THE RELATIONSHIP BETWEEN FOREIGN INSTITUTIONAL INVESTMENT AND EQUITY TURNOVER AT THE NAIROBI SECURITIES EXCHANGE

BY

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DECLARATION

This Research Project is my original work and has not been presented in any other University.

Signed…… Date ……..

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This Research project has been submitted for examination with my approval as University Supervisor.

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DEDICATION

The research project is dedicated to my family.

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ABSTRACT

International capital inflow is a very important issue to an economy and has both positive as well as negative impact on the health of the recipient economy. On the positive side, these capital inflows raise the level of economic development by augmenting the domestic investment and widen financial intermediation. The objective of this study was to determine the relationship between foreign institutional investment and equity turnover at the Nairobi Securities Exchange.

The study adopted a descriptive research design. The study used secondary data from the Nairobi Securities Exchange collected using data collection sheet which was edited, coded and cleaned. F-test, a non-parametric test of differences developed by Sir Williams Gosset was used in this study as a test of significance. In order to test the significance of the model in measuring the relationship between foreign institutional investment and equity turnover at the Nairobi Securities Exchange, the study conducted an Analysis of Variance (ANOVA).

From the analysis, it can be noted that foreign institutional investors had varying degrees. However, in general, the foreign institutional investors had a high impact on equity turnover at the NSE. The effects of foreign institutional investors on the equity turnover at the NSE however remained high whereby in some instances it was almost 100%. This shows that foreign institutional investors greatly influence activities at the NSE. This study established that foreign institutional investors play a key role on the equity turnover at the NSE. This study therefore recommends that the Country handles its macroeconomic appropriates as the changes in the macroeconomics like exchange rates and inflation bring about devaluation of the currency and affect the performance of the Stock Exchange. This will ensure stability at the NSE which promotes fair trade. This study also established that sales were positively correlated with Equity turnover at the NSE while purchases were negatively correlated with Equity turnover. This study therefore recommends that foreign institutional investors balance off the purchase and sale of stocks.

TABLE OF CONTENTS

LIST OF ABBREVIATION

APT	Arbitrage Pricing Theory
CAPM	Capital Asset Pricing Model
CMA	Capital Markets Authority
FIIs	Foreign Institutional Investments
KIA	Kenya Investment Authority
NSE	Nairobi Securities Exchange
U.S.	United States

CHAPTER ONE

INTRODUCTION

1.1 Background

The growing clout of institutional investors has brought a transformational change in financial systems of many countries across the world. Portfolio investments brought in by foreign institutional investors (FIIs) have been the most dynamic source of capital to emerging markets in 1990s. According to Parasanna (2008), there is unease over the volatility in foreign institutional investment flows and its impact on the stock market. To facilitate foreign private capital flows in the form of portfolio investments, developing countries have been advised to develop their stock markets. It was suggested that these investments would help the stock markets directly through widening investor base and indirectly by compelling local authorities to improve the trading systems. While the volatility associated with portfolio capital flows is well known, there is also a concern that foreign institutional investors might introduce distortions in the host country markets due to the pressure on them to secure capital gains. In the capital market, foreign investors have alternative financial assets to invest in ordinary shares, preferred shares, debentures, government and corporate bonds. All these assets have different values determined by risk and return levels. The study will be on investment decisions on ordinary shares (equities) by foreign investors in the Kenyan capital market. In Kenya, buying and selling of ordinary shares takes place at the Nairobi Stock Exchange (which is a secondary market).

Foreign investor refers to an investor or investment fund that is from or registered in a country outside of the one in which it is currently investing. Institutional investors include hedge funds, insurance companies, pension funds and mutual funds. Since NSE was constituted in 1954 as a voluntary association of stockbrokers, it has undergone various reforms in its development process as Kenya moves towards integration of her economy with world economy. Foreign Investors were permitted to invest in the listed securities traded in Nairobi Stock Exchange for the first time in January, 1995. Initially, when foreign investors were allowed to trade, a slow growth in foreign trading was recorded. For example, in 1995, foreign investors accounted for only 3% of the total market trading (Ngugi, 2003). However, inflow of foreign trade has recorded tremendous increase over the years with foreign investors' at times recording over 50% the total market trading.

1.1.1 Foreign Institutional Investment (FII)

Foreign Institutional Investment is an investment in a foreign stock market by the specialized financial intermediaries managing savings collectively on behalf of investors, especially small investors, towards specific objectives in term of risk, return and maturity of claims (Jain, Meena and Mathur, 2012). FII is a vital component which helps in the development of financial market and the overall financial development thereby allowing the capital flows available in a country to pursue its trajectory of economic growth. Foreign Institutional Investment (FII) means an institution established or incorporated outside Kenya which proposes to make investment in Kenya in securities. Provided that a

domestic asset management company or domestic portfolio manager who manages funds raised or collected or brought from outside Kenya for investment in Kenya on behalf of a sub-account, shall be deemed to be a Foreign Institutional Investor.

Entities covered by the term 'FII' include "Overseas pension funds, mutual funds, investment trust, asset management company, nominee company, bank, institutional portfolio manager, university funds, endowments, foundations, charitable trusts, charitable societies etc.(fund having more than 20 investors with no single investor holding more than 10 per cent of the shares or units of the fund)" (Jain, Meena and Mathur, 2012).

1.1.3 Relationship between Foreign Institutional investment and Equity Turnover

Positive fundamentals combined with fast growing markets have made developing countries an attractive destination for foreign institutional investors (FIIs). Portfolio investments brought in by FIIs have been the most dynamic source of capital to emerging markets in 1990s. At the same time there is unease over the volatility in foreign institutional investment flows and its impact on the stock market and the local economy. Apart from the impact they create on the market, their holdings will influence firm performance. For instance, when foreign institutional investors reduced their holdings in Dr.Reddy's Lab by 7% to less than 18%, the company dropped from a high of around US$30 to the level of below US$15. This 50% drop is apparently because of concerns about shrinking profit margins and financial performance. These instances made analysts

to generally claim that foreign portfolio investment has a short term investment horizon.

