An investigation into the use of derivatives by Botswana, Namibia, Zambia and Zimbabwe

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I certify that unless otherwise specified, this work is my own work. All references are accurately reported in the text.

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1 Introduction

The aim of this paper is to look at derivative usage in Botswana, Namibia, Zambia and Zimbabwe and contrast the findings to surveys done of other countries. There is no evidence of similar studies done on small sub Saharan African countries, so there is no specific literature driven expectations based outcome. One can however draw logical expectations regarding the findings based on the homogenous characteristics of smaller countries (and markets) in the rest of the world and similar studies done on those countries.

From a research perspective it would be difficult to compare and contrast derivative usage in these countries without first establishing a consistent basis of measurement of the fair value of such instruments and ensure that they are in fact the same instruments across the countries as reported. For this purpose we will briefly look at the accounting environment in each country and establish that there is a homogenous and thus comparable measurement basis across the countries. We will also look at the measurement and disclosure basis in some detail, specifically with regard to IFRS ("International Financial Reporting Standard") seven, IFRS two, IAS ("International Accounting Standard") thirty two and IAS thirty nine.

The research into derivative usage in this paper will primarily look at Swaps, Options, Futures, Forwards and Employee Based Share Options ("ESOP's). These categories of derivatives cover foreign exchange rate derivatives, interest rate derivatives, commodity price derivatives and equity linked derivatives. The derivatives in this study cover the main types of vanilla derivatives found throughout the rest of the world and are the most likely types of derivatives to be found in the lesser developed financial markets of small sub-Saharan African countries.

It was decided that a review of the financial statements for all companies listed on the exchanges of these countries should take place. The exchanges comprised the Botswana Stock Exchange ("BSE"), the Namibian Stock Exchange ("NSX"), the Zambian Stock Exchange ("LUSE") and the Zimbabwe Stock Exchange ("ZSE") and the Namibian Stock Exchange ("NSX"). The period of review is for financial statements filed between May of 2009 and May of 2010.

2 Derivatives

Investopedia defines a derivative as "A security whose price is dependent upon or derived from one or more underlying assets. The derivative itself is merely a contract between two or more parties. Its value is determined by fluctuations in the underlying asset. The most common underlying assets include stocks, bonds, commodities, currencies, interest rates and market indexes. Most derivatives are characterized by high leverage"[1]

Much has been written about the history of derivatives with the first recorded use of derivatives being biblical. In Genesis Chapter 29, believed to be about the year 1700 B.C., Jacob purchased an option costing him seven years of labor that granted him the right to marry Laban's daughter Rachel. Around 580 B.C., Thales the Milesian purchased options on olive presses and made a fortune off of a bumper crop in olives. [2]

A good couple of thousand years later saw the first forward exchange for trading derivatives being formed in the form of the Royal Exchange in London. The exchange was founded in 1565 by Sir Thomas Gresham.

The next major event in derivative history was the establishment of futures markets, with the first futures market being the Chicago Board of Trade in 1848. The board provided a device for hedging and speculating on price changes in grain.

In 1922 the federal government made its first effort to regulate the futures market with the Grain Futures Act. The next 50 years saw various stages of derivatives banning and their subsequent re-emergence. In the 1950's onion futures were banned and to this day the law in effect says "you can create futures contracts on anything but onions".

In 1972 the Chicago Mercantile Exchange created the International Monetary Market which allowed trading in currency futures.

In recent history the event of the credit default swap triggered one of the biggest liquidity crises ever experienced by US banks in 2008. This led to the Global Financial crisis (also known as the credit crunch) and is said by economists to be the worst financial crisis since the great depression of the 1930's.[3]

Warren Buffet the world's second richest man and the most successful value investor of his time stated in his 2002 Berkshire Hathaway annual report that "derivatives are time bombs, both for the parties that deal in them and the economic system….. In my view, derivatives are financial weapons of mass destruction, carrying dangers that, while now latent, are potentially lethal."

Despite their numerous historic episodes of illegality and their role in the worst financial crisis in modern history derivatives appear here to stay.

[1] http://www.investopedia.com/terms/d/derivative.asp#axzz1X0puelYV
[2] Section two is composed of multiple excerpts from Don Chance, A brief History of Derivatives 1995

[3] http://en.wikipedia.org/wiki/Late-2000s_financial_crisis

Derivatives can be traded over the counter ("OTC") or on exchanges. OTC derivatives are created by an agreement between two individual counterparties. OTC derivatives cover a range from highly standardized (so-called "exchange look-alike") to tailor-made contracts with individualized terms regarding underlying, contract size, maturity and other features. Most of these contracts are held to maturity by the original counterparties, but some are altered during their life or offset before termination.

Exchange-traded derivatives, on the other hand, are fully standardized and their contract terms are designed by derivatives exchanges. Most derivatives products are initially developed as OTC derivatives. Once a product matures, exchanges "industrialize" it, creating a liquid market for a standardized and refined form of the new derivatives product. The OTC and exchange-traded derivatives then coexist side by side.

Derivatives can be differentiated along three main dimensions

- Type of derivative and market place: Derivatives can be traded bilaterally OTC (mostly individually customized contracts) or multilaterally on exchanges (standardized contracts).
- Type of underlying: Underlyings can be financial instruments themselves, physical assets, or any risk factors that can be measured. Common examples are fixed-income, foreign exchange, credit risk, equities and equity indices or commodities Exotic underlyings are, for example, weather, freight rates, or economic indicators.
- Type of product: The three main types are forwards (or futures), options and swaps. They differ in terms of their dependence on the price of the underlying.

For the purposes of this study we will be looking at five types of derivative defined below:

- **Employee Stock Option Plans ("ESOPS")**
  "A stock option is granted to specified employees of a company. ESOPs carry the right, but not the obligation, to buy a certain amount of shares in the company at a predetermined price. An employee stock option is slightly different from a regular exchange-traded option because it is not generally traded on an exchange, and there is no put component. Furthermore, employees typically must wait a specified vesting period before being allowed to exercise the option. "[4]
- **Forwards**
  "A cash market transaction in which delivery of the commodity is deferred until after the contract has been made. Although the delivery is made in the future, the price is determined on the initial trade date."[5]
- **Futures**
  "A type of derivative instrument, or financial contract, in which two parties agree to transact a set of financial instruments or physical commodities for future delivery at a particular price."[6]

[4] http://www.investopedia.com/terms/e/eso.asp#axzz1X0pueIYV
[5] http://www.investopedia.com/terms/f/forwardcontract.asp#axzz1X0pueIYV

[6]http://www.investopedia.com/university/futures/#axzz1X0pueIYV

- **Swaps**
  "Traditionally, the exchange of one security for another to change the maturity (bonds), quality of issues (stocks or bonds), or because investment objectives have changed. Recently, swaps have grown to include currency swaps and interest rate swaps." [7]
- **Options**
  "A financial derivative that represents a contract sold by one party (option writer) to another party (option holder). The contract offers the buyer the right, but not the obligation, to buy (call) or sell (put) a security or other financial asset at an agreed-upon price (the strike price) during a certain period of time or on a specific date (exercise date). "[8]

[7] http://www.investopedia.com/terms/s/swap.asp#axzz1X0pueIYV
[8] http://www.investopedia.com/terms/o/option.asp#axzz1X0pueIYV

3 A review of survey and non-survey based research into derivative usage.

There is little to no available literature on surveys done on the derivative usage by small sub Saharan African countries such as Botswana, Namibia, Zambia and Zimbabwe and it is likely that no such surveys have been done. This is primarily due to the small size of the companies in the countries mentioned and the lack of international relevance. For the purposes of this paper we will look at surveys done on smaller countries, small cap companies within larger countries, or surveys which conclude on both small cap and large cap companies as they are likely to be the most relevant. To further gain an understanding of derivative usage in sub-Saharan African countries we will also look at relevant non-survey based literature which focuses on emerging markets and small countries.

Surveys of this type were first brought into the spotlight by **Phillips (1995) and Bodnar, Hayt, Marston and Smithson (1995)** and used as a basis of surveying the derivative usage in other countries. **Bodner et al (1995)** produced a questionnaire based survey of 2000 non-financial American ("USA") companies across industries and across firms of varying sizes. The survey found that there was a significant correlation between the size of the firm and derivative usage, with small firms being less likely to use derivatives. The survey found that derivatives were mainly used for hedging and not for speculative transactions.

The size effect in relation to derivative use was further confirmed by **Bodnar, Hayt and Marston (1998)** in an extended and updated survey of derivative use by USA non financial firms. The survey found that 83% of large firms used derivatives whilst only 12% of small firms used derivatives. Service firms were also more than twice as likely to use derivatives as manufacturing or primary product firms. The study also found that currency and interest rate risks were the most recurrent reasons for using derivatives.

Malin, Ow-Yong and Reynolds (2000) conducted a study of United Kingdom ("UK") non-financial listed companies and compared the results to those of similar US based studies. The study found broadly similar trends in the use of derivatives specifically regarding the firm size effect and the usage of derivatives to hedge financial price risk. However they also found that the primary objective cited in using derivatives was to manage fluctuations in accounting earnings, a focus that is inconsistent with the theoretical view of paying attention to the cash flow benefits hedging.

In a study of 79 New Zealand **firms Berkman, Bradbury and Magan (1997)** looked at the effect of derivative use in a country which has a small open economy with a lesser developed financial infrastructure compared to that of the USA. They found that across all firm sizes, relatively more New Zealand firms used derivatives compared to the USA. However the types of transactions that derivatives are being used to hedge and the objectives of risk management are very similar between NZ and US firms.

Marsden and Prevost (2005) performed a similar study looking at other factors impacting derivative use in New Zealand. They found that companies with higher growth opportunities and a greater proportion of outside directors were less likely to use financial derivatives. This supplemented other US based literature which showed that internal governance mechanisms can play a role in corporate derivatives policy and that the legislative and regulatory environment may affect this role.

In the biggest study of its kind **Bartram, Brown and Conrad (2006)** looked at 6,888 non-financial firms from 47 countries. The 47 countries represented 99% o f global market capitalization in 2000 and 2001, and the firms in the sample account for 60.6% of overall global market capitalization or 76.8% of global market capitalization of non-financial firms. The study primarily looked at the effect of derivative use on firm risk and value. However to isolate this effect the firms also needed to be filtered according to derivative users and non-derivative users. It was found that of the 6,888 a total of 60.5% of firms used derivatives. Countries with larger firms and more developed financial markets had significantly more derivative use than smaller countries with small firms and less developed financial markets.

Focusing primarily on smaller markets **Fernandez (2006)** looks at Chile and discusses various aspects of derivatives in emerging markets. The study is based on statistics obtained from the local exchange and local central bank. Fernandez finds that low liquidity of spot markets, high trading costs and stringent regulations governing institutional investors, in particular pension funds, appear to be the driving factors in the thinness of the domestic derivatives market.

Martin, Miguel Angel, Rojas, Wolfgang, Erausquin, Jose Luis, Yupanqui y Edgar Vera (2009) concluded that financial derivatives markets have reached a remarkable development in recent years, but this pattern has not attained the same strength in developing countries. In the study they posed the question of what is the development degree of financial derivatives markets in emerging countries and which variables influence the use of derivatives in the top companies?

To analyze this topic they chose Peru as a reference including non-financial firms as well. In order to enhance the objectivity, an empirical study was conducted through a structured survey directed to chief financial managers of companies classified among the TOP 1000 in the country. The information was collected in order to explain the effect of the determinants that influence the development of financial derivatives in Peru. The results show that the use of derivatives in Peru is low and the relevant factors affecting its development are the degree of training in derivatives and the market regulation. This outcome suggests that there should be patterns of behaviour for market agents and government entities to promote the use of derivatives, as well as provide information for future research that might contribute to establish the most adequate mechanisms for market-development purposes

In a **2009 ISDA Derivatives Usage Survey (Number 2, 2009)** ISDA updated the results of 2003 ISDA derivatives usage survey for Fortune 500 companies as well as looking into the factors impeding derivate usage in Russia. The survey found reported derivative usage was uniformly high among companies based in developed countries and uniformly low in emerging markets. Using the case of Russia the paper discussed the obstacles to the development of OTC derivatives in Russia. It was found that legal uncertainty over the enforceability of derivative contracts is the primary obstacle to further development of domestic derivative markets in Russia. The ISDA discussed with Russian legislators several legal issues hampering the development of the Russian derivatives market:

- The need for clarity regarding the legal enforceability of derivatives transactions;
- Explicit recognition of close-out netting in Russian insolvency law: and
- The need for legislation to improve the efficiency of collateral transactions and to clarify the treatment of collateral in the event of the insolvency of counter-party.

Rudolf van der Bijl (1996) of the IFC conducted a fundamental analysis of exchange traded derivatives in emerging markets, giving an overview of derivative usage in emerging markets. The paper considered 23 significant exchanges in 16 emerging markets covering small countries such as Slovenia, Hungary and Guatemala. Van der Bijl found that the main factor impeding derivative use across the 16 markets was the weakness of commercial law both in precept and in practise. Under a weak legal environment, individuals and firms in the economy face problems in their contractual arrangements with each other. There are strong temptations to renege on a contract given the poor legal support for contract enforcement. In this situation, the existence (or lack) of the futures clearinghouse is a vital institution which enables the functioning of the economy by supplying credit guarantees and producing contract performance.

Dubravko Mihaljek (2010) published the first large scale comprehensive review of derivatives in emerging markets. This paper combined data from the Triennial Central Bank Survey of OTC derivatives market activity with other papers on derivatives traded on emerging market exchanges.

The main findings were that daily turnover in derivatives markets in emerging market economies has expanded four times over the past decade, to over 6% of emerging market Gross Domestic Product ("GDP"). It was found that derivatives in emerging markets are traded in almost equal proportions over the counter and on exchanges. Unlike in advanced economies, Foreign Currency ("FX") derivatives are still the most traded derivatives in emerging market economies (50% of total turnover), while interest rate derivatives remain underdeveloped. The FX derivatives turnover in emerging markets is becoming increasingly global, with a growing share of transactions being done cross-border, and transactions in emerging market currencies increasingly taking place offshore. The largest derivatives markets in emerging market economies s are located in Korea, Brazil and the two Asian financial centers of Hong Kong SAR and Singapore. Trade, financial activity and per capita GDP are positively related to the growth of derivatives markets in emerging market economies.

3.1 Conclusion

What can be seen from review of similar studies is that there is clearly a size effect on the use of derivatives, with regard to the size of the companies in the market and the size of the actual market. Based on this and given the relatively small size of the companies and markets in Botswana, Namibia, Zambia and Zimbabwe one would expect little to no derivative use by the companies in these countries.

Furthermore it is found that Service firms were more than twice as likely to use derivatives as manufacturing or primary product firms. Given that developing countries such as Botswana, Namibia, Zambia and Zimbabwe are more likely to be manufacturing or primary product focused given the lack of mature financial markets and associated service firms, it is likely that derivative usage is expected to be further lessened by this market characteristic.

Low derivate usage in developing countries and emerging market economies has also been linked to the fact that the countries lack certain key financial market exchanges, such as bond and futures exchanges, required to support derivative transactions. There is also negative correlation between the strength of the regulatory environment, enforceability of derivative contracts and the prevalence of derivative usage. Given the lack of financial regulatory framework covering derivatives in Botswana, Namibia, Zambia and Zimbabwe and the complete lack of over the counter exchanges it is likely that derivative usage is to be minimal.

