THE EFFECT OF EXCHANGE RATE TRANSLATION EXPOSURE ON THE FINANCIAL PERFORMANCE OF COMPANIES LISTED AT THE NAIROBI SECURITIES EXCHANGE

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A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE MASTERS OF BUSINESS ADMINISTRATION AT THE UNIVERSITY OF NAIROBI SCHOOL OF BUSINESS.

DECLARATION

I hereby declare that this research project report submitted to the University of Nairobi (School of Business) is my original compilation and that it has not been submitted for examination by anyone else known to me.

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DEDICATION

I dedicate this research project first to myself for the hard work I put into it and to my MBA program at the University of Nairobi. Secondly I dedicate it to the School of Business at the University for their support and guidance in the research process. Finally I dedicate it to the scholars of finance and finance managers who can potentially benefit from it.

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LIST OF ABBREVIATIONS

AE	- Accounting Exposure
AERM	- Accounting Exposure Risk Management
CMA	- Capital Markets Authority of Kenya
e.g.	- For Example
EU	- European Union
GDP	- Gross Domestic Product
IMF	- International Monetary Fund
KEMRI	- Kenya Medical Research Institute
Ksh	- Kenya Shilling
MNC	- Multinational Corporations
MoU	- Memorandum of Understanding
NPL	- Non Performing Loans
NSE	- Nairobi Securities Exchange
PTM behavior	- Pricing to Market behavior
ROA	- Return on Assets
USA	- United States of America

ABSTRACT

This study was a descriptive survey of the companies that are listed at the Nairobi Securities Exchange on the effects of exchange rate translation exposure. It is one of the three types of currency exposures; the other two being transaction exposure and economic exposure. Exchange rate exposure is the risk of loss due to fluctuations in currency values on a company's or business's operations. Translation exposure is the risk that a company's equities, assets, liabilities or income will change in value as a result of exchange rate changes. This occurs when a firm denominates a portion of its equities, assets, liabilities or income in a foreign currency. The regression model for the study was: $Y= \beta 0+ \beta 1X1+ \beta 2X2+ \beta 3X3+ E$ where: Y= Financial Performance (Dependent variable), $\beta 0$ = Constant term, X1 = Translation exposure, X2 = Firm size, X3 = Company's sector of listing at the NSE and E = Error term. The study also tested the hypothesis that financial performance is not affected by translation exposure against the hypothesis that financial performance is affected by translation exposure. The study utilized secondary data obtained from the listed companies' financial statements. One of the findings of the study was that very many companies are exposed negatively to translation exposure and that no company has been positively exposed for two consecutive years. The study also found that financial performance is affected by the three of the five variables under study which was indicative that translation exposure is a result of deliberate financial policies that are unique to the companies. Regression results led to the conclusion that the null hypothesis be accepted because regression results showed that financial performance is not significantly affected by translation exposure. Earnings per share were also found not to significantly affect financial performance.

CHAPTER ONE: INTRODUCTION

1.1 Background of the study

Translation exposure is one of the three types of currency exposure; the other two being transaction exposure and economic exposure. Exchange rate exposure is the risk of loss in company's value or business's operations due to fluctuations in currency values. Foreign exchange exposure is classified into three categories: Transaction exposure is the inherent risk that a company's gains or losses will change favorably or otherwise upon the settlement of a foreign denominated obligation at a future date. Translation exposure arises from the need to "translate" foreign currency assets or liabilities into the home currency for the purpose of finalizing the accounts for any given period (Francis, 2010). Economic exposure, according to Eun and Resnick (2009), is the extent to which the value of the firm would be affected by unanticipated changes in exchange rates and it occurs in two formats i.e. asset exposure and operating exposure.

Exchange rates have always fluctuated even during the gold standard era. Their values fluctuate as their demand and supply fluctuate. When a business has interests denominated in foreign currency it faces the risk of value loss or gain due to fluctuations in exchange rates also known as exchange rate exposure (Sekirin, 2014). However it wasn't until the 1970's when the Bretton woods system collapsed that many countries switched to floating exchange rate systems where exchange rates now were being determined by their supply and demand (Sekirin, 2014). Due to their unstable nature, floating exchange rates pose numerous risks when they fluctuate hence for businesses it becomes of utmost importance to monitor their exposure to exchange rate risk. All

micro and macro-economic factors act as risk factors to exchange rate exposure since they affect the flow of money and foreign currencies.

1.1.1 Translation Exposure

Translation exposure is the potential for an increase or decrease in the parent's net worth and reported income caused by a change in exchange rates since the last transaction (Moffet, Stoneehill and Eiteman, 2003). In an accounting context, foreign currency translation is the restatement of accounting data expressed in one currency into another (Bogicevic, 2013) Accountants use various methods to insulate firms from these types of risks, such as consolidation techniques for the firm's financial statements and the use of the most effective cost accounting evaluation procedures. In many cases, this exposure will be recorded in the financial statements as an exchange rate gain or loss (Investopedia, 2014).

Exchange rate translation exposure measurement is important to all businesses because it affects them directly or indirectly. Translation exposure is related to firm size, multinational status, foreign sales, international assets, and competitiveness and trade at the industry level hence the firms must vigorously adjust their behavior in response to exchange rate risk (Essays UK, 2013). The necessity of foreign currency accounting contents translation is particularly evident in the recording of foreign currency transactions in the books of accounts and the preparation of an individual company's financial statements as well as the consolidation of foreign subsidiaries' financial statements with their parent company's financial statements on condition that they are not expressed in a common currency (Bogicevic, 2013).

Habibnia (2013) described measurement of translation exposure as the difference between exposed assets and exposed liabilities. Exposed assets by this method are translated at the current

exchange rate while the non-exposed assets are translated at the acquisition (historical) exchange rate using the current rate and temporal methods. Worldwide, FASB No. 52 which replaced FASB No. 8 requires American companies to record foreign exchange items on a balance sheet according to prevailing exchange rates. Adjustments for changes to market rates are only made when they affect the company's cash flow (FASB, 2014). In Kenya, translation exposure is explicitly stated in the statement of comprehensive income under the classification: “translation gains/losses from foreign operations”. This section is found in the ‘other comprehensive income’ section of the statement of comprehensive income.

1.1.2 Financial Performance

Financial performance of an enterprise is the ability to leverage operational and investment decisions and strategies to achieve a business’ financial stability. It is the measure of an enterprise’s achievement of its financial goals guided by its financial objectives and benchmarks. One such measure is the Return on Assets (ROA); which is an indicator of how profitable a company is relative to its total assets. ROA gives an idea as to how efficient management is at using its assets to generate earnings. Calculated by dividing a company's annual earnings by its total assets, ROA is displayed as a percentage. Sometimes this is referred to as "return on investment" (Investopedia, 2014).

Measuring your business performance from the financial perspective is an absolute must for any business, regardless of its size. It will pay entrepreneurs to become intimately familiar with the Key Performance Indicators used to measure, monitor and provide the actionable insights needed to keep your financial performance on track (Paiyo, 2010). Each enterprise must evaluate its financial performance which enables it to allocate its available enterprise resources towards profitable and value adding operations. It is also important to measure financial performance for

strategic planning and market positioning of the business. Financial performance, in line with international business, enhances the image of the enterprise and consequently its credit rating.

Financial performance is measured using financial metrics such as profitability, liquidity, solvency, repayment capacity, short term financial management, financial efficiency and turnover capacity. These metrics are correspondingly reflected in a company's financial statements. Profit describes how much wealth a company has created out of utilizing its available resources (Stern, 2014). The liquidity of a business determines its ability to maintain liquid cash and cash equivalents to meet its debt obligation on a timely basis using the current ratio and quick ratio (Woodruff, 2014).

1.1.3 Effects of Translation Exposure on Financial Performance

Exchange rate movements affect domestic prices through three channels; first is through prices of imported consumption goods, exchange rate movement affects domestic prices directly, second is through prices of imported intermediate goods, exchange rate movement affects production cost of domestically produced goods and third is through prices of domestic goods priced in foreign currency (Gatobu, 2013). Translation exposure affects the valuation of assets and liabilities in foreign operations which must be translated into the home country currency. The fluctuations in currency exchange rates could generate significant gains or losses and the entry of these into the income statement could produce a distorted impression of what is happening to the company (Watkins, 2014).

Hagelin and Plamborg (2004) documented a positive relationship between existence of loan covenants and translation exposure hedging which provides support for the conjecture that firms

hedge translation exposure in order to secure their access to funds and that liquidity is negatively related to transaction exposure hedging hence supporting that firms hedge in response to expected financial distress costs.. Dominguez and Tesar (2005) found that firms adjust their activities in response to exchange rate risk so as to improve on the value of the firm which translates to exchange rate exposure affecting the valuation of firms as reflected in the financial statements and ultimately its financial position.

Jamal and Khalil (2011) documented that the more a company is involved in international trade, the more its accounting exposure and unless a company hedges this risk then it faces financial gains and/or losses from transaction and translation of foreign activities. Another unique dimension of exchange rate exposure is that of projects funded by foreign donors as Kinyuma (2013) investigated. Unrealized foreign exchange gains/losses according to Gatobu (2013) have an effect on the Net Income of multinational companies as posted to either income statement or owners 'equity reserves. Foreign exchange fluctuations affect the companies' imports, accounts payables, export sales and accounts receivables; with the net effect on the Net Income of multinational companies through the income statement or the owners' equity reserves

1.1.4 The Nairobi Securities Exchange

The NSE dates back to 1951 during the colonial era when the British controlled Kenya. Currently there are 62 listed companies at the NSE under eight industrial sectors (See appendix one). It records trading information under six indices namely: NSE all share index, NSE 20 share index, FTSE NSE Kenya 15 Index, FTSE NSE Kenya 25 Index, FTSE NSE Kenya Govt. Bond Index and the FTSE ASEA Pan African Index. Its pioneer is believed to be Francis Drummond who operated the first professional stock broking firm and who approached the then Finance

Minister in Kenya Sir Ernest Vasey and gave him the idea of setting up a stock exchange in East Africa. In 1954 the Nairobi Stock Exchange was then constituted as a voluntary association of stockbrokers registered under the Societies Act. 1988 saw the first privatization through the NSE, of the successful sale of a 20% government stake in Kenya Commercial Bank.

The Central Bank of Kenya regulates the financial system and plays a supervisory role with regard to the management of the foreign exchange business (Gachua, 2011). Listed companies at the NSE are regulated by the Companies' Act of Kenya, Capital Markets Authority, NSE regulations and the Central Depository and Settlement Corporation's (CDSC) rules. According to the Companies' Act (2012) every company shall keep proper books of account in English with respect to: all sums of money received and expended by the company and the matters in respect of which the receipt and expenditure takes place; all sales and purchases of goods by the company and the assets and liabilities of the company.