The impact of FII is so high that whenever FII tend to withdraw the money from market, the domestic investors fearful and they also withdraw from market. Foreign direct investment usually has a significant impact on economic development as well as employment in the country receiving the investment. As a result of financial globalization and industries' structural changes, many developing economies are deeply affected by foreign investments. Some studies Fama (1970), Scholes (1972), Close (1975) and Lee and Ward (1980) have argued that institutional investors' investment behavior may have no or little influence on stock prices. However, some scholars have arrived at different conclusions about foreign investors' behavior in the stock market. First, Kraus and Stoll (1972a) and Close (1975), basing their work on the Liquidity Effect Hypothesis, showed that institutional investors' trading did have a relative influence on stock prices. Second, from the supply and demand perspective, Harris and Gurel (1986) brought up the Price Pressure Hypothesis to maintain their viewpoint. Next, Kraus and Stoll (1972b) offered the Parallel Trading Hypothesis and Close (1975) provided the Information Effect Hypothesis; both concluded that foreign investors' behavior might affect stock prices

1.1.2 Equity turnover

Equity turnover is also called capital turnover and is achieved by dividing a company's annual sales by its average stockholders' equity (Lo and Wang, 2009). It is one way of measuring the effectiveness of management at utilizing the funds it has access to. A

measure indicating how effectively investment capital is used to produce revenues and is expressed as a ratio of annual sales to invested capital.

The higher the equity turnover ratio, the better the company is at generating sales with investor funds, likely leading a higher return on your investment. A low equity turnover rate shows that management is not utilizing funds effectively, which acts as a drag on the company's performance and stock price. It is used to calculate the rate of return on common equity, and is a measure of how well a company uses its stockholders' equity to generate revenue. The higher the ratio is, the more efficiently a company is using its capital.

1.1.4 Nairobi Securities Exchange

The Nairobi Securities Exchange was formed in 1954 as a voluntary organization of stock brokers and is now one of the most active capital markets in Africa. As a capital market institution, the Stock Exchange plays an important role in the process of economic development. It helps mobilize domestic savings thereby bringing about the reallocation of financial resources from dormant to active agents. Long-term investments are made liquid, as the transfer of securities between shareholders is facilitated. The Exchange has also enabled companies to engage local participation in their equity, thereby giving Kenyans a chance to own shares. There were 55 companies listed at the stock exchange as of December 2010 (www.nse.co.ke, 2011).

Stock markets promote higher standards of accounting, resource management and transparency in the management of business. This is because financial markets encourage the separation of owners of capital, on the one hand, from managers of capital, on the other. The stock exchange also improves the access to finance of different types of users by providing the flexibility for customization. Lastly the Securities exchange provides investors with an efficient mechanism to liquidate their investments in securities. The very fact that investors are certain of the possibility of selling out what they hold, as and when they want, is a major incentive for investment as it guarantees mobility of capital in the purchase of assets (www.nse.co.ke, 2011). Currently the Nairobi Securities Exchange market has got forty seven companies listed at the market. The companies are categorized into four different sections; Agriculture, Commercial and Services, Finance and Investment, Industrial and Allied.

The Nairobi Securities Exchange can be categorized as an emerging market within the frame work provided by the International Finance Corporation. Many emerging market economies at various times have undergone rapid growth and because their stock markets are not highly developed and therefore are less efficient, there is considerable opportunity for relatively high returns from emerging market investments. However, there is also a relatively high level of risk involved as witnessed by the melt down of several Asian emerging stock markets in 1997 and 1998 (www.nse.co.ke, 2011).

1.2 Research Problem

Equity stocks represent claims against real assets of a business; and as such, may serve as a hedge against inflation. If this holds, then investors could sell their financial assets in exchange for real assets when expected inflation is pronounced (Sabri, 2004). Foreign exchange rates have a significant effect on expected industry stock returns and on their volatility, though the magnitude of this effect is quite small. Capital inflow is a very important issue to an economy and has both positive as well as negative impact on the health of the recipient economy. These capital inflows raise the level of economic development by augmenting the domestic investment and widen financial intermediation. But these capital inflows also pose several threats to the domestic economic and financial system of the recipient economy like inflation, appreciation in exchange rate, overheating of the economy and possibility of sudden withdrawal (Fama, 1970).

Globally, Classens (1993) analyzed the return and diversification benefits for an investor in an industrial country of investing in emerging markets and barriers which prevent a free flow of funds. The study found that equity portfolio flows can be affected by efficiency of domestic stock market as well as market segmentation created by barriers. Fisher (1950) argued that equity turnover should be positively related with expected inflation providing a hedge against rising prices. This relationship has intrigued researchers who have attempted to explain how a nominal variable such as inflation should determine a real variable (asset prices). The proxy hypothesis, inflation rates and effect of inflation on equity turnover have been given as possible explanations for the negative relationship between inflation as equity turnover.

Kamau (2009) affirm that foreign investment sales and purchases are more efficient than local. She attributes this to the fact that foreign investors concentrate mainly in major towns and target corporate customers, whereas large local investors spread their activities more widely across the country. Kiungu (2012) used BRITAM equity fund to investigate the influence of behavioral biases on the trading decisions of equity fund investors in Kenya. It is therefore evident that there is lack of adequate studies on the relationship between foreign institutional investment and equity turnover at the Nairobi securities exchange. This study therefore sought to investigate the relationship between foreign investment and equity turnover at the Nairobi security exchange.

1.3 Research Objective

To determine the relationship between foreign institutional investment and equity turnover at the Nairobi securities exchange.

1.4 Value of the Study

It is beneficial for local investors to know the factors that are considered important by foreign investors in Kenya. Individuals and other potential investors can conveniently rely on foreign investors to help them select shares and by extension setting guide to set up replica portfolios-cost saving on information gathering.

The government and its agent, the CMA may use the results of the study to formulate policies and regulate the capital market. This will make investment favourable to the investors and promote trading at the NSE thus facilitating economic growth. The

information can be used for legislative, regulatory and tax planning purposes. It is only by identifying the expectations of the investors that the regulators can safeguard their interests. The interpretation of the results may give an indication of how successful companies may be in raising capital through NSE.

The information from the study will help investment advisors advise their clients on factors to consider when making investment decisions and the risk exposure of ordinary shares at NSE.

