, have highlighted for employers’ the macroeconomic risks they face in financing defined benefit plans. The decline in asset markets means greater contributions are needed to provide a given level of benefits at retirement (Orla & Rod, 2008).

Pension promises represent a type of obligation to workers that can be quantified in
several ways. In the last few years starting 2004, the European Union has started to report a standardized measure of these liabilities in its supplementary fiscal accounts (OECD, 2006). Table 2.1 below shows some estimates based on the accrued benefits obligations whereby the liability reflects the value of unfunded pension schemes.

Table 2.1: Illustration of comparable cross country estimates of accrued pension liabilities in DB Schemes

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Pension Entitlements in billions national currency</th>
<th>Pension entitlements as a percentage of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Czech Republic</td>
<td>2006</td>
<td>5231, 6474</td>
<td>162, 200</td>
</tr>
<tr>
<td>Germany</td>
<td>2004</td>
<td>4136</td>
<td>186</td>
</tr>
<tr>
<td></td>
<td>2005</td>
<td>5669</td>
<td>253</td>
</tr>
<tr>
<td></td>
<td>2006</td>
<td>5268</td>
<td>185</td>
</tr>
<tr>
<td>Spain</td>
<td>2006</td>
<td>2349, 2333</td>
<td>240, 238</td>
</tr>
<tr>
<td>France</td>
<td>2005</td>
<td>5623</td>
<td>327</td>
</tr>
<tr>
<td></td>
<td>2006</td>
<td>4225</td>
<td>247</td>
</tr>
<tr>
<td>Hungary</td>
<td>2006</td>
<td>54272, 65272</td>
<td>228, 275</td>
</tr>
<tr>
<td>Netherlands</td>
<td>2006</td>
<td>690, 872</td>
<td>129, 163</td>
</tr>
<tr>
<td>Poland</td>
<td>2006</td>
<td>2695, 3037</td>
<td>255, 287</td>
</tr>
</tbody>
</table>

Source: Eurostat (2007)

During inflationary periods pension entitlements increase due to the volatility of salaries as employers aim to cushion employees through salary increases. The
ability of markets to adequately price pension liabilities is unclear in an inflationary environment (Clark & Monk, 2006).

Under table 2.1 the column of pension entitlements represents funds owed by employers towards pension schemes in arrears. If funds were to convert from a defined benefit scheme basis to defined contributions without the injection of owed funds then employees would lose out on their ultimate benefits. In Zimbabwe when employers found the arrear contributions increasing they opted to converting pension funds from DB schemes to DC Schemes during the hyperinflationary decade of 2000 to 2008 without paying the arrear contributions that were owed to the pension funds (Maswera, 2012). The period of hyperinflation called for survival strategies from pension funds to counter such challenges (Maswera, 2012).

2.4 Strategy
Porter (2005) defines strategy as the essence of businesses choosing to perform activities differently than rivals do. According to Thompson, Strickland and Gamble (2010) strategy is management's game plan for strengthening the organisation’s position. Strategy is the way managers decide their organisations should operate in an industry. Business strategy and performance vary based on the threats and opportunities available (Thomas et al. 1993).

2.4.1 Survival Strategies in a Hyperinflation Environment
Baden- Fuller and Stopford (1994) and Markides (1998) explained that if established companies are to prosper and survive, new external environments require new strategies. Strategic innovation can be enhanced through sensitivity to emerging discontinuities in a company’s operating environment –these strategy /environment misalignments offer potential for radical strategic change (Burgelman and Grove, 1996). Businesses always have some discretion on strategies that are adopted; sometimes the degree of choice is often restrained by circumstances (Whittington, 1989).

The task therefore is to unravel or identify survival strategies that pension fund organisations have used in a hyperinflation environment. Swanson (2007) indicated that there are a number of strategies organisations can adopt in hyperinflationary
periods. The following are some of the survival strategies recommended by Swanson (2007):

a) Managers must understand the time value of money
b) Not allow any cash to remain idle
c) Ensure that good cash management is maintained which can provide a major source of profit and avoid poor cash management which can destroy a company in a few months
d) Managers must be prepared to convert local currency into a stable foreign currency
e) Develop an appropriate inflationary adjustment for capital replacement or value of the capital will disappear

In a turbulent environment planning is still important but should have a short time horizon, information should be freely distributed quickly, it should be about how to do things rather than what to do, and should include alternative possible outcomes, in some words, less prediction, control and stability and more self or group control to enable quick adaptation to changes (Jaworski, 1998). The same sentiments were echoed by Davies et al., (1991) they described a turbulent environment as the dynamism in the environment, involving rapid, unexpected change in the environment’s sub- dimensions. They said in this environment, decision windows are shorter; risk of obsolescence is greater, long term control becomes impossible and managers have to learn new ways to operate in this turbulent environment. It is the researcher’s contention that such survival strategies as articulated by Swanson (2007) also apply to pension funds under conditions of hyperinflation.

2.5 Other Survival Strategies Applicable to Pension Funds
There are other survival strategies that are applicable to pension funds in hyperinflation periods.

2.5.1 Retrenchment Strategies
A retrenchment strategy includes cutting operational costs and disinvestment of non-core assets. In times of hyperinflation, business horizons often shorten with managers focussing on immediate survival rather than long term objectives. Believing it easier to reduce costs than generate additional revenue, many businesses opt to retrench (Shama, 1993). Some commentators report
disinvestment of business, establishment closure, expenditure cuts on a wide range of activities including marketing and employee training (Geroski and Gregg 1997).

Innovation activity is often cut during hyperinflation periods. Geroski and Walters (2002) concluded that innovation activity tends to vary over business cycles with fewer major innovations during periods of economic downturn. In such an environment emphasis is on cost rather than quality driven innovation, as users place a premium on low cost (Leedbeater and Meadway 2008). Retrenching is a cost cutting measure that pension funds adopted in Zimbabwe during hyperinflation (ZAPF, 2010).

2.5.2 Investment Strategies
Several studies argue that firms adapt to hyperinflation conditions by implementing business strategies centred on investment, innovation and market diversification (Navarro, 2005). New product development and targeting new market niches are cited as the viable investment strategies (Rimmer, 1997). Srinivasan et al. (2005) argued that increased marketing spending is more suitable in hyperinflation periods. The evidence from previous studies on business adopting investment strategies to manage through hyperinflation is patchy (Rumelt, 2008). Such strategies are risky and many businesses are likely to be too preoccupied with short term survival to think of innovation and growth.

2.5.3. Differentiation
Differentiation is offering the market a service that is unique from competitors. Doyle (2002) argues that differences that businesses claim to have over competitors’ products or services must be something that customer’s desire and can benefit from. Kotler (2002) also emphasised the need for business to have unique products in order for them to be competitive. Differentiation affords a business the opportunity to compete with rivals on other basis than price.

2.5.4 Cost Leadership Strategy
The strategy focuses on improving profit margins. The rationale is that profitability in a declining market cannot be increased by increasing sales (Kotler, 2002). The only
route that businesses can use to improve return on investment and profit margins is through improving on cost reduction on a continual basis.

### 2.6. CONVERSION FROM ZIMBABWEAN DOLLARS TO MULTI-CURRENCY

Zimbabwe experienced unprecedented inflation levels in the decade leading to the adoption of the multi-currency system in February 2009 (Reserve Bank of Zimbabwe, 2009). The researcher carried out the study to understand the impact of this on pension funds and what strategies were used by pension funds to survive the hyperinflationary period leading to the date of conversion as well as the survival strategies after the conversion stretching from 2009 to 2012. This approach allows for understanding the practices that prevailed prior to the conversion from Z$ to the multicurrency regime.

Maswera (2012) indicated that the conversion of Z$ assets into the multi-currency did not take stock of all assets of the Fund prior to the conversion and applying a conversion factor. The conversion of liabilities from Z$ to multi-currency needed to be done with due care to avoid writing off outstanding contributions, or compromising the accrued liabilities of members. In his report on the conversion of assets from Z$ pension funds failed to take stock of arrear contributions.

Maswera (2012) further states that the conversion process lacked transparency and was not communicated to account members. If value has been lost then it becomes important to be able to identify the point at which value was lost. The conversion being an unexpected event in the pensions industry meant that each actuary came up with a different rate of converting Zimbabwean dollar assets to a multi-currency system. Different rates were used by different actuaries and the regulator did nothing to lead the expected conversion rates but only acknowledged that assets were converted (Maswera, 2012). There was a regulatory gap that left pensioners in the open (IPEC, 2010).