Every company must show how much its consolidated profit or loss for the financial year is dealt with in the accounts of the company which also incorporates translation exposure under the classification of "exchange gains/losses on translation of foreign operations. The companies Act (2012) further prescribes that at the end of its financial year a company which has subsidiaries, accounts or statements (referred to as group accounts) the state of affairs and profit or loss of the company and the subsidiaries shall be produced before the company in general meeting when the company's own balance sheet and profit and loss account are so laid. The financial statements must also be accompanied by auditors', accounts and management reports which report the actual state of affairs of the company and its subsidiaries if any.

1.2 Research Problem

Exposure to currency risk can be properly measured by the sensitivity of the future home currency values of the firm's assets and liabilities and the firm's operating cash flows to random changes in exchange rates (Francis, 2010). Adequately translated financial data not only eliminate the information asymmetry between domestic and foreign users of accounting contents, but they are also a 'conditio sine qua non' for the international group financial statements consolidation and segment reporting (Bogicevic, 2013). The necessity for accounting data translation arises both at the level of individual firms and the level of international reporting; on the results of independent activities abroad, reporting on the international activities of foreign subsidiaries and branches as well as their managers are emphasized (Bogicevic, 2013).

World stock markets' performance has fallen substantially after four years of relatively fast growth. We have witnessed the largest bailouts and bankruptcies in the history of finance of large financial institutions, stock Market indices have dropped to between five to nine year lows (CMA, 2008). The stock market is an important institution for price discovery. The forces of demand and supply in the market determine the market price of shares which is useful in valuation of companies, evaluating portfolio performance, facilitating transfer or disposal of securities among other reasons. The linkage between exchange rates and share prices is important to managers of listed companies in Kenya (Chirchir, 2014). The managers of listed companies have to plan in advance ways of mitigating the risk of adverse effects of exchange rates movement on the performance of their companies. The managers also need to position themselves in order to benefit from favourable movements in the exchange rates (Chirchir, 2014)

Studies on the topic so far have focused on various relationships between exchange rate exposure and a host of other variables. Jamal & Khalil (2011) investigated accounting exposure risk

management in Jordanian firms. Bris, Koskinen and Pons (2004) investigated company performance during financial crises in relation to exchange rate risk. Dominguez and Tesar (2005) investigated the relationship between exchange rate exposure and firm value while Kinyuma (2013) investigated how exchange rate risk affects projects funded by international donors in Kenya's KEMRI. Chiira (2009) investigated kenyan oil companies to determine how they deal with exchange rate exposure while Gatobu (2013) investigated the effects of exchange rate fluctuations among the listed companies at the NSE in Kenya. So far none of these studies have specifically investigated the extent of exchange rate exposure on Kenyan companies hence this study sought to answer the question; how does exchange rate translation exposure affect local listed companies' financial performance?

1.3 Research Objective

The objective of this research was to determine how exchange rate translation exposure affects and determines the financial performance of local listed companies in Kenya.

1.4 Value of the Study

The study added value to the body of knowledge available on exchange rate exposure at a time when uncertainties and volatilities in the world economy are increasing every day. It is also worth noting that in Kenya this is an area that has not received much public attention and not many formal studies have been published about translation exposure. The study is of importance to the field of finance in that it will set a precedent to more specific studies in Kenya in this area of finance and also shed more light on the risks of exchange rate exposure as a whole on Kenyan companies. It will also create awareness on the importance of managing translation exposure in the Kenyan market especially at this time when economic conditions are changing every day. It

is a study of the relationship between exchange rate translation exposure and company value and performance that will inform Kenyan enterprises on how to mitigate the inherent risk of loss of shareholder value.

The study contributes to the practice of finance by providing more insights for researchers to explore on. It informs financial analysts on any existing gaps in the determination of the relationship between exchange rates and company financial performance, for further research. It is also of help by informing managers on how different variables define and affect exchange rate exposure so as to enable them to create financial policies that are in line with their corporate objectives. For top executives and finance managers, the study is of help to them in determining the best economic conditions to invest in where there is reduced exchange rate exposure, and also determine the best time to make investment decisions based on exchange rate fluctuations.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

Literature review is the review of previous studies and works done by other writers and scholars on the topic under study. Literature review comprises of the theoretical framework that informs the problem under study, other factors that affect the variables under study, an empirical review of previous studies by other researchers, a summary of literature review and any gaps that may exist.

2.2 Theoretical Framework of Exchange Rate Exposure

Theoretical framework is an exploration of the theories that inform the relationships of the variables under study. These theories are many, but the three theories explored for this study are: The Harrod Balassa-Samuelson model which is named after its authors; the Monetary Theory of exchange rates; and The Asset-market Model of exchange rates.

2.2.1 The Harrod Balassa-Samuelson Model

In two seminal papers, Balassa (1964) and Samuelson (1964) independently argued that labor productivity differentials between tradable and non-tradable sectors will lead to changes in real costs and relative prices,' bringing about divergences in exchange rate adjusted national price levels (Asea and Mendoza, 1994). Harrod (1933), Balassa (1964) and Samuelson (1964) extended the notion of the PPP conditions to account for differences in the traded/non-traded sectors across economies that may persist over time due to differences in productivity (Chong, Jorda and Taylor, 2010). It has become conventional wisdom in economics that richer countries tend to have higher overall costs of living than poorer countries. Typically this is measured in

terms of the real exchange rate, which compares the consumer price indexes of two countries converted to a common currency using the nominal exchange rate (World-economics, 2011).

According to World-economics (2011) the theory is based on the divergence of productivity levels in a world of traded and non-traded goods, explaining that rich countries specialize in and produce goods that are characterized by higher productivity and that are easily traded internationally (World-economics, 2011). This implies that a country will have a higher overall price level if it is highly productive in traded goods, relative to its own non-traded goods, and relative to the traded goods of the foreign country thus countries with faster growth rates in the traded sector would have real exchange rates that are appreciating over time (World-economics, 2011).

As a result of the increasing price level and appreciating exchange rates in the home currency, companies are exposed to exchange rate exposure because trading partners that owe them money might find it difficult to cope with the rising conversion rates. In addition, the companies' profitability might decline because of less demand for traded goods due to high price levels and high exchange rates. In contrast however, due to the favourable investment opportunities in the countries due to high resultant interest rates, investor will demand assets and currency denominated in the home currency. This will also push the exchange rates even higher.

2.2.2 The Monetary Theory of Exchange rates

The monetary approach is one of the oldest methods of determining exchange rate and a comparative to other methods of determining exchange rates. This approach's starting point is

the law of one price or purchasing power parity (PPP) which states that similar goods and services in two countries should be similarly priced. The monetary model of exchange rate determination suggests that there is a long-run equilibrium relationship between the nominal exchange rate and a set of monetary fundamental (Vogiatzoglou et al, 2006). Exchange rates therefore under the monetary approach are determined by relative prices of goods in different countries. The formula that depicts this is; $et = pt^* - pt$ (Vogiatzoglou et al, 2006). This denotes that the exchange rate (e) at time (t) is determined by difference between the foreign price (p*) at time (t) and the domestic price at time t.

This theory is most applicable to companies that trade in imports and exports. Negative exposure to the local listed company, according to the monetary theory, would therefore occur if the currency of the source country of imports appreciates due to demand of the goods in that country hence exposing a company's accounts payables and future ability to import. The opposite suffices for positive exposure. The monetary theory suggests that a company's profitability is determined by the purchasing power parity of the traded goods hence the more the demand for a company's goods in the short run, the more the profitability and the lesser the exchange rate exposure. The monetary theory also affects the general demand for a country's goods and consequently the macro and micro economic conditions in the economy. Alimi (2014) conducted the Granger causality test between money supply, inflation and nominal interest rates which yielded a unidirectional causality running from M2 money aggregates to inflation and from nominal interest rate to inflation.

2.2.3 The Asset-Market Theory

According to Husted and Melvin (2014), prior to the monetary-approach emphasis of the 1970s, it was common to emphasize international trade flows as the primary determinants of exchange rates. This was due, in part, to the fact that governments maintained tight restrictions on international flows of financial capital. The asset approach, according to Husted and Melvin (2014), emphasizes that rather that exchange rates adjusting to equilibrate international trade in goods and services, the exchange rate is viewed as adjusting to equilibrate international trade in financial assets. As a result, exchange rates fluctuate as supplies of and demand for financial assets of a country fluctuates. Econlab (2014) explained that because an exchange rate, the price of one country's money in terms of another's, is also an asset price, the principles governing the behavior of other asset prices also govern the behavior of exchange rates.

Exchange rate models emphasizing financial-asset markets typically assume perfect capital mobility. In other words, capital flows freely between nations as there are no significant transactions costs or capital controls to serve as barriers to investment. Appreciation of the domestic currency today, all else equal, raises the domestic currency return expected of foreign currency deposits (Econlab, 2014). This causes an increase in the demand for assets in the domestic market and hence profitability for firms involved. In such a situation exposure to exchange rates is positive for domestic companies since the appreciation of the domestic currency means depreciation of another currency thus a company's accounts payable are said to be safe.

2.3 Determinants of Financial Performance of NSE's Listed Companies

This section will explore the other determinants other than exchange rate exposure which affect a firm's profitability. These factors are many covering all aspects of business e.g. microeconomics, macroeconomics, financial factors, internal and external environment, strategic alignment of activities to goals by the company and many more. Financial performance success is determined by how well a company leverages these factors to its advantage. The factors that are discussed in this section are financial factors, economic growth, capital adequacy, liquidity and quality of assets.

2.3.1 Financial Factors

Macroeconomic uncertainty, volatility and risk on manufacturing firms according to Amariati (2013) have adversely affected the profitability in developing countries and Kenya as well. In his study he sought to find out the extent to which interest rates, exchange rates, inflation rates and taxation affect profitability of listed manufacturers in Kenya. This was a descriptive study in the form of a survey and dealt with the distribution and relationships of variables. The sampling frame was the listed manufacturing firms in the NSE which are 9 in total thus consisted of the samples as well. Descriptive statistics and measures of association were used to determine the relationship between the variables under investigation.

Amariati (2013) also established that manufacturing firms characteristics such as volatile business environment, high product market competition, inappropriate government policies, uncertainty and volatility of key macro prices, high transaction costs facing firms, inflation rates that make planning for firms very difficult or impossible. Investments also faced high risks and substantial changes in the real exchange rates affected their profitability to a great extent. However, poor quality of the infrastructure services was found to affect manufacturing firms'

profitability to a moderate extent (Amariati, 2013). Inflation, according to Amariati (2013) also, reduced spending powers and volume of basket hence low profit margins and that with high inflation, prices of utilities went up making production expensive thus reducing the profits. High interest rates of borrowings from the financial institutions led to high cost of borrowing which ultimately reduce profitability.