The findings will add to the body of knowledge in the finance discipline. The results will give an indication of the factors that are useful in investment decisions on ordinary shares and can be compared with studies done in other countries. It will tell the experience of foreign investors at NSE. The results will also give an indication of general risk level of ordinary share investment at NSE as perceived by foreign investors. A study can be undertaken in future to ascertain whether the companies that satisfied investor expectations have changed.

This study is a basis of future research on foreign investors. Other studies can be undertaken to other foreign investors in other regions or countries and the results compared. Studies in local investors can be undertaken and compared to the finding s of the study

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews the literature on the impact of financial inclusion on financial performance of commercial banks in Kenya. From this review, broad categories will be derived which will help to identify the critical impact the impact of financial inclusion on financial performance of commercial banks in Kenya. Specifically, the chapter addresses the theoretical review guiding the study, bank performance indicators, empirical literature and conclusion.

2.2 Theoretical Review

The theoretical review section tries to uncover whether or not existing theories suggest any relationship between foreign institutional investment and equity turnover. The section's main purpose is to establish a solid foundation for the empirical study, clarifying the underlying problems of the analysis. The study is founded on two theories including Capital Asset Pricing Model (CAPM) and Arbitrage pricing theory (APT).

2.2.1 Capital Asset Pricing Model

The capital asset pricing model (CAPM) states that the return on a stock depends on whether the stock's price follows prices in the market as a whole. CAPM is useful because it is a statistical representation of past risk. The original CAPM theory assumes a linear relation between the market and the individual stocks. The theory also assumes that individual companies have different correlations to the market, articulated trough the

market beta. Further exploring the underlying theory of whether or not exchange rate exposure should be priced into the stock return, one can consider the CAPM model.

$$\text{CAPM: } R_{it} = r_f + \beta_{im} (r_m - r_f)$$

The main concern of investors, when evaluation portfolio investment, is the total risk exposure measured by the variance or standard deviation of the return of the portfolio. The first commonly acknowledged model, the capital asset pricing model (CAPM), identifies two kinds of risk: systematic and unsystematic. According to Fletcher (2007) only systematic risk is rewarded as unsystematic is diversifiable. Unsystematic risk is also the firm or industry specific risk, which can be utilized in form of strikes, or natural disaster hitting specific industries e.g. bad weather could be a industry specific risk for farmers, hence according to the CAPM theory firm specific risk is not included in the return of the stock and thus not rewarded. Arguing that this risk can be diversified through portfolio management. Systematic risk can however not be diversified according to Moffett et al (2005) and is related to the risk of the market portfolio. Identifying the type of risk, which exchange rate is derived from, does in principle appear important for investors at least according to the capital asset pricing model.

Several weaknesses of the two-factor CAPM model have later been pointed out, some originating from the CAPM theory - others from the derived two-factor model (Jorion 1990). Chen et al (1986) and later Jorion (1990) criticise the underlying assumption concerning market return. They imply that correlation between returns and exchange rate movement might be caused by multicollinearity between exchange rate and some omitted

variables left in the error term. Chen et al suggest a multiple-factor test building on the APT theory, where different macroeconomic factor is included.

2.2.2 Arbitrage Pricing Theory (APT)

Arbitrage pricing theory (APT) holds that the expected return of a financial asset is largely based on its "beta". Beta is the measure of the relationship between company related factors which influence financial performance and the overall market in which the latter competes. Typically a company which has a beta of one will reflect the market whereas a beta score of 0.75 means that a company will move up or down to the extent of 75 per cent of the corresponding market movement. The Arbitrage Pricing Theory (APT) was developed primarily by Ross (1976a, 1976b). Ross' (1976a) heuristic argument for the theory is based on the preclusion of arbitrage. The APT is a substitute for the Capital Asset Pricing Model (CAPM) in that both assert a linear relation between assets' expected returns and their covariance with other random variables. (In the CAPM, the covariance is with the market portfolio's return.) The covariance is interpreted as a measure of risk that investors cannot avoid by diversification. The slope coefficient in the linear relation between the expected returns and the covariance is interpreted as a risk premium. Such a relation is closely tied to mean-variance efficiency.

Arbitrage Pricing Theory can be useful if one is investing in a company and wanted to measure the historical share price sensitivity to huge market fluctuations typical during the onset of bull and bear markets. Based on an investor's long-term and short-term goals different investment strategies could be planned using APT as an exhibit. For example, if a company had a beta of one thereby likely to follow the market an investor anticipating a

recession would hold off purchasing that stock if their goal was to invest their money for no longer than a few years and vice versa.

There have been a considerable number of studies, which attempt to justify the empirical applicability of the Arbitrage Pricing Theory (APT) as compared to the Capital Asset Pricing Model (CAPM). APT differs from the CAPM in hypothesising that actual and expected security returns are sensitive, not just to one type of non-diversifiable risk (i.e. beta or market risk) but to a variety of different types of risks. Many studies have also endeavoured to identify the macroeconomic factors underlying the APT.

2.3 Determinants of Equity Turnover

2.3.1 Inflation Rate

According to the generalized Fisher (1930) hypothesis, equity stocks represent claims against real assets of a business; and as such, may serve as a hedge against inflation. If this holds, then investors could sell their financial assets in exchange for real assets when expected inflation is pronounced. In such a situation, stock prices in nominal terms should fully reflect expected inflation and the relationship between these two variables should be positively correlated ex ante (Ioannides, et.al., 2005:910). This argument of stock market serving as a hedge against inflation may also imply that investors are fully compensated for the rise in the general price level through corresponding increases in nominal stock market returns and thus, the real returns remain unaltered. This also affects international investment and the manner in which it affects the local securities market capitalization. High inflation means that the investors wealth is eaten up by the generally increasing level in prices.

Feldstein's (1980) variant of the inflation and stock market returns theoretical nexus, suggests that inflation erodes real stock returns due to imbalance tax treatment of inventory and depreciation resulting to a fall in real after-tax profit. Feldstein further observed that the failure of share prices to rise during substantial inflation was because of the nominal capital gains from tax laws particularly, historic depreciation cost (Friend and Hasbrouck, 1981). In Fama's (1981) hypothesis, which is based on money demand theory; correlation between inflation and stock market returns is not a causal one; rather, it is a spurious relationship of dual effect. Yeh and Chi (2009:168) in explaining the Fama's hypothesis observed that the reason for the revised correlation is because when inflation is negatively related to real economic activity, and there is a positive association between real activity and stock returns, the negative relationship and stock returns holds. This flow of relationship according to them is not direct.