Other countries in history have adopted the use of foreign currency to curtail hyperinflation. In Latin America financial dollarization was adopted over time and in spite of a major reduction in inflation, Latin American economy’s vulnerability to adverse shocks due to sudden stops was likely to be a key feature of that region.
(Galindo and Leiderman, 2005). The authors stated that there are good reasons why the main concerns about the introduction of multi-currency regime are to do with increased vulnerabilities due to multi-currency public and private sector debt. Of particular relevance were the sudden stops in capital inflows that are accompanied by a marked economic slowdown and sharp depreciation of the domestic currency which can set in motion difficult dynamics for public and private sector debt (Reinhart, Rogoff and Savastano, 2003).

2.7 SURVIVAL STRATEGIES IN A SUDDEN CURRENCY CHANGE
A number of studies have focused on emerging market countries to explore the issue of debt dollarization. Bleakley and Cowan (2002) found that firms tend to match the currency composition of their liabilities with their ex-ante sensitivity of revenues to the real exchange rate. In other words firms that produce tradable goods tend to hold more dollar debt than firms that produce non-tradables. Bleakley and Cowan (2002) found that currency depreciations tend to benefit more firms with a larger share of foreign currency debt.

2.7.1 Brazil
Two elements played key roles in differentiating the Brazilian case from classical hyperinflationary experiences: inflation indexation and the provision of a reliable domestic currency substitute that is an interest-bearing asset with near money liquidity (Marcio, 1993). Widespread indexation gave Brazilians the idea that it would be possible to cope with inflation by avoiding some of its costs.

As part of a comprehensive set of structural reforms, some of which came in the aftermath of financial crisis and hyperinflation, many Latin American countries liberalized and reformed their financial markets. In the process, strong linkages to the US dollar were developed (Galindo and Leiderman, 2005).

2.7.2 Chile
Galindo and Lederman (2005) investigated the impact of hyperinflation on pension funds in Chile and discussed the dilemma faced by the State on whether or not to allow off-shore investments for pension funds which in itself would have resulted in
capital flight from an economy which was suffering from increased foreign currency shortages and a serious economic meltdown. The Chilean pension funds emerged almost unscathed from the crisis as the off-shore investment option allowed pension funds to diversify away the country risk. As at December 2000, Chilean pensions funds held 11 percent of their investments abroad (Walker, 1999). The creation of new financial instruments also allowed Chilean pension funds to invest into a wider variety of alternatives (Iglesias, 1998). In Zimbabwe, there was and still is a law preventing off-shore investments (Pensions and Provident Funds Act, Chapter 24: 09). This partly explains why the pension fund assets could not be inoculated against the devastating effects of the local economy deteriorating so rapidly and indeed the pension funds have not yet recovered (Zimbabwe Association of Pension Funds, 2010).

2.7.3 Argentina
In the case of Argentina, the Common Investment Funds were created especially for pension funds in 1992 (Saens, 1999). They represented 8.4 percent of the pension funds in 2000. To the same list can be added negotiable obligations, mortgage securitization and leasing contracts. Negotiable obligations must be held until their maturity (of about two years), since they do not have a secondary market. Of the total amount invested in this type of security, banks issued about 51 percent in 1994 and only 9 percent in 1998. This reflects a significant increase in the relative importance of the corporate bond market for pension funds (Saens, 1999). An important fraction of the total portfolio was held in government bonds. This has helped financing the deficit produced as a consequence of such reform. An advantage is that now this happens at transparent market prices. Argentinean pension funds had invested only 4.5 percent abroad as of 2000 (Bekaert and Harvey, 1998).

2.7.4 Peru
In Peru, macroeconomic imbalances at the end of 1980s were followed by dollarization of the financial system (Walker, 1999). Pension fund reforms were introduced to adapt to the sudden currency change. However, the absence of deep, liquid government bond markets led pension funds in Perú to use bank deposits as the safe asset. Thus, although pension funds hold only a 3.3 percent of outstanding
deposits, the financial sector represents about one-third of their total portfolio. This means that even if pension funds had the effect of crowding out banks from large firm financing, banks have got back most of the funding, which allows them to develop related businesses (Walker, 1999).

Ramos (1999) argues that pension funds have provided flexible funding to banks and that, given that the former prefer positions in local currency; the latter have been able to develop a deep currency forward market. The productive sector has benefited from these hedging possibilities, hence a reduction in expected bankruptcy costs. Altogether, disintermediation does not seem relevant in this case. The evidence seems to uphold the claim that pension fund reform has positive secondary effects in other related markets, allowing more efficient fund allocation. This may have important long-term implications (Galindo and Leiderman, 2005).

### 2.7.5 Investment Diversification

The evidence for Chile shows several direct and indirect effects that the pension reform had on the creation (or adoption) of new financial instruments. It is broadly interpreted that the creation of new financial instruments is the process that allows pension funds to invest in a wider variety of alternatives. In the early eighties, corporate bonds were new financial instruments. They became relatively important in the pension fund portfolios in the early nineties. Similarly, authorized in 1985 (Walker, 1999), investment in equity became an alternative that helped the development of the capital markets. Iglesias (1998) indicated that the initial investment in equity by pension funds was in concurrently privatized firms.

In 1989, the law allowed the formation of closed-end mutual funds, whose only significant clients have been the pension funds. Three kinds of funds have been created: real estate funds, equity funds and company funds (Walker, 1999). In 1998, about 3 percent of pension funds were invested in these instruments. These instruments face three problems: by their very nature, they are long-term investments and they do not have secondary markets. Second, their valuation is difficult, and despite recent changes, valuations lag behind other market-valued instruments. Third, after the recent restructuring of the pension fund industry there
are fewer portfolio managers. Off show investments became a possibility. In March 1990, pension funds were allowed to invest only in foreign fixed-income.

2.7.6 Challenges of Implementing Survival Strategies

Existing upper limits to property concentration in the close-end funds curtail growth possibilities. It was only through these indirect investment vehicles that pension funds in Chile could participate in private equity. Due to the difficulties related with lack of liquidity, valuation problems and industry concentration, this market has not been significantly developed. In Zimbabwe the liquidity squeeze that has prevailed in the economy after the introduction of multi-currency regime has made it difficult for pension funds to invest in prescribed assets (IPEC, 2011).

In Walker’s (1999) analysis, pension reforms seldom take place in isolation and thus without other concurrent conditions, pension reforms turn out not to be successful. For instance, real estate corporations were especially created for pension funds in Chile. Two of them disappeared by mid-1995, after 4 years in business. This happened because from the perspective of pension funds, they had relative tax disadvantages with respect to real estate investment funds, which were tax exempt. Portfolio managers assume liquidity risk in exchange for higher expected returns (Catalan et al., 2000).

2.7.7 Zimbabwe

Whilst in Latin America the countries that went through the adoption of currency change had to adopt pension reforms, in Zimbabwe the Pensions and Provident Funds Act (Chapter 24:09) of 1976 is applied to date. The International Organisation of Pension Supervision IOPS, (2006) explains that pension scheme governance concerns the provision of a framework for defining the duties, associated responsibilities and accountabilities for all participants involved in the functioning of the scheme in order to ensure that the pension promise made to members is delivered. The main objective of private pension supervision is to promote the stability and security of pension funds and to protect the interests of pension fund stakeholders. IPEC which is the regulatory body of the pensions industry of Zimbabwe failed to safeguard the interests of pensioners. During the period of hyperinflation pension funds and insurers were expected to invest 35% of their
assets in prescribed assets (Pension and Provident Funds Act: Chapter 24: 09, 1976). These investments were not recouped after the introduction of a multi-currency regime.

The provision of pensions is of fundamental economic and social importance, ensuring the successful delivery of adequate retirement income (OECD, 2006). The effective supervision of pensions, and of the institutions that provide pension products and services, is required to ensure the protection of consumers. Governance is relevant to all aspects of scheme operation including funding, investment, benefit administration and communications. Failure by the regulator to come up with conducive investment terms also increased the chance of loss (Bateman, 2004).