2.3.2 Exchange Rate Risk

Investorwords (2014) described exchange rate risk as the risk that a business' operations or an investment's value will be affected by changes in exchange rates, while investopedia (2014) takes a different angle by defining it as the risk that an investor will have to close out a long or short position in a foreign currency at a loss due to an adverse movement in exchange rates; also known as "currency risk" or "exchange-rate risk". The implication of these two definitions is that exchange rate risk usually affects businesses that export and/or import, but it can also affect investors making international investments (investopedia, 2014). Fang, Lai and Miller (n.d.), in their investigation of whether exchange rate risk affects exports asymmetrically, found that exchange rate depreciation exhibits the normal positive effect, but insignificant in two of the eight Asian countries under study. Real exchange rate risk produces significant effect on exports for all countries, negative or positive. For Japan, Korea, Malaysia, the Philippines, and Singapore, the effects of exchange rate risk are asymmetric.

Zinnov (2006) analyzed how exchange rates affects outsourcing by companies and found that a steady lower currency value of the destination country generally ensures higher return on investment (ROI) to the country making the investment, while a volatile currency can definitely affect the planning and budget allocation for offshore initiatives. Keythman (n.d.) found that currency depreciation may have a positive effect on sales that a small business makes to foreign

parties, regardless of the currency used while Currency depreciation's effect on imports depends on the currency a company uses to conduct transactions with foreign suppliers. There is importance in anchoring expectations and minimizing fluctuations in the exchange rate around its forecast, according to Kandil, Berumet and Dincer (2014). This is because anticipated exchange rate appreciation has adverse effects as it contracts real growth of output and demand for exports and investment as well as raising inflation. On the contrary, unanticipated exchange rate fluctuations have asymmetric effects that highlight the importance of unanticipated depreciation in shrinking output growth, and the growth of private consumption and investment despite increase in export growth (Kandil et al, 2014).

2.3.3 Capital Adequacy, Liquidity and Quality of Assets

Roman and Tomuleasa (2014) analyzed commercial banks in the new EU member states to determine their profitability determinants. These member states are Bulgaria, the Czech Republic, Hungary, Latvia, Lithuania, Poland and Romania. These determinants are in addition to the other numerous determinants already affecting profitability of enterprises globally. The factors under study were classified into two: internal and external factors. Capital adequacy, liquidity and quality of assets are internal factors. The internal factors that Roman & Tomuleasa (2014) studied were: capital adequacy, ratio of non-performing loans, deposits ratio, management quality, loans to total assets ratio, liquidity, funding costs, income diversification and bank size. Data was analyzed using econometric estimation analysis, panel analysis, stationary tests and regression modeling.

On capital adequacy, Roman and Tomuleasa (2014) found that capital adequacy has a positive impact on the profitability of Hungarian, Polish and Romanian banks, in line with expectations.

However, in the context of the recent financial crisis, it can also be observed an inverse relationship between capital adequacy and banks profitability in four countries, namely Bulgaria, the Czech Republic, Latvia and Lithuania. On Asset quality or NPL, Roman and Tomuleasa (2014) found it to have a negative impact on banking profitability in all countries analyzed, except for Latvia. The negative relationship indicates that banks with a high level of credit risk shows lower levels of profitability, also in line with expectations. In the case of liquidity, Roman and Tomuleasa (2014) found that the coefficient for LIQA was negative in accordance with expectations for the majority of the commercial banks studied, except for Bulgaria and Romania. This indicates that an increase in liquidity will lead to a decrease in profitability.

2.4 Empirical Review of Exchange Rate Translation Exposure

Hagelin and Plamborg (2004) investigated Swedish firms' use of financial hedges to reduce their foreign exchange exposure for 1997–2001 based on firm size, liquidity, leverage, market-to-book, industry dummies, foreign exchange exposure and loan covenants. The study utilized survey data which makes it possible to differentiate between hedging aimed at translation exposure and transaction exposure respectively. The survey responses showed that use of financial hedges was widespread and that more than 50% of the firms employed financial hedges, while transaction exposure was more frequently hedged than translation exposure.

About 20 percent of the firms hedged their translation exposure which was interesting given that the finance literature generally recommends that translation exposure should not be hedged. The study also documented a positive relationship between existence of loan covenants and translation exposure hedging which provides support for the conjecture that firms hedge

translation exposure in order to secure their access to funds. Finally, the study confirmed the theory that liquidity is negatively related to transaction exposure hedging supporting that firms hedge in response to expected financial distress costs. Hagelin and Plamborg (2004) also found that the likelihood of hedging foreign exchange exposure increases with firm size and exposure suggesting that economies of scale affects firms hedging decisions.

Dominguez and Tesar (2005) examined the relationship between exchange rate movements and firm value by estimating the exchange rate exposure of public listed firms in a sample of eight (non-US) industrialized and emerging markets. They investigated the extent and robustness of exchange rate exposure, specification of market index, sensitivity of exposure to time horizon, magnitude and direction of exposure, robustness across sub-samples and second stage regression explanation of exposure. Their dataset included firm, industry and market level returns, and exchange rates for a sample of eight countries including Chile, Germany, Italy, Japan, Netherlands, Thailand and United Kingdom between the period 1980 to 1999.

Dominguez and Tesar (2005) found that exchange rate movements do matter for a significant fraction of firms through which firms are affected and the direction of exposure depends on the specific exchange rate and varies over time. The inference from this observation was that firms dynamically adjust their behavior in response to exchange rate risk and exposure is correlated with firm size, multinational status, foreign sales, international assets and competitiveness at the industry level. They concluded that exchange rate movements do matter for a significant fraction of firms through which firms are affected and the direction of exposure depends on the specific exchange rate and varies over time. Firms therefore, according to Dominguez and Tesar (2005) adjust their behavior in response to exchange rate risk. They also found that exchange rate

exposure is correlated with firm size, multinational status, foreign sales orientation, ownership of international assets, competitiveness and trade at the industry level.

Chiira (2009) conducted a qualitative survey on all the 27 oil companies in Kenya to determine the techniques that the companies use to mitigate foreign exchange rate risk. The study found that risk management is increasingly becoming essential to the oil companies as it was ranked as the second most significant risk to oil companies after fluctuation in global crude oil prices hence most of the companies found it as an important risk to manage. The study found that 55% of the oil companies do not quantify foreign exchange risk probably because it is difficult to quantify the exposure. Chiira (2009) observed that transaction exposure was ranked as the most critical risk to the oil companies and it is the most quantified and hedged risk. The study established that all the companies practice internal hedging techniques while only 35% of the companies used external hedging techniques (derivatives).

Internal hedging by way of changing the currency of billing was found to be the mostly used technique by the oil companies while currency options ranked second and the use of money market contracts ranked third. Use of derivatives was not found to be popular with the oil companies. Majority of the companies according to Chiira (2009) preferred derivatives with short maturity periods of 90 days or less. The use of derivatives was observed to increase with increase in size of the companies. Finally, Chiira (2009) found that oil companies hedge less against exchange rate fluctuations during the periods of rising oil prices than they usually do. The oil companies also find currency markets being information efficient markets and organizations can therefore not make consistent speculative gains through predicting future exchange rates.

Jamal and Khalil (2011) investigated Accounting Exposure Risk Management (AERM) in the 200 manufacturing and commercial Jordanian firms, to examine the degree of AE that the commercial and manufacturing Jordanian firms face, to investigate the attitude and the reaction of the Jordanian firms toward AE that they face and to examine factors that influence the degree of AERM in Jordanian firms. Three factors were used to determine the degree of AE; the degree of involvement in the foreign environment, the firm size and the industry sector of firms (Jamal and Khalil, 2011). The results impressed on the researcher that Jordanian firms that are highly involved in foreign trade are highly exposed to accounting exposure and while this is the case Jordanian firms do not hedge their AE regardless of the level. The study concluded that the existence of in and out foreign cash flows might create a natural offsetting which provides firms with partial protection. However, on the long run, policy makers need to understand and be aware of the degree of AE in order to engage in adequate hedging techniques. In addition firms that do not face structural barriers and have an easy access to financial markets managed their AE at higher levels.

Ambunya (2012) studied the relationship between exchange rate movements and stock market returns volatility at the NSE's 56 listed companies. The regression model used in the study was: $Y= \beta 0X1 + \beta IXI+ E$; Where Y = Stock market return volatility And XI = the exchange rate movement $\beta 0$ and $\beta 1$ are co-efficient of the variables and E = Error term. The findings by (Ambunya, 2012) were that there is a strong relationship between exchange rate movement and stock market returns volatility. This is especially carried through the information content of exchange rate movement on the security's business. Finally Ambunya (2012) concluded that

exchange rate movement also affects the stock market performance greatly through its spiral effects. Through over macroeconomic variables, exchange rate movement indicates the state of the economy hence the likely future state of the economy.

Akabom and Arzizeh (2012) analyzed data for 30 Nigerian companies for the period of 2002 to 2011 to determine the relationship between exchange rate exposure and their performance. The research was descriptive and analytical using financial data and EPS on the companies. The analytical model for the study was Rit = ai + biExit + eit ; Where: Rit = Stock return for companies, ai = Constant term , Ext = Percentage change in exchange rate and bi = The sensitivity of a company I's stock returns to exchange rate movements.

Akabom and Arzizeh (2012) concluded that exchange rate instability is a significant hindrance to corporate performance in Nigerian listed companies. There was no significant difference in pattern of exposure between the financial and non-financial firms, thus providing no evidence to support the thesis that financial firms possess requisites to hedge exchange rates risks. The study further indicated that majority of Nigerian listed firms' returns are sensitive to dollar exchange rate with the largest proportion being adversely exposed.

Gatobu (2013) assessed the effect of foreign exchange rate fluctuations among the listed firms in the NSE for the period 2001 to 2010 using the multiple regression model of: $Y = \beta 0 + \beta 1X1 + \beta 2X2 + \beta 3X3 + \epsilon$; where Where: Y = Dependent variable, ROA, X1 = Translation exposure, X2 = Transaction exposure, X3 = Economic exposure and X1, X2 and X3 are the independent variables. The study was a descriptive study that emphasized on detailed contextual analysis of a

limited number of events or conditions and their relationships. Gatobu (2013) found that firms listed in the Nairobi Stock Exchange use income statement and owners' equity account to record foreign exchange differences.