2.3.2 Foreign exchange Rates

Foreign exchange market is the largest traded market across the globe. Chiang, Yang, and Wang (2000) study points out that national stock returns in Asian countries are positively related to the value of the national currency. Similarly, Sabri (2004) evaluates features of emerging stock markets, in order to point out the most associated indicators of increasing stock return volatility and instability of emerging markets. The study shows that stock trading volume and currency exchange rate respectively represent the highest positive correlation to the emerging stock price changes. Research on volatility spillovers is not limited to stock market only.

Kanas (2000) investigates the interdependence of stock returns and exchange rate changes within the same economy by considering the six industrialized countries US, UK, Japan, Germany, France and Canada. The study concludes: (i) there is cointegration between stock prices and exchange rates; (ii) there is evidence of spillover from stock returns to exchange rate changes for all countries except Germany; (iii) the spillovers from stock returns to exchange rate changes are symmetric in nature; (iv) volatility spillovers from exchange rate changes to stock returns are insignificant for all the countries; (v) the correlation coefficient between the EGARCH filtered stock returns and exchange rate changes is negative and significant for all the countries, which indicates a significant contemporaneous relationship between stock returns and exchange rate changes.

Bodart and Reding (2001) show that exchange rates have a significant effect on expected industry stock returns and on their volatility, though the magnitude of this effect is quite small. The study also concludes that the importance of the exchange rate spillovers is influenced by the exchange rate regime, the magnitude, and the direction of exchange rate shocks.

Fang and Miller (2002) investigate empirically the effects of daily currency depreciation on Korean stock market returns during the Korean financial turmoil of 1997 to 2000. The study finds: (i) there exists a bi-directional causality between the Korean foreign exchange market and the Korean stock market; (ii) the level of exchange rate depreciation negatively affects stock market returns; exchange rate depreciation volatility positively affects stock market returns; and stock market return volatility responds to exchange rate depreciation volatility.

2.4 Conceptual Framework

Investments represent a powerful tool for an enterprise to stimulate economic performance, productivity, and competitiveness in the medium and long term. Foreign investors enter emerging markets for diversification and also to maximize returns. Financial market theory suggests that, over the long run, higher returns should compensate for the higher risks of emerging markets (Tokat, 2004). For foreign investors, return depends on the price of the stock at the beginning and end of the period and on exchange rate, thus returns is approximately equal to the sum of domestic return on security and return on foreign currency (Sharpe et al, 2003). This means that the rate of return of a country's currency has an impact on the pricing of equities in the domestic market. Liberalizing a country's stock market changes the relevant source of systematic risk for pricing stocks from the local stock market index to a world stock market index. Forbes and Chinn (2004), for instance, find that returns in two countries could co-move when shocks to one country are transmitted to other countries through cross country linkages, due to effects of global shocks in both countries, or due to effects of sectoral shocks that simultaneously affect all countries. Consequently, expected returns should also change when countries liberalize (Chari and Henry, 2004).

Another focus is on the impact foreign flows have on returns. The argument is that foreign flows increase prices when they come in and decrease them when they leave thereby making prices more volatile (Stulz, 1999). Hence, capital flows have an impact

on valuations only if they are undertaken because of information that foreign investors have that is not yet incorporated in prices. This literature introduces the information asymmetry that exists between foreign and domestic investors, which may be due to the fact that foreign investors are less informed about a country and its firms and thus process information differently due to intellectual or emotional biases, and hence may create aversion towards international investments (Brennan and Cao, 1997; Dahlquist and Robertsson, 2001).

If domestic investors are well informed than foreign investors, they hold more domestic shares on average as they know more about the firms, while foreign investors discount share prices relative to domestic investors whose actions depends on adverse information they hold but not factored in asset prices (Stulz, 1999). On the other hand, investors prefer firms that have high past returns as this is an indicator of performance, and overweight firms with relatively high risk (Dahlquist and Robertsson, 2001). They argue that the preference among foreign investors for large firms can be seen as a proxy for firm recognition and information asymmetries. However, foreign investors will only hold domestic assets if returns on these assets are attractive compared with those abroad (Dornbusch, 1988). This is because investors are concerned about inherent risks such as macroeconomic and political instability, depreciation and wide fluctuations in currency values, and crisis of international confidence, war, famine, corruption, etc (Senbet and Otchere, 2010). Realization of benefits from capital flows can therefore be affected by global financial market volatility and international exchange rate fluctuations which may lead to large and unfavourable swings in capital flows (Senbet and Otchere, 2010).

The price pressure hypothesis suggests that rise in prices associated with inflow surges are due to temporary illiquidity meant to absorb demand from foreign entry. Thus inflow induced price increases would be reversed subsequently. Hence, prices initially increase based on expectations and information asymmetry, and due to learning process, the prices revert to their original level. Here, entry of foreign investors in the market gives an indication of good performance and new information. According to Warther (1995), flows may move security prices due to information revelation and price pressure, and market response to information revelation will make prices move in the same direction as flows, hence flows will be positively correlated with security returns. Bekaert et al. (2002) find equity flows to increase after liberalization and argue that this is due to portfolio rebalancing. Their study supports price pressure hypothesis with equity flow shocks initially increasing returns. Pavabutr and Yan (2003) show that exposure to foreign flows is associated with a reduction in risk premium, which diminishes among stocks favoured by foreign investors and decreases over time as the market becomes more liberalized. Warther (1995) on the other hand find no evidence that returns are negatively related to past flows, but find a positive relation between flows and subsequent returns and a negative relation between returns and subsequent flows, which is inconsistent with price pressure hypothesis.