Lack of a system of pension reforms after the adoption of the multi-currency system in Zimbabwe meant that off-shoring of investments remained prohibited. All pension assets are only investable in Zimbabwe and this increased loss as there was no hedge against inflation and even after the introduction of multi-currency all pension assets are to remain invested in the borders of Zimbabwe (Pensions and Provident Funds Act {Chapter: 24:09} (1976).

Governance around pension funds is important in the long term delivery of value. Governance can be viewed as one of the components that contribute to survival of pensions funds in turbulent environments (IOPS, 2006).

During the hyperinflationary period in Zimbabwe some pension fund Administrators diluted their investments portfolios. Maswera (2012) established that Fidelity Life had an investment portfolio with a property composition of 98% in 2007. In 2008 the investment portfolio was recomposed to 2% property in 2008 and 98% equity.

According to the Pensions and Provident Funds Act 1976, (as amended) pension funds are required to set up appropriate pension fund governance structures and in particular a Board of Trustees for each fund in order to ensure that the pension funds perform to the expectation of the stakeholders of the Fund. This Act requires the trustees to:
Observe utmost good faith and exercise proper care and diligence at all times
To declare conflict of interest
To take all responsible steps to ensure that the interests of members are protected at all times
To refrain from investing, alienating, pledging, hypothecating or otherwise encumbering the assets of the fund in a manner calculated to gain directly or indirectly any improper advantage for any person other than the fund.

2.8 CHALLENGES FACED BY BUSINESS DUE TO SUDDEN CURRENCY CHANGE IN THE ECONOMY

Reinhart, Rogoff and Savastano (2003) explored whether dollarization leads to significant differences in the ability to raise revenue from seignorage. As pointed out by Panizza and Stein (2001) dollarization limits the ability of central banks to increase interest rates to defend the currency due to fear of floating, however, this does not necessarily imply that it damages their ability to control inflation (Calvo and Reinhart, 2002). Instead a relatively well operating inflation targeting scheme has been working since early 2002 in Peru one of the most dollarized economies in the world.

The following are some of the challenges faced by business entities due to a sudden currency change in the economy;

2.8.1 Transaction Risk
Transaction risk takes place when transactions already entered into for provision of pension (export) services, and for which the company is likely to have commitment in a foreign currency will have a variable value in the home currency because of exchange rate movements (Arnold, 2005). Transaction risk also arises when companies invest abroad.

2.8.2 Translation Risk
Translation risk arises because financial data denominated in one currency is expressed in terms of another currency. In between two accounting dates amounts can be affected by exchange rate movements thereby distorting comparability. There are two elements to translation risk:
The balance sheet effect. Assets and liabilities denominated in a foreign currency can fluctuate in value compared to other currencies in use in the country due to foreign market changes.

The profit and loss account effect. Currency changes can have an adverse impact on the group’s profits because of the translation of foreign subsidiaries profit (Arnold, 2005).

2.8.3 Economic Risk
The economic value of a company may decline as a result of forex movements. Arnold (2005) pointed out that the company’s worth is linked to the discounted cash flows payable to the owners. There are two ways in which a company’s competitiveness can be undermined by forex changes, that is, directly and indirectly. Directly – if the currency used in the home country strengthens, foreign competitors are able to gain at the company’s expense as its services are more expensive. Indirectly- if the currency used in the home country does not move adversely to the customer’s currency (Arnold, 2005).

2.8.4 Equity Risk
This is the risk associated with fluctuations in share prices or stock indices. There are two aspects of equity risk, sensitivity to the changes that affect an entire index and changes affecting the company itself. Investors can protect against the latter by diversifying their share portfolio. Equity risk is the main market risk feared by retail investors because stock market crashes have massive impact on the value of their portfolios (Chorafas, 2002).

2.8.5 Reputation Risk
According to Fombrun (1996) reputation is a collective representation of a company’s past actions and results which describes

a) A company’s ability to deliver value to different stakeholders and
b) How each stakeholder experiences the company’s brand through its daily operations and conduct.

According to Rayner (2003) the reputation of a company is driven by financial performance and long term investment value. Companies have to maintain customer promise and expectation so as to maintain goodwill. The management of a company
has a fiduciary responsibility to protect the interests of shareholders, employees and customers (Rourke, 2004).

2.8.6 Liquidity Risk
Since the introduction of multi-currency pension funds and insurance companies have been reeling under the liquidity squeeze from a cash flow crunch imposed by increasing incidents of rental defaults from tenants in their buildings, erosion of tradable investments and subdued income growth (Fidelity Life, 2011). Employers are failing to remit contributions on time. The pension funds had mostly held their investments in the hyperinflationary period. But these investments have suffered significant decline in values after introduction of a multi-currency regime in 2009 that rendered the Zimbabwe dollar irrelevant. The values of equity investments on pension funds and insurance companies' portfolios fell by between 55 and 85% (IMARA Market Investments Watch, July 2011). The resultant cash crunch meant that most of these pension funds and insurance companies have been unable to make pension payouts in foreign currency, while some Insurance Companies are failing to meet claims (Makochekanwa, 2009).

The liquidity squeeze has been further compounded by the fact that pension funds are invested in properties and rely heavily on rental cash flows (IMARA Market Investments Watch, July 2009). A high default rate in rentals by sitting commercial tenants has been experienced since the introduction of a multi-currency regime resulting in dwindling cash flows into pension funds. There is a lot of unoccupied office space in the city. Looking at Westgate Offices that are owned by Old Mutual a lot of office space is vacant and has been for some time resulting in loss of revenue income (Old Mutual, 2010). In respect of liquidity risk, most dollarized countries have tried to deal with it by imposing higher reserve requirements on dollar denominated liabilities according to Galindo and Leiderman (2005).
2.9 COSTING STRUCTURES

According to OECD (2006) for any level of pension scheme contributions received by pension funds, variations in the level of charges can have a significant impact on pension funds operations.

There are three broad types of charges incurred by a pension scheme (IOPS, 2005). The three costs are namely administration, investment and distribution and marketing. Administration costs relate to functions such as record keeping, communication with scheme participants, compliance and calculating and making benefits payments (Birn, 2000).

According to OECD (2006) fees and charges clearly have an impact on the operations of occupational pension funds. There are trade-offs in pension provision, and higher costs may be compensated by higher returns and advantages offered in terms of choice and flexibility. Birn (2000) stated that there are two perspectives to look at administrative efficiency from a pension fund namely, timely collection of contributions and timely investments of these contributions there-of and the performance of pension funds investment.

A viable pension fund industry must be able to deliver according to expectations from stakeholders (Maswera, 2012).

2.10 CHAPTER SUMMARY

The chapter reviewed literature on survival strategies that were adopted by pension funds in hyperinflationary environments as found by Swanson (2007) and other survival strategies applicable in hyperinflation namely: retrenchment strategies, investment strategies and differentiation were discussed. Survival strategy of pension funds in an economy that experienced sudden currency change namely: off-shore investments, investment diversification and pensions regulatory reforms. In implementing survival strategies after currency change many challenges were encountered which include transaction risk, translation risk, liquidity risk and reputation risk.
CHAPTER THREE

RESEARCH METHODOLOGY

3.0 INTRODUCTION

This chapter provides background information on the research methodology under which this study was carried out. Research design can be thought of as the structure of research, it is the “glue” that holds the elements in a research project together (Bryman & Bell, 2007). Bryman & Bell (2007) view research design as a framework which provides for the collection and analysis of data. Vogt (1993) defines a research design as a science of planning procedures for conducting studies so as to get the most valid findings.

The research design framework encompasses the research philosophy, strategy, population, sampling techniques and data collection methods. Saunders et al., (2009) classify research designs into two: firstly, positivism which is defined as based on positive facts and observable phenomena; secondly phenomenalism which concerns itself with the description and classification of phenomena. Positivism’s assumption is that the researcher is independent and is neither affected nor affects the subject of the research. Positivism gives an explanation of causal relationships between variables while phenomenology provides an explanation on the way people experience social phenomena in the world they live or exist (Saunders et al., 2009). The main positivism argument is that one can develop hypotheses and test them, and that knowledge is a cumulative process whilst anti-positivism (phenomenology/interpretivism) rejects the assertion that observing behaviour alone can help one to understand it. In the deductive approach which is linked to positivism, one starts from the general moving to the specific. In the inductive approach which is linked to phenomenology and interpretivism, one starts from the specific moving to the general (Crowther and Lancaster, 2009).