The study concluded that unrealized foreign exchange gains/losses had an effect on the Net Income of multinational companies as it was posted to either income statement or owners'equity reserves. For the period 2001 to 2010, Gatobu (2013) found that all the major hard currencies of international transaction are sources of foreign exchange risk to listed firms on the Nairobi Stock Exchange. The US dollar turned out to be the most dominant source of exchange rate risk at both the firm and sector levels. The study concluded that foreign exchange affects the companies, imports and accounts payables and export sales and accounts receivables thus with the net effect on the Net Income of multinational companies through the income statement or the owners' equity reserves (Gatobu, 2013).

In a descriptive case study covering 45 donor-funded projects that were financed in foreign currency and undertaken through KEMRI, Kinyuma (2013) sought to establish the determinants of exchange rate exposure on projects funded by the institute and to explore the effects of exchange rate fluctuation in the medium term period of a project timing, scope and quality. A multivariate regression model: $Y= \beta_0+ \beta_1X_1+ \beta_2X_2+ \beta_3X_3+ \beta_4X_4+ \beta_5X_5+E$ was used to capture the different variables using descriptive statistics for frequencies.

Kinyuma (2013) found that 80.9% of foreign funded projects were affected by foreign exchange risk. From the analysis 87.7% of the exposure to exchange rate risk could be explained by the independent variables on determinants for exposure to foreign exchange risk included in the study meaning 12.3% of the exposure could be explained by other factors not included in the

study (Kinyuma, 2013). The study therefore concluded that time lag, conversion or exchange rates, budget rates, monthly asset revaluations, interest rates and inflation rates were the major contributors of exchange rate risk at 80.9%. Further to that, a decrease in domestic exchange rate decreases the amount of funds received from foreign donors.

Njuguna (2013) sought to find out the effects of risk management instruments on foreign exchange exposure by unit trusts companies in Kenya. His study was descriptive which utilized quantitative data from 47 firms that were registered with the Capital Markets Authority of Kenya and trading in unit trusts. The analytical model for the study was $Y = \alpha + \beta 1\ X1 + \beta\ 2X2 + \beta\ 3X3 + \beta\ 4X4 + \ell i$; where Y was exchange rate exposure(dependent variable) and x1, x2, x3 and x4 were the risk management instruments (independent variables).

The study found that firms use local currencies in doing their business which exposes them to foreign exchange risks because all the major hard currencies of international transaction are sources of foreign exchange risk. The study therefore concluded that the exchange rate risk faced by firms formed a significant component of their risk profile. It is important that firms trading in unit trusts effectively manage their risk to minimize their exposure to exchange rate risk. These risks occur as a result of changes occurring in local and global financial cycles.

2.5 Summary of Literature Review

Exchange rate fluctuations which cause exchange rate exposure are caused by Trade Movements, Capital Movements, Stock Exchange Operations, Speculative Transactions, Banking Operations, Monetary Policy and Political Conditions. One common approach to exchange rate exposure is

the asset approach to exchange rate exposure views exchange rate fluctuations as a result of trade in assets rather than trade in foreign currency. Asymmetric exchange rate exposure on the other hand occurs due to asymmetric behaviours of investors and of the market. In particular these behaviours are asymmetric hedging, hysteresis and price to market behavior.

Empirical literature review has revealed that companies are aware of exchange rate exposure as an effect on their financial performance; for example Jamal and Khalil (2011) revealed that Jordanian companies deliberately do not hedge accounting exposure. Hagelin and Plamborg (2004) found that liquidity is negatively related to transaction exposure hedging supporting that firms hedge in response to expected financial distress costs. Dominguez and Tesar (2005) also found that firms dynamically adjust their behavior in response to exchange rate risk and that exposure is correlated with firm size, multinational status, foreign sales, international assets and competitiveness at the industry level.

Literature review findings so far have focused on international companies and they have shown the effect of exchange rate exposure on firms but the case for Kenya is scanty. Studies on Kenyan firms have focused mainly on exchange rate fluctuation effects but few have specifically addressed the issue of exchange rate exposure, hence the importance of this study.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

The research methodology in this study comprises of research design, population of the study, data collection and data analysis.

3.2 Research Design

The study was a descriptive survey of the companies that are listed at the Nairobi Securities Exchange. Descriptive research is research that describes a phenomenon; describes the 'what' of the phenomenon. Descriptive research design involves gathering data that describe events and then organizes, tabulates, depicts, and describes the data collection and often uses visual aids such as graphs and charts to help the reader in understanding data distribution (Gatobu, 2013).

3.3 Population

The population of the study was all the listed companies at the NSE, which as at 16th August 2014 stood at 63. These companies are categorized into eleven sectors of the NSE which are: Agricultural (7 companies), Automobiles and accessories (4 companies), Banking (11 companies), Commercial and Services (9 companies), Construction and Allied (5 companies), Energy and Petroleum (5 companies), Insurance (6 companies), Investment (3 companies), Manufacturing and Allied sector (9 companies), Telecommunications and technology (1 company) and Growth Enterprise Market Segment (1 company). The study was a census survey. (Refer to appendix one for the full list of companies).

3.4 Data Collection

Quantitative secondary data was obtained from the listed companies' financial statements for the period 2009 to 2013. The data included; translation gains and losses from translating companies' foreign operations, sales and revenue, total equity, total assets, total debt, net income, earnings per share (EPS) and data on which sector the companies are listed at the NSE. Financial data was obtained from the statements of comprehensive income and statements of financial position of the companies which was also used to calculate financial ratios that inform the variables under study. Data on the sector of listing was obtained from the local newspaper.

3.5 Data Analysis

Data was analyzed using excel spreadsheets for Microsoft Windows. First a descriptive analysis was done on the variables' data, and then the variables were correlated to each other using correlation analysis. Finally the data was regressed to find out the intended relationship. The regression model for the study was:

$Y= \beta0+ \beta1X1+ \beta2X2+ \beta3X3+ \beta4X4+ \beta5X5+E$ where:

Y= Financial Performance (Dependent variable) - Return on Assets (ROA)

$\beta0$ = Constant term

X1 = Translation exposure

X2 = Debt/Equity ratio

X3 = Debt/Total Assets ratio

X4= Sector of listing

X5= Earnings per share

E = Error term

3.5.1 Measurement Methods

Financial performance (Y) was determined by the Return on Assets (ROA) which is the ratio of net income to total assets multiplied by the asset turnover ratio (sales/total assets). Translation exposure was already provided for in the companies' statement of comprehensive income in the section containing other comprehensive income of the company. The ratio of translation exposure to total comprehensive income was used in the model analysis. Debt to equity ratio was calculated by dividing total liabilities with total equity while the debt to total assets was arrived at by dividing total liabilities to total assets. Earnings per share (EPS) ratio were already stated in the statements of comprehensive income of the companies. To get the sector number of listing at the NSE, each company was assigned a sector listing value of 1 to 11, alphabetically descending respectively from the first sector of the NSE to the last.

3.5.2 Hypothesis Test

The study sought to test the hypothesis that:

Ho1- Financial performance is not affected by translation exposure.

Ha1- Financial performance is affected by translation exposure.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter consists of the data collection results from the study's data sources. It consists of descriptive statistics, correlation analysis, regression analysis and a discussion of the findings.

4.2 Response Rate

Secondary data from the listed companies' financial statements for a period of 5 years (2009 to 2013) was collected and analyzed. Two sets of data were used for the study; first was the general translation exposure data for all companies that was available for the five year period and second was the comprehensive financial data for the ten companies that was used for analysis in the study. In the general translation exposure data, 18 companies were recorded in the period 2009 to 2010, 20 companies were recorded for the period 2011 to 2012 and 32 companies were recorded for the year 2013 (See appendices 2,3 and 4). The data on the ten companies that were analyzed was obtained from this general data (See appendix 5).

The table below shows the response rate of the ten analyzed companies and the exposure results.

Table 4.1: Translation Exposure Response Rate of the Recorded Companies

Year	Exposed companies	Non Exposed Companies	Percentage Exposure
2009	8	2	80%
2010	8	2	80%
2011	6	4	60%
2012	7	3	70%
2013	6	4	60%

(Note: Percentage exposure is calculated out of the recorded companies only.)

The following figures depict the information contained in the preceding table 4.1.

Figure 4.1: Number and percentage of exposed companies

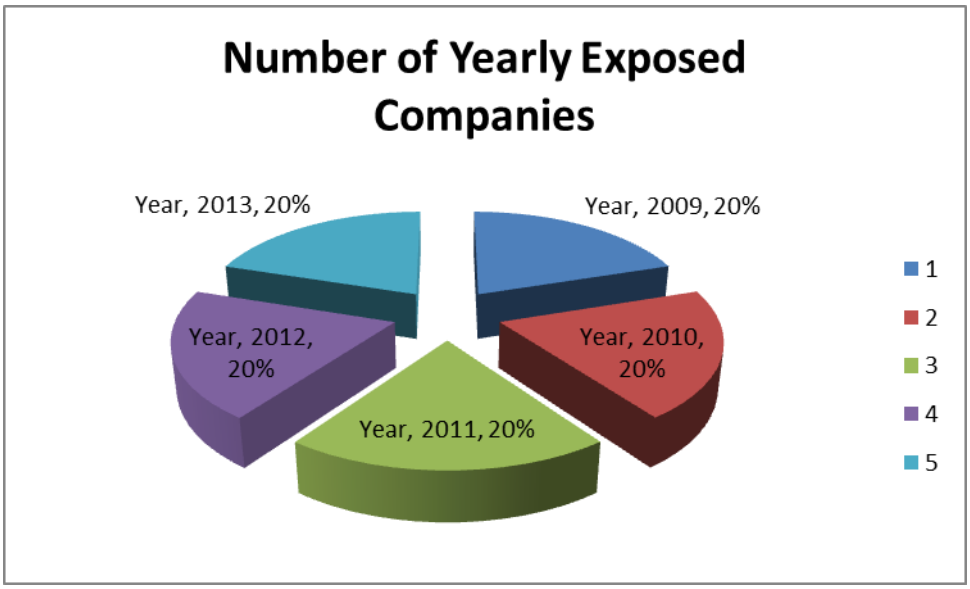
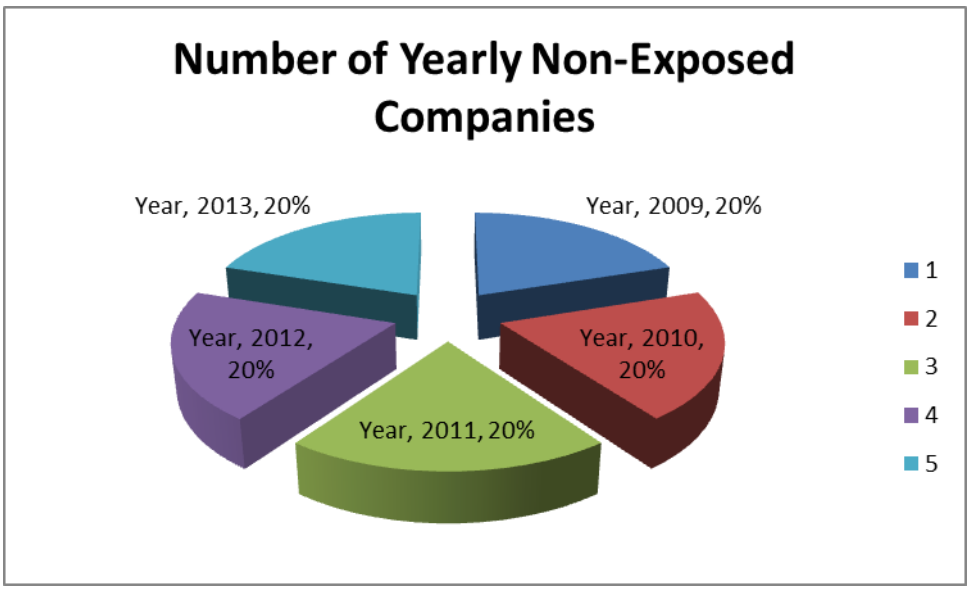


Figure 4.2: Number and percentage of non-exposed companies



4.3 Data Validity

The data that was used in this study was contained in the published annual financial statements of the companies. These financial statements are checked and certified by credible and reputable auditors in Kenya before they are published in the public domain. The data for the study was for a five year period from 2009 to 2013. Data on financial ratios and other computations was calculated from this published data and is contained in appendix 5.