The positive feedback hypothesis argues that there is a significant correlation between inflows and contemporaneous returns and a positive price response to capital market liberalization would hold if foreign investors are positive feedback traders (Choe et al, 1999; Narag, 2000; Bohl and Sikolos, 2008), and since the trades of foreign investors are

highly correlated, they buy and sell as a herd11. Positive feedback trading may lead to prices exhibiting momentum such that prices will keep on falling as foreign investors sell but rising as they buy. Positive feedback trading may, however, not be destabilizing as trading may be due to information about fundamentals (Choe et al., 1999). However, Bohl and Sikolos (2008) hold the opposing view that feedback traders do not base their asset decisions on fundamental values but react to stock price changes. If this is the case, then trading by positive feedback traders will be destabilizing. Evidence on positive feedback hypothesis has been found to hold in Korea (Choe et al., 1999), by foreign institutional investors in India (Batra, 2003), and in six Asian emerging markets which is argued to be due to behavioural factors or foreigners extracting information from returns rather than portfolio-rebalancing effects (Richards, 2004). Positive feedback trading has also been found to hold by Bohl and Sikolos (2008) in a sample of developed and emerging markets.

Gazioglu (2008), in a study of the effects of capital inflows and outflows on real exchange rates and the real stock market returns before and after the financial crisis in Turkey, finds an asymmetric impact of capital on exchange rate and stock market returns. In a study on the relation between aggregate stock market returns and cash flows (net purchase of equity) from an array of investor groups, Boyer and Zheng (2009) find quarterly flows to be auto correlated for each of the different investor groups, and a significant and positive contemporaneous relation between stock market returns and flows of Mutual Funds and Foreign Investors in U.S. They find that investors are driven by unexpected flows component rather than expected flows; however, they find little evidence that investor flows follow past stock market returns.

Kim and Yang (2009) investigate the effect of capital inflows on domestic asset prices in Korea from January 1999 to September 2007. Capital inflows might result in increased asset prices either by directly affecting the demand for assets, through money supply and liquidity which in turn might boost asset prices and by generating economic booms in capital receiving economies leading to increase in asset prices (Kim and Yang, 2009). However, other factors such as improved economic performance, monetary expansion and low interest rates could also affect asset prices in emerging markets. In investigate the effect of capital inflows on domestic asset prices in Korea, Kim and Yang (2009) find the influence of capital inflow shocks to be more significant on the stock market but limited in other parts of the economy.

2.5 Empirical Review

Several scholars have reviewed the relationship between foreign institutional investors and equity turnover at the stock markets. For instance, Aggarwal, Klapper and Wysocki (2005) observed that foreign investors preferred the companies with better corporate governance. Investor protection is poor in case of firms with controlling shareholders who have ability to expropriate assets. The block shareholders affect the value of the firm and influence the private benefits they receive from the firm. Companies with such shareholders will find it expensive to raise external funds.

Abdioglu, Khursheda and Stathopoulos (2006) examined foreign institutional investment to establish whether governance quality at home is important. The study examined the investment preferences of foreign institutional investors investing in the U.S. market by

analyzing both firm and country-level determinants that influence the foreign institutional investors' allocation choices. At the country level, it was established that governance quality in a foreign institutional investor's home country was a determinant of their decision to invest in the U.S. market. The findings indicate that investors who come from countries with governance setups similar to that of the U.S. invest more in the United States. The investment levels though, were more pronounced for countries with governance setups just below that of the U.S. These results were found to be consistent with both the 'flight to quality' and 'familiarity' arguments, and help reconcile prior contradictory empirical evidence.

Vardhan and Pankaj (2014) examined the influence of foreign institutional investments on the Indian Stock Market. The study examined the influence of FIIs on the Indian equity market and its role in integration with US equity market. It provides insight for policy formulation in order to move towards greater liberalized FII's policy regime for regaining FIIs confidence in the Indian equity market. The time line from January 1999 to December 2010 was partitioned into smaller time frames due to existence of structural breaks in order to capture clear picture of dynamic relationships between variables in the sub- periods. The daily data was analyzed by Vector Autoregressive framework using different VAR models for determining existence of short term and long run relationships during sub periods and for ascertaining causality between emerging relationships between FIIs, Sensex and other key variables. The study found that exchange rate has no effect on the inflows of FIIs; however the outflows are influenced by the change in the exchange rate.

Aggarwal, Klapper and Wysocki (2005) examined investment allocations in emerging markets by actively-managed U.S. mutual funds. The study obtained portfolio holdings from the February 2002 release of the Morningstar database for each U.S. mutual fund with a stated objective of investing primarily in emerging market equities. The study focused on active portfolio allocation decisions of U.S. mutual funds and excluded exchange-traded funds and funds that explicitly follow passive indexing strategies.

Nyang`oro (2013) reviewed foreign portfolio flows and stock market performance in Kenya using the case of Nairobi Securities Exchange.

Aggarwal, Klapper and Wysocki (2005) observed that foreign investors preferred the companies with better corporate governance. Investor protection is poor in case of firms with controlling shareholders who have ability to expropriate assets. The block shareholders affect the value of the firm and influence the private benefits they receive from the firm. Companies with such shareholders will find it expensive to raise external funds.

Rao, Murthy and Ranganathan (1999) examined foreign institutional investments and the Indian stock market performance. They note that to facilitate foreign private capital flows in the form of portfolio investments, developing countries have been advised to develop their stock markets. It was suggested that these investments would help the stock markets directly through widening investor base and indirectly by compelling local authorities to improve the trading systems. While the volatility associated with portfolio capital flows is well known, there is also a concern that foreign institutional investors might introduce distortions in the host country markets due to the pressure on them to secure capital gains.

Douma, Pallathiatta and Kabir (2006) investigated the impact of foreign institutional investment on the performance of emerging market firms and found that there is positive effect of foreign ownership on firm performance. They also found impact of foreign investment on the business group affiliation of firms.

2.6 Conclusion

This chapter has presented studies as done by other scholars and researchers on the subjects related to Foreign Investment and equity turnover. Aggarwal, Klapper and Wysocki (2005) observed that foreign investors preferred the companies with better corporate governance. Abdioglu, Khursheda and Stathopoulos (2006) examined foreign institutional investment to establish whether governance quality at home is important Vardhan and Pankaj (2014) examined the influence of foreign institutional investments on the Indian Stock Market. Aggarwal, Klapper and Wysocki (2005) examined investment allocations in emerging markets by actively-managed U.S. mutual funds. Aggarwal, Klapper and Wysocki (2005) observed that foreign investors preferred the companies with better corporate governance. Rao, Murthy and Ranganathan (1999) examined foreign institutional investments and the Indian stock market performance. Douma, Pallathiatta and Kabir (2006) investigated the impact of foreign institutional investment on the performance of emerging market firms and found that there is positive effect of foreign ownership on firm performance. The existing studies have been done in other countries. This study therefore seeks to provide Kenyan specific information.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter sets out various stages that will be followed in completing the study. It explains how research is going to be executed and how data will be collected and analyzed. The section specifically covers; research design, target population, data collection and data analysis.