The research methods were based mainly on a qualitative approach underpinned by phenomenology. According to Kato (2002) greater insight can often be obtained when collecting data under a qualitative research framework through such methods
as observation, interview, and document and media analysis thereby facilitating the understanding of the phenomenon from various aspects. The researcher obtained data through use of questionnaires, interviews and document analysis. It was impossible to employ the observation method because the hyperinflation period has since gone and being an observer was also impossible because of the large population sample used in the research.

According to Saunders et al., (2007) the research process allows the researcher to have a full picture of a variety of ways in carrying out research, in the hope of separating the different types of philosophies, strategies, tactics, approaches, techniques, and procedures of carrying out the research. Saunders et al., (2007) brought out the importance of examining and understanding philosophies with the aim of enhancing knowledge development. According to Ackroyd and Hughes, (1992) philosophical guidance on its own cannot solve the problems associated with social research. However, Crotty (1998) is of the view that, philosophy on its own has a way of being interested in the world and has a way of solving problems.

To get as much information as possible, the major players in the pensions industry namely Life assurers, Self Administered Pension Funds and Employee Benefits Administrators were asked to give information with regards to survival strategies that were adopted to survive during hyperinflation and how they adjusted to a multi-currency regime.

3.1 Research Strategy

Saunders et al., (2009) defines research strategy as a general plan on how to answer the research questions that have been set.

3.1.1 Surveys

The method is popular and a common strategy in business and management research and it is usually associated with the deductive approach although it can also be used in an inductive approach (Saunders et al., 2010). Surveys allow for a collection of large amounts of data from a sizeable population in an economical way. In order to generate suitable data a survey was used because the topic covered the pensions industry and not just one player in the industry.
3.2 POPULATION AND SAMPLING TECHNIQUES

According to Birn, (2000) the study population consists of aggregate of items from which the sample is drawn and this assertion is supported by Frankel and Wallen, (1996) who point out that the study population includes all individuals from whom the researcher desires to obtain information upon which to make conclusions on the basis of the sample drawn from this population. For this study the target population was made up of 270 registered self-administered pension funds as at December 2011, and 3 employee benefits administrators and 4 life assurance companies, 10 asset managers and three analysts from IPEC resulting in a study population of 287.

3.2.1 Sample Size and Techniques

The sample for this study was drawn from six self-administered pension funds namely; Mining Industry Pension Fund, ZESA Pension Fund, Construction Industry Pension Fund, Communications and Allied Industries Pension Fund, Local Authorities Pension Fund and Catering Industries Pension Fund which are the largest self-administered funds accommodating more than one hundred employers (Insurance and Pensions Commission, 2011). Purposive sampling was adopted to target four experienced senior staff from each of the six self-administered funds, four from each of the four life assurers namely; ZB Life Assurance Company, Old Mutual Life Assurance Company, First Mutual Life Assurance Company of Zimbabwe and Fidelity Life Assurance Company and four senior managers from each of the three employee benefits administration companies namely; Cormaton Consultants, AON Consulting and Marsh Employee Benefits Administration.

The selection of four senior managers was based on the knowledge that in the assessment of survival strategies adopted by pension funds during the hyperinflationary period, there were at least four key personnel who were involved; the chief executive, finance manager, investment manager and pension’s administration manager. Two managers were drawn from 10 asset managers and three analysts were drawn from the Insurance and Pensions Commission. The sample size was 74 out of the population size of 287. As the population size was
287, the recommended sample size is between 64 and 100 (Vermeulen, 1998). The sample size as recommended by Vermeulen was adopted by the researcher in this research. Recommended sample sizes for respective populations are articulated in table 3.1 below.

**Table 3.1: Size of the sample in a given population**

<table>
<thead>
<tr>
<th>Population</th>
<th>% Suggested</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>100</td>
<td>20</td>
</tr>
<tr>
<td>30</td>
<td>80</td>
<td>24</td>
</tr>
<tr>
<td>50</td>
<td>64</td>
<td>32</td>
</tr>
<tr>
<td>100</td>
<td>45</td>
<td>45</td>
</tr>
<tr>
<td>200</td>
<td>32</td>
<td>64</td>
</tr>
<tr>
<td>500</td>
<td>20</td>
<td>100</td>
</tr>
<tr>
<td>1000</td>
<td>14</td>
<td>140</td>
</tr>
<tr>
<td>10000</td>
<td>4.5</td>
<td>450</td>
</tr>
<tr>
<td>100 000</td>
<td>2</td>
<td>2000</td>
</tr>
<tr>
<td>200 000</td>
<td>1</td>
<td>2000</td>
</tr>
</tbody>
</table>

*Source: Adapted from Vermeulen 1998:56 and Smith, 2000:115.*

Two sampling methods were employed in this study, namely the random and non random methods. Judgmental sample is a common sampling technique for qualitative research as the researcher actively selects the most productive sample to answer the research questions (Bradley, 1992). With non probability sampling, the subjective approach is used and the probability of selecting the population elements is unknown (Cooper & Schindler, 2003). The researcher adopted mainly the judgmental or purposive sampling technique in conducting the study.
Probability sampling on the other hand is based on the concept of random selection, a controlled procedure that assures that each population element is given a known non-zero chance of selection. Probability sampling can further be subdivided into simple random, systematic, cluster and stratified sampling techniques (Cooper & Schindler, 2003).

While the advantages of probability/random sampling over non-probability random sampling are appreciated, judgmental and purposive sampling were used to select the subjects in the research because of accessibility constraints. These forms of sampling were the least costly to the researcher in terms of time resources and financial resources.

3.3 Data Collection Methods

In order to generate qualitative data the researcher adapted a combination of various data collection techniques and tools such as; questionnaire and semi-structured interviews in the collection of primary data. The questionnaire had both structured and unstructured questions to facilitate ease of analysis as well as capture different views. Two sets of questionnaires were distributed. Fund administrators and Life Companies were issued with the same questionnaire. Self-administered funds were given their own set of questionnaire. The second tool that was used for collecting primary data were the semi-structured interviews. Key informants were identified for interviewing after the survey questionnaires were completed. At this juncture the researcher felt that there was need to triangulate data collection via the interview in order to strengthen the validity of the results. The number of interviews held is depicted on table 3.2 below.

<table>
<thead>
<tr>
<th>Table 3.2 Interviews with key informants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Manager</td>
</tr>
<tr>
<td>Pensions Administration Managers</td>
</tr>
<tr>
<td>Investment Managers</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Interviews were held with two types of managers namely investment managers and pension administration managers from each of the following three fund
administrators and six pension funds respectively; Marsh Employee Benefits, Aon Consulting, Comarton Consultants (fund administrators), Mining Industry Pension Fund, Local Authorities Pension Fund, Construction Industry Pension Fund, ZESA Pension Fund, Communications and Allied Industry Pension Fund and Catering Industry Pension Fund. These key informants were chosen on the basis that the three fund administrators administered at least 30 pension funds each and the pension funds provided pension administration services to over a hundred employers. Secondary data is information collected by others for the purposes which are different from the current researcher’s objectives (Ghauri and Gronhaug, 2005). Examples of secondary data sources are manuals, magazines, journals, newspaper articles and financial statements (Ghauri and Gronhaug, 2005). Ghauri and Gronhaug (2005) suggested that the researcher should actually start with secondary data for the research and thereafter should proceed to primary data when secondary data has been exhausted or show diminishing returns. The researcher reviewed literature from secondary data sources before working with information gathered from primary sources.

3.4 Pre-test and Pilot Test
Before sending out the questionnaires, the questionnaire was checked for its general content, content validity and thoroughness. The questionnaire was pre-tested and piloted on a group of managers in the industry to ensure that questions were unambiguous and answerable. A pre-test is a trial run with a group of respondents, used to find problems with the questionnaire design (Zigmund, 2003). Bell (1998) described a pilot study as getting the bugs out of the instrument (questionnaire) so that subjects in your main study will experience no difficulties in completing it and so that you can carry out a preliminary analysis to see whether the wording and format of the questions will present any difficulties when the main data are analysed. Ten questionnaires were distributed for the pilot study to 10 managers. The piloted group did not remain as part of the sample as they had already had sight of the questionnaire; it would have been difficult for them to provide objective responses.
3.5 Validity and Reliability
In reducing the possibility of getting wrong answers attention was paid to two particular aspects of research design: validity and reliability. Validity refers to the design of the research in order to result in a credible conclusion (Stapsford and Jupp, 1988). Validity is concerned with whether the findings are really about what they appear to be about (Saunders et al., 2005). Reliability is concerned with the consistency of the information in the replication of the study (Saunders et al., 2005).