4.4 Descriptive Statistics

Descriptive statistics are the measures that define the general nature of the data under study. They define the nature of response from primary data and/or secondary data. Descriptive statistics for this study were: mean, median, mode, standard deviation, kurtosis, skewness, variance, range, minimum, maximum and the total count. Descriptive data analysis was performed on the ROA, translation exposure to comprehensive income ratio, debt to total assets ratio, debt to equity ratio and earnings per share. The descriptive statistics results are tabulated below.

(INDEX: ROA- Return on Assets, **TE/NI**- Translation exposure to Net income ratio, **D/E**- Debt to Equity Ratio**, D/TA**- Debt to Total Assets Ratio**, Sector**- Sector of NSE the company is listed in**, EPS**- Earnings Per Share)

Table 4.2: Descriptive statistics of the study variables

Variable	Y	X1	X2	X3	X4	X5
STATISTIC	**ROA**	**TE/NI**	**D/E**	**D/TA**	**Sector**	**EPS**
Mean	0.1369	-0.0238	-2.5424	-1.0528	5	7.3918
Standard Error	0.0392	0.0132	0.3148	0.3151	0	1.3117
Median	0.0233	-0.0192	-1.8360	-0.7165	5	3.9150
Mode	#N/A	#N/A	#N/A	#N/A	3	#N/A
Standard Deviation	0.2769	0.0931	2.2262	2.2282	2	9.2750
Sample Variance	0.0767	0.0087	4.9559	4.9648	4	86.0251
Kurtosis	4.0907	14.7509	-1.1012	21.3677	0	4.7411
Skewness	0.0833	-2.9180	-0.5156	-4.6479	1	2.2378
Range	1.8275	0.6360	8.0242	12.8345	6	42.2600
Minimum	-0.8883	-0.5082	-7.6299	-12.4475	3	-4.2600
Maximum	0.9392	0.1277	0.3943	0.3870	9	38.0000
Sum	6.8444	-1.1875	-127.1225	-52.6387	245	369.5900
Count	50	50	50	50	50	50

A total of 6.84 was recorded from the 50 ROA values that were recorded from 2009 to 2013. A mean ROA of 0.1369 or 13.69% meant that companies were generating an average of 13.69% returns on their total assets. The median of 0.00233 or 2.3% was the mid ROA value of the data. A sample variance of 7.67% was observed between the 10 companies while a standard deviation of 27.69% from the mean was observed. A skewness of 0.0833 was positive thus ROA data is skewed to the right and a positive kurtosis of 4.0907 means that the data is leptokurtic (tall distribution). Dispersion of ROA data, as measured by the range was 1.8275, which the difference between the largest and smallest ROA value.

Translation exposure ratio had a mean of -0.0238 or -2.38% of total comprehensive income. The median translation exposure ratio was -0.0192 or 1.9% and a standard deviation from the mean of 0.0931 or 9.31%. Translation exposure ratio data was highly leptokurtic at 14.7509 while its skewness was -2.9180 indicating a negative skewed data set that is skewed to the left. The

maximum translation exposure ratio was a positive exposure of 0.1277 or 12.77% of comprehensive income while the highest negative translation exposure was -0.5082 or 50.82%.

Debt to Equity (D/E) ratio data had a mean of -2.5424, a total of -127.1225 and a range of 8.0242. It was negatively skewed with a negative kurtosis. The standard deviation of the data points from the mean was 2.2262 while the median D/E ratio was -1.8360. The maximum D/E ratio was a positive 0.3943 and the least was -7.6299. Debt to total assets ratio had a mean of -1.0528 which meant that most companies are debt laden; also amplified by a maximum of 0.3870 and a minimum of -12.4475. The median D/TA ratio was -0.7165, range was 12.8345 and the standard deviation was 2.2282. D/TA ratio data was also negatively skewed and highly leptokurtic at -4.6479 and 21.3677 respectively.

Earnings per share (EPS) data had a mean of Kshs. 7.3918 with a minimum EPS of Kshs. -4.26 and a maximum of Kshs. 38. Total EPS amounted to Kshs. 369.59 for the ten companies over the five year period. The median EPS had a value of Kshs. 3.915 while the range of the EPS data was 42.26. The data was leptokurtic at 4.74, with a positive right skewness of 2.2378. EPS data had a standard deviation of 9.2750 and a sample variance of 86.0251.

Translation exposure in Kshs. '000' was also analysed using descriptive statistics. This was the actual amount of translation exposure as measured from data on translation gains or losses from foreign operations of the companies. The results were as follows:

Table 4.3: Descriptive statistics of translation exposure in Kshs. '000'

T ranslation Exposure in Kshs. '000'	
Mean	-61385.9
Standard Error	22719.10971
Median	-33306
Mode	#N/A
Standard Deviation	160648.3654
Sample Variance	25807897295
Kurtosis	5.913500452
Skewness	-1.22481709
Range	1071124
Minimum	-736114
Maximum	335010
Sum	-3069295
Count	50
Confidence Level(95.0%)	45655.76028

From the descriptive statistics above we can infer that translation exposure is very high among listed companies at the NSE. The mean exposure was Kshs. -61,385,900 with a standard error of 22719.10971. A median exposure of Kshs. -33,306,000 was recorded while the difference between the highest and lowest exposure was Kshs. 1,071,124,000. Translation exposure data was leptokurtic and negatively skewed (left skewed) which also indicated that most companies are exposed to translation exposure. A sum of Kshs. -3,069,295,000 total exposure meant that although some companies were positively exposed to translation exposure, negative exposure outweighed positive exposure.

4.5 Correlation Analysis

A correlation analysis was done to determine how the variables under study are correlated. The variables included: ROA, translation exposure to comprehensive income ratio, debt to total assets ratio, debt to equity ratio, earnings per share and the sector of the companies' listing at the NSE. The results were as tabulated below.

Table 4.4: Correlation analysis

	ROA	***TE Ratio***	***D/E Ratio***	***D/TA Ratio***	***SCT***	***EPS***
ROA	1.000					
TE Ratio	-0.086	1.000				
D/E Ratio	0.115	0.101	1.000			
D/TA Ratio	-0.361	0.016	0.446	1.000		
SCT	0.270	-0.082	0.230	0.176	1.000	
EPS	0.038	0.014	0.005	0.058	0.419	1.000

INDEX:

ROA- Return on Assets, **TE Ratio**-translation exposure to comprehensive income ratio**,** **D/E Ratio**- Debt to Equity ratio, **D/TA Ratio**- Debt to Total Assets ratio, **SCT**- Sector of Listing and **EPS**- Earnings per Share.

Correlation analysis showed that translation exposure was positively correlated to all variables but the sector of listing. Return on assets was negatively correlated to translation exposure and the debt to total assets ratio while positively correlated to the debt to equity ratio, sector of listing and earnings per share. Debt to equity ratio was positively correlated to the debt to total assets ratio, the sector of listing and the earnings per share. The debt to total assets ratio was positively correlated to the sector of listing and the earnings per share while the sector of listing was positively correlated to the earnings per share.

4.6 Regression Analysis and Hypothesis Testing

Regression analysis was carried out on all the variables to determine their relationship. ROA was the dependent variable (Y) which represented financial performance. The independent variables were translation exposure to comprehensive income ratio, debt to total assets ratio, debt to equity ratio, earnings per share and the sector of the companies' listing at the NSE. The regression analysis was used to test the hypothesis of the study.

4.6.1 Model Summary

Model summaries give the overall goodness of fit for the regression model. Multiple R gives the correlation between y and y-hat while R Square is the square of the Multiple R (Cameron, 2009). The standard error refers to the estimated standard deviation of the error term u and is sometimes called the standard error of the regression (Cameron, 2009). The following was the regression model summary for the years under study:

Table 4.5: The regression model summary

Regression Statistics	
Multiple R	0.565631941
R Square	0.319939492
Adjusted R Square	0.242659889
Standard Error	0.240942693
Observations	50

Multiple R was 56.6% which is the absolute value of correlation between the dependent variable and the other variables. R Square was 31.99% which is the square of R and which explains the level of variation in Y which is explained by the independent variables X. Adjusted R Square, which is the percentage goodness of fit of the regression equation was 24.27% while the standard

error of the equation was 0.2409 or 24.09%. The regression model variables for the study therefore explain 32% of variation in financial performance in the listed companies.

4.6.2 Analysis of Variance

The ANOVA (analysis of variance) table splits the sum of squares into its components. Total sums of squares (SS) = Residual (or error) sum of squares + Regression (or explained) sum of squares (Cameron, 2009). The column labeled F gives the overall F-test of H0: $\beta_2 = 0$ and $\beta_3 = 0$ versus Ha: at least one of β_2 and β_3 does not equal zero (Cameron, 2009). The yearly ANOVA summaries for the study were as follows:

Table 4.6: ANOVA summary

ANOVA	*df*	*SS*	*MS*	*F*	*Significance F*
Regression	5	1.201712258	0.240342452	4.140025044	0.003615853
Residual	44	2.554348768	0.058053381		
Total	49	3.756061027			

The column labeled F gives the overall F-test of H0: β2 = 0 and β3 = 0 versus Ha: at least one of β2 and β3 does not equal zero (Cameron, 2009). The model had a significance F of 0.0036 or 0.36% which is less than 5% required when testing at confidence level of 95% therefore the model is a viable model.