4 Roadmap to Country Specific IFRS adoption

When looking into the derivative usage by countries one first needs to assess the manner in which they are reported and develop a consistent basis of measurement and reporting. In the case of Botswana, Namibia, Zambia and Zimbabwe the consistent basis of measurement and reporting are the International Financial Reporting Standards ("IFRS"). In the section that follows we will evaluate each countries process in the adoption of IFRS.

In the case of smaller countries the governing accounting bodies are affiliated with the larger regional bodies and follow the path set by these bodies. The smaller countries lack the resources and necessity to have their own standards setting committees. Botswana, Namibia, Zambia and Zimbabwe fall into this category and are affiliated with the South African Institute of Chartered Accountants ("SAICA"), being the largest of the sub Saharan African governing bodies. The Accounting Practise Board ("APB") is the SAICA committee responsible for standard setting.

The countries governing bodies are also members of the International Federation of Accountants ("IFAC").

Prior to implementation of the International Financial Reporting Standards ("IFRS") the Namibian and Zambian Companies Act and Public Accountants and Auditors Act were silent as to any authority on standards setting, resulting in the countries institutes adopting South African GAAP. The individual countries GAAP was identical to that of South Africa and tracked all changes in South African GAAP without exception. As such the countries "IFRS Harmonization" process followed that of South Africa and will be looked at in the context of the South African experience. Botswana and Zambia adopted IAS (without modification) in 1990 and 1997 respectivley.

The changes in IAS 29, IFRS 2 and IFRS 7 that impact derivative reporting arise both pre and post IFRS harmonization and hence it is important to look at the impact of these statements on derivative use throughout the harmonization process.

The harmonization process was completed in June 2004 when IFAC announced that "the adaption of International Financial Reporting Standards would be expected for all member bodies for all financial periods commencing on or after 1 January 2005". This was further enforced by the stock exchanges of Botswana, Namibia, and Zambia and Zimbabwe enforcing this rule as a part of their ongoing listing requirements. The Company Acts of the various countries were also amended to enforce IFRS reporting by all companies falling under the ambit of the Companies Act. This encompassed all listed entities in the relevant country. The countries specific IFRS status is summarized in the table below as reported by PriceWaterHouseCoopers in their 2010 report, "IFRS adoption by country"

Code	Jurisdiction	IFRSs Not Permitted	IFRSs Permitted	IFRSs Required for Some	IFRSs Required for All	Audit Report States Compliance With IFRS		Use of IFRSs by Unlisted Companies
BW	Botswana				X	Yes		IFRSs required for some, permitted for others
NA	Namibia				X	Yes		
ZW	Zimbabwe				X	Yes		
ZM	Zambia		X			Yes		IFRSs permitted

During 2004 the International Federation of Accountants ("IFAC") announced that the adoption of International Financial Reporting Standard ("IFRS") would be expected for all member bodies for all financial periods commencing on or after 1 January 2005.

4.1 Country specific statutory framework for accounting

Zimbabwe

In Zimbabwe IFRS is required for both consolidated and standalone/separate financial statements. The applicable versions of IFRS are as published by the International Accounting Standards Board ("IASB"). The compliance with IFRS forms part of the ongoing listing requirements of companies listed on the Zimbabwe Stock Exchange.[9]

Despite IFRS forming part of the listing requirements Zimbabwe experienced a unique set of economic circumstances that lead to a complete departure from IFRS for the period covered by this research report.

Zimbabwe's Departure from IFRS

Certain economic circumstances have lead Zimbabwe to depart from reporting in terms of IFRS[10]. The situation has resulted due to the company's inability to prepare financial statements in terms of IAS 29. If IAS 29 cannot be applied then this automatically invokes non-compliance with all the other statements as fair value accounting cannot be applied. Zimbabwean big four audit firms, listed companies, the Zimbabwe Stock Exchange ("ZSE") and the Institute of Chartered Accountants of Zimbabwe ("ICAZ") still require that the financial statements be prepared in accordance with IFRS. This however results in automatic qualification in the audit report. Every audit report for ZSE listed entities was qualified on this basis over the period 31 May 2009 to 31 May 2010.

A typical director's report for the 2009 financial year contains the following commentary

"The year's results are presented in Zimbabwe Dollars but comprise ten months of trading in varied denominations and values of the Zimbabwe Dollar and two months of trading in stable currencies, primarily the United States Dollar. The Directors concur with the Auditors' opinion that the Zimbabwe Dollar results do not present a true and fair view of the financial performance of the Group during the year. As more fully described elsewhere in this Annual Report, the unique circumstances prevailing in the Zimbabwe economy over the last twelve months have made it impossible to provide meaningful financial reporting in respect of the year, and accordingly, the Directors advice caution on the use of the financial statements for decision making purposes." – Delta Beverages Ltd, financial year end 31 March 2009[11]

[9] http://www.adoptifrs.org/uploads/Congo,%20The%20DRC/IFRS%20adoption%20by%20country.pdf

[10] The complete section of Zimbabwe's departure from IFRS is composed of excerpts from material published by John Robertson in the Zimbabwe Independent Newspaper over the years 2009 and 2010. Certain IFRS and economic interpretations are from a KPMG publication entitled "The accounting dilemma experienced in Zimbabwe"

[11] Delta Beverages Ltd Annual report, 31 March 2009 as found at http://www.delta.co.zw/

The situation above gives rise to three issues which need to be addressed:

1 Why the country cannot apply IAS 29
2 Why the non application of IAS 29 automatically invokes a fully qualified audit opinion on the basis of non IFRS preparation. One would assume that this would only results in a qualification on an IAS 29 basis and assume that the rest of the financial statements have been prepared in accordance with IFRS.
3 The likely effect that the inability to Produce IFRS financial statements has on the use of derivatives

1 Why the country cannot apply IAS 29 [12].

For financial reporting purposes the Zimbabwean economy was defined as hyperinflationary in early 2000 (as defined by IAS 29 "Financial Reporting in Hyperinflationary Economies", hyperinflation is when the cumulative inflation rate over three years is approaching, or exceeds, 100%). Economists however, generally define hyperinflation as inflation over 50% month on month. For the purpose of this paper, this level of inflation will be referred to as "Chronic-hyperinflation". Zimbabwe entered Chronic-hyperinflation in March 2007.

The period of chronic-hyperinflation created various market anomalies

Rise of the parallel market

The crash of the Zimbabwean dollar in the foreign exchange markets was immediately mirrored by its loss of value on the domestic markets, as in January 1998 there was an upsurge in consumer prices of 25 percent. In response to the threatening levels of inflation already experienced, the government reintroduced price controls, which paradoxically led to an increase in activity on the "parallel market" (also commonly known as the informal or black market). This activity on the parallel market had several effects throughout the economy, which included a lack of transparency in the market, as there were multiple prices for a similar product (i.e. the official price, and the "parallel market" prices)

[12] Point 1 is based on ideas as presented in the following publications "Draft detailed guidance on financial reporting for 2009 issued by the PAAB to its members in October 2009, including the proposed audit opinions for the period after December 2008", "Draft detailed guidance on the change in functional currency approved by the PAAB issued to its members in October 2009", "Joint media statement on the impact on financial reporting as a consequence of the change in functional currency issued by the Public Accountants and Auditors Board, the Zimbabwe Accounting Practices Board and the Zimbabwe Stock Exchange, published on 5 August 2009", "Detailed guidance on financial reporting for 2008 issued by the PAAB to its members in March 2009, including the proposed audit opinions for December 2008", "Joint media statement on compliance with the Companies Act (24:03) and International Financial Reporting Standards ("IFRS") by the Public Accountants and Auditors Board ("PAAB"), the Zimbabwe Stock Exchange, and the Zimbabwe Accounting Practices Board ("ZAPB") published in March 2009"

The parallel market was not consistent and gave rise to a high range of prices within the market at any point in time. There also developed a widening range in unofficial exchange rates and the effective disappearance of a single spot rate.

The key accounting challenges that were encountered during this period were the application of IAS 21 "The Effects of Changes in Foreign Exchange Rates" which assumes that there is a single spot rate prevailing in the economy at a single point in time, and the application of IAS 29 "Financial Reporting in Hyperinflationary Economies" which assumes logically that the rate of inflation is even across all sectors of industry, and over the period. Users of these Zimbabwe dollar financial statements began questioning these assumptions as the levels of inflation increased. The logic and validity of the assumptions underlying IAS 21 and IAS 29 are compromised in an environment where the exchange rate is artificially legislated and there is unequal access to foreign currency, which is further exacerbated by the official and unofficial use of arbitrary exchange rates.

Reliability of the Official Index

As Zimbabwe entered chronic-hyperinflation the official inflation values released by the CSO ("Central Statistics Office") did not consider the prices of the same goods that were traded on the parallel market. The problem became pervasive when the majority of the country's transactions began to be conducted on the parallel market in foreign currency. This resulted in severe distortions within the economy and the CPIX became unreliable as the levels of inflation in the economy became exponential.

Move to a Cash Economy

Due to the nature of the parallel market, there was a premium for physical cash, rather than funds transferred through a registered financial institution. Inflation began to exceed the Reserve Bank's ability to produce the physical cash necessary to transact and the amount of physical cash that could be withdrawn from banks was limited. This situation gave rise to a phenomenon where the value of physical cash began to exceed the value of funds in a financial institution by ever increasing percentages.

Extreme Volatility

Whilst there was an obvious difference between the value of physical cash transactions and transactions that were conducted through financial institutions, there were further values of measure within what was still defined as a single Zimbabwe dollar through the period of chronic-hyperinflation. These values were often expressed in relation to a foreign currency, and described as exchange rates. The value was driven by the mode of settlement, for example the Zimbabwe Dollar simultaneously had a different value if it was being paid via cheque or as cash, or as electronic transfer, or through share based transaction. This was also a function of how long each transaction took to complete. Another influence in these different values was the level of liquidity in that particular mode of settlement resulting in an effective exchange rate varying between cities in Zimbabwe. In substance the Zimbabwe dollar took a multiple currency nature at a single point in time. The reliability of the Zimbabwe dollar as a unit of measure at this point in time became unreliable.

A Return to Barter Trade

During 2008 as a result of the dysfunctionality of the Zimbabwean Dollar as described previously and as a result of liquidity shortages of physical currency both foreign and local an increasing number of entities resorted to barter trade. This was also in part driven by controlled prices of products. Some companies sought to fully comply with IAS 18 – revenue, but most companies could not establish a reliable or uniform unit of measure or translation for transactions. "Fuel Coupons" became the most widely used form of barter currency. It is unclear whether fuel coupons meet the definition of currency as they are not monetary units and are intrinsically linked to the price of petrol. The fuel coupons were also not homogeneous as they represented different products and were issued by different entities. It was however commonly understood what the real value of petrol was during the period and this is what allowed entities to trade. The high degree of barter trade, and severe shortages in some products, coupled with the multiple measures of value within the Zimbabwe dollar meant that it became impossible to develop a reliable and representative Zimbabwe dollar based "basket of goods" to determine the Consumer Price Index.

Consequently, since July 2008 the Central Statistics Office was unable to generate a general price index for use as required by IAS 29 "Financial Reporting in Hyperinflationary Economies".

Suspension of Trading on the Zimbabwe Stock Exchange

During November 2008, the Zimbabwe Stock Exchange was experiencing a "bull run" of exponential proportions. There was no unit of value, store of value or reliable unit of trading other than equities listed on the ZSE. In mid-November 2008 there were several instances of counterparty fraud, in particular the overbuying of shares in the absence of funds on the assumption that the Bull Run would continue. This led to the suspension of trading on this market from the 23rd of November 2008 until it re-opened on the 19th of February 2009, trading thereafter in United States Dollars. Given the extreme volatility, and exponential inflation that the country was experiencing, the ability for entities to establish a reliable fair value of the shares listed on the market at 31 December 2008 in Zimbabwe dollars was compromised.

Collapse of the Zimbabwe Dollar

This extremely difficult trading environment was coupled with general shortages of most products, and severe shortages of some. It was common for individuals to do their grocery shopping in neighbouring countries due to these shortages. As these levels of chronic-hyperinflation continued to rise, the local prices became unmanageable and entities began to abandon pricing their products in Zimbabwe dollars. In October 2008 the Reserve Bank of Zimbabwe responded by issuing licences to trade in foreign currencies to certain entities that could meet the conditions. Trading in foreign currency in Zimbabwe is subject to exchange control approval. This "dollarization" was formally recognised in January 2009 when the acting finance minister presented the 2009 budget in United States Dollars, and then on the 2nd of February 2009 the Reserve Bank governor announced that they were relaxing the exchange control regulations, which would permit all entities in Zimbabwe to trade in foreign currency.

Impact on the application of IAS 29 and other accounting considerations

1 In terms of IAS 29 Para 1 the standard should be applied to the financial statements of an entity whose functional currency is the currency of a hyperinflationary economy.
Paragraph 5 states the financial statements should be stated in terms of the measuring unit current at the balance sheet date regardless of preparation on the current cost or historic cost basis.
Para 1 and 5 imply the need for a functional currency and a means of measuring the change in value of the functional currency such as the CPIX. In the case of Zimbabwe, the absence of a remotely reliable CPIX (and lack of functional currency) made it impossible for listed entities to apply IAS 29.

2 The inability to reliably measure an exchange rate during the period, due to the multiple measures of value within the Zimbabwe dollar and subsequent loss of any spot rate resulted in the inability to apply IAS 21 "The Effects of Changes in Foreign Exchange Rates" for transactions in the chronic-hyperinflation period.
Entities that were previously reporting in Zimbabwe dollars and then adopted another currency on the collapse of the Zimbabwe dollar are required by IAS 21 to apply the spot rate on the date of the "change in functional currency" to translate their results. However, as the Zimbabwe dollar was not a "functional currency" as it was not a consistent, homogenous and reliable measure of value, and as no reliable spot could be developed at this date, it was not possible to apply these provisions of IAS 21 and obtain reasonable results.

Other accounting considerations

1 As there was no trading for over a month on the Zimbabwe Stock Exchange, in an extremely volatile market, it was not possible to develop a reliable fair value in Zimbabwe dollars for equities. And as there was no reliable discount rate or reasonable mechanism to project future cash flows, the alternative valuation techniques described in IAS 39 "Financial Instruments: Recognition and Measurement" could not be applied.
2 The inability to measure in Zimbabwe dollars the fair value of barter transactions, which were often invoiced at controlled prices, severely compromises the reliability of the revenue value for many entities. As a key recognition criterion in IAS 18 "Revenue" is that the cost of the transaction can be measured reliably, many transactions entered into by entities may not qualify for revenue recognition, despite the substance of the transaction.
3 The inability to reliably measure fair value in Zimbabwe dollars has an implication on nearly all accounting standards. For example IAS 16 "Property, plant and equipment" where an entity was on a revaluation model, or when attempting to determine the residual values for assets. Another example is IFRS 2 "Share based payments" that were awarded during the period, and entities could not reliably apply any valuation models except for the intrinsic value method, which itself was a significant challenge without reliable discount rates.
4 There were multiple interest rates within the economy, which ranged from 100% to 10 000% per annum, but were nearly all negative in real terms. This compromised the ability to consider future cash flows, and perform impairment tests in Zimbabwe dollars (IAS 36 "Impairment of Assets").