3.2 Research Design

The study adopted a descriptive research design. Mugenda and Mugenda (2003) describes descriptive research design as a systematic, empirical inquiring into which the researcher does not have a direct control of independent variable as their manifestation has already occurred or because the inherently cannot be manipulated. Descriptive studies are concerned with the what, where and how of a phenomenon hence more placed to build a profile on that phenomenon (Mugenda & Mugenda, 2003). Descriptive research design is more appropriate because the study seeks to establish the relationship between foreign institutional investment and equity turnover at the Nairobi securities exchange.

3.3 Data Collection

The study used secondary data from the Nairobi Securities Exchange. The data was collected using data collection sheet which was edited, coded and cleaned. Data was mainly obtained covering the period of ten years from 2009-2013 financial periods. Quarterly data was used in the study. The study collected quarterly statistics in terms of total

investment by foreign institutional investors in terms of Kshs for both purchases and sales. The study then computed natural log which were used in the analysis. For equity turnover, the study collected data on the NSE market capitalization over the study period while for inflation , inflation indices were collected from the Kenya National Bureau of Statistics.

3.4 Data Analysis

The study used Statistical Package for Social Sciences Version 20.0 to aid in data analysis. F-test, a non-parametric test of differences developed by Sir Williams Gosset (Mugenda & Mugenda, 2003) was used in this study as a test of significance. The analysis was at 0.05 level of significance.

3.5.1 Analytical Model

In order to determine the relationship between foreign institutional investment and equity turnover at the Nairobi Securities Exchange, the researcher conducted multiple regression analysis using the following analytical model:

$$Y = \beta 0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + €$$

Where: Y= Equity Turnover (Volume)

X_1= Foreign investment Purchases.

X_2= Foreign Investment Sales

X_3= Inflation rate

X_4= Foreign Exchange Rate Volatility (USD)

In order to test the significance of the model in measuring the relationship between foreign institutional investment and equity turnover at the Nairobi Securities Exchange, the study conducted an Analysis of Variance (ANOVA). On extracting the ANOVA statistics, the researcher looked at the significance value (P-values). The study was tested at 95% confidence level and 5% significant level. If the significance number found is less than the critical value (α) set 2.4, then the conclusion was that the model is significant in explaining the relationship.

CHAPTER FOUR

DATA ANALYSIS, FINDINGS AND DISCUSSIONS

4.1 Introduction

This chapter presents the analysis of data as stipulated in the research methodology and the findings of the study as set out in the research objective. The study sought to determine the relationship the relationship between foreign institutional investment and Equity Turnover at the Nairobi securities exchange. Foreign institutional investment was proxies by the total foreign purchases and sales at the NSE. The dependent variable was Equity Turnover at the NSE.

4.2 Descriptive Statistics

The study sought to establish the descriptive statistical distribution of the variables considered in this study. The findings were as illustrated in the Table 4.1 below:

Table 4. 1: Descriptive Statistics

	Mean	Std. Deviation
Equity Turnover	23.220	10.641
Inflation Rate	9.4960	4.631

Foreign Exchange Rate	82.724	5.433
Foreign Investment Sales	8924.150	8282.188
Foreign Investment Purchases	11647.600	7353.665

For the dependent variable, Equity Turnover has a mean of 23.220 and a standard deviation of 10.641. For the independent variables, Inflation Rate has a mean of 9.4960 and a standard deviation of 4.631, Foreign Exchange Rate has a mean of 82.724 and a standard deviation of 5.433, Foreign Investment Sales has a mean of 8924.150 and a standard deviation of 8282.188 and Foreign Investment Purchases has a mean of 11647.600 and a standard deviation of 7353.665. A reasonable level of consistency is observed between the mean and standard deviation for all variables.

4.3 Regression Results

In addition to descriptive analysis, the study conducted a cross-sectional OLS multiple regression on several firm characteristics over the period 2005–2009 and results of ETR.

4.3.1 Model Summary

Table 4. 2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.837[a]	.700	.620	6.55885

Coefficient of determination explains the extent to which changes in the dependent variable (Equity Turnover) can be explained by the change in the independent variables or the percentage of variation in the dependent variable (Equity Turnover) that is explained by all the four independent variables (Inflation rate, Foreign Exchange Rate, Foreign Investment Sales and Foreign Investment Purchases).

The four independent variables that were studied, explain 62.0% of variance in equity turnover as represented by the R^2. This therefore means that other factors not studied in this research contribute 38% of variance in the dependent variable. Therefore, further research should be conducted to investigate the other factors affecting the performance of Microfinance Institutions.

4.3.2 Analysis of Variance (ANOVA)

In order to establish the strength of the model in explaining the relationship between the dependent variable (Equity Turnover) and the independent variables (Inflation rate, Foreign Exchange Rate, Foreign Investment Sales and Foreign Investment Purchases), the study conducted an Analysis of Variance (ANOVA). The findings were as shown in the Table 4.3 below:

Table 4. 3: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	1506.479	4	376.620	8.755	.001[b]
Residual	645.278	15	43.019		
Total	2151.758	19			

The F critical at 5% level of significance is 3.06. Since F calculated is greater than the F critical (value = 8.755), this shows that the overall model was significant in explaining the relationship between Equity Turnover and the four independent variables. The significance value is less than 0.05, thus indicating that the predictor variables, (Inflation rate, Foreign Exchange Rate, Foreign Investment Sales and Foreign Investment Purchases) explain the variation in the dependent variable which is Equity Turnover at the Nairobi Securities Exchange.