4.6.3 Model Coefficients

Cameron (2009) explained regression model variables as: Column "**Coefficient**" gives the least squares estimates of β_j. Column "**Standard error**" gives the standard errors (i.e. the estimated standard deviation) of the least squares estimates b_j of β_j. Column "**t Stat**" gives the computed t-statistic for H0: $\beta_j = 0$ against Ha: $\beta_j \neq 0$. This is the coefficient divided by the standard error. It is compared to a t with (n-k) degrees of freedom where here n = 5 and k = 3. Column "**P-value**" gives the p-value for test of H0: $\beta_j = 0$ against Ha: $\beta_j \neq 0$.

Table 4.7: Model coefficients

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	-0.0624	0.1155	-0.5407	0.5914	-0.2951	0.1703	-0.2951	0.1703
TE Ratio	-0.2390	0.3749	-0.6376	0.5270	-0.9945	0.5165	-0.9945	0.5165
D/E Ratio	0.0363	0.0178	2.0423	0.0471	0.0005	0.0721	0.0005	0.0721
D/TA Ratio	-0.0674	0.0173	-3.8877	0.0003	-0.1023	-0.0325	-0.1023	-0.0325
SCT	0.0468	0.0210	2.2333	0.0307	0.0046	0.0890	0.0046	0.0890
EPS	-0.0019	0.0041	-0.4699	0.6408	-0.0102	0.0064	-0.0102	0.0064

The model reveals that debt to equity ratio, debt to total assets ratio and the sector of listings are the significant variables that determine financial performance. Transaction exposure was found to be insignificant in determining financial performance while the earnings per share was found to be the most insignificant. Significance of the variables was given by the P-value, which when interpreted, should be less than 0.05 when testing the variables at 95% significance. Looking at

the P-values above, the study found that debt to total assets ratio was the most significant followed by the sector that the company is listed in and the debt to equity ratio.

The model coefficients define the extent of variation in financial performance that is affected by the independent variables. Translation exposure coefficient was -0.2390 which meant that for every unit increase in ROA, translation exposure must reduce by -0.2390. For every increase in ROA, debt to equity ratio increases by 0.0363, while the sector of listing affected ROA positively at a level of 0.0468. Debt to total assets must reduce by -0.0674 for the ROA to increase while the EPS must reduce by -0.0019 for every unit increase in ROA. From these results therefore, the regression equation is given by:

$$\mathbf{Y} = -0.0624 - 0.2390\mathbf{X1} + 0.0363\mathbf{X2} - 0.0674\mathbf{X3} + 0.0468\mathbf{X4} - 0.0019\mathbf{X5} + 0.2409$$

4.6.4 Hypothesis Testing

Transaction exposure was variable X1 which had a P-value of 0.5270. The study accepted the null hypothesis that financial performance is not affected by translation exposure against the alternative hypothesis that financial performance is affected by translation exposure. The null hypothesis was accepted because the P-value 0.5270 was greater than the required P-value of 0.05 when testing a variable at 95% confidence level. A P-value which is greater than 0.05, is an indication that a variable is not significant in determining the dependent variable.

4.5 Discussion of Research Findings

My study analyzed translation exposure in two formats. First it analyzed it individually in Kshs. '000' then in relation to total comprehensive income, of which it is a component. For the purpose

of the study, ten companies were analyzed but in addition to these companies, other available translation exposure data on the other listed companies was also used.

Table 4.8: Analysis of Research Findings on Translation Exposure

	Mean	Std Deviation	Correlation to ROA	*Coefficients*	*P-value*	*Standard Error*
Transaction Exposure	-61385.9	160648.365	-0.0263	N/A	N/A	N/A
TE Ratio	-0.0238	0.0931	-0.086	-0.2390	0.5270	0.3749

The study's mean transaction exposure is Kshs. (61,385,900) while the mean translation exposure to comprehensive income ratio is -0.0238 or -2.38%. Translation exposure in Kshs. had a standard deviation of Kshs. 160,648,365 while the T/E Ratio had a standard deviation of 0.0931 or 9.31%. Both translation exposure measures are negatively correlated to financial performance. When T/E ratio was regressed with the other variables under study it produced a coefficient of -0.2390, a p-value of 0.5270 and a standard error of 0.3749. The study finds that translation exposure by itself in Kshs is very significant at a mean of 61 billion shillings. Further to that, the study also finds most of the companies that are listed at the NSE to be highly negatively exposed to translation exposure while very few are positively exposed to translation exposure. Further to this, most companies with positive translation exposure did not achieve it consecutively in two years, which is an indication that translation exposure is as a result of deliberate company policy coupled with market forces in the foreign exchange market.

When translation exposure is correlated to the other variables in the study's regression model, it has revealed that translation exposure is correlated to all the variables except return on assets (ROA) and the sector of listing. My study has also found that while the actual amounts of translation exposure are significant, translation exposure is not a major determinant of overall

financial performance in the companies. This was inferred from the P-value of 0.5270 in the regression model which is bigger than the 0.05 required for testing a variable's significance at 95% degrees of confidence. This study has also found that translation exposure affects financial performance (ROA) at a coefficient of -0.2390 with a standard error of 0.3749 or 37.49%, which when interpreted means that for every unit increase in ROA, translation exposure ratio must reduce by -0.2390.

This study therefore accepts the null hypothesis that at 95% confidence, financial performance is not affected by translation exposure because the P-value of 0.05 required is less than the recorded P-value of 0.5270.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMENDATIONS

5.1 Introduction

This chapter summarizes the findings of the study, makes any conclusions from the findings, states the research limitations and offers recommendations on the topic under study.

5.2 Summary of Findings

Majority of the listed companies are exposed negatively to translation exposure according to the available translation exposure data. A total of 6.84 was recorded from the 50 ROA values that were recorded from 2009 to 2013. A mean ROA of 0.1369 or 13.69% means that the sampled companies are generating an average of 13.69% returns on their total assets. A median ROA of 0.00233 or 2.3% was recorded. Translation exposure to comprehensive income ratio had a mean of -0.0238 or -2.38% of total comprehensive income while the median translation exposure ratio was -0.0192 or 1.9%. The mean translation exposure is Kshs. -61,385,900 with a standard error of 22719.10971. The median translation exposure was Kshs. -33,306,000 while the difference between the highest and lowest translation exposure was Kshs. 1,071,124,000.

Translation exposure to total comprehensive income is positively correlated to the debt to equity ratio, debt to total assets ratio and the earnings per share but negatively correlated to the return on assets (ROA) and the sector of listing.

The study therefore defines the regression model, as defined by the variables under study, as:

$$\mathbf{Y} = -0.0624 - 0.2390\mathbf{X1} + 0.0363\mathbf{X2} - 0.0674\mathbf{X3} + 0.0468\mathbf{X4} - 0.0019\mathbf{X5} + 0.2409$$

X1, as the variable that represented translation exposure, had a value of -0.2390. This meant that for every unit increase in ROA, translation exposure to comprehensive income ratio must reduce by 0.2390. This being the case however, translation exposure ratio had a P-value of 0.5270 which was higher than 0.05 required when testing significance at 95% confidence level. The conclusion therefore was that translation exposure is not significant in determining ROA hence the study accepts the null hypothesis.

5.3 Conclusion

This study has found that most of the listed companies are negatively exposed to translation exposure. Translation exposure is significant in monetary terms but not significant when compared to other determinants of financial performance e.g. net income and ROA. When viewed in terms of translation exposure to total comprehensive income ratio the insignificance of translation exposure compared to other variables that determine financial performance is evident. Additional data contained in appendices two, three and four has shown that translation exposure is prevalent among at least half of the companies at the NSE. Going by the pattern however, the number of positively exposed companies has been improving every year; from 80% in 2009 and 2010 to 68% in 2011 and 2012 and finally to 50% in 2013. Debt to total assets is the most significant determinant of ROA therefore laying an emphasis on leverage as a determinant of financial performance among the listed companies.

Translation exposure is negatively correlated to the ROA which is consistent with the premise that losses reduce ROA while gains increase the ROA, and is also negatively correlated to the sector that the companies are listed in at the NSE. This means that translation exposure is more informed by company policy than it is determined by market forces. Translation exposure is

negatively correlated to the sector that the companies are listed in because it affects companies differently depending on a multitude of company specific factors and market forces, not necessarily the nature of the company's operations. Translation exposure and earnings per share are not significant factors in determining ROA at 95% confidence level therefore translation exposure is a mixture of deliberate financial policies and market forces, with the dominating factor being company financial policies and interventions in the market.

5.4 Recommendations

The study recommends that managers should create effective policies on exchange rate translation exposure because the losses that are recorded in the books of account are significant in achieving positive comprehensive income and consequently profits. Managers should find ways of mitigating translation exposure through proactive measures such as the use of derivatives and deliberate policies and intervention mechanisms e.g. government and other stakeholders' intervention which can reduce the impact of the translation losses. The study also recommends that policies that regulate trade should be constantly reviewed by both; companies and government, so as to improve on the balance of trade in the economy and alleviate the problem of a weak Kenya Shilling. Local manufacturing of other non-conventional products is also recommended so as to eliminate overreliance on imports, a phenomenon which weighs heavily on the Kenyan currency.

5.5 Limitations of the Study

This research was firstly limited in the amount of data available for analysis. More than 50% of the listed companies' data was not available in the public domain because some companies did not publish their financial statements while others were suspended or delisted from trading at the

NSE. Of the available data, some companies had not explicitly stated their translation exposure or they had classified it under other classifications which could not be determined. Time was also a limiting factor because, with more time, the study could have been expanded to include primary data from the companies. Primary data is an important addition to the qualitative nature of the study and policy insights.

The study was also limited by the fact that even though primary data is important to the study, listed companies in Kenya are very confidential with their company information. This was a barrier to perhaps a more insightful look at how exchange rate translation exposure figure is arrived at. Another limitation to attaining primary quantitative information is that even though companies may allow you to interview their employees, the employees do not have the quantitative information specifics that may be required by the study. This is because all financial data is processed by outsourced accountants and auditors who cannot be interviewed because the study may not be directed at the auditing companies.

Money, just as in everything else, was also a limiting factor because a research of this magnitude requires funding that is adequate to cover all the expenses; especially if it was to be expanded to include primary data collection. It would require funds to travel to Mumias sugar company, Bamburi Company in Mombasa and other companies that are situated outside Nairobi County. With more funding, the study could have incorporated the other two types of exchange rate exposure; economic exposure and transaction exposure.