2 **Why the non application of IAS 29 automatically invokes a fully qualified audit opinion on the basis of non IFRS preparation. One would assume that this would only result in a qualification on an IAS 29 basis and assume that the rest of the financial statements have been prepared in accordance with IFRS.**

The correct application of IAS 29 results in the balance sheet values and income statement values of the entity being translated to "a real" currency value at year end. I.e. Inflation adjusted using an appropriate measure of inflation. This real value thus meeting the definition of "fair value".

For the rules and fair value implications of any of the other IAS statements to apply one would first need to determine what is an appropriate fair value functional currency to measure the transactions in. (As is the aim of IAS 29). In the specialized case of Zimbabwe as described previously in this section where IAS 29 cannot be applied, the rest of the IAS's would automatically not apply as a result of the lack of any accurate way to measure fair value.

This statement is consistent with the view of Zimbabwean big four audit firms, listed companies, the Zimbabwe Stock Exchange ("ZSE") and ICAZ. The presentation of this view is that the country would apply IFRS if they could (as they had prior to chronic-hyperinflation) but as they cannot they would rather state that the (attempted) presentation basis of financial statements is that of IFRS and then fully qualify this presentation basis in the audit opinion. This results in the situation where listed companies can still meet the Zimbabwe Stock Exchange listing requirements of IFRS reporting even though their audit reports are fully qualified. The alternative would be for the ZSE to abandon IFRS reporting as part of the listing requirements. The reality of what is reported is however the same regardless of the presentation of this view.

3 **The likely effect that the inability to Produce IFRS financial statements has on the use of derivatives as reported.**

There is no known literature on the above statement. However one would expect the following outcome:

Derivative's and the accounting for derivative transactions are fairly complex and fair value driven as required by IAS 39. In the absence of any accurate way to measure fair value and the lack of a functional currency it is likely that one would not see the wide use of derivatives. This is primarily due to the fact that the profits derived from derivatives are due to changes in the fair values of linked instruments. If this cannot be measured then the use of deriving profits or hedging would no longer exist and there would therefore be no use for the derivative.

Zambia

Financial Reporting Framework in Zambia as of November 2009

The Accountants Act of 2008 gave the Zambia Institute of Chartered Accountants (ZICA) authority to regulate the accounting and auditing profession. An earlier (1982) law gave ZICA similar authority.[13]

[13] www.iasplus.com

Since 2004 ZICA has adopted International Financial Reporting Standards (IFRSs) in full, without modification. Members of ZICA, which include all auditors in Zambia, are obligated by their ZICA membership to ensure compliance with IFRSs. However, there is no statutory requirement for listed or unlisted companies to use IFRSs.

The Securities Act and Lusaka Stock Exchange require auditors to be registered and to hold ZICA-issued practicing certificates, but they do not require compliance with IFRSs. However, all auditors are ZICA members, and all ZICA members are duty bound to comply with ZICA's position on the application of IFRSs.

As of November 2009, using IFRS was not a legal requirement under the Insurance Act and the Banking and Financial Services Act. However, a project was under way to make IFRS a mandatory requirement for financial institutions regulated under these Acts.

In a June 2009 addendum to the World Bank's 2007 ROSC Report [14] on Zambia, submitted by the Ministry of Finance and National Planning, states:

To assure compliance with international accounting and auditing standards, the ZICA Council has established a Standards and Regulation Board to oversee practice reviews and implementation of IFRS and IAS by chartered accountants in business (report writers) and public practice....

IFRS will not be mandatory for small and medium enterprises.

Financial Reporting Framework in Zambia as of December 2010

In December 2010, the Zambia Institute of Chartered Accountants (ZICA) adopted a three-tier financial reporting framework for Zambia. The reporting and auditing requirements for the three tiers under the framework are as follows:

- **Publicly accountable entities.** Listed companies, public interest entities and government-owned enterprises must use full IFRSs and must be audited.
- **Economically significant companies.** Companies that are not in the first tier and have annual turnover equal to or exceeding K20 billion (approximately US$4 million) have a choice of using the IFRS for SMEs or full IFRS, and they must be audited.
- **Micro and small enterprises.** Those with annual turnover below K20 billion (approximately US$4 million) will use the Zambian Financial Reporting Standard for Micro and Small Entities, and an audit is not required.

The three tier financial reporting framework is effective for annual periods beginning on or after 1 January 2011.

[14] Report on the Observance of Standards and Codes (ROSC), World Bank, 2007, as found at http://www.worldbank.org/ifa/rosc_aa.html

Namibia

Namibia has no statutory accounting or auditing standard setting body as may exist in other jurisdictions.[15]

The accounting profession is however governed by the Institute of Chartered Accountants of Namibia and the institutes is a member of IFAC and would therefore in terms of its IFAC registration be required to adhere IFRS and IAS reporting standards.

Furthermore all domestic listed companies in Namibia are required to comply with IFRSs effective 1 January 2005 under the requirements of the Namibian Stock Exchange Act.[16]

As such all the financial statements of Namibian listed entities are prepared in accordance with IFRS.

Botswana

Given the international harmonization process and alignment with SAICA there is still no legal mandate for the application of IFRS and International Standards of Auditing ("ISA"). The legislative enactments, including the Companies Act and the Banking Act, do not mandate the application of IFRS and ISA with regard to preparation and audit of financial statements of corporate entities. However, the publicly traded companies and banks prepare the financial statements following IFRS and auditors perform audits in terms the ISA's. The Insurance Industry Regulations requires that insurance companies follow 'recognized international accounting standards', without mentioning the issuing authority of such standards. The Government of Botswana is in the process of enacting a revised Companies Act, which is expected to mandate the application of IFRS and ISA for the entities incorporated in Botswana

The Botswana Stock Exchange listing requirements require presentation of interim financial statements. As per the listing requirements, listed companies must present unaudited quarterly financial results according to a prescribed format and must be circulated among the shareholders. The listed companies are also required to submit their annual financial statements, prepared in accordance with IFRSs and audited in accordance with ISAs.

The Botswana Institute of Chartered Accountants is governed by the Accountants Act of 1988 as amended and the Rules and Regulations made under the Act. The Institute is a full member of Eastern Central Southern African Federation of Accountants (ECSAFA) and International Federation of Accountants ("IFAC"). The Institute is a self-regulating body whose affairs are managed by the Council of the Institute. Members of the Institute democratically elect Council members annually.[17]

[15] http://www.icancpd.net/2007/index.php?&menu=standards.php
[16] http://en.wikipedia.org/wiki/Institute_of_Chartered_Accountants_of_Namibia
[17] http://www.bica.org.bw/historicalPerspective.php

4.2 Conclusion

With the exception of Zimbabwe and the departure from IFRS, Botswana, Namibia and Zambian listed companies are expected to comply with IFRS primarily due to their relevant stock exchange listing requirements. This requirement is furthermore strengthened by their relevant accounting bodies IFAC membership. It is reasonable to assume that given IFAC membership requirements the adherence to IFRS through local standards is monitored and of an international standard.

Based on these findings we have established a consistent basis of measurement and reporting of derivatives across Botswana, Namibia and Zambia. The results and findings across the countries can thus be compared and contrast to each other and to the results of similar international surveys.

5 International Financial Reporting Standards

5.1 International Financial Reporting Standard Two – Share based payments

Current Standard Summary

The objective of International Financial Reporting Standard Two ("IFRS 2") is to specify the financial reporting by an entity when it undertakes a share based payment transaction. [18]In particular, it requires an entity to reflect in its profit or loss and financial position the effects of share based payment transactions, including expenses associated with transactions in which share options are granted to employees.

The standard applies to all *share-based payment (SBP) transactions*, which are defined as "transactions in which the entity receives or acquires goods or services and either the entity or the supplier of those goods or services have a choice of settlement in cash (or other assets) or equity instruments."

There are two types of share based transactions:

1 *Equity-settled* - in which the entity receives goods or services as consideration for equity instruments of the entity (including shares or share options) and
2 *Cash-settled* - in which the entity acquires goods or services by incurring liabilities to the supplier of those goods or services for amounts that are based on the price (or value) of the entity's shares or other equity instruments of the entity.

Both types of transaction give rise to different measurement principals;

1 The measurement of *Equity-settled transactions* is determined by whether or not the transaction is with employees or not.

[18] Section 7.1 of the research paper is composed of multiple excerpts from the International Financial Reporting Standard Two (IASB, 2010) as found at www.iasplus.com as well as multiple excerpts from the standard summary found at www.iasplus.com

For transactions with employees the transaction is measured with reference to the fair value of the equity instruments granted at grant date. The fair value is never re-measured. The grant date fair value is recognised over the vesting period.
For transactions with non-employee the transaction is measured with reference to the fair value of the goods or services received at the date the entity obtains the goods or services. If the fair value of the goods or services received cannot be estimated reliably, the transaction is then measured by reference to the equity instruments granted.

2 The measurement of *cash settled transactions* are recorded at the fair value of the liability settled.The fair value of the liability is re-measured to the extent that it has vested, at each reporting date and at the date of settlement, with any changes in fair value recognised in profit or loss for the period.

If the counterparty has the right to choose whether the share based payment transaction is settled in cash (or other assets) or by issuing equity instruments, the entity has granted a compound instrument (cash-settled component and an equity-settled component). For compound instruments each component will need to be treated separately.

If the entity has choice of whether to settle in cash or by issuing equity instruments, the entity shall determine whether it has a present obligation to settle in cash and account for the transaction as cash-settled or if no such obligation exists, account for the transaction as equity-settled.

Amendments under consideration by the IASB

The IASB is currently considering improvements to IFRS 2 based on specific issues raised. In a discussion held at the September 2008 IASB meeting the Board considered a staff paper on issues that have arisen since IFRS 2 was issued in 2004. The purpose of the session was to discuss and decide whether (and if so, how) the issues identified should be addressed.

The issues raised, which are based on a petition submitted to the IASB during 2008 encompass the following:

- Accounting for cancellations;
- The measurement date; and
- Accounting for modifications that are not intended to be beneficial to the employee.

The IASB staff recommended that none of the issues should be added to the IASB's agenda as no new arguments were raised that would form a basis for reconsidering the Standard. The Board agreed and as a result there are no current future amendments to the standard.

The main difference between the current standard and the old AC standard

Until IFRS 2 was issued there was no IFRS covering the recognition and measurement of share based payment transactions or anything similar in IFRS. Hence there was no comparative AC standard and IFRS 2 is considered as completely new.

Standard History

IFRS 2 became effective 1 January 2005 and was a completely new standard issued by the IASB. Previously there had been no standard addressing share based payments.

Listed at Appendix 3 are the specific key dates of the development of IFRS 7 and improvements since the standard became effective in January 2007.

5.2 International Accounting Standard 39 – Financial Instruments: Recognition and Measurement

Current Standard Summary

"The objective of International Accounting Standard 39 ("IAS 39") is to establish principals for recognising and measuring financial assets, financial liabilities and some contracts to buy or sell non-financial items"[19]

IAS 39 applies to all types of financial instruments with the exception of those that are specifically covered in other standards. A financial instrument is defined as a contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity and includes derivative instruments.

The main examples of derivatives covered are swaps, forwards, futures, options, caps and floors. The standard also covers more complex and exotic instruments such as embedded derivatives and weather derivatives as well as specific provisions regarding hedge accounting.

The standard allows for five different types of classification of the instruments;

1 *At fair value through profit and loss* – this applies to financial assets or financial liabilities classified as held for trading or designated at fair value through profit and loss on initial recognition;

[19] Section 7.2 of the research paper is composed of multiple excerpts from the International Financial Reporting Standard Thirty Nine (IASB, 2010) as found at www.iasplus.com as well as multiple excerpts from the standard summary found at www.iasplus.com

2 *Held to Maturity* – this applies to non derivative financial assets with fixed or determinable payments, fixed maturity and the entity has the intention and ability to hold to maturity, and not designated at fair value through profit and loss or as available for sale and does not meet the definition of loans and receivables;
3 *Loans and receivables* – this applies to non derivative financial assets with fixed or determinable payments that are not quoted in an active market and not classified at fair value through profit and loss or designated as available for sale;
4 *Available for sale* – this applies to non derivative financial assets there are designated as available for sale or are not classified as (a) loans and receivables (b) held to maturity investments (c) financial assets at fair value through profit and loss, and
5 *Financial liabilities at amortised cost* – This applies to financial liabilities classified as at fair value through profit and loss.

Financial instruments are initially recognised at fair value and in the case of a financial assets or liabilities not at fair value through profit and loss, at fair value plus transaction costs. Subsequent measurement is then determined by the classification of the instrument according to the following measurement bases;

- *At amortised cost using the effective interest rate method,* this applies to:
  - Held to maturity investment;
  - Loans and receivables and
  - Financial liabilities that are not designated at fair value through profit and loss.
- *At fair value,* this applies to:
  - Financial assets and financial liabilities at fair value through profit and loss and
  - Available for sale financial assets
- *At cost*
  - This applies to investments in unquoted equity instruments whose fair value cannot be reliably measured and
  - derivatives linked to and/or settled by unquoted equity instruments

The standard has specific requirements for *Hedging Instruments.* A hedging instrument is defined as a designated derivative or (for a hedge of foreign currency risk only) a designated non-derivative financial asset or financial liability whose fair value or cash flows are expected to offset changes in the fair value or cash flows of a designated hedge item.

The standard requires that the hedging transaction and resulting hedging instrument be classified into one of three categories depending on the nature of the risk hedged (transaction):

1 *Fair value hedge* – is the hedge of an exposure to changes in fair value of a recognised asset or liability or an unrecognised firm commitment, or and identified portion of such an asset, liability or firm commitment, that is attributable to a particular risk an count affect the profit or loss

For fair value hedges all gains or losses from re-measuring the hedging instrument at fair value (derivative) or foreign currency component of its carrying amount measured in accordance with IAS 21 (non-derivative) shall be recognised in profit or loss.

The gain or loss on the hedged item attributable to the hedged risk shall adjust the carrying amount of the hedged item and shall be recognised in profit or loss.

2 *Cash flow hedge* – is the hedge of an exposure to variability in cash flows that (I) is attributable to a particular risk associated with a recognised asset or liability (such as some future interest payments on variable rate debt) or a highly probable forecast transaction and (ii) could affect profit or loss

For cash flow hedge's the effective portion of the gain or loss on the hedging instrument shall be recognised in other comprehensive income.

The ineffective portion of the gain or loss on the hedging instrument shall be recognised in P/L

If a hedge of a forecast transaction results in the recognition of a financial item, gains or losses recognised in other comprehensive income are reclassified from equity to profit and loss when the hedged forecast cash flows affect profit and loss.

If a hedge of a forecast transaction results in recognition of a non-financial item the entity has accounting policy choice:

- Reclassify gains and losses recognised in other comprehensive income to profit and loss when asset or liability affects profit and loss or
- Remove gains and losses recognised in other comprehensive income and include them in initial cost or the carrying amount of the asset or liability.

3 *Hedge of a net investment* in a foreign operation as defined in IAS 21

Hedges of net investments in foreign operations are accounted for in the same manner as cash flow hedges. The gain or loss relating to the effective portion of the hedge shall be reclassified from equity to P/L on disposal or partial disposal of the foreign operation.