To ensure validity and reliability of the results, the researcher used triangulation of methods to collect data from the sample. Questionnaires, interviews and document review were used in this regard. The researcher also used secondary data by perusing literature from various authors to gather their views on survival strategies in hyperinflation and survival strategies in a multi-currency system.

3.6 RESEARCH PROCEDURE
The results of the data collection exercise from the questionnaire were analysed using the Statistical Packages available on Microsoft Excel. Statistical methods such as Graphs, Tables and Pie charts were used to present data.

3. 7 Research Limitations
There were a number of constraints encountered in undertaking the study, which must be taken into account when interpreting the research findings.

1) Time constrains and lack of resources both financial and human impacted on the research. Time was a major challenge, given the scope of the research in terms of its breadth and depth and the non-availability of widely published and authoritative literature on the pensions industry in Zimbabwe.

2) Some managers were not willing to divulge detailed information for confidentiality reasons. Information is treated with strictest confidentiality in the pensions industry and some managers avoided answering a few questions on the questionnaire. They feared that their integrity in running pension funds would be questioned.
It is important to highlight that in order to mitigate the impact of the limitations on the research; the researcher sought an assistant to distribute questionnaires and gave the respondents a week to complete the questionnaires to allow them ample time in compiling the data requested.

In order to convince the managers to give information, the researcher advised interviewees that the study information would be treated in strict confidence.

3.8 CHAPTER SUMMARY
This Chapter discussed the research methodology applied in this study. The discussion covered in detail the three component parts of the research methodology being research design, research procedure and research limitations. The research design focussed on key concepts of the research philosophy and strategy, population and sampling techniques and data collection methods. The research procedure adopted for this research was outlined and the major limitations of the research were identified together with the strategies adopted to manage those limitations in order that the research was successfully carried out.
CHAPTER FOUR

RESULTS PRESENTATION, ANALYSIS AND DISCUSSION

4.0 INTRODUCTION

This Chapter presents the results of the research in the context of the research objectives and research problem set out in Chapter 1. The study sought to find out the survival strategies utilised by pension funds in a hyperinflation environment and how the funds adjusted their strategies under a multi-currency era. The researcher relied on both primary and secondary data in this regard.

4.1 Response Rate

A response rate of 57 per cent was achieved as 42 completed questionnaires were received from a total of 74 mailed survey questionnaires. Table 4.1 shows the response rate. According to Nachmias and Nachimias (1976), the average response rate for mail survey questionnaires is often quite poor ranging typically between 20 and 40 percent. In light of the relatively favourable response rate of 57 percent there was adequate justification to progress the research further through the discussion of the results.

Table 4.1 Response rate

<table>
<thead>
<tr>
<th>Mailed questionnaires</th>
<th>Returned questionnaires</th>
<th>Response rate (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>74</td>
<td>42</td>
<td>57</td>
</tr>
</tbody>
</table>

Table 4.2 shows that a large percentage of respondents, 67%, have worked in the pensions industry for over 10 years and thus they have a very good background as to the status and developments within the industry over the period of the study and can give a fairly balanced view on survival strategies adopted by pension funds during the hyperinflationary era and how the funds adjusted to the introduction of the multi-currency regime. There is evidence of wide experience of respondents gained.
from employment with several employers which gives the respondents a good understanding of the different practices by various industry players and hence increasing the validity of the findings. Their views are therefore taken as fairly representative of occurrences within the industry.

### Table 4.2 Experience of Respondents

<table>
<thead>
<tr>
<th>Period(Yrs)</th>
<th>0-5</th>
<th>5-10</th>
<th>Above 10</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>5</td>
<td>9</td>
<td>28</td>
<td>42</td>
</tr>
<tr>
<td>Percentage</td>
<td>12%</td>
<td>21%</td>
<td>67%</td>
<td>100%</td>
</tr>
</tbody>
</table>

### Table 4.3 Profile of Respondents

<table>
<thead>
<tr>
<th>Functional Manager</th>
<th>Frequency</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment Managers</td>
<td>8</td>
<td>19</td>
</tr>
<tr>
<td>Chief Executive Officers</td>
<td>6</td>
<td>14</td>
</tr>
<tr>
<td>Pensions Administration Managers</td>
<td>15</td>
<td>36</td>
</tr>
<tr>
<td>Finance Managers</td>
<td>7</td>
<td>17</td>
</tr>
<tr>
<td>Asset Managers</td>
<td>6</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>42</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.3 shows that the highest number of respondents (36%) came from pension administration managers, followed by investment managers (19%). This was followed by finance managers (17%). This could mean that pension administration managers were the managers that mostly handled the survival strategies of pension funds followed by the investment managers.
4.2 Survival Strategies adopted during hyperinflation

Figure 4.1 reveals that out of 42 respondents, 40.5% believed that pension funds survived during hyperinflation because they changed their investment strategies. Pension funds changed portfolios composition. 59.5% of respondents felt that pension funds survived hyperinflation because they diversified investment and ventured into non-core activities. Navarro (2005) also indicates that investment diversification is a plausible survival strategy during hyperinflation. According to Navarro (2005) firms adapt to hyperinflation conditions by implementing business strategies centred on investment diversification, innovation and market diversification.

![Figure 4.1 Diversification of investments](image_url)
Decentralised Decision Making

Figure 4.2 reveals that out of the 42 respondents, 60% decentralized decision making during hyperinflation while 40% did not decentralise decision making as a strategy to ensure faster decisions. The findings are consistent with what was established by Jaworski (1998) who stated that in a turbulent environment planning is still important but should have a short time horizon, information should be freely distributed quickly, control and more self or group control enable quick adaptation to changes.

![Figure 4.2 Decentralised decision making](image)

Figure 4.2 Decentralised decision making
Retrenchment Strategies

Figure 4.3 shows that of the 42 respondents, 55% were of the opinion that pension funds adopted retrenchment strategies as a survival strategy and 45% were of the view that pension funds did not adopt retrenchment strategies. The finding that retrenchment strategy is a survival strategy during hyperinflation is consistent with what other researchers found out. Shama, (1993) stated that it is easier to reduce costs than generate additional revenue during hyperinflation and hence many businesses opt to retrench.

![Figure 4.3 Adoption of retrenchment Strategies](image)

Figure 4.3 Adoption of retrenchment Strategies
Differentiation

Figure 4.4 reveals that product differentiation was employed by most pension funds as a survival strategy during hyperinflation since 62% of the 42 respondents stated that pension funds employed differentiation as a survival strategy. Of the 42 respondents, 38% indicated that differentiation was not used as a survival strategy during hyperinflation. Since most of the respondents indicated that differentiation was used as a survival strategy, the researcher found that the results are consistent with Kotler’s (2002) findings that there is need for businesses to have unique products in order for them to be competitive.

Figure 4.4 Differentiated services
Short term planning horizons

Out of 42 respondents, 86% believed that pension funds survived hyperinflation because they employed short term planning horizons of less than a year. The findings are consistent with what other researchers found out. Davis et al., (1991) established that decision windows are shorter; risk of obsolescence is greater, long term planning becomes impossible and managers have to learn new ways to operate in this turbulent environment. 14% of the respondents show that pension funds were indifferent about planning horizons. The findings are consistent with what was established by Jaworski (1998) who stated that in a turbulent environment planning is still important but should have a short time horizon. The data is presented on figure 4.5 below.

![Figure 4.5 Short term planning horizons](image-url)
Other Strategies

Figure 4.6 Other strategies

Figure 4.6 reveals that out 42 respondents, 95% believed that pension funds employed other strategies to survive during hyperinflation. Other strategies used during hyperinflation included converting Zimbabwe dollars to foreign currency and involvement in speculation in commodities and currencies that had better returns. These strategies were recommended by Swanson, (2007) as survival strategies for businesses in hyperinflation. Of the 42 respondents, 5% indicated that they did not allow any cash to remain idle.