5.6 Suggestions for Further Research

The study found that translation exposure is not significant in determining ROA yet the amount of negative translation exposure being experienced by companies is colossal. The study therefore

suggests more analysis on the real impact of translation exposure on financial performance or any other area of a company's operations. The study also suggests further studies on the other two types of exchange rate exposures and how they affect companies in Kenya because there is no published works on them. Studies can also be done to establish which derivatives are best suited for each type of exposure and the technicalities of how to utilize the derivatives to hedge against exchange rate exposure in Kenya.

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APPENDIX A

Companies Listed at the Nairobi Securities Exchange

	Company Name and Sector of Listing	ISIN CODE	YEAR LISTED	ISSUED SHARES
	AGRICULTURAL			
1	Eaagads Ltd	KE0000000208		
2	Kakuzi Ltd	KE0000000281	1951	19,599,999
3	Kapchorua Tea Co. Ltd	KE0000000229	1972	3,912,000
4	The Limuru Tea Co. Ltd	KE0000000356	1967	1,200,000
5	Rea Vipingo Plantations Ltd	KE0000000422	1996	60,000,000
6	Sasini Ltd	KE0000000430	1965	228,055,500
7	Williamson Tea Kenya Ltd	KE0000000505	1978	35,403,790
	AUTOMOBILES & ACCESSORIES			
8	Car & General (K) Ltd	KE0000000109	1940	33,419,424
9	CMC Holdings Ltd	KE0000000133	1950	582,709,440
10	Marshalls (E.A.) Ltd	KE0000000364	1969	14,393,106
11	Sameer Africa Ltd	KE0000000232	1994	278,342,393
12				
	BANKING			
13	Barclays Bank of Kenya Ltd	KE0000000067	1986	5,431,536,000
14	CFC Stanbic of Kenya Holdings Ltd	KE0000000091	1970	395,321,638
15	Diamond Trust Bank Kenya Ltd	KE0000000158	1972	220,100,096
16	Equity Bank Ltd	KE0000000554	2006	3,702,777,020
17	Housing Finance Co.Kenya Ltd	KE0000000240	0	235,750,000
18	I&M Holdings Ltd	KE0000000125	0	392,362,035
19	Kenya Commercial Bank Ltd	KE0000000315	1989	2,984,137,017
20	National Bank of Kenya Ltd	KE0000000398	1994	280,000,000
21	NIC Bank Ltd	KE0000000406	1971	542,984,148
22	Standard Chartered Bank Kenya Ltd	KE0000000448	1988	309,159,514
23	The Co-operative Bank of Kenya Ltd	KE1000001568	0	4,190,845,080
	COMMERCIAL AND SERVICES			
24	Express Kenya Ltd	KE0000000224	1978	35,403,790
25	Hutchings Biemer Ltd	KE0000000257	0	360,000
26	Kenya Airways Ltd	KE0000000307	1996	1,496,469,035
27	Longhorn Kenya Ltd	KE2000002275	0	58,500,000
28	Nation Media Group Ltd	KE0000000380	1973	188,542,286
29	Scangroup Ltd	KE0000000562	2006	284,789,128
30	Standard Group Ltd	KE0000000455	1954	81,481,478
31	TPS Eastern Africa Ltd	KE0000000539	1997	182,174,108
32	Uchumi Supermarket Ltd	KE0000000489	1992	265,426,614

	CONSTRUCTION & ALLIED			
33	ARM Cement Ltd	KE0000000034	0	495,275,000
34	Bamburi Cement Ltd	KE0000000059	1970	362,959,275
35	Crown Paints Kenya Ltd	KE0000000141	1992	23,727,000
36	E.A.Cables Ltd	KE0000000174	1973	253,125,000
37	E.A.Portland Cement Co. Ltd	KE0000000190	0	90,000,000
	ENERGY & PETROLEUM			
38	KenGen Co. Ltd	KE0000000547	2006	2,198,361,456
39	KenolKobil Ltd	KE0000000323	0	1,471,761,200
40	Kenya Power & Lighting Co Ltd	KE0000000349	1972	1,951,467,045
41	Kenya Power & Lighting Ltd 4% Pref 20.00	KE0000000792	1972	1,951,467,045
42	Kenya Power & Lighting Ltd 7% Pref 20.00	KE0000000800	1972	1,951,467,045
43	Total Kenya Ltd	KE0000000463	1988	175,028,706
44	Umeme Ltd	KE2000005815	0	1,623,878,005
	INSURANCE			
45	British-American Investments Co.(Kenya) Ltd	KE2000002192	1969	100,000,000
46	CIC Insurance Group Ltd	KE2000002317	0	2,179,615,440
47	Jubilee Holdings Ltd	KE0000000273	1984	59,895,000
48	Kenya Re Insurance Corporation Ltd	KE0000000604	0	700,000,000
49	Liberty Kenya Holdings Ltd	KE2000002168	0	515,270,364
50	Pan Africa Insurance Holdings Ltd	KE0000000414	1963	96,000,000
	INVESTMENT			
51	Centum Investment Co Ltd	KE0000000265	1967	665,441,775
52	Olympia Capital Holdings Ltd	KE0000000166	1974	40,000,000
53	Trans-Century Ltd	KE2000002184	2011	273,950,284
	MANUFACTURING & ALLIED			
54	A.Baumann & Co Ltd	KE0000000018	1948	3,840,066
55	B.O.C Kenya Ltd	KE0000000042	1969	19,525,446
56	British American Tobacco Kenya Ltd	KE0000000075	1969	100,000,000
57	Carbacid Investments Ltd	KE0000000117	1972	33,980,265
58	East African Breweries Ltd	KE0000000216	1972	790,774,356
59	Eveready East Africa Ltd	KE0000000588	2006	210,000,000
60	Kenya Orchards Ltd	KE0000000331	1959	12,868,124
61	Mumias Sugar Co. Ltd	KE0000000372	2001	1,530,000,000
62	Unga Group Ltd	KE0000000497	1971	75,708,873
	TELECOMMUNICATION & TECHNOLOGY			
63	Safaricom Ltd	KE1000001402	2008	40,000,000,000
	GROWTH ENTERPRISE MARKET SEGMENT (GEMS)			
64	Home Afrika Ltd	KE2000007258	0	405,255,320

(Source: http://www.african-markets.com/en/stock-markets/nse/listed-companies)

APPENDIX B

Translation Exposure for the Period 2009-2010

	Company Name	Description of Exchange Gains/Losses	Translation Exposure	
			2010	2009
			In Kshs '000'	
1	Athi River Mining Ltd	Exchange differences on translating foreign operations	-12,739	-18,774
2	Bamburi Company Ltd	Exchange differences on translation of foreign operations	-654	67
3	Car and General LTD	EXCHANGE DIFFERENCE ARISING ONTRANSLATION OF FOREIGN OPERATIONS	-16,412	-32,641
4	CFC Stanbic Ltd	Exchange differences on translation of foreign operations	-3,437	6,049
5	East African Breweries Ltd	Exchange differences from translation of net foreign operations	200,341	-106,887
6	East Africa Cables Ltd	Foreign currency translation differences on foreign operations	-34,491	-27,618
7	Equity Bank Ltd	Exchange differences on translation of foreign operations	-124	-31
8	Jubilee Holdings Ltd	Net translation loss	-69,822	-24,080
9	Kenya Commercial Bank Ltd	Exchange differences on translation of foreign operations	-278,084	-154,031
10	Kennolkobil Ltd	Currency translation differences	-119,629	-205,426
11	Nation Media Group Ltd	Currency translation differences	58,700	700
12	NIC Bank Ltd	Exchange differences on translation of foreign operation	-38,592	-32,121
13	REA Vipingo	Foreign exchange adjustment on translation of foreign subsidiaries	-23,706	-36,665
14	Sameer Africa Ltd	Foreign currency translation differences for foreign operations	-32,650	-11,004
15	Scangroup Ltd	Exchange difference on translating foreign operations	5,684	-5,252
16	Total (K) Ltd	Exchange loss	-2,326	-48,826
17	TPS East Africa Ltd	Currency translation differences	-42,888	56,910

18	Transcentury Kenya Ltd	Exchange differences on translation of foreign subsidiaries	282,020	26,190
		Total	**-128,809**	**-613,440**

APPENDIX C

Translation Exposure for the Period 2011-2012

	Company Name	**Description of Exchange Gains/Losses**	**Translation Exposure**	
			2012	**2011**
			In Kshs '000'	
1	BOC Gases Ltd	Translation differences for foreign operations	5482	1573
2	Carbacid Investments Ltd	Foreign exchange losses/gains	-9057	10,432
3	Centum Investment Co. Ltd	Currency translation differences	-2,550	-1,335
4	Diamond Trust Bank (K) Ltd	Exchange differences on translating foreign operations	86,047	-111,688
5	East African Cables Ltd	Foreign currency translation differences on foreign operations	13,135	-8,769
6	Eas African Breweries Ltd	Translation differences from translation of net foreign operations	-362,871	-179,466
7	East Africa Portland Cement Company Ltd	Exchange differences on translation of foreign operation	2,958	0
8	Equity bank Ltd	Exchange differences on translation of foreign operations	-74,000	-204,000
9	Jubilee Holdings Ltd.	Net translation loss	-246,105	-215,514
10	Kenya Commercial Bank Ltd.	Exchange differences on translation of foreign operations	97273	-193666
11	Kenolkobil Ltd.	Currency translation differences	-105,862	-58,104

12	Kenya Airways Ltd.	Gain /(loss) on hedged exchange differences on borrowings	415,000	-2,021,000
13	NIC Bank Ltd.	Exchange differences on translation of foreign operations	335,010	8,371
14	Nation Media Group LTD	Currency translation differences	-26,400	-21,800
15	Pan Africa Insurance Holdings Ltd.	Foreign exchange adjustment on translation of foreign subsidiaries	-61,148	60,565
16	Sameer Africa Ltd	Foreign currency translation differences for foreign operations	-57152	-15302
17	TPS Eastern Africa Ltd.	Currency translation differences	-166328	67290
18	Unga Group Ltd	Exchange differences on translation of foreign operations	-16574	-2559
19	Williamson Tea Kenya Ltd.	Net foreign exchange differences	-47408	39493
		Total	**-220,550**	**-2,845,479**