Amendments currently under consideration by the IASB

The following amendments are currently under consideration by the IASB:

- De-recognition
- Comprehensive Financial Instruments Project
- Classification and Measurement of Financial Assets
- Impairment of Financial Assets Measured at Amortised Cost
- Hedge Accounting
- Credit Risk in Liability Measurement

The most significant of these amendments is the comprehensive financial instruments project. In September 2004, the board announced the membership of its new working group on financial instruments. The financial instruments working group will help the IASB take a fresh look at the accounting standard IAS 39 *Financial Instruments: Recognition and Measurement* by examining and questioning the fundamentals of the standard within the context of the IASB's Framework. "The review will therefore focus on improving, simplifying, and ultimately replacing IAS 39 and will examine broader questions of the application and extent of fair value accounting – a topic on which the IASB has not reached any conclusion. Although any major revision of IAS 39 may take several years to complete, the IASB is willing to revise the standard in the short term if any immediate solutions emerge from the working group's discussions", the Board's announcement said.

The main difference between the current standard and the old AC standard

The main difference between IAS 39 and the old AC 133 is that AC 133 allowed entities to designate irrevocably on initial recognition any financial instruments to be measured at fair value with gains and losses recognised in profit and loss.[20] The new amendments in IAS 139 were to simplify the application of this standard. Following extensive consultations with interested parties, the IASB decided to revise the fair value option by limiting its use to financial instruments that meet certain conditions, thus reducing the scope for recognizing profit and loss in the income statements and then reversing this out in the future.

Standard History

The current version of IAS 39 replaced the previous version revised in 2000. IAS 39 replaced AC 133

Listed at Appendix 3 are the specific key dates of the development of IAS 39 and improvements since the standard became effective in January 2005.

5.3 International Accounting Standard 32 – Financial Instruments: Presentation

Current Standard Summary

The objective of International Accounting Standard 32 ("IAS 32") is to establish the principals for presenting financial instruments as liabilities or equity and for offsetting financial assets and financial liabilities.[21] It applies to the classification of financial instruments, from the perspective of the issuer, into financial assets, financial liabilities and equity instruments; the classification of

[20] http://www.accountancysa.org.za/resources/ShowItemArticle.asp?ArticleId=570&Issue=446

[21] Section 7.3 of the research paper is composed of multiple excerpts from the International Financial Reporting Standard Thirty Two (IASB, 2010) as found at www.iasplus.com as well as multiple excerpts from the standard summary found at www.iasplus.com

related interest, dividends, losses and gains; and other circumstances in which financial assets and liabilities should be offset.

The standard defines the following key instruments:

- An *equity instrument* is any contract that evidences a residual interest in the assets of an entity after deducting its liabilities;
- A *financial asset* is*:*
  - Cash or;
  - An equity instrument of another entity or;
  - A contractual right to receive cash or another financial asset from another entity or;
  - A contract that will or may be settled in the entity's own equity instruments and is a non-derivative for which the entity is or may b obliged to receive a variable number of the entities own equity instruments.
- A *financial liability* is:
  - A contractual obligation to deliver cash or another financial asset to another entity or;
  - A contract that will or may be settled in the entity's own equity instruments and is a non derivative for which the entity is or may be obliged to deliver a variable number of the entities own equity instruments
- *Compound financial instruments* are:
  - Instruments that have both liability and equity characteristics and are split into these components. The split is made on initial recognition of the instruments and is not subsequently revised or;
  - An instrument where the issuer first determines the carrying amount of the liability. The equity component is then the residual after deducting the liability component from the fair value of the instrument as a whole.

The entity must on initial recognition of an instrument classify it as a financial liability or equity based on the substance of the contract. The classification is subsequently changed only if the terms of the instrument are amended. The classification as either equity or a liability determines whether any distributions on an instrument will be treated as interest or dividends.

The standard allows for the offsetting of financial assets and liabilities only where there is a legal and enforceable right to offset and an intention to settle on a net basis or to realise the asset and liability simultaneously.

The standard also goes into detail on puttable instruments and obligations arising on liquidation and the circumstances under which these instruments may be classified as equity.

Amendments under consideration by the IASB

The IASB is currently involved in a joint project with the Financial Accounting Standards Board ("FASB") aimed at addressing the distinction between equity and liabilities. The project focuses on instruments that could be potentially classified as liability or equity. Staff are currently presenting an approach called the Ownership-Settlement Approach. The approach is based on 13 principals that

deal with classification, initial measurement, subsequent measurement, separate reporting within equity, and extinguishment accounting. In addition to this approach, the FASB will further develop two alternative approaches:

- **The Dilution Approach -** A narrower view of equity that bases its classification scheme on whether an instrument will or might dilute net assets belonging to existing shareholders.
- **Reassessed Expected Outcomes (REO) Approach -** REO is a probabilistic-based approach that applies contingent claims modeling techniques to determine classification based on the current economic conditions.

The main difference between the current standard and the old AC standard

IAS 32 is a companion to IAS 39 and as such there is no direct comparison to the old AC 133. The standard however built and expanded on the limited disclosure principals contained in the old AC 133.

Standard History

IAS 32 became effective in January 1996. The standard did not specifically precede any AC statement but was a new development in IFRS. The exposure draft was first published in September 1991 entitled "Exposure Draft E40 Financial Instruments" and dealt with a wide range of presentation issues previously not considered. E40 was modified and re-exposed as Exposure Draft E48 in January 1994 with the final standard becoming effective in January 1996.

Listed at Appendix 3 are the specific key dates of the development of IAS 32 and improvements since the standard became effective in January 1996.

5.4 International Financial Reporting Standard 7 – Financial Instruments: Disclosures

Current Standard Summary

The objective of International Financial Reporting Standard 7 ("IFRS 7") is to require entities to provide disclosures in their financial statements that enable users to evaluate[22]:

- The significance of financial instruments for the entity's financial position and performance; and
- The nature and extent of risk's arising from financial instruments to which the entity is exposed during the period and at the reporting date, and how the entity manages those risks.

The standard requires the disclosure of the significance of financial instruments with regard to the financial position and financial performance. The requirements can be broken down as follows:

[22] Section 7.4 of the research paper is composed of multiple excerpts from the International Financial Reporting Standard Seven (IASB, 2010) as found at www.iasplus.com as well as multiple excerpts from the standard summary found at www.iasplus.com

In *the Statement of Comprehensive Income* the following disclosures are required:

- Net gain or net losses per IAS 39 category;
- Total interest income and interest expense (on an effective interest method);
- Fee income and fee expense arising from financial assets and liabilities not at fair value through profit or loss; and trust and other fiduciary activities;
- Interest on impaired financial assets and
- The amount of impairment loss for each financial asset

In *The Statement of Financial position* the following disclosures are required:

- The total of financial instruments per IAS 39 category either on the face of the statement of financial position or in the notes;
- Information on fair value of loans and receivables, as well as financial liabilities designated at fair value through profit and loss;
- Financial assets reclassified;
- Financial assets transferred that do not qualify for de-recognition;
- Details of financial assets pledged as collateral and collateral held;
- Reconciliation of allowance account for credit losses;
- Compound financial instruments with multiple embedded derivatives and
- Details of defaults and breaches of loans, payable.

In the *Notes to the Annual financial Statements* the following disclosures are required:

- All relevant accounting policies including the measurement basis;
- A description of hedge accounting including the fair value of the hedge and type of risk hedged;
- Details of cash flow hedges, fair value hedges and hedges of net investments in foreign operations;
- The fair value for each class of financial asset or liability including the method and relative assumptions used to determine fair value:
- The fair value hierarchy for all level 1, 2 and 3 instruments and a reconciliation of movements between the hierarchy level's;
- Specific quantitative disclosure requirements for credit risk, liquidity risk and market risk including but not limited to:
  - Details of maximum exposures to each type of risk;
  - Maturity analysis of the exposure to each type of risk and a sensitivity analysis.

Amendments under consideration by the IASB

There are currently no amendments under consideration by the IASB for IFRS 7.

The main difference between the current standard and the old AC standard

IFRS 7 introduced an entirely new set of IFRS disclosure requirements and in itself has no alignment to a specific AC statement hence there is no comparison with a specific AC statement.

Standard History

IFRS 7 became effective on 1 January 2007. The standard did not specifically precede any AC statement but was a new development in IFRS. It added certain new disclosures about financial instruments above those currently required by IAS 32 and replaces the disclosures previously required by IAS 30. IAS 30 was aligned with AC 120 and preceded AC 120 in February 2004.

Listed at Appendix 3 are the specific key dates of the development of IFRS 7 and improvements since the standard became effective in January 2007.

6 The Review into Botswana, Namibia, Zambia and Zimbabwe.

6.1 Methodology

The study is based on a modified version of the methodology used by **Bartram, Brown and Conrad (2006)** in their paper on the effects of derivatives in firm risk and value, specifically with regards to the separation of users and non-users of derivatives.

Bartram, Brown and Conrad filter users and non-users of derivatives based on a search of their annual reports for information about the use of derivatives. The annual reports are evaluated by an automated search. The list of all search terms was compiled by manually analyzing 200 annual reports across all countries. After refining the list of search terms, an automated search routine index was created which searches for terms in the financial statements that are likely to be related to derivative use.

For the purpose of this paper a manual search will be done of the financial statements of the entities in the data population with pre defined search and data collection criteria. The search and data selection criteria are based on the IFRS 7 disclosure requirements regarding derivatives and IFRS 2 disclosure requirements regarding ESOP's.

In terms of IFRS 7 companies are required to disclose (in addition to other disclosure requirements):

- The nature and type of derivative's used
- The fair value of derivatives at balance sheet date
- The mark to market (change in fair value) for the financial period

In terms of IFRS 2 companies are required to disclose (in addition to other disclosure requirements):

- The nature and type of ESOP's issued
- The fair value of outstanding ESOP's at balance sheet date
- The mark to market (change in fair value) for the financial period.

The data was extracted from the annual financial statements using the template in Appendix 2 and will cover the following aspects:

- Market capitalization at the 2009 year end;
- Company yearend;
- If the financial statements are prepared in accordance with IFRS as per the audit opinion;
- Does the company use derivative's (Swaps, Forwards, Futures, ESOP's) for both the 2008 and 2009 financial year end's (yes/no);
- For Swaps, Forwards and Futures if used, the type of instrument;
- If the company does have any derivatives, the market value per class of derivative at the balance sheet date;
- If the company had derivatives in the prior period the mark to market of the derivatives for the financial year;

For comparative purposes the market capitalization and derivative values (if any) was translated into South African Rand's (ZAR) the rate as at 10 May 2010 as published by www.oanda.com . This will allow us to make value based comparisons between the countries.

The survey will target all listed entities on the relevant countries exchange as the aim of the paper is to look at derivative usage per country and is not aimed specifically at size or other factors. Illiquid companies and companies without a market capitalization as reported by Bloomberg will be excluded.

The list of companies was obtained from Bloomberg on the 10th of May 2010. The list detailed the market capitalization in the local currency at this date. Thinly traded counters and counters whose trading had been suspended were excluded from this study due to lack of information. For each company on the list it was attempted to obtain the financial statements from:

- Bloomberg.
- Reuters.
- The company website if the company had a website.
- The countries exchange website.
- Contacting the relevant exchange.
- Google search of the internet.
- In some cases contacting the company directly if they did not have a website or if the financial statements were not available on the internet.

Despite this it was not possible to gain the financial statements of certain companies and this will be quantified and commented in the research finding.

6.2 Analysis

The period of review is for financial statements filed between May of 2009 and May of 2010.

Botswana

Botswana was the first country to graduate from least developed country status ("LDC") to the status of developing country in 1994[23]. Botswana boasts a highly competitive banking system and is perceived as one of Africa's most advanced. The country's financial system is populated with various financial institutions. Pension funds and commercial banks being the two most important segments by asset size. Banks remain profitable, well-capitalized, and liquid, as a result of growing national resources and high interest rates. Botswana is ranked 26th in the world for judicial independence[24] and 2nd in Africa by the World Economic Forum. Further as per the 2007/8 World Bank's Doing Business Report, Botswana is positioned as one of the world's top ten performers for taking measures to protect investors and reduce constraints to starting a business. Despite the relatively

[23] http://en.wikipedia.org/wiki/Least_developed_country
[24] http://www.ifsc.co.bw/regulation_n_legislation.php

advanced financial system the country's economy is primarily resource driven with its main source of foreign currency being the sales of diamonds.

The Non Bank Financial Institutions Regulatory Authority (NBFIRA) is the regulator of all non-banking financial entities registered in Botswana including Pension Funds, Asset Management, Consumer/Micro lending, insurance and Collective Investment Undertakings.[25]

Despite the level of advancement in the banking system and high level of financial regulation the country does not have a futures exchange or bond exchange and there is little evidence of over the counter derivative usage outside that published in the annual reports of listed entities.

Results

The results below table the findings of the financial statement analysis. Of the 21 companies listed by Bloomberg only 16 companies had a published market capitalization, with the remainder either being highly illiquid or not reporting results. Despite this it was still attempted to get the financial statements for these companies for the period of review. It was found that the financial statements in all cases for companies without a market capitalization published by Bloomberg were not available for the period under review. Of the 16 companies with published market capitalization the financial statements were obtained for 16 of the companies. Representing 100% of the survey population.

Population Statistics For Botswana	
Number of companies listed in Botswana	21
Presentation currency	Botswana Pula
Number of companies with market capitalization available per Bloombe	16
Number of companies for which financial statements were available	16
Percentage cover based on number of companies	100%

The summary of the derivative usage is tabled below (detailed company results can be reviewed in Appendix one). It was found that only 19% of companies used derivatives. The derivatives used were foreign currency forwards with two cases of interest rate swaps and one currency option.

Looking at the individual entities the only companies that used derivatives were the banks (First National Botswana, Barclays Bank and African Bank Holdings) with Standard Chartered reporting no use of derivatives.

Derivative Usage in Botswana	
Number of companies that use derivatives	3
Proportion of companies with published market capitalization (per Bloomberg) using derivatives	19%
More than one derivative type listed	3

[25] http://www.ifsc.co.bw/regulation_n_legislation.php

Types of Derivatives Used in Botswana	Number	Commodity	Currency	Interest Rate
ESOPs	-	-	-	-
Forwards	3		3	
Futures	-	-	-	-
Options	1		1	
Swaps	2	-	-	2

The findings are consistent with those of **Bodnar, Hayt and Marston (1998)** in that the derivative usage is primarily by financial firms and not manufacturing or product orientated. The 1998 study also looks at the size effect of the firms and finds a greater tendency to use derivatives in larger firms. This is the case found in Botswana with the firms that are not using derivatives ranging in market capitalization of 5 Billion to 15 Million Rand. The bottom 10 firms all have a market capitalization below 15 million rand which is very low compared to the size of the small firms in **Bodnar, Hayt and Marston's** study. As such one would expect little to no derivative usage amongst these firms.

Rudolf van der Bijl (1996) quotes the weakness in commercial law in both precept and practise as a negative factor implementing derivative use. Given the country's top 10 ranking in the World Bank doing business survey for taking measures to protect investors one would expect a higher level of derivative use due to strong legal enforceability of contracts but this is however not the case.

A likely factor resulting in the low level of derivative use first observed by **Martin, Miguel Angel, Rojas, Wolfgang, Erausquin, Jose Luis, Yupanqui y Edgar Vera (2009**) is the low degree of training in derivatives and lack of market regulation. Given that Botswana does not have a futures exchange there is unlikely to be any regulatory derivate oversight and associated derivative expertise.