4.3.3 Coefficients of Determination

Table 4. 4: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Constant	39.547	25.434		1.555	.141
Foreign Investment Purchases	.001	.000	.668	3.045	.008
Foreign Investment Sales	1.980E-005	.000	.015	.071	.944
Inflation Rate	-.793	.364	-.345	-2.179	.046
Foreign Exchange Rate	.245	.306	.125	.800	.036

From the regression findings, the substitution of the equation:

$Y = \beta 0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + €$ becomes:

$Y = 39.547 + 0.001X_1 + 1.980E\text{-}005X_2 - 0.793X_3 + 0.245X_4 + €$

Where Y is the dependent variable (Equity Turnover), X_1 is Foreign Investment Purchases, X_2 is Foreign Investment Sales, X_3 is Inflation Rate and X_4 is Foreign Exchange Rate.

The regression equation above has established that taking all factors (Inflation rate, Foreign Exchange Rate, Foreign Investment Sales and Foreign Investment Purchases) constant at zero, Equity Turnover will have an autonomous value of 39.547. The findings presented also show that taking all other independent variables at zero, a unit increase in Foreign Investment Purchases would lead to a 0.001 increase in Equity Turnover, a unit increase in Foreign Investment Sales would lead to a 1.980E-005 increase in Equity Turnover, a unit increase in Inflation Rate would lead to 0.793 decrease in Equity Turnover. Further, the findings show that unit increases Foreign Exchange Rate would lead to 0.245 decrease in Equity Turnover. These findings show that Foreign Investment Purchases, Foreign Investment Sales and Foreign Exchange Rate positively affect equity

turnover while Inflation Rate had a negative effect on Equity Turnover. The study also established that Foreign Investment Purchases, Inflation Rate and Foreign Exchange Rate were significant as their significance values were less than 0.05 whereas Foreign Investment Sales was insignificant as its significance value was greater than 0.05. Further, the study found out that all the variables were positively correlated with Equity Turnover except Inflation Rate.

4.4 Discussion of Study Findings

The study established that the four independent variables that were studied, explain 62.0% of variance in equity turnover as represented by the R^2. These findings are consistent with those of Syed, Tehseen and Sahar (2013) who investigates the impact of foreign capital inflows and economic growth on stock market capitalization in Pakistan by using the annual time series data from the period of 1976 to 2011. Capital inflows are mostly found to be linked with stock market performance. Foreign investors invest in the local stock market through capital inflows. Foreign direct investment and workers' remittances are proved to be an important source of capital inflow in developing countries. Foreign direct investment might contribute both positively and negatively in the development of stock market.

The study further established that there was a positive relationship between the performance of stock market and foreign exchange rates. In normal circumstances, foreign institutional investors invest in the form of foreign currency. The prevailing level of foreign exchange rates influence the exact amount of money spends by the investors.

Attracting capital and foreign exchange flows is crucial for developing countries. While domestic and foreign firms pay in the same currency, the firm-specific assets may generate returns in different currencies. The relative level of foreign firm acquisitions of these assets may be affected by exchange rate movements. In the simple stylized example, if a representative foreign firm and domestic firm bid for a foreign target firm with firm-specific assets, real exchange rate depreciations of the foreign currency can plausibly increase domestic acquisitions of these target firms.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary, conclusion and recommendations on the relationship between foreign institutional investment and Equity Turnover at the Nairobi securities exchange. The study based its summary on the findings in chapter four and the methodology.

5.2 Summary and Discussions

The objective of this study was to determine the relationship between foreign institutional investment and equity turnover at the Nairobi securities exchange. In order to determine the relationship between foreign institutional investment and equity turnover at the Nairobi Securities Exchange, the study conducted multiple regression analysis using the equity turnover as the dependent variable while the independent variables included: foreign investment Purchases; foreign Investment Sales; inflation rate and foreign Exchange Rate Volatility. To establish the relationship, the study conducted regression analysis to ascertain the relationship between foreign institutional investment and Equity Turnover at the Nairobi securities exchange. In order to establish the strength of the model in explaining the relationship between the dependent variable (Equity Turnover) and the independent variables (Inflation rate, Foreign Exchange Rate, Foreign Investment Sales and Foreign Investment Purchases), the study conducted an Analysis of Variance. Equity Turnover was regressed against four independent variables. From the findings, the

study established that 62.0% of variation in Equity Turnover was attributed to the four independent variables. This therefore means that other factors not studied in this research contribute 38% of variance in the dependent variable.

To establish the strength of the model in explaining the relationship between the dependent variable (Equity Turnover) and the independent variables (Inflation rate, Foreign Exchange Rate, Foreign Investment Sales and Foreign Investment Purchases), the study conducted an Analysis of Variance (ANOVA). The findings established that F critical at 5% level of significance was 3.06 while F calculated was 8.755. Since F calculated was greater than F critical, the overall model was therefore significant in explaining the relationship between Equity Turnover and the four independent variables. The study further established that the significance value was also less than 0.05, thus indicating that the predictor variables, (Inflation rate, Foreign Exchange Rate, Foreign Investment Sales and Foreign Investment Purchases) explain the variation in the dependent variable which is Equity Turnover at the Nairobi Securities Exchange.

From the coefficient findings, the study found out that taking all the independent variable constant at zero, Equity Turnover had an autonomous value of 39.547. From the model, taking all the independent variables constant at zero, a unit increase in Foreign Investment Purchases would lead to a 0.001 increase in Equity Turnover, a unit increase in Foreign Investment Sales would lead to a 1.980E-005 increase in Equity Turnover, a unit increase in Inflation Rate would lead to 0.793 decreases in Equity Turnover. Further, the findings show that unit increases Foreign Exchange Rate would lead to 0.245

decrease in Equity Turnover. These findings show that Foreign Investment Purchases, Foreign Investment Sales and Foreign Exchange Rate positively affect equity turnover while Inflation Rate had a negative effect on Equity Turnover. The study also established that Foreign Investment Purchases, Inflation Rate and Foreign Exchange Rate were significant as their significance values were less than 0.05 whereas Foreign Investment Sales was insignificant as its significance value was greater than 0.05. Further, the study found out that all the variables were positively correlated with Equity Turnover except Inflation Rate. The independent variable with the greatest effect on Equity Turnover was the Foreign Exchange Rate while Inflation Rate was inversely related to Equity Turnover. This is consistent with the work of Chiang, Yang, and Wang (2000) who indicated that Foreign Exchange Rate in Asian countries was positively related to the value of the national currency.