APPENDIX D

Translation Exposure for the Year 2013

	Company Name	Description of Exchange Gains/Losses	Translation Exposure
			In Kshs '000'
			2013
1	Athi River Mining Ltd	Exchange differences on translating foreign operations	2,047
2	Bamburi Company Ltd	Exchange differences on translation of foreign operations	554,000
3	BOC Gasses Ltd	Translation differences for foreign operations	6,556
4	Britam (K) Ltd	Currency translation losses	-2,954
5	Car and General LTD	EXCHANGE DIFFERENCE ARISING ON TRANSLATION OF FOREIGN OPERATIONS	2,736
6	Centum Ltd	Currency translation differences	-11,883
7	CFC Stanbic Ltd	Exchange differences on translation of foreign operations	30,224
8	Co-operative Bank Ltd	Exchange differences on translation of a foreign operation	1,060
9	Crown Paints Ltd	Exchange difference on translation of foreign operation	-2,575
10	Diamond Trust Bank (K) Ltd	Exchange differences on translating foreign operations	266,021
11	East African Breweries Ltd	Exchange differences from translation of net foreign operations	-189,700
12	East Africa Cables Ltd	Foreign currency translation differences on foreign operations	-3568
13	Equity Bank Ltd	Exchange differences on translation of foreign operations	-40,000
14	I&M Holdings Ltd	Foreign currency translation differences	-182,715
15	Jubilee Holdings Ltd	Net translation gain/(loss)	252,016
16	Kenya Commercial Bank Ltd	Exchange differences on translation of foreign operations	-736,114
17	Kennolkobol Ltd	Currency translation differences	-80,410
18	Kenya Airways Ltd	Gain/(loss) on hedged exchange differences on borrowings	-188
19	Kenya Power Ltd	Net foreign exchange gains	14,703
20	Kenya-Re Ltd	Currency translation differences	52,978

21	Liberty Holdings K Ltd	Foreign currency translation operations	5,229
22	Longhorn Kenya Ltd	Exchange difference on translation of financial operations	27,363
23	National Bank (K) Ltd	Gains on foreign exchange dealings	309,323
24	Nation Media Group Ltd	Currency translation differences	49,700
25	NIC Bank Ltd	Exchange differences on translation of foreign operation	-122,324
26	Olympia Capital Holdings Ltd	Exchange differences on translation of foreign operation	-7,140
27	REA Vipingo (K) Ltd	Foreign exchange adjustment on translation of foreign subsidiaries	-2,741
28	Scangroup Ltd	Exchange difference on translating foreign operations	-1,093
29	TPS East Africa Ltd	Currency translation differences	97,745
30	Transcentury Kenya Ltd	Exchange differences on translation of foreign subsidiaries	-63,058
31	Uchumi Supermarkets Ltd	Exchange differences on translation of foreign entity	-9,781
		Total	**215,457**

APPENDIX E

Financial Data of the Analyzed companies

Company Name	Translation Exposure in Kshs. '000'				
	2010	2009	2012	2011	2013
Athi River Mining Ltd	-12,739	-18,774	-29,534	76,184	2,047
East African Breweries Ltd	200,341	-106,887	-362,871	-179,466	-189,700
East Africa Cables Ltd	-34,491	-27,618	13,135	-8,769	-3568
Equity Bank Ltd	-124000	-31000	-74,000	-204,000	-40,000
Jubilee Holdings Ltd	-69,822	-24,080	-246,105	-215,514	252,016
Kenya Commercial Bank Ltd	-278,084	-154,031	97273	-193666	-736,114
Kennolkobil Ltd	-119,629	-205,426	-105,862	-58,104	-80,410
Nation Media Group Ltd	58,700	700	335,010	8,371	49,700
NIC Bank Ltd	-38,592	-32,121	-26,400	-21,800	-122,324
TPS East Africa Ltd	-42,888	56,910	-166328	67290	97,745

Company Name	Total Comprehensive Income in Kshs. '000 '				
	2010	2009	2012	2011	2013
Athi River Mining Ltd	779,272	2,125,206	1,245,638	1,150,498	1,350,850
East African Breweries Ltd	9,037,901	8,155,577	10,823,242	9,203,126	6,755,045
East Africa Cables Ltd	686,779	597,691	879,010	305,961	394,634
Equity Bank Ltd	5,888,000	4,439,000	12,334,000	10,043,000	13,268,000
Jubilee Holdings Ltd	1,990,260	780,761	2,292,958	1,411,488	3,319,158
Kenya Commercial Bank Ltd	6,777,337	3,934,751	14,199,135	8,578,878	14,035,587
Kennolkobil Ltd	1,641,702	1,091,162	-4,928,899	1,754,189	478,009
Nation Media Group Ltd	1,514,500.00	1,119,700.00	3,108,161	2,358,197	2,625,700
NIC Bank Ltd	1,732,885	1,062,366	2,615,200.00	1,957,300.00	2,978,813
TPS East Africa Ltd	2,277,794	445,483	327,260	683,181	766,275

Company Name	Total Assets in Kshs. '000'				
	2010	2009	2012	2011	2013
Athi River Mining Ltd	16,564,899	12,141,091	26,953,100	20,549,023	29,705,254
East African Breweries Ltd	26,736,301	25,114,697	32100534	34010178	31,949,207
East Africa Cables Ltd	4,518,445	3,543,383	6248642	4993032	4,857,086
Equity Bank Ltd	143,018,000	100,812,000	243,170,000	196,294,000	277,729,000
Jubilee Holdings Ltd	30,691,382	23,679,814	47,417,562	38,039,832	61,159,185
Kenya Commercial Bank Ltd	223,024,556	168,223,215	367,379,285	330,716,159	390,851,579
Kennolkobil Ltd	13,337,223	11,995,670	32,684,166	45,974,304	28,121,673
Nation Media Group Ltd	5,422,100	4,803,000	108,348,593	78,984,005	8,327,800
NIC Bank Ltd	59,013,922	47,558,241	7460700	6,285,400	121,062,739
TPS East Africa Ltd	10,265,172	6,032,354	11,438,115	11,516,544	13,994,187

Company Name	Total Stockholders' Equity in Kshs '000'				
	2010	2009	2012	2011	2013
Athi River Mining Ltd	4,643,602	4,128,930	7,120,520	6,102,526	8,223,732
East African Breweries Ltd	23,952,626	22,448,523	8715880	26755181	8,434,190
East Africa Cables Ltd	2,246,309	1,660,780	2925029	2273832	3,066,538
Equity Bank Ltd	27,204,000	22,908,000	42,916,000	34,285,000	51,555,000
Jubilee Holdings Ltd	5,577,363	3,794,098	8,699,689	6,711,651	11,599,582
Kenya Commercial Bank Ltd	39,129,771	22,570,212	314,039,726	286,351,132	63,354,967
Kennolkobil Ltd	12,705,512	11,454,628	6,445,725	11,650,461	6,666,294
Nation Media Group Ltd	5,422,100.00	4,713,700.00	7,323,500.00	6,122,400.00	8,243,400.00
NIC Bank Ltd	8,353,229	6,792,254	15,481,622	10,522,953	17,568,906
TPS East Africa Ltd	7,496,385	4,088,583	8,181,410	8,046,824	11,032,277

Company Name	Total Liabilities in Kshs. '000'				
	2010	2009	2012	2011	2013
Athi River Mining Ltd	-11921297	-8012161	-19832580	-14446497	-7,246,584
East African Breweries Ltd	-14468065	-12098470	-45868436	-22764183	-31528761
East Africa Cables Ltd	-1,399,362	-1,247,084	-2532226	-2074312	-3742727
Equity Bank Ltd	-115,814,000	-77,904,000	-200,254,000	-162,009,000	-226,174,000
Jubilee Holdings Ltd	-715,615	-828,220	-38,717,873	-31,328,181	-49,559,603
Kenya Commercial Bank Ltd	-212,226,429	-172,207,623	-53339559	-44365027	-327,496,612
Kennolkobil Ltd	-19,511,118	-19,834,229	-25,340,816	-32,794,177	-21,455,379
Nation Media Group Ltd	-2,553,100.00	1,858,700	-3,353,900	-2,693,900	-3,200,800
NIC Bank Ltd	-50,660,693	-40,765,987	-92,866,971	-68,461,052	-103,493,833
TPS East Africa Ltd	-2,335,982	-1,522,281	-5,302,666	-5,085,016	-5,207,601

Company Name	Earnings Per Share in Kshs.				
	2010	2009	2012	2011	2013
Athi River Mining Ltd	8.06	6.52	2.51	2.32	2.74
East African Breweries Ltd	9.08	8.71	13.46	9.3	8.82
East Africa Cables Ltd	1.12	1.52	1.71	1.15	1.37
Equity Bank Ltd	1.93	1.14	3.26	2.79	3.59
Jubilee Holdings Ltd	37	17	35	30	38
Kenya Commercial Bank Ltd	2.76	1.84	4.11	3.72	4.82
Kennolkobil Ltd	1.2	0.88	-4.26	2.21	0.38
Nation Media Group Ltd	9.8	7	15.9	12.7	13.4
NIC Bank Ltd	5.06	3.01	6.03	5.54	6.12
TPS East Africa Ltd	4.39	3.32	3.6	4.51	3.45

Company Name	Debt to Equity Ratio				
	2010	2009	2012	2011	2013
Athi River Mining Ltd	-2.567	-1.940	-2.785	-2.367	-0.881
East African Breweries Ltd	-0.604	-0.539	-5.263	-0.851	-3.738
East Africa Cables Ltd	-0.623	-0.751	-0.866	-0.912	-1.221
Equity Bank Ltd	-4.257	-3.401	-4.666	-4.725	-4.387
Jubilee Holdings Ltd	-0.128	-0.218	-4.450	-4.668	-4.273
Kenya Commercial Bank Ltd	-5.424	-7.630	-0.170	-0.155	-5.169
Kennolkobil Ltd	-1.536	-1.732	-3.931	-2.815	-3.218
Nation Media Group Ltd	-0.471	0.394	-0.458	-0.440	-0.388
NIC Bank Ltd	-6.065	-6.002	-5.999	-6.506	-5.891
TPS East Africa Ltd	-0.312	-0.372	-0.648	-0.632	-0.472

Company Name	Debt to Total Assets Ratio				
	2010	2009	2012	2011	2013
Athi River Mining Ltd	-0.7197	-0.6599	-0.7358	-0.703	-0.2439
East African Breweries Ltd	-0.5411	-0.4817	-1.4289	-0.6693	-0.9868
East Africa Cables Ltd	-0.3097	-0.3519	-0.4052	-0.4154	-0.7706
Equity Bank Ltd	-0.8098	-0.7728	-0.8235	-0.8253	-0.8144
Jubilee Holdings Ltd	-0.0233	-0.035	-0.8165	-0.8236	-0.8103
Kenya Commercial Bank Ltd	-0.9516	-1.0237	-0.1452	-0.1341	-0.8379
Kennolkobil Ltd	-1.4629	-1.6534	-0.7753	-0.7133	-0.7629
Nation Media Group Ltd	-0.4709	0.38699	-0.031	-0.0341	-0.3844
NIC Bank Ltd	-0.8585	-0.8572	-12.447	-10.892	-0.8549
TPS East Africa Ltd	-0.2276	-0.2524	-0.4636	-0.4415	-0.3721