4.3 Challenges faced by pension funds due to sudden currency change in the economy

Most of the 42 respondents, (58%) believed that the major challenge faced by pension funds upon sudden currency change was to do with liquidity. Thirty two percent of the respondents were of the belief that expectations from members were high compared to what pension funds were able to pay in the form of benefits. Ten percent of the respondents were of the opinion that pension funds faced reputational risk as members queried the conversion methods used to convert assets from Zimbabwean dollars to multi- currencies used. The findings are consistent with
findings from Galindo and Leiderman (2005). Galindo and Leiderman (2005) indicate that the main concerns about the introduction of multi-currency regime are to do with increased vulnerabilities due to multi-currency debt and of particular relevance are the sudden stops in capital inflows emanating from failure by employers to remit contributions on time.

The findings are also consistent with Makochekana (2009) who observed that the resultant cash crunch meant that most of the pension funds and insurance companies were unable to make pension payouts in foreign currency. The liquidity squeezes was further compounded by the fact that pension funds are invested in properties and rely heavily on rental cash flows (Imara Market Investments, July 2011).

The finding that pension funds faced reputational risk is consistent with the findings from Rourke, (2004). According to Rourke (2004) companies have to maintain customer promise and expectation so as to maintain goodwill. Rourke (2004) further points out that the management of a company has a fiduciary responsibility to protect the interests of shareholders, employees and customers.

4.4 Survival strategies under a sudden currency change in the economy

Costing structures

Figure 4.7 reveals that from the 42 respondents, 31% indicated that pension funds did not change their costing structures for raising revenues. Sixty nine percent indicated that pension funds changed costing structures to raise revenues and to improve administrative efficiencies. This is consistent with OECD, (2006) findings that for any level of pension scheme contributions received by a pension fund, variations in the level of charges can have a significant impact on pension funds operations. The liquidity crunch meant that many employers were failing to submit contributions on time hence pension funds included penalties on late contributions as part of costs to employers to deter defaulting payment of contributions.
Figure 4.7 Changes in costing structures

Innovation

Figure 4.8 reveals that the respondents were of the opinion that many pension funds had adopted innovative products as a survival strategy after the introduction of multi-currency regime. Of the 42 respondents, 57% believed that pension funds introduced innovative products to outwit competitors. 43% of the respondents believed that innovation was not a viable survival strategy in the multi-currency regime. The findings are consistent with other researchers’ findings. Saens (1999) found that common investment funds were created in Argentina especially for pension funds. The new investments funds were created in Argentina after a sudden currency change. These were also applicable in Zimbabwe where pension funds came up with new products.
The findings are however contrary to findings by Geroski and Walters, (2002) who indicated that innovation is often adversely affected during hyperinflation periods.

**Planning horizons**

As a survival strategy under a multi-currency regime pension funds have moved from short term (less than 1 year) planning horizons which were the norm in the hyperinflationary period to mid-term (2-5 years) plans. Of the 42 respondents 64% were of the opinion that pension funds adopted medium term strategic plans. 33% of the respondents indicated that pension funds had adopted long term (5-10 years) planning horizons and only 3% indicated that pension funds were still on short term plans. Figure 4.9 display the findings by the researcher on planning horizons after the adoption of the multi-currency regime.
Interviews with Key Informants

Interviews were held with two managers namely investment managers and pension administration managers from each of the following three fund administrators and six pension funds respectively. Marsh Employee Benefits, Aon Consulting, Comarton Consultants, Mining Industry Pension Fund, Local Authorities Pension Fund, Construction Industry Pension Fund, ZESA Pension Fund, Communications and Allied Industry Pension Fund and Catering Industry Pension Fund. These key informants were chosen because from the mail survey questionnaires it was evident that most respondents came from pension administration managers and investment managers. A total of 18 interviews were held with pension administration managers and investment managers. The researcher therefore believed that these managers had more knowledge on the subject of the study.

4.5 Survival Strategies adopted during hyperinflation

From the 18 key informants that were interviewed it was evident that pension funds used some forms of survival strategies during hyperinflation. The most used strategies during hyperinflation were changes in investment strategies. From the 18
interviewees, 100% agreed that during hyperinflation pension fund investment strategies were driven by the income objective to deliver a real rate of return that was above inflation. Speculative tendencies were adopted for survival during hyperinflation as it was found evident from the interviewees that speculative tendencies in commodities and other currencies were used. From the 18 interviewees, 90% were of the opinion that pension funds adopted speculation as a survival strategy.

From the 18 interviewees, 50% indicated that pension funds survival hinged on the awarding of contracts to related companies with debts being offset without any movement of cash. The other 50% indicated that there were changes in the costing structures that were affected after factoring in inflation rates.

The other major strategy that was adopted during hyperinflation that came up during interviews was that management accounts were switched to US$ accounts. 78% of the interviewees agreed that pension funds switched their management accounts in foreign currency.

Out of the 18 interviewees, 56% believed that pension funds survived during hyperinflation because they adopted retrenchment strategies to contain operational costs. 44% of the interviewees did not adopt retrenchment strategies as a survival strategy. The summary of results from key informants is presented below on table 4.4.

**Table 4.4: Survival strategies during hyperinflation: Summary of results from key informants**

<table>
<thead>
<tr>
<th>Strategies</th>
<th>Adopted</th>
<th>Did Not Adopt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment Strategies</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>Speculative tendencies</td>
<td>90%</td>
<td>10%</td>
</tr>
<tr>
<td>Synergies with related entities</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>Changes in Costing Structures</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>Foreign Currency Management Accounts</td>
<td>78%</td>
<td>22%</td>
</tr>
<tr>
<td>Retrenchment Strategies</td>
<td>56%</td>
<td>44%</td>
</tr>
</tbody>
</table>

In table 4.4 it is evident that pension funds adopted some forms of survival strategies.
4.6 Challenges faced by pension funds due to sudden currency change in the economy

Most interviewees out of the 18, (60%) indicated that the operations of the pension funds were negatively affected by the liquidity crunch. Twenty eight percent of interviewees were of the opinion that there were challenges of failure to meet expectations from their stakeholders. Twelve percent of the interviewees were of the belief that reputational risk was a major challenge after the adoption of the multi-currency regime.

4.7 Survival strategies under a sudden currency change in the economy

From the 18 interviewees, 80% indicated that pension funds adopted innovative products as a survival strategy. 20% of the interviewees believed that no innovation was introduced but pension funds adopted differentiated products as a survival strategy.

What was more evident from the interviewees were that planning horizons were changed from short term that were adopted during hyperinflation to medium term and long term plans. Out of the 18 interviewees, 10% indicated that pension funds continued to use short term plans as they remained cautious as they were not aware of the duration of the multicurrency regime. 60% indicated that pension funds adopted medium term planning horizons and 30% adopted long term planning horizons.

The findings from interviewees were consistent with the findings from the mail survey questionnaires in that pension funds adopted survival strategies in the hyperinflation era and under a multi-currency regime. The strategies mentioned in the self-administered questionnaire and interviews were also substantially the same.

4.8 Financial Statements Analysis

Secondary data from the financial statements of six pension funds namely; Mining Industry Pension Fund, Local Authorities Pension Fund, Construction Industry Pension Fund, ZESA Pension Fund, Communications and Allied Industry Pension
Fund and Catering Industry Pension Fund and four life assurance companies namely Old Mutual, ZB Life Assurance, Zimnat Life Assurance and Fidelity Life were reviewed.

The findings from secondary data analysis revealed that in hyperinflation investment strategies were adopted as a survival strategy. During hyperinflation the investment portfolios had sizeable investments averaging above 50% in properties which provided a hedge against inflation. Only 1 life company (Fidelity Life) disposed of its properties in 2007 to its holding company to remain with a portfolio of property 2% and 98% equities.

All the pension funds and life assurance companies had two sets of accounts. One set was in the local currency and another set in foreign currency. It was evident from the document review that speculative tendencies were adopted as a survival strategy.

4.9 Survival Strategies under a sudden currency change in the economy

After the introduction of multi-currency pension funds adopted a number of survival strategies. Of the six self-administered funds, 67% stopped paying pensioners as they faced a liquidity crunch. All life assurance companies managed to pay pensions benefits as they came due.