The low use of derivatives in Botswana has been well documented. In a 2006 paper published by the University of Pretoria's Department of Economics[26], it was concluded that "the problems concerning food and income insecurity in Botswana would be reduced if farmers could adopt derivative contracting on a large scale, since the producers would then be able to produce the staple food on a continuous basis at relatively profitable levels."

The need for derivatives in African countries has seen the emergence of Bourse Africa, a Pan-African commodities[27] and derivatives exchange that will have a technology hub in Botswana and will link to other exchanges in the continent. The bourse is expected to be operational during 2011.

[26] http://www.thebusinessdiary.co.bw/?p=227

[27] http://www.thebusinessdiary.co.bw/?p=227

Namibia

Namibia has been described as a 6th province of South Africa[28]. The economy is closely connected with that of South Africa both institutionally and through trade relationships. Although not technically part of the Rand Common Monetary Area ("CMA") due to its withdrawal on the adoption of the Namibian dollar, the country still functions as part of the CMA with the Namibian Dollar being pegged to the Rand and the Rand being freely tradable in the country.

The financial system is highly unique due to its close ties with South Africa. Cross border financial trade and the same effective base currency and exchange rate would presumably allow ease of facilitation of derivative usage between the two countries. Given that South Africa is the country's main trading partner there would unlikely be a need for significant use of foreign currency derivatives given that the countries have the same exchange rates.

Despite its relatively small size and low population level Namibia is considered[29] to be a developing country by the United Nations. The country has a modern market sector with a traditional subsistence sector. The economy is highly dependent on the extraction of minerals for export. The country also has a strong agriculture sector, contributing 13% to GDP[30].

Despite the level of development there appears to be very little formal financial market regulation. The Bank of Namibia is responsible for the supervision of banking institutions. There is however no futures or bond exchange. The country has no formalized legislation governing non-banking financial transactions that would ordinarily cover derivative usage.

Results

The results below table the findings of the financial statement analysis. Of the 8 companies listed by Bloomberg only 2 companies had a published market capitalization, with the remainder either being highly illiquid or not reporting results. Despite this it was still attempted to get the financial statements for these companies for the period of review. It was found that the financial statements in all cases for companies without a market capitalization published by Bloomberg were not available for the period under review. Of the 2 companies with published market capitalization the financial statements were obtained for both of the companies. Representing 100% of the survey population.

Population Statistics For Namiba	
Number of companies listed in Namiba	8
Presentation currency	Namibian Dollars
Number of companies with market capitalization available per Bloomberg	2
Number of companies for which financial statements were available	2
Percentage cover based on number of companies	100%

[28] http://en.wikipedia.org/wiki/Namibia_%E2%80%93_South_Africa_relations
[29] http://www.nationsonline.org/oneworld/least_developed_countries.htm
[30] http://www.iiasa.ac.at/Research/POP/pde/briefs/na-econ.html

The summary of the derivative usage is tabled below (detailed company results can be reviewed in Appendix one). It was found that 100% of companies used derivatives. The derivatives used were foreign currency forwards, one case of interest rate swaps and one case of options.

Looking at the individual entities the only companies that used derivatives were FNB Namibia Holdings (Namibia's largest bank) and Namibia Breweries the second largest company by market capitalization and an export orientated company.

Derivative Usage in Namiba	
Number of companies that use derivatives	2
Proportion of companies with published market capitalization (per Bloomberg) using derivatives	100%
More than one derivative type listed	1

Types of Derivatives Used in Namibia	Number	Commodity	Currency	Interest Rate
ESOPs	-	-	-	-
Forwards	2		2	
Futures	-	-	-	-
Options	1		1	
Swaps	1			1

The findings are consistent with those of **Bodnar, Hayt and Marston (1998)** with regard to the size effect on derivative usage. The companies using derivatives being ranked first and second on the exchange by market capitalization. The country's economic characteristics would place it in the category of expected low derivate use by **Martin, Miguel Angel, Rojas, Wolfgang, Erausquin, Jose Luis, Yupanqui y Edgar Vera (2009**) due to the low degree of training in derivatives and lack of market regulation. Despite this there is an apparently high level of derivative usage. This is likely due to the fact that the market is so small, with only 8 listed companies and only two of these publishing results. As such the results are deceptively skewed towards a high level of derivative usage.

Taking a holistic view there are only two companies using derivatives which is low at an absolute level. Both of the companies have an export factor. FNB is likely to export financial services in the form of services and foreign currency transactions to foreign investors and is likely to need foreign currency risk exposure which it hedges through the use of forwards.

Namibian Breweries is primarily involved in the export of beer and also has foreign currency exposure hence the need to hedge this exposure through the use of forwards.

Zambia

Zambia has the UN status of developing economy[31] and is one of Sub-Saharan Africa's most highly urbanized countries[32]. Despite this the low GDP per capita, which stands at $1400, places the country amongst the world's poorest nations. Zambia was ranked the 127th safest investment destination in the world in the March 2011 Euromoney Country Risk rankings, a fairly low ranking. The Zambian economy has historically been supported by copper mining with agriculture following second, contributing to 20% of GDP in 2009 and accounting for 85% of employment. As such the country's economy is primarily resource and product orientated. The high level of copper exports and agricultural exports would presumably open up Zambian companies to both resource price risk and foreign currency risk and one would expect to see a degree of hedging and associated derivative instruments.

Zambia has 13 commercial banks, all governed under the Bank Act of Zambia[33]. All other financial service companies are regulated and supervised by the Bank of Zambia under the Banking and Financial Services Act of 2000. Companies in this category comprise of 9 leasing companies, 3 building societies, 1 development bank, 1 savings and credit bank, 32 bureaux de change and 3 micro-finance institutions. The number of banks and financial service companies in Zambia is small by any world standard.

The country does not have a futures exchange. Derivative transactions and financial instruments are not regulated by any regulatory body and no legislation exists covering derivative or financial instrument transactions.

Zambia is however one[34] of only two African countries to have an agricultural commodities exchange, the other country being Malawi. The Zambian exchange trades mainly in wheat and maize but also in soya, fertilizer, maize barn, cottonseed and kidney beans. The exchange is however unlikely to affect the expectation of derivative usage in this study. The exchange only trades in commodities produced and sold by small scale and private farmers. The only two commodity orientated companies on the LUSE are Zambia Beef and Zambia Sugar, with both companies commodities not being traded on the exchange.

The country was ranked[35] 76 out of 183 countries in the June 2010 World Bank Doing Good Business survey. This ranking implies a medium ease of doing business with the risk of contractual obligations not being met being at a medium level.

[31] http://www.ams.org/membership/individual/types/mem-develop
[32] http://en.wikipedia.org/wiki/Economy_of_Zambia

[33] http://www.boz.zm/
[34] http://www.mfw4a.org/capital-markets/derivatives-derivatives-exchanges-commodities.html
[35] http://www.doingbusiness.org/rankings

Results

The results below table the findings of the financial statement analysis. Of the 26 companies listed by Bloomberg only 17 companies had a published market capitalization, with the remainder either being highly illiquid or not reporting results. Despite this it was still attempted to get the financial statements for these companies for the period of review. It was found that the financial statements in all cases for companies without a market capitalization published by Bloomberg were not available for the period under review. Of the 17 companies with published market capitalization the financial statements were obtained for 9 of the companies representing 53% of the survey population. The number of financial statements obtained was low compared to the other countries in this report. In most cases the companies did not have websites, did not publish financial statements except for in their exchange filings (not publically available) or to shareholders. As such it was not possible to obtain the financial statements or the detailed disclosures ordinarily contained in the financial statements. The methods used to attempt to obtain the outstanding financial statements are detailed in Appendix 4.

Population Statistics For Zambia	
Number of companies listed in Zambia	26
Presentation currency	Zambian Kwatcha
Number of companies with market capitalization available per Bloomberg	17
Number of companies for which financial statements were available	9
Percentage cover based on number of companies	53%

The summary of the derivative usage is tabled below (detailed company results can be reviewed in Appendix one). It was found that none of companies used derivatives.

Derivative Usage in Zambia	
Number of companies that use derivatives	0
Proportion of companies with published market capitalization (per Bloomberg) using derivatives	0%
More than one derivative type listed	0

Types of Derivatives Used in Zambia	Number	Commodity	Currency	Interest Rate
ESOPs	-	-	-	-
Forwards	-	-	-	-
Futures	-	-	-	-
Options	-	-	-	-
Swaps	-	-	-	-

The fact that Zambia does not have any legislation or regulatory body covering derivative use would imply a low level of derivative usage when looking at the findings of studies such as **Martin, Miguel Angel, Rojas, Wolfgang, Erausquin, Jose Luis, Yupanqui y Edgar Vera (2009**) which show low usage of derivatives due to the low degree of training in derivatives and lack of market regulation. This is certainly the case in Zambia and consistent with the findings.

The fact that Zambia was ranked 76 out of 183 countries in the World Bank Doing Good Business Report would imply a higher level of expected derivative use when looking at studies such as **Rudolf van der Bijl (1996)** which quote the weakness in commercial law in both precept and practise as a

negative factor implementing derivative use. The overall medium rating regarding the ease of doing business would imply a degree of contractual enforceability favourable to entering into derivative contracts. This was however not the case with no instances of reported derivative use.

From a holistic perspective the country may be simply too small and lack the regulatory resources to support derivative transactions. The majority of the business conducted by commercial banks is local business hence there is not a significant need to enter into foreign currency derivatives. Resource and commodity export companies such as Zambia Beef, Zambia Sugar and the Copper mining companies simply absorb price and foreign currency risk into their bottom line in the absence of other alternatives.

Zimbabwe

In 2006 Zimbabwe rejected a recommendation by the United Nations that it be downgraded to the status of least developed country[36] . Despite this the country remains technically in the category of least developed from an economic and regulatory standpoint. The country was ranked 157 out of 183 countries in the World Bank doing good business rankings, highlighting the difficulty of doing business in the country and lack of enforceability of contractual obligations[37].

As discussed earlier in the paper the country experienced extended hyperinflation at historically unseen levels (refer Appendix 5). During this phase the country was reduced to a barter economy resulting in an inability of companies to report in terms of IFRS due to lack of a functional currency. Prior to the economic crisis in Zimbabwe the country's economy was supported by the export of tobacco, gold, platinum and diamonds. The majority of companies listed in Zimbabwe were exposed to high levels of foreign currency risk and as such there would have been a need to hedge foreign currency exposure. There was however no futures exchange. There was also no legislation or regulating bodies governing financial instrument transactions. Zimbabwe, unlike the other countries in this study does have a bond exchange giving a higher likely hood of the observation of interest rate swap transactions.

Throughout the period of review the country was plunged into a state of lawlessness with the government embarking on a series of quasi-socialist policies. Under these policies companies were forced to surrender their foreign currency reserves to the government. All foreign currency transactions were conducted under government supervision. Companies were forced to open up foreign currency accounts with the Reserve Bank of Zimbabwe ("RBZ") into which all export revenues were deposited. Companies then had to apply for approval to use these funds to purchase inputs of foreign goods and services. The same rules applied to all financial and banking transactions. During this period Zimbabwe's foreign debt repayments ceased resulting in compulsory suspension from the International Monetary Fund ("IMF").

[36] http://ipsnews.net/news.asp?idnews=33593

[37] http://www.doingbusiness.org/rankings

Results

The results below table the findings of the financial statement analysis. Of the 84 companies listed by Bloomberg only 64 companies had a published market capitalization, with the remainder either being highly illiquid or not reporting results. Despite this it was still attempted to get the financial statements for these companies for the period of review. It was found that the financial statements in all cases for companies without a market capitalization published by Bloomberg were not available for the period under review. Of the 64 companies with published market capitalization the financial statements were obtained for 47 of the companies, representing 73% of the survey population. It was attempted to obtain the financial statements for the other companies using various methods as detailed in Appendix 4, however it was not possible to get these financial statements.

The market capitalization of the companies were not translated to Rand due to lack of an official foreign exchange rate. The Zimbabwe dollar was abandoned as the official currency of Zimbabwe on the 12 April 2009[38]. The financial statements of all the listed companies obtained state that "the financial results are managements best estimate given a non-functional currency and lack of consistent or reliable measurement basis"

Despite this the financial results can still be used to give some insight into derivative usage in Zimbabwe. As evidenced by the audit reports of all the listed companies observed the accounts are still prepared in terms of IFRS to the highest degree possible. The financial statements lack a measurement basis; however the nature and type of all transactions (including derivatives) are still reported even if the measurement basis is not reliable or consistent.

Population Statistics For Zimbabwe	
Number of companies listed in Zimbabwe	84
Presentation currency	Zimbabwe Dollars
Number of companies with market capitalization available per Bloomberg	64
Number of companies for which financial statements were available	47
Percentage cover based on number of companies	73%

The summary of the derivative usage is tabled below (detailed company results can be reviewed in Appendix one). It was found that none of companies used derivatives.

Derivative Usage in Zimbabwe	
Number of companies that use derivatives	0
Proportion of companies with published market capitalization (per Bloomberg) using derivatives	0%
More than one derivative type listed	0

Types of Derivatives Used in Zimbabwe	Number	Commodity	Currency	Interest Rate
ESOPs	-	-	-	-
Forwards	-	-	-	
Futures	-	-	-	-
Options	-	-	-	
Swaps	-	-	-	-

[38] http://en.wikipedia.org/wiki/Zimbabwean_dollar

The results seen in Zimbabwe are in line with that expected based on similar research as with Botswana, Namibia and Zambia.

Zimbabwe's low degree of training in derivatives and lack of market regulation is one of the factors leading to low derivative use as reported by **Martin, Miguel Angel, Rojas, Wolfgang, Erausquin, Jose Luis, Yupanqui y Edgar Vera (2009**). Zimbabwe also shares many similar characteristics with Chile and similar low derivative use as observed by **Fernandez (2006).** Zimbabwe during the period of review had a non-existent spot market, and stringent regulations governing institutional investors.

Looking deeper into the economic circumstances it can be seen how it would be next to impossible to trade in any form of derivative at the time. Companies had been reduced to effectively barter trade with the most liquid form of barter currency being fuel coupons. Any foreign currency trading was outlawed by the government and carried severe penalties[39]. This immediately eliminated the possibility of any type of foreign currency derivatives. Throughout the period of review Zimbabwe experienced obscenely high negative interest rates[40] at times up to 1000% a day. As a result there was no market for any form of interest rate swaps and the bond market completely collapsed.

Investopedia defines a derivative as "A security whose price is dependent upon or derived from one or more underlying assets". Due to the economic circumstances as previously discussed there was no measurement basis for underlying assets. As such it is unlikely that any institution would enter any form of derivative contract as no reliable or accurate prices would exist.

Employee Stock Ownership Plans ("ESOP'S")

Looking at all four countries, Botswana, Namibia, Zimbabwe and Zambia, there was no evidence seen of Employee Stock Ownership Plans ("ESOP'S") based on the review of the annual financial statements. There is also no relevant literature on the use or prevalence of employee stock option plans in these countries or other developing countries. In a 2006 study[41] on the evolution and allocation of employee stock options **Henrik Glimstedt, William Lazonik and Hao Xie** describe stock options as distinctly American model of compensating high level employee's. Despite this ESOP's are highly prevalent in other African Countries such as South Africa.