Costing structures

Out of the six self-administered funds and four life assurance companies, 80% had their expense contribution ratio increased to an average of 18%. Only 20% had an expense contribution of 8%.

The findings were consistent with findings from the questionnaires and interviews that investment strategies and costing structures were adopted and adjusted to survive hyperinflation and after the introduction of a multi-currency regime.

4.10 CHAPTER SUMMARY

From the research carried out, it is evident that pension funds adopted some survival strategies to counter the effects of hyperinflation. The major findings of the research
were that all respondents in the study used some strategies although the strategies were varied.

The researcher found that pension funds employed diversification strategies, decentralised decision making, retrenchment strategies, product differentiation and other speculative tendencies to survive during hyperinflation.

The researcher found that the introduction of the multi-currency regime brought challenges that threatened the survival of pension funds. The challenges that pension funds faced included the liquidity squeeze.

The research established that following the introduction of the multi-currency regime, pension funds changed their costing structures to raise revenues for their operations. New products were introduced and medium to long term planning horizons were introduced.
CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.0 INTRODUCTION

This chapter provides the conclusions and recommendations following findings from the study as outlined in chapter 4. In this chapter the proposition stated in chapter 1 subsection 1.9 is also subjected to a validation test. The conclusions stated below are made by reference to each of the study’s objectives.

5.1 Conclusions

1 To investigate the survival strategies that were adopted by pension funds during hyperinflation (January 2000 –January 2009).

The researcher concluded that all respondents used some form of survival strategy during hyperinflation although these varied. The survival strategies used ranged from investment strategies, short term planning horizons, and decentralisation of decision making to enable faster control and quick adaptation to changes. Converting Zimbabwe dollars to foreign currency and speculation were also adopted.

2 To investigate the challenges faced by pension funds due to sudden currency change in the economy.

The researcher concluded that pension funds in Zimbabwe faced liquidity challenges that impacted their ability to meet obligations on time. Reputational risk was one of the challenges as pension funds failed to meet stakeholder expectations.

3 To investigate how pension funds adjusted to a multi–currency regime.

The researcher concluded that pension funds adopted a number of strategies after the introduction of a multi- currency regime such as; introduction of new products,
and introduction of medium to long term planning horizons. Costing structures were also adjusted to raise revenues for operational activities.

5.2 Validating the study’s proposition

The study’s proposition as outlined in chapter 1 subsection 1.9 was: The economic meltdown brought by hyperinflation (2000 -2009) forced pension funds to change their investment strategies and costing structures. Following findings from the study this proposition is accepted in full.

5.3 Recommendations

In view of findings from the study the researcher makes the following recommendations;

Surviving Hyperinflation

To survive during a period of hyperinflation, the researcher recommends that pension funds should adapt short term planning horizons, and investment strategies must be centred on assets that appreciate in value like buildings that hedge against inflation. Decentralised decision making is of importance to take care of sudden changes in the environment.

Curbing the challenges of a sudden currency change

The researcher recommends that in the face of a sudden currency change, pension funds and the regulator should come up with stakeholder awareness programmes that equip stakeholders with information to avoid reputational risk.

Surviving in the multi – currency regime

The researcher recommends that the regulator should come up with pension reforms to cushion pension funds. Coming up with a regulatory framework that promotes off-shore investments can cushion pension funds from the liquidity squeeze in the home economy.
5.4 Area of further study

There is need to study the regulatory framework’s adequacy during hyperinflation, upon sudden currency change in the economy and in the period after the introduction of a multi-currency regime.
REFERENCES

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43 Imara Market Investments watch, July 2011.
56 KPMG, (2012) Zimbabwe –Country Profile


Pensions and Provident Funds Act Chapter 24:09.


<table>
<thead>
<tr>
<th>Page</th>
<th>Reference</th>
</tr>
</thead>
</table>


110 Zimbabwe Association of Pension Funds (2010). Annual Bulletin

111 Zimbabwe National Statistics Agency (Zimstats) 2006
APPENDIX 1

Research Questionnaire
Self-Administered Funds

The effects of hyperinflation on pensions in payment:

SECTION 1: RESPONDENT PROFILE

1. Personal Details

1.1 Position:..............................................................................................................

1.2 Gender (Tick as appropriate) ...... male/female .................................................

1.3 Name of participating Employer ....................................................................

1.5 Experience in pension administration:

- Less than 5 years
- Between 5-10 years
- 10 years

1.6 Type of pension scheme:

- Defined Benefit
- Defined Contribution

1.6 Pension Fund Administration Arrangements

- Self – Administered
- Insurance Managed

1.7 Was there a change of funding structure during the period 2000-2009? If yes why

........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
2. Pensions in Payment between 31 December 2006- 31 December 2010 (N.B. For Insurance Companies please provide the details of your entire Pensioner portfolio and not for 1 scheme only)

<table>
<thead>
<tr>
<th>Year Ended</th>
<th>No of Pensioners</th>
<th>Monthly Average Pension</th>
<th>Range Min- Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>31.12.2006</td>
<td></td>
<td>Z$</td>
<td></td>
</tr>
<tr>
<td>31.12.2007</td>
<td></td>
<td>Z$</td>
<td></td>
</tr>
<tr>
<td>31.12.2008</td>
<td></td>
<td>US$</td>
<td></td>
</tr>
<tr>
<td>31.12.2009</td>
<td></td>
<td>US$</td>
<td></td>
</tr>
<tr>
<td>31.12.2010</td>
<td></td>
<td>US$</td>
<td></td>
</tr>
<tr>
<td>31.12.2011</td>
<td></td>
<td>US$</td>
<td></td>
</tr>
</tbody>
</table>

2.1 No. of pensioners as at 31. 12.2011, not being paid their pensions due to the fact that their monthly pension is below the statutory minimum of $10

2.2 No. of active pensioners earning more than $300 per month

2.3 What percentage of their income did pensioners lose of their Pensions due to hyper-inflation?

2.4 How many pensioners had their dues reduced to zero after the conversion from Zimbabwe dollars to US$

3. Pension Governance

3.1 How many trustees are in your Pension Fund?

3.2 How many vacancies exist?

3.3 How many Trustees work for the sponsoring employer?

3.4 How many trustees are Independent?

3.5 How regularly do the trustees meet
3.6 How many Trustees have a professional qualification?

3.8 Rate on scale of 1-5 the Trustees understanding of financial matters and investment markets (1 being the lowest and 5 being the highest)

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tick</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.9 How regularly are the trustees being paid allowances?

<table>
<thead>
<tr>
<th>Monthly</th>
<th>Quarter</th>
<th>Yearly</th>
<th>Half Yearly</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.10 Rate the Board in terms of understanding the implications of hyperinflation on the Fund (1 being the lowest and 5 the highest)

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
</table>

4. Pension Fund Details

4.1 No of active members as at 31.12.12

4.2 What is the employer Contribution rate towards Pension?

4.3 What is the employee Contribution rate towards Pension?
4.4 Were there any changes in the rate of administration charges during the period 2000-2009? If the answer is yes, how frequently were they changed and why

4.5 Investments portfolio as at 31.12.2000

<table>
<thead>
<tr>
<th>Assets Class</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity</td>
<td>%</td>
</tr>
<tr>
<td>Property</td>
<td>%</td>
</tr>
<tr>
<td>Money Market</td>
<td>%</td>
</tr>
<tr>
<td>Other</td>
<td>%</td>
</tr>
<tr>
<td>Total</td>
<td>%</td>
</tr>
</tbody>
</table>

4.6 Investments portfolio as at 31.12.2012

<table>
<thead>
<tr>
<th>Assets Class</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity</td>
<td>%</td>
</tr>
<tr>
<td>Property</td>
<td>%</td>
</tr>
<tr>
<td>Money Market</td>
<td>%</td>
</tr>
<tr>
<td>Other</td>
<td>%</td>
</tr>
<tr>
<td>Total</td>
<td>%</td>
</tr>
</tbody>
</table>

4.7 Balance Sheet value as at 31.12. 2005:

4.8 Balance Sheet value as at 31.12. 2006:

4.9 Balance Sheet value as at 31.12. 2007:
4.10 Balance Sheet value as at 31.12. 2008:

4.11 Balance Sheet value as at 31.12. 2009:

4.12 Balance Sheet value as at 31.12. 2010:

4.13 Balance Sheet value as at 31.12. 2011

4.14 Number of Asset Managers on the Fund

4.15 Contribution: Debt ratio for year 2009

4.16 Contribution: Debt ratio for year 2012

4.17 What strategies were implemented to survive during hyperinflation? Explain

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........................................................................................................................................
........................................................................................................................................
........................................................................................................................................

4.18 What impact has dollarization of the economy had on the fund? Explain

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........................................................................................................................................

4.19 To what extent (% age) do you believe your fund lost value due to the effects of hyper-inflation


5. General

5.1 Are the pension laws in Zimbabwe adequate to protect members against a repeat of losses suffered during hyperinflationary period? Where 1= totally inadequate and 5 = more than adequate.

1 2 3 4 5
5.2 In your opinion, give a rating of between 1 and 5 amongst the following probable causes for the loss of value in Pension Funds Assets and Low Pension Incomes: (1= Inconsequential to 5 highly contributory)

5.2.1 Hyperinflation

1 2 3 4 5

5.2.2 Trustees failure to Oversee the Affairs of the Fund

1 2 3 4 5

5.2.3 Poor Regulatory Environment

1 2 3 4 5

5.2.4 Asset Managers Misapplying funds

1 2 3 4 5

6 Membership

6.1 No. of active members of your Pension Fund as at December 2012

6.2 Average Accumulated Values as at 31 December 2012

6.3 Average exit amount
7 Conversion of assets

7.1. What was the impact of the conversion of assets from Zimbabwe dollar to US$? Explain

......................................................................................................................................................................................................................................................................................................................................................................................................................

7.2. Were there any leakages at the point of conversion? Yes/ No

If yes what were the cause of leakages? Explain

......................................................................................................................................................................................................................................................................................................................................................................................................................

7.3. Did the conversion process consider accrued liabilities? Yes/ No

7.4. What was the rate used to convert assets from Zimbabwean dollars to US$

Thank you for taking time to complete the questionnaire.
Research Questionnaire

**Fund Administrators and Life Companies**

The effects of hyperinflation on pensions in payment, active members

Section 1: Pension funds administered

1.1. Number of funds administered in 2007

1.2. Number of funds administered in 2009

1.3. Number of funds administered in 2012

1.4. What is the composition of funds administered?

   Defined Benefit

   Defined Contribution

1.5. How many funds changed their funding structures from DB to DC during the period 2000-2009

1.5.1. What were the reasons for changing their funding structures? Explain

   ..........................................................................................................................................................
1.6 What are the administration charges as a percentage of contributions per fund?

1.7. Were there any changes in the rate of administration charges during the period 2000-2009? If the answer is yes, how frequently were they changed and why?

2. Pensions in payment between 31 December 2005 - 31 December 2012 (N.B. For Insurance Companies please provide the details of your entire Pensioner portfolio and not for 1 scheme only)

<table>
<thead>
<tr>
<th>Year Ended</th>
<th>No of Pensioners</th>
<th>Monthly Average Pension</th>
<th>Range Min- Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>31.12.2006</td>
<td></td>
<td>Z$</td>
<td></td>
</tr>
<tr>
<td>31.12.2007</td>
<td></td>
<td>Z$</td>
<td></td>
</tr>
<tr>
<td>31.12.2008</td>
<td></td>
<td>US$</td>
<td></td>
</tr>
<tr>
<td>31.12.2009</td>
<td></td>
<td>US$</td>
<td></td>
</tr>
<tr>
<td>31.12.2010</td>
<td></td>
<td>US$</td>
<td></td>
</tr>
<tr>
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<td>US$</td>
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</tr>
</tbody>
</table>

2.1 No. of pensioners as at 31.12.2011, not being paid their pensions due to the fact that their monthly pension is below the statutory minimum of $10

2.2 No. of active pensioners earning more than $300 per month

2.3 What percentage of their income did pensioners lose of their Pensions due to hyper-inflation?

2.4 How many pensioners had their dues reduced to zero after the conversion from Zimbabwe dollars to US$
3. INVESTMENTS

3.1. Investments portfolio as at 31. 12. 2000

<table>
<thead>
<tr>
<th>Assets Class</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity</td>
<td>%</td>
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<tr>
<td>Property</td>
<td>%</td>
</tr>
<tr>
<td>Money Market</td>
<td>%</td>
</tr>
<tr>
<td>Other</td>
<td>%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>%</td>
</tr>
</tbody>
</table>

3.2. Investments portfolio as at 31.12.2012

<table>
<thead>
<tr>
<th>Assets Class</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity</td>
<td>%</td>
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<td>Other</td>
<td>%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>%</td>
</tr>
</tbody>
</table>

3.3. Balance Sheet value as at 31.12. 2005:

3.4. Balance Sheet value as at 31.12. 2006:

3.5. Balance Sheet value as at 31.12. 2007:

3.6. Balance Sheet value as at 31.12. 2008:

3.7. Balance Sheet value as at 31.12. 2009:
3.8. Balance Sheet value as at 31.12. 2010:


3.10. Number of Asset Managers on the Life Fund

3.11. Contribution: Debt ratio for year 2009


3.13. What strategies were implemented to survive during hyperinflation? Explain

3.14. What impact did dollarization of the economy have on the fund? Explain

3.15. To what extent (% age) do you believe your fund lost value due to the effects of hyper-inflation

3.16. Do you have investment mandates with the pension funds you administer? Answer yes or no in the box. If not how do you appropriate investments? Explain
4. General

4.1. Are the pension laws in Zimbabwe adequate to protect members against a repeat of losses suffered during hyperinflationary period? Where 1 = totally inadequate and 5 = more than adequate.

| 1 | 2 | 3 | 4 | 5 |

4.2. In your opinion, give a rating of between 1 and 5 amongst the following probable causes for the loss of value in Pension Funds Assets and Low Pension Incomes: (1 = Inconsequential to 5 highly contributory)

4.3. Hyperinflation

| 1 | 2 | 3 | 4 | 5 |

4.4. Trustees failure to oversee the Affairs of the Fund

| 1 | 2 | 3 | 4 | 5 |

4.5. Poor Regulatory Environment

| 1 | 2 | 3 | 4 | 5 |

4.6. Asset Managers Misapplying funds

| 1 | 2 | 3 | 4 | 5 |
5. Conversion of assets

5.1. What was the impact of the conversion of assets from Zimbabwe dollar to US$? Explain

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5.2. Were there any leakages at the point of conversion? Yes/ No

If yes what were the cause of leakages? Explain

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5.3. Did the conversion process consider accrued liabilities? Yes/ No

5.4. What was the rate used to convert assets from Zimbabwean dollars to US$..............................................

5.5. Was the conversion rate uniform for all funds under your administration? Yes/ No

Thank you for spending time in completing the questionnaire.
APPENDIX 3

Interview Schedule with Key Informants

1. What survival strategies were employed during hyperinflation? Was a change in investment strategy part of your survival strategy?

2. Were retrenchment strategies employed as part of survival strategies during hyperinflation?

3. What other strategies were adopted for survival during hyperinflation?

4. What were the challenges that were faced by hyperinflation due to a sudden currency change in the economy?

5. What were the survival strategies that were adopted by pension funds for survival in the multi-currency regime?

6. Was there a change in the planning horizons of pension funds after the introduction of the multi-currency regime?

7. What recommendation can be made for pension funds to survive during hyperinflation and after the introduction of the multi-currency regime?
APPENDIX 4

Sample of organizations from which respondents were randomly Selected

A. Life Assurance Companies
   1. Old Mutual Life Assurance Company
   2. First Mutual Life Assurance Company
   3. Fidelity Life Assurance Company
   4. ZB Life Assurance Company

B. Self- Administered Pension Funds
   1. Mining Industry Pension Fund
   2. ZESA Pension Fund
   3. Construction Industry Pension Fund
   4. Communication and Allied Industries Pension Fund
   5. Local Authorities Pension Fund
   6. Catering Industries Pension Fund

C. Asset Management Companies
   1. IMARA asset managers
   2. Datvest
   3. Old Mutual
   4. Zimnat
   5. ABC

D. Fund Administrators
   1. Aon Consulting
   2. Cormaton Consultants
   3. Marsh Employee Benefits