In Zimbabwe it is likely that there are no ESOPS due to the same reason that there are no other derivatives. A lack of measurement basis for the underlying equity in the ESOP would make it impossible to issue any ESOP for a specified value.

In Botswana, Namibia and Zambia it is likely that ESOP's are simply not a preferred method of employee re-numeration. The value of such options could also be so immaterial that they have not been reported in the annual financial statements. In the case of South Africa ESOP's are disclosed even if not quantitatively significant due to corporate governance regulations such as the King reports which encourage full disclosure of directors and senior managements remuneration even if

[39] http://www.iol.co.za/news/africa/zimbabwe-bans-forex-dealers-1.98144
[40] http://www.newzimbabwe.com/pages/inflation182.17436.html
[41] The evolution and allocation of employee stock options: adapting US-style compensation to the Swedish business model, Henrik Glimstedt, William Lazonick, Hao Xie

not material. In Botswana, Namibia and Zambia in the absence of such regulations such as the King reports there is unlikely to be an incentive to report ESOPS. There is also no evidence of regulatory impacts affecting non-disclosure.

6.3 Summary

Of the combined 139 companies across the four countries in the study there were only 5 companies in total reporting derivative use. Of the 139 companies there were no companies that reported the use of forwards or ESOP's.

Both Zimbabwe and Zambia had no reported use of derivatives at all.

Namibia had a high level of derivative use but this is due to the fact that there were only two companies reporting results. Taking into account the other six companies in Namibia that were not reporting results 25% of Namibian companies reported derivative use. This level was fairly high compared to the other three countries. In a 2003 study on the determinants of derivatives use: evidence from non-financial firms in Taiwan **Pei-Gi Shu** and **Hsuan-Chi Chen** found the proportion of derivative use in Taiwan to be 31% to 37%. USA was reported at 35% and New Zealand at 53%. Given this context the derivative usage in Namibia is still low (based on total listed entities) compared to these developed economies. There has also been a reported lack of heterogeneity in derivative usage amongst emerging market economies (**Fernandez, 2006**). However looking at Fernandez study on Chile which showed usage of only 10 to 15% of the country's 4,800 exporting firms Namibia usage was far in excess of this.

Botswana's derivative usage (adjusted to include companies not reporting as per Bloomberg) was 14% which was in line with that of the Chilean study.

7 Bibliography

1 *A Survey of Derivatives Usage by Large JSE-Listed Non-Financial Companies Anthon Jahreskog – MCom in Financial Management, 2005/2006.*

2 *Bartram, S.M., G. Brown, and J. Conrad, "The Effects of Derivatives on Firm Risk and Value." Lancaster University and University of North Carolina at Chapel Hill Working Paper. http://mpra.ub.uni-muenchen.de/9831/ , July 2008*

3 *Berkman, H., Bradbury, M.E. and Magan, S. (1997), ''An international comparison of derivatives use'', Financial Management, Vol. 26, pp. 69-73.*

4 *Bodnar, G.M., G.S. Hayt and R.C. Marston, 1998, "1998 Survey of financial risk management by US non-financial firms", Financial Management 27 (Winter), 70-91.*

5 *Bodnar, G.M., G.S. Hayt, R.C. Marston and C.W. Smithson, 1995, "Wharton survey of derivatives usage by US non-financial firms", Financial Management 24 (Summer), 104-114.*

6 Don M. Chance (1998), "A Brief History of Derivatives", 1998 Business and Economics

7 Dubravko Mihaljek,(2010), "Derivatives in Emerging Markets", BIS Quaterly Reviwe 2010

8 *Fernandez, V., Emerging Derivatives Markets: The Case of Chile Emerging, Markets Finance and Trade, vol. 42, no. 2, March–April 2006, pp. 63–92. © 2006 M.E. Sharpe, Inc. All rights reserved. ISSN 1540–496X/2006*

9 Henrik Glimstedt, William Lazonick, Hao Xie (2006), "The evolution and allocation of employee stock options: adapting US-style compensation to the Swedish business model" , Europen Management Review, Vol 3, Issue 3, pp 156 – 176,winter 2006

10 ISDA Research Notes, "2009 ISDA Derivatives Usage Survey", Number 2, 2009

11 *Mallin, C., K. Ow-Yong and M. Reynolds, 2001, "Derivatives usage in UK non-financial listed companies", European Journal of Finance, 63-91*

12 Marsden, A. And Prevost, A. (2005) , " Derivative Use, Corporate Governance, and Legislative Change: An Empirical Analysis of New Zealand Listed Companies" Journal of Business Finance and Accounting, vol 32, Issue 1-2, pp 255-295

13 Martin, Miguel Angel, Rojas, Wolfgang, Erausquin, Jose Luis, Yupanqui y Edgar Vera, Dayana and Bauer, Wolfgang," Derivative Usage by Non-Financial Firms in Emerging Markets: The Peruvian Case (December 1, 2009)." Journal of Economics, Finance & Administrative Science, Vol. 14, No. 28, 2009. Available at SSRN: http://ssrn.com/abstract=1549864

14 Rudolf van der Bijl (1996), "Exchange Traded Derivatives in Emerging Markets", excerptsavailable at http://www.mayin.org/ajayshah/MEDIA/1997/emerg-der.html

15 The accounting Dilemma experienced in Zimbabwe, KPMG publication

16 John Robertson, Zimbabwean Economist

17 *http://www.iasplus.com/standard/ias32.htm*

18 *http://www.iasplus.com/standard/ias39.htm*

19 *http://www.iasplus.com/standard/ifrs02.htm*

20 *http://www.iasplus.com/standard/ifrs07.htm*

21 *IFRS 2,* International Accounting Standards Board Handbook, Volume IA – C, 2010

22 *IFRS 7* International Accounting Standards Board Handbook, Volume IA – C, 2010

23 *IAS 39* International Accounting Standards Board Handbook, Volume IA – C, 2010

24 *IAS 32* International Accounting Standards Board Handbook, Volume IA – C, 2010

25 *IFRS Adoption by country Price Waterhouse Coopers January 2010*

26 http://en.wikipedia.org/wiki/Late-2000s_financial_crisis

27 http://www.investopedia.com/terms/d/derivative.asp#axzz1X0pueIYV

28 http://www.investopedia.com/terms/e/eso.asp#axzz1X0pueIYV

29 http://www.investopedia.com/terms/f/forwardcontract.asp#axzz1X0pueIYV

30 http://www.investopedia.com/university/futures/#axzz1X0pueIYV

31 http://www.investopedia.com/terms/s/swap.asp#axzz1X0pueIYV

32 http://www.investopedia.com/terms/o/option.asp#axzz1X0pueIYV

33 http://www.adoptifrs.org/uploads/Congo,%20The%20DRC/IFRS%20adoption%20by%20country.pdf

34 http://en.wikipedia.org/wiki/Institute_of_Chartered_Accountants_of_Namibia

35 http://www.bica.org.bw/historicalPerspective.php

36 http://www.accountancysa.org.za/resources/ShowItemArticle.asp?ArticleId=570&Issue=446

37 http://en.wikipedia.org/wiki/Least_developed_country

38 http://www.ifsc.co.bw/regulation_n_legislation.php

39 http://www.ifsc.co.bw/regulation_n_legislation.php

40 http://www.thebusinessdiary.co.bw/?p=227

41 http://www.thebusinessdiary.co.bw/?p=227

42 http://en.wikipedia.org/wiki/Namibia_%E2%80%93_South_Africa_relations

43 http://www.nationsonline.org/oneworld/least_developed_countries.htm

44 http://www.iiasa.ac.at/Research/POP/pde/briefs/na-econ.html

45 http://www.ams.org/membership/individual/types/mem-develop

46 http://en.wikipedia.org/wiki/Economy_of_Zambia

47 http://www.boz.zm/

48 http://www.mfw4a.org/capital-markets/derivatives-derivatives-exchanges-commodities.html

49 http://www.doingbusiness.org/rankings

50 http://ipsnews.net/news.asp?idnews=33593

51 http://www.doingbusiness.org/rankings

52 http://en.wikipedia.org/wiki/Zimbabwean_dollar

53 http://www.iol.co.za/news/africa/zimbabwe-bans-forex-dealers

54 http://www.newzimbabwe.com/pages/inflation182.17436.html

55 Delta Beverages Ltd Annual report, 31 March 2009 as found at http://www.delta.co.zw/

56 Draft detailed guidance on financial reporting for 2009 issued by the PAAB to its members in October 2009, including the proposed audit opinions for the period after December 2008.

57 Draft detailed guidance on the change in functional currency approved by the PAAB and issued to its members in October 2009

58 Joint media statement on the impact on financial reporting as a consequence of the change in functional currency issued by the Public Accountants and Auditors Board, the Zimbabwe Accounting Practices Board and the Zimbabwe Stock Exchange, published on 5 August 2009

59 Detailed guidance on financial reporting for 2008 issued by the PAAB to its members in March 2009, including the proposed audit opinions for December 2008

60 Joint media statement on compliance with the Companies Act (24:03) and International Financial Reporting Standards ("IFRS") by the Public Accountants and Auditors Board ("PAAB"), the Zimbabwe Stock Exchange, and the Zimbabwe Accounting Practices Board ("ZAPB") published in March 2009"

61 Report on the Observance of Standards and Codes (ROSC), World Bank, 2007, as found at http://www.worldbank.org/ifa/rosc_aa.html

8 Appendix 1

Botswana

* Basis of preperation of the financial statements is IFRS as per the audit report in the annual financial statements
** Exchange rate used ZMK:ZAR 0.00145 source www.oanda.com, valuation date 09/05/2010
*** note mark to market is not disclosed per type of instrument, only in total across all derivative classes.

Company	FS IFRS *	Fin Year	Market Cap in Pula	Market Cap in ZAR**	Swap in 08	Swap in 09	Swap Value ZAR	Swap Type	Forwards on 08	Forwards in 09	Forward Value in ZAR	Forward Type
FIRST NATL BOTSW	Yes	2010	6,995,174,912.00	7,403,133,512.87	No	No			Yes	Yes	110,071,630	Foreign Currency
										Mark to market***	87,015,070	
BARCLAYS BANK	Yes	2009	6,067,387,904.00	6,421,237,966.56	Yes	Yes	-5,981,625	Interest Rate	Yes	Yes	4,708,466	Foreign Currency
						Mark to market***	-4,940,238			Mark to market***	-4,940,238	
STANDARD CHARTER	Yes	2009	4,738,629,120.00	5,014,985,970.28	No	No			No	No		
LETSHEGO HOLDING	Yes	2009	2,992,593,920.00	3,167,121,997.41	No	No			No	No		
BOTSWANA INSURAN	Yes	2009	2,838,813,952.00	3,004,373,581.68	No	No			No	No		
SECHABA BREWERIE	Yes	2009	1,702,592,000.00	1,801,887,165.44	No	No			No	No		
SEFALANA HOLDING	Yes	2009	656,900,608.00	695,211,051.46	No	No			No	No		
TURNSTAR	Yes	2009	648,161,728.00	685,962,519.98	No	No			No	No		
ENGEN	Yes	2009	646,874,880.00	684,600,623.00	No	No			No	No		
FURNITURE MART	Yes	2009	541,579,904.00	573,164,844.00	No	No			No	No		
PRIMETIME PROPER	Yes	2009	288,571,488.00	305,400,977.18	No	No			No	No		
FSG LTD	Yes	2009	240,000,000.00	253,996,800.00	No	No			No	No		
CHOBE HOLDINGS	Yes	2009	200,345,600.00	212,029,755.39	No	No			No	No		
AFRICAN BK HLDGS	Yes	2009	196,202,208.00	207,644,720.77	Yes	Yes	Value and type not stated		Yes	Yes	Value and type not stated	
RDC PROPERTIES	Yes	2009	142,438,208.00	150,745,204.29	No	No			No	No		
OLYMPIA CAPITAL	Yes	2009	14,300,000.00	15,133,976.00	No	No			No	No		
NATIONAL BREWER	No market capitalization per Bloomberg (either illiquid or delisted)											
ZCCM INVESTMEN-B	No market capitalization per Bloomberg (either illiquid or delisted)											
ARCADES DEVELOPM	No market capitalization per Bloomberg (either illiquid or delisted)											
ZAMBEZI RANCHING	No market capitalization per Bloomberg (either illiquid or delisted)											
INVESTRUST BANK	No market capitalization per Bloomberg (either illiquid or delisted)											

Botswana (continued)

Company	Options in 08	Options in 09	Option Value in ZAR	Option Type	Futures in 08	Futures in 09	Future Value	Future Type	ESOP in 08	ESOP in 09
FIRST NATL BOTSW	No	Yes	196,278,144	Foreign Currency	No	No			No	No
		Mark to market***	87,015,070							
BARCLAYS BANK	No	No			No	No			No	No
STANDARD CHARTER	No	No			No	No			No	No
LETSHEGO HOLDING	No	No			No	No			No	No
BOTSWANA INSURAN	No	No			No	No			No	No
SECHABA BREWERIE	No	No			No	No			No	No
SEFALANA HOLDING	No	No			No	No			No	No
TURNSTAR	No	No			No	No			No	No
ENGEN	No	No			No	No			No	No
FURNITURE MART	No	No			No	No			No	No
PRIMETIME PROPER	No	No			No	No			No	No
FSG LTD	No	No			No	No			No	No
CHOBE HOLDINGS	No	No			No	No			No	No
AFRICAN BK HLDGS	No	No			No	No			No	No
RDC PROPERTIES	No	No			No	No			No	No
OLYMPIA CAPITAL	No	No			No	No			No	No
NATIONAL BREWER	No market capitalization per Bloomberg (either illiquid or delisted)									
ZCCM INVESTMEN-B	No market capitalization per Bloomberg (either illiquid or delisted)									
ARCADES DEVELOPM	No market capitalization per Bloomberg (either illiquid or delisted)									
ZAMBEZI RANCHING	No market capitalization per Bloomberg (either illiquid or delisted)									
INVESTRUST BANK	No market capitalization per Bloomberg (either illiquid or delisted)									

Namibia

* Basis of preperation of the financial statements is IFRS as per the audit report in the annual financial statements
** note mark to market is not disclosed per type of instrument, only in total across all derivative classes.

Company	FS IFRS *	Fin Year	Market Cap Namibian Dollars	Market Cap ZAR	Swap in 08	Swap in 09	Swap Value	Swap Type	Forwards on 08	Forwards in 09	Forward Value	Forward Type
FNB NAMIBIA HOLD	Yes	30-Jun-09	3,144,220,928.00	3,144,220,928	Yes	Yes	102,022,000	Interest Rate	Yes	Yes	188,304,000	Foreign Currency
			Mark to Market**	24,373,000			Mark to Market**	24,373,000				
NAMIBIA BREWERIE	Yes	30-Jun-09	1,366,200,064.00	1,366,200,064	No	No			Yes	Yes	26,510,000	Foreign Currency
										Mark to Market	-26,510,000	
NAMIBIAN ASSET M	No market capitalization per Bloomberg (either illiquid or delisted)											
STIMULUS INVEST	No market capitalization per Bloomberg (either illiquid or delisted)											
TRUSTCO GROUP HO	No market capitalization per Bloomberg (either illiquid or delisted)											
ORYX PROPERTIES	No market capitalization per Bloomberg (either illiquid or delisted)											
PEP NAMIBIA HOLD	No market capitalization per Bloomberg (either illiquid or delisted)											
BIDVEST NAMIBIA	No market capitalization per Bloomberg (either illiquid or delisted)											

Company	Options in 08	Options in 09	Option Value	Option Type	Futures in 08	Futures in 09	Future Value	Future Type	ESOP in 08	ESOP in 08
FNB NAMIBIA HOLD	Yes	Yes	38,792,000	Foreign Currency	No	No			No	No
			Mark to Market**	24,373,000						
NAMIBIA BREWERIE	No	No			No	No			No	No
NAMIBIAN ASSET M	No market capitalization per Bloomberg (either illiquid or delisted)									
STIMULUS INVEST	No market capitalization per Bloomberg (either illiquid or delisted)									
TRUSTCO GROUP HO	No market capitalization per Bloomberg (either illiquid or delisted)									
ORYX PROPERTIES	No market capitalization per Bloomberg (either illiquid or delisted)									
PEP NAMIBIA HOLD	No market capitalization per Bloomberg (either illiquid or delisted)									
BIDVEST NAMIBIA	No market capitalization per Bloomberg (either illiquid or delisted)									

Zambia

* Basis of preperation of the financial statements is IFRS as per the audit report in the annual financial statements

** Exchange rate used ZMK:ZAR 0.00145 source www.oanda.com, valuation date 09/05/2010

Company	FS IFRS *	Fin Year	Market Cap Zambian Kwatcha	Market Cap ZAR **	Swap in 08	Swap in 09	Swap Value	Swap Type	Forwards o	Forwards in 09	Forward Value	Forward Type
CELTEL ZAMBIA LT	Yes	2009	2,600,000,028,672	3,770,000,042	No	No			No	No		
ZAMBIA SUGAR PLC	Yes	2009	2,019,725,934,592	2,928,602,605	No	No			No	No		
LAFARGE CEMENT	Yes	2009	938,187,096,064	1,360,371,289	No	No			No	No		
ZAMBIAN BREWER	Yes	2009	727,999,971,328	1,055,599,958	No	No			No	No		
ZAMBEEF PRODUCTS	Yes	2009	634,824,228,864	920,495,132	No	No			No	No		
COPPERBELT ENERG	Yes	2009	430,000,013,312	623,500,019	No	No			No	No		
BRITISH AMER TOB	FS not available	FS not available	212,456,292,352	308,061,624								
BP ZAMBIA PLC	Yes	2009	140,000,002,048	203,000,003	No	No			No	No		
FARMERS HOUSE	FS not available	FS not available	100,452,900,864	145,656,706								
CAVMONT CAPITAL	Yes	2009	44,999,999,488	65,249,999	No	No			No	No		
ZAMEFA	FS not available	FS not available	40,634,998,784	58,920,748								
PAMODZI HOTELS P	Yes	2009	24,999,999,488	36,249,999	No	No			No	No		
ZAMBIA BATA SHOE	FS not available	FS not available	13,638,800,384	19,776,261								
ZANACO	FS not available	FS not available	594,825,024	862,496								
AFRICAN EXPLOSIV	No market capitalization per Bloomberg (either illiquid or delisted)											
NEW CAPITAL BANK	No market capitalization per Bloomberg (either illiquid or delisted)											
STANDARD CHARTER	No market capitalization per Bloomberg (either illiquid or delisted)											
NATIONAL BREWER	No market capitalization per Bloomberg (either illiquid or delisted)											
ZCCM INVESTMEN-B	No market capitalization per Bloomberg (either illiquid or delisted)											
BARCLAYS BANK	No market capitalization per Bloomberg (either illiquid or delisted)											
ARCADES DEVELOPM	No market capitalization per Bloomberg (either illiquid or delisted)											
ZAMBEZI RANCHING	No market capitalization per Bloomberg (either illiquid or delisted)											
INVESTRUST BANK	No market capitalization per Bloomberg (either illiquid or delisted)											

Zambia (continued)

Company	Options in 08	Options in 09	Option Value	Option Type	Futures in 08	Futures in 09	Future Value	Future Type	ESOP in 08	ESOP in 08	ESOP in 09
CELTEL ZAMBIA LT	No	No			No	No				No	No
ZAMBIA SUGAR PLC	No	No			No	No				No	No
LAFARGE CEMENT	No	No			No	No				No	No
ZAMBIAN BREWER	No	No			No	No				No	No
ZAMBEEF PRODUCTS	No	No			No	No				No	No
COPPERBELT ENERG	No	No			No	No				No	No
BRITISH AMER TOB											
BP ZAMBIA PLC	No	No			No	No				No	No
FARMERS HOUSE											
CAVMONT CAPITAL	No	No			No	No				No	No
ZAMEFA											
PAMODZI HOTELS P	No	No			No	No				No	No
ZAMBIA BATA SHOE											
ZANACO											
AFRICAN EXPLOSIV	No market capitalization per Bloomberg (either illiquid or delisted)										
NEW CAPITAL BANK	No market capitalization per Bloomberg (either illiquid or delisted)										
STANDARD CHARTER	No market capitalization per Bloomberg (either illiquid or delisted)										
NATIONAL BREWER	No market capitalization per Bloomberg (either illiquid or delisted)										
ZCCM INVESTMEN-B	No market capitalization per Bloomberg (either illiquid or delisted)										
BARCLAYS BANK	No market capitalization per Bloomberg (either illiquid or delisted)										
ARCADES DEVELOPM	No market capitalization per Bloomberg (either illiquid or delisted)										
ZAMBEZI RANCHING	No market capitalization per Bloomberg (either illiquid or delisted)										
INVESTRUST BANK	No market capitalization per Bloomberg (either illiquid or delisted)										

Zimbabwe

* Basis of preperation of the financial statements is IFRS as per the audit report in the annual financial statements

** The basis of preperation per the audit report states that the financial statements were prepared in accordance with IFRS, however the aduit opinion is qualified stating that IFRS could not be adhered too.

Company	FS IFRS *	Fin Year	Market Cap	Swap in 08	Swap in 09	Swap Value	Swap Type	Forwards on 08	Forwards in 09	Forward Value	Forward Type
ECONET WIRELESS	Yes **	2009	816,219,008.00	No	No	0		No	No	0	
DELTA CORP	Yes **	2009	462,150,016.00	No	No	0		No	No	0	
INNSCOR AFRICA	Yes **	2009	274,761,984.00	No	No	0		No	No	0	
OK ZIMBABWE	Yes **	2009	172,412,000.00	No	No	0		No	No	0	
BARCLAYS BK ZIMB	Yes **	2009	171,948,800.00	No	No	0		No	No	0	
HIPPO VALLEY EST	Yes **	2009	163,893,200.00	No	No	0		No	No	0	
AICO AFRICA LTD	Yes **	2009	150,400,000.00	No	No	0		No	No	0	
COMMERCIAL BK ZI	Yes **	2009	122,188,200.00	No	No	0		No	No	0	
SEED CO	Yes **	2009	109,434,096.00	No	No	0		No	No	0	
RIOZIM	Yes **	2009	105,566,200.00	No	No	0		No	No	0	
CFI HOLDINGS LTD	Yes **	2009	101,800,000.00	No	No	0		No	No	0	
LAFARGE CEMENT Z	Yes **	2009	80,000,000.00	No	No	0		No	No	0	
NATL FOODS HOLD	Yes **	2009	71,893,872.00	No	No	0		No	No	0	
MEIKLES	Yes **	2009	65,479,032.00	No	No	0		No	No	0	
TA HOLDINGS	Yes **	2009	64,720,000.00	No	No	0		No	No	0	
FIRST BANKING CO	Yes **	2009	58,414,552.00	No	No	0		No	No	0	
HWANGE COLLIERY	FS not available	FS not available	54,257,528.00								
FIDELITY LIFE	Yes **	2009	50,942,780.00	No	No	0		No	No	0	
BRITISH AMERICAN	Yes **	2009	41,682,992.00	No	No	0		No	No	0	
MURRAY & ROB-ZIM	Yes **	2009	35,360,000.00	No	No	0		No	No	0	
CAFCA LTD	FS not available	FS not available	32,139,000.00								
TSL LTD	FS not available	FS not available	26,883,580.00								
STAR AFRICA CORP	FS not available	FS not available	26,582,500.00								
DAIRIBORD HOLDIN	Yes **	2009	25,347,900.00	No	No	0		No	No	0	
BINDURA NICKEL	Yes **	2009	25,209,670.00	No	No	0		No	No	0	
DAWN PROPERTIES	Yes **	2009	24,817,450.00	No	No	0		No	No	0	
MASHONALAND HOLD	Yes **	2009	23,972,000.00	No	No	0		No	No	0	
AFRICAN SUN LTD	Yes **	2009	22,582,630.00	No	No	0		No	No	0	
PG INDUS (ZIMB)	Yes **	2009	22,520,000.00	No	No	0		No	No	0	
COLCOM HOLDINGS	Yes **	2009	21,100,270.00	No	No	0		No	No	0	
AFRE CORP LTD	FS not available	FS not available	18,600,340.00								
AFRICAN DISTIL	Yes **	2009	16,380,000.00	No	No	0		No	No	0	
NICOZ DIAMOND	Yes **	2009	13,309,920.00	No	No	0		No	No	0	
NMBZ HOLDINGS	Yes **	2009	13,210,670.00	No	No	0		No	No	0	
HUNYANI HOLDINGS	Yes **	2009	9,419,580.00	No	No	0		No	No	0	
TRACTIVE POWER H	FS not available	FS not available	8,649,166.00								
RADAR HOLDINGS	FS not available	FS not available	8,312,857.00								
EDGARS STORES(Z)	Yes **	2009	8,303,985.00	No	No	0		No	No	0	
TURNALL	Yes **	2009	8,185,851.00	No	No	0		No	No	0	

Company	FS IFRS *	Fin Year	Market Cap	Swap in 08	Swap in 09	Swap Value	Swap Type	Forwards on 08	Forwards in 09	Forward Value	Forward Type
AMALGA REG T-ZDR	FS not available	FS not available	7,697,728.00								
FALCON GOLD LTD	FS not available	FS not available	6,669,906.00								
RAINBOW TOURISM	FS not available	FS not available	6,406,759.00								
CAPS HOLDINGS	Yes **	2009	5,663,652.00	No	No	0		No	No	0	
ASTRA INDUSTRIES	Yes **	2009	4,896,000.00	No	No	0		No	No	0	
CHEMCO HOLDINGS	Yes **	2009	4,420,000.00	No	No	0		No	No	0	
TRUWORTHS (ZIMB)	Yes **	2009	3,766,870.00	No	No	0		No	No	0	
POWERSPEED	Yes **	2009	3,692,790.00	No	No	0		No	No	0	
WILLDALE	Yes **	2009	3,267,622.00	No	No	0		No	No	0	
PHOENIX CONSOLID	Yes **	2009	3,040,000.00	No	No	0		No	No	0	
NATL TYRE SERVIC	Yes **	2009	2,929,409.00	No	No	0		No	No	0	
TRUST HOLDINGS	FS not available	FS not available	2,714,126.00	No	No	0		No	No	0	
INTERFRESH LTD	Yes **	2009	2,473,462.00								
ARISTON HOLDINGS	Yes **	2009	2,436,508.00	No	No	0		No	No	0	
CAIRNS HOLDINGS	Yes **	2009	2,408,460.00	No	No	0		No	No	0	
APEX CORP ZIMBAB	FS not available	FS not available	1,966,172.00								
PIONEER	Yes **	2009	1,671,000.00	No	No	0		No	No	0	
STEELNET	FS not available	FS not available	1,278,219.00								
CELSYS LTD	Yes **	2009	922,821.50	No	No	0		No	No	0	
MEDTECH HOLDINGS	FS not available	FS not available	564,269.38								
TN HOLDINGS LTD	FS not available	FS not available	562,494.63								
ZIMPLOW LTD	FS not available	FS not available	560,512.00								
PELHAMS LTD	Yes **	2009	262,777.69	No	No	0		No	No	0	
GENERAL BELTINGS	FS not available	FS not available	177,272.00								
GULLIVER CONS	Yes **	2009	42,376.00	No	No	0		No	No	0	
ZECO HOLDINGS LT	No market capitalization per Bloomberg (either illiquid or delisted)										
CENTURY	No market capitalization per Bloomberg (either illiquid or delisted)										
ZB FINANCIAL HOL	No market capitalization per Bloomberg (either illiquid or delisted)										
BORDER TIMBERS	No market capitalization per Bloomberg (either illiquid or delisted)										
ZIMRE PROPERTY	No market capitalization per Bloomberg (either illiquid or delisted)										
PEARL PROPERTIES	No market capitalization per Bloomberg (either illiquid or delisted)										
ZIMBABWE NEWPAP	No market capitalization per Bloomberg (either illiquid or delisted)										
ART CORP	No market capitalization per Bloomberg (either illiquid or delisted)										
ZIMBABWE HOLDING	No market capitalization per Bloomberg (either illiquid or delisted)										
STAR AFRICA CORP	No market capitalization per Bloomberg (either illiquid or delisted)										
EASTER HIGHLAND	No market capitalization per Bloomberg (either illiquid or delisted)										
JOHNSON & FLETCH	No market capitalization per Bloomberg (either illiquid or delisted)										
HADDON & SLY LTD	No market capitalization per Bloomberg (either illiquid or delisted)										
DAVID WHITEHEAD	No market capitalization per Bloomberg (either illiquid or delisted)										
SOUTHERN AFRICA	No market capitalization per Bloomberg (either illiquid or delisted)										
ZIMNAT LION INSU	No market capitalization per Bloomberg (either illiquid or delisted)										
MERSPIN LTD	No market capitalization per Bloomberg (either illiquid or delisted)										
CFX FINANCIAL	No market capitalization per Bloomberg (either illiquid or delisted)										
HALOGEN INVEST	No market capitalization per Bloomberg (either illiquid or delisted)										
BARBICAN HOLDING	No market capitalization per Bloomberg (either illiquid or delisted)										

Company	Options in 08	Options in 09	Option Value	Option Type	Futures in 08	Futures in 09	Future Value	Future Type	ESOP in 08	ESOP in 09
ECONET WIRELESS	No	No	0		No	No	0		No	No
DELTA CORP	No	No	0		No	No	0		No	No
INNSCOR AFRICA	No	No	0		No	No	0		No	No
OK ZIMBABWE	No	No	0		No	No	0		No	No
BARCLAYS BK ZIMB	No	No	0		No	No	0		No	No
HIPPO VALLEY EST	No	No	0		No	No	0		No	No
AICO AFRICA LTD	No	No	0		No	No	0		No	No
COMMERCIAL BK ZI	No	No	0		No	No	0		No	No
SEED CO	No	No	0		No	No	0		No	No
RIOZIM	No	No	0		No	No	0		No	No
CFI HOLDINGS LTD	No	No	0		No	No	0		No	No
LAFARGE CEMENT Z	No	No	0		No	No	0		No	No
NATL FOODS HOLD	No	No	0		No	No	0		No	No
MEIKLES	No	No	0		No	No	0		No	No
TA HOLDINGS	No	No	0		No	No	0		No	No
FIRST BANKING CO	No	No	0		No	No	0		No	No
HWANGE COLLIERY										
FIDELITY LIFE	No	No	0		No	No	0		No	No
BRITISH AMERICAN	No	No	0		No	No	0		No	No
MURRAY & ROB-ZIM	No	No	0		No	No	0		No	No
CAFCA LTD										
TSL LTD										
STAR AFRICA CORP										
DAIRIBORD HOLDIN	No	No	0		No	No	0		No	No
BINDURA NICKEL	No	No	0		No	No	0		No	No
DAWN PROPERTIES	No	No	0		No	No	0		No	No
MASHONALAND HOLD	No	No	0		No	No	0		No	No
AFRICAN SUN LTD	No	No	0		No	No	0		No	No
PG INDUS (ZIMB)	No	No	0		No	No	0		No	No
COLCOM HOLDINGS	No	No	0		No	No	0		No	No
AFRE CORP LTD										
AFRICAN DISTIL	No	No	0		No	No	0		No	No
NICOZ DIAMOND	No	No	0		No	No	0		No	No
NMBZ HOLDINGS	No	No	0		No	No	0		No	No
HUNYANI HOLDINGS	No	No	0		No	No	0		No	No
TRACTIVE POWER H										
RADAR HOLDINGS										
EDGARS STORES(Z)	No	No	0		No	No	0		No	No
TURNALL	No	No	0		No	No	0		No	No
AMALGA REG T-ZDR										

Company	Options in 08	Options in 09	Option Value	Option Type	Futures in 08	Futures in 09	Future Value	Future Type	ESOP in 08	ESOP in 09
FALCON GOLD LTD										
RAINBOW TOURISM										
CAPS HOLDINGS	No	No	0		No	No	0		No	No
ASTRA INDUSTRIES	No	No	0		No	No	0		No	No
CHEMCO HOLDINGS	No	No	0		No	No	0		No	No
TRUWORTHS (ZIMB)	No	No	0		No	No	0		No	No
POWERSPEED	No	No	0		No	No	0		No	No
WILLDALE	No	No	0		No	No	0		No	No
PHOENIX CONSOLID	No	No	0		No	No	0		No	No
NATL TYRE SERVIC	No	No	0		No	No	0		No	No
TRUST HOLDINGS										
INTERFRESH LTD	No	No	0		No	No	0		No	No
ARISTON HOLDINGS	No	No	0		No	No	0		No	No
CAIRNS HOLDINGS	No	No	0		No	No	0		No	No
APEX CORP ZIMBAB										
PIONEER	No	No	0		No	No	0		No	No
STEELNET										
CELSYS LTD	No	No	0		No	No	0		No	No
MEDTECH HOLDINGS										
TN HOLDINGS LTD										
ZIMPLOW LTD										
PELHAMS LTD	No	No	0		No	No	0		No	No
GENERAL BELTINGS										
GULLIVER CONS	No	No	0		No	No	0		No	No
ZECO HOLDINGS LT	No market capitalization per Bloomberg (either illiquid or delisted)									
CENTURY	No market capitalization per Bloomberg (either illiquid or delisted)									
ZB FINANCIAL HOL	No market capitalization per Bloomberg (either illiquid or delisted)									
BORDER TIMBERS	No market capitalization per Bloomberg (either illiquid or delisted)									
ZIMRE PROPERTY	No market capitalization per Bloomberg (either illiquid or delisted)									
PEARL PROPERTIES	No market capitalization per Bloomberg (either illiquid or delisted)									
ZIMBABWE NEWPAP	No market capitalization per Bloomberg (either illiquid or delisted)									
ART CORP	No market capitalization per Bloomberg (either illiquid or delisted)									
ZIMBABWE HOLDING	No market capitalization per Bloomberg (either illiquid or delisted)									
STAR AFRICA CORP	No market capitalization per Bloomberg (either illiquid or delisted)									
EASTER HIGHLAND	No market capitalization per Bloomberg (either illiquid or delisted)									
JOHNSON & FLETCH	No market capitalization per Bloomberg (either illiquid or delisted)									
HADDON & SLY LTD	No market capitalization per Bloomberg (either illiquid or delisted)									
DAVID WHITEHEAD	No market capitalization per Bloomberg (either illiquid or delisted)									
SOUTHERN AFRICA	No market capitalization per Bloomberg (either illiquid or delisted)									
ZIMNAT LION INSU	No market capitalization per Bloomberg (either illiquid or delisted)									
MERSPIN LTD	No market capitalization per Bloomberg (either illiquid or delisted)									
CFX FINANCIAL	No market capitalization per Bloomberg (either illiquid or delisted)									
HALOGEN INVEST	No market capitalization per Bloomberg (either illiquid or delisted)									
BARBICAN HOLDING	No market capitalization per Bloomberg (either illiquid or delisted)									

9 Appendix 2

This is an example of the template sheet that was used. The figures and comments are here for illustrative purposes only.

COMPANY	ANGLOGOLD ASHANTI											
	Industry: Mining		SWAPS			FORWARDS		OPTIONS			FUTURES	ESOP
1	Market cap at year-end	R'm										
2	Has the company entered into the following during											
	- the financial year ended 2009		Yes			Yes		Yes			No	Yes
	- the financial year ended 2008		Yes			Yes		Yes			No	Yes
			Interest	Commodity	Currency	Currency	Commodity	Commodity	Currency	Share	Commodity	
3	If so, specify											
	- the financial year ended 2009		No	Yes	No	No	Yes	Yes	No	Yes	No	
	- the financial year ended 2008		No	Yes	No	Yes	Yes	Yes	Yes	No	No	
3	Quantify the fair value as at the year end	R'm										
	- 2009		-	-99	-		-1,450	-14,771	-	40	-	
4	Dilutive effect of share options as at end of 2009											1.52%

10 Appendix 3

10.1 IFRS 2, Share Based Payments - standard history and key milestones.

Jul-01	Project added to IASB agenda
Sep-01	Comments Invited on G4+1 Discussion Paper
Nov-02	Exposure Draft ED 2 Share-based Payment
Feb-04	IFRS 2 Share-based Payment
01-Jan-05	Effective date of IFRS 2
02-Feb-06	Proposed Amendment for Vesting Conditions and Cancellations
17-Jan-08	Amendment of IFRS 2 for Vesting Conditions and Cancellations
01-Jan-09	Effective date of January 2008 amendment to IFRS 2
16-Apr-09	IFRS 2 amended for Annual Improvements to IFRSs 2009
01-Jul-09	Effective date of the April 2009 revisions to IFRS 2
18-Jun-09	IASB amends IFRS 2 for group cash-settled share-based payment transactions
01-Jan-10	Effective date of the June 2009 revisions to IFRS 2

10.2 IFRS 7, Financial Instruments: Disclosures – standard history and key milestones

Date	Description
22-Jul-04	Exposure Draft ED 7 Financial Instruments: Disclosures
18-Aug-05	IFRS 7 Financial Instruments: Disclosures issued
01-Jan-07	Effective date of IFRS 7
10-Jan-08	IFRS 3 (2008) is issued as a consequence deleting paragraph 3(c) - scope exemption for acquirer for contracts for contingent consideration
14-Feb-08	IAS 32 is amended for puttable instruments and obligations arising on liquidation, adding to IFRS 7 paragraph 3(f) scope exemption for such instruments classified as equity
22-May-08	Consequential amendment to IFRS 7.3(a) following from Improvements amendment to IAS 27, IAS 28 and IAS 31. The requirement to present additional disclosures of IAS 27, IAS 28, and IAS 31 in the individual financial statements accounting for interests in subsidiaries, associates or joint ventures in accordance with IAS 39 has been deleted.
13-Oct-08	Amendment to IFRS 7 for disclosures relating to reclassifications of financial assets
01-Jul-08	Effective date of the October 2008 reclassifications amendment
23-Dec-08	Exposure Draft of proposed amendments to IFRS 7 issued
05-Mar-09	Amendment to IFRS 7 on enhancing disclosures about fair value and liquidity risk
01-Jan-09	Effective date of the March 2009 enhanced fair value disclosure amendments scope exemption for puttable instruments classified as equity exemption from presenting additional IAS 27, IAS 28 and IAS31 disclosures amendment
01-Jul-09	Effective date of the January 2008 IFRS 3 consequential amendment

10.3 IFRS 39, Financial Instruments: Recognition and Measurement - standard history and key milestones.

Oct-84	Exposure Draft E26 Accounting for Investments
Mar-86	IAS 25 Accounting for Investments
01-Jan-87	Effective date of IAS 25
Sep-91	Exposure Draft E40 Financial Instruments
Jan-94	E40 was modified and re-exposed as Exposure Draft E48 Financial Instruments
Jun-95	The disclosure and presentation portion of E48 was adopted as IAS 32
Mar-97	Discussion Paper: Accounting for Financial Assets and Financial Liabilities
Jun-98	Exposure Draft E62 Financial Instruments: Recognition and Measurement
Dec-98	IAS 39 Financial Instruments: Recognition and Measurement
Apr-00	Withdrawal of IAS 25 following the approval of IAS 40 Investment Property
Oct-00	Limited revisions to IAS 39 effective 1 January 2001
01-Jan-01	Effective date of IAS 39 (1998)
21-Aug-03	Exposure Draft Fair Value Hedge Accounting for a Portfolio Hedge of Interest Rate Risk (Macro Hedging) issued for public comment
17-Dec-03	Revised version of IAS 39 issued by the IASB
31-Mar-04	IAS 39 revised to reflect Macro Hedging
17-Dec-04	Amendment issued to IAS 39 for transition and initial recognition of profit or loss
01-Jan-05	Effective date of IAS 39 (Revised 2004)
14-Apr-05	Amendment issued to IAS 39 for cash flow hedges of forecast intergroup transactions
15-Jun-05	Amendment to IAS 39 for fair value option
18-Aug-05	Amendment to IAS 39 for financial guarantee contracts
01-Jan-06	Effective date of the April, June and August 2005 amendments
06-Sep-07	Proposed amendment to IAS 39 for exposures qualifying for hedge accounting
22-May-08	IAS 39 amended for Annual Improvements to IFRSs 2007
01-Jan-09	Effective date of the May 2008 amendments to IAS 39
30-Jul-08	Amendment to IAS 39 for eligible hedged items
13-Oct-08	Amendment to IAS 39 for reclassifications of financial assets
01-Jul-08	Effective date of the October 2008 reclassifications amendment
22-Dec-08	Proposed amendment to IAS 39 for Embedded Derivatives Assessment
12-Mar-09	Amendment to IAS 39 for embedded derivatives on reclassifications of financial assets
16-Apr-09	IAS 39 amended for Annual Improvements to IFRSs 2009
01-Jul-09	Effective date of the July 2008 and March 2009 amendments
01-Jan-10	Effective date of the April 2009 revisions to IAS 39
05-Nov-09	Proposed amendment to IAS 39 for impairment of financial assets measured at amortised cost
12-Nov-09	Classification and measurement provisions of IAS 39 replaced by IFRS 9 effective 1 January 2013, with earlier application permitted

10.4 IFRS 32, Financial Instruments: Presentation – standard history and key milestones

Sep-91	Exposure Draft E40 Financial Instruments
Jan-94	E40 was modified and re-exposed as Exposure Draft E48, Financial Instruments
Jun-95	The disclosure and presentation portion of E48 was adopted as IAS 32 Financial Instruments: Disclosure and Presentation
01-Jan-96	Effective date of IAS 32 (1995)
Dec-98	IAS 32 was revised by IAS 39, effective 1 January 2001
17-Dec-03	Revised version of IAS 32 issued by the IASB
01-Jan-05	Effective date of IAS 32 (2003)
18-Aug-05	Disclosure provisions of IAS 32 are replaced by IFRS 7 Financial Instruments: Disclosures effective 1 January 2007
	Title of IAS 32 changed to Financial Instruments: Presentation
22-Jun-06	Exposure Draft of proposed amendments relating to Puttable Instruments and Obligaitons Arising on Liquidation
14-Feb-08	IAS 32 amended for Puttable Instruments and Obligations Arising on Liquidation
01-Jan-09	Effective date of amendments for puttable instruments and obligations arising on liquidation
06-Aug-09	Exposure Draft Classification of Rights Issues proposing to amend IAS 32
08-Oct-09	Amendment to IAS 32 about Classification of Rights Issues
01-Feb-10	Effective date of the October 2009 amendment

11 Appendix 4

PROCEDURES PERFORMED TO GET FINANCIAL STATEMENTS

1 Does the company have a website?
2 If the company has a website are the finacial statements available on the website for the period May 09 to May 10
3 Call the relevant exchange and find out if the exchange will email the financial statements
4 Call the company and find out if they will email the financial statements
5 General Google search
6 Search of other websites such as www.africanfinancials.com
7 Bloomber and Reuters Search
8 Latest set of financial information available per Bloomberg (Financial Analysis Function detailing balance sheet and income statement indicators)
9 Financials available on exchange website

Zambia	1	2	3	4	5	6	7	8	9
PAMODZI HOTELS P	No	No	Called, will only give to transfer secretaries	Called, only to shareholders		No FS available		31-Mar-08	No
ZAMEFA	No	No	Called, will only give to transfer secretaries	Called, only to shareholders		No FS available		31-Dec-08	No
FARMERS HOUSE	No	No	Called, will only give to transfer secretaries	Called, only to shareholders		No FS available		31-Mar-09	No
BRITISH AMER TOBACCO	Yes	No	Called, will only give to transfer secretaries	Called, only to shareholders		No FS available		31-Dec-08	No
Botswana									
None									
Zimbabwe									
HWANGE COLLIERY	Yes	No	Called, will not give out financialas	Called, only to shareholders		No FS available		None available	No
CAFCA LTD	No	No	Called, will not give out financialas	Called, only to shareholders		No FS available		None available	No
TSL LTD	Yes	No	Called, will not give out financialas	Called, only to shareholders		No FS available		None available	No
STAR AFRICA CORP	Yes	No	Called, will not give out financialas	Called, only to shareholders		No FS available		None available	No
AFRE CORP LTD	No	No	Called, will not give out financialas	Called, only to shareholders		No FS available		None available	No
TRACTIVE POWER H	No	No	Called, will not give out financialas	Called, only to shareholders		No FS available		None available	No
RADAR HOLDINGS	Yes	No	Called, will not give out financialas	Called, only to shareholders		No FS available		None available	No
AMALGA REG T-ZDR	No	No	Called, will not give out financialas	Called, only to shareholders		No FS available		None available	No
FALCON GOLD LTD	Yes	No	Called, will not give out financialas	Called, only to shareholders		No FS available		None available	No
RAINBOW TOURISM	No	No	Called, will not give out financialas	Called, only to shareholders		No FS available		None available	No
TRUST HOLDINGS	Yes	No	Called, will not give out financialas	Called, only to shareholders		No FS available		None available	No
APEX CORP ZIMBAB	No	No	Called, will not give out financialas	Called, only to shareholders		No FS available		None available	No
STEELNET	No	No	Called, will not give out financialas	Called, only to shareholders		No FS available		None available	No
MEDTECH HOLDINGS	No	No	Called, will not give out financialas	Called, only to shareholders		No FS available		None available	No
TN HOLDINGS LTD	Yes	No	Called, will not give out financialas	Called, only to shareholders		No FS available		None available	No
ZIMPLOW LTD	Yes	No	Called, will not give out financialas	Called, only to shareholders		No FS available		None available	No
GENERAL BELTINGS	No	No	Called, will not give out financialas	Called, only to shareholders		No FS available		None available	No
Namibia									
None									

12 Appendix 5

ZWD vs USD Exchage Rate History (Note the logarithymic y scale)