5.3 Conclusions

From the analysis, the study established that Foreign Exchange Rate, Foreign Investment Sales and Foreign Investment Purchases were positively correlated with Equity Turnover. This is consistent with the work of Chiang, Yang, and Wang (2000) who indicated that Foreign Exchange Rate in Asian countries was positively related to the value of the national currency. The study therefore concludes that Foreign Exchange Rate, Foreign Investment Sales and Foreign Investment Purchases positively influence the Equity Turnover at the NSE. The study also established that inflation rate was negatively correlated to Equity Turnover. This is also consistent with the work of Feldstein's (1980) who suggested that inflation erodes real stock returns due to imbalance tax treatment of

inventory and depreciation resulting to a fall in real after-tax profit. The study therefore concludes that inflation rate had a negative influence on Equity Turnover. The study also concludes that the ANOVA results imply that the independent variables are good joint predictors of Equity Turnover. The ANOVA results also indicates that predicting Equity Turnover through independent variables yields better results than predicting Equity Turnover through the measures of central tendencies.

5.4 Limitations of the Study

A limitation for the purpose of this research was regarded as a factor that was present and contributed to the researcher getting either inadequate information or if otherwise the response given would have been totally different from what the researcher expected. The main limitations of this study were:

The data used was secondary data generated for other purposes. The measures used may keep on varying from one year to another subject to the prevailing condition. For example the foreign institutional investor was deeply affected by the changes in the foreign exchange rate which was not factored in the study.

The inflation rates have been consistently high in the country forcing the Central Bank to raise its CBR rate which is passed on to other sectors in the economy thereby influencing the overall economic development of the country. This impact negatively on the Stock market performance.

The research investigated the relationship of only four variables with the Equity Turnover. However, many other factors could have been included. These variables may

be important in determining the Equity Turnover at the NSE and therefore future studies should assign some of these variables in their studies.

Due to time considerations, this study was restricted to 5 years. A longer period of 10 years may have provided a clearer implications of the the relationship between foreign institutional investment and equity turnover at the Nairobi Securities Exchange.

5.5 Recommendations for Policy and Practice

5.5.1 Policy Recommendations

This study established that foreign institutional investors play a key role on the Equity Turnover at the NSE. This study therefore recommends that the Country handles its macroeconomic appropriately as the changes in the macroeconomics like foreign exchange rates and inflation bring about devaluation of the currency and affects the performance of the Stock Exchange. This will ensure stability at the NSE which promotes fair trade.

This study also established that foreign investment sales, foreign investment purchases and foreign exchange rate were positively correlated with Equity turnover at the NSE while inflation rate negatively correlated with Equity turnover. This study therefore recommends that foreign institutional investors balance off the purchase and sale of stocks.

5.5.2 Suggestions for Further Research

This paper examined the d the relationship between foreign institutional investment and equity turnover at the Nairobi Securities Exchange. In order to allow for thorough

comparison, this study recommends that future studies be conducted taking into account the effects of macro-economic variables for instance inflation and foreign exchange rate.

The study further recommends that further studies be conducted on the influence of political environment on the financial performance of NSE. This is because the political environment has changed following the promulgation of the new constitution and the holding of the first general election under the new constitution.

Investors should also be well educated about the market environment so as to be able to understand how the prices react to the overall inflation. This will see to it that they do not blame the company management for being solely responsible for the performance of the share prices, as these are affected by many other factors such as inflation.

Review of literature and findings from data analysis revealed empirical gaps that can be filled through another study. For instance, further studies need to be conducted on the effects of foreign institutional investment on equity turnover. This may shed light on the reasons why inflation rates have performed the way they have performed.

The government should also put various measures in place to help contain the inflationary expectations in the economy. It is therefore recommended that the government should be very careful when applying both the monetary and the fiscal policies to avoid building inflationary expectations which end up hurting the investors as the overall stock prices react to them.

REFERENCES

Allen, F., Otchere, I. & Senbet L. W. (2011). African Financial Systems: A Review, *Review of Development Finance*, 1:79-113.

Batra, Amita (2003). The Dynamics of Foreign Portfolio Inflows and Equity Returns in India," *ICRIER Working Paper* No.109, India.

Bekaert, G., Campbell R. Harvey & Lumsdaine, R. L. (2002). *The Dynamics of Emerging*

Market Equity Flows, *Journal of International Money and Finance*, 21:295-350.

Bekaert, G. and Campbell, R. (2000). Foreign Speculators and Emerging Equity Markets. *Journal of Finance*, 55(2), April.

Bodie, Zvi, Alex Kane and Alan J. Marcus (2002). Investments, 5th ed., Tata McGraw-Hill, New Delhi.

Bohl, Martin T. and Pierre L. Siklos (2008). Empirical Evidence on Feedback Trading in Mature and Emerging Stock Markets, *Applied Financial Economi*cs, 18(17): 1379-1389.

Boyer, Brian and Lu Zheng (2009). Investor Flows and Stock Market Returns, *Journal of Empirical Finance*, 16:87–100.

Brennan, Michael T. and H. Henry Cao (1997). International Portfolio Investment Flows, *Journal of Finance*, 52(5):1851-1880.

Campbell, John Y., Andrew W. Lo and A. Craig MacKinlay (1998), *The Econometrics of Financial Markets*, Princeton University Press,

Chari, A. and Peter, B. H. (2004). Risk Sharing and Asset Prices: Evidence from a Natural Experiment, *Journal of Finance*, 59(3):1295-1324.

Chen, Nai-Fu, Richard Roll and Stephen A. Rose (1986). Economic Forces and Stock Market, *Journal of Business*, 59(3):383-403.

Choe, Hyuk, Bong-Chan Kho and Rene M. Stulz (1999). Do Foreign Investors Destabilize Stock Markets? The Korean Experience in 1997, *Journal of Financial Economics*, 54:227-264.

Claessens, Stijn, Michael P. Dooley and Andrew Warner (1995). Portfolio Capital Flows: Hot or Cold? *World Bank Economic Review*, 9(1):153-174.

Clark, J. and Elizabeth, B. (1997). Foreign Investment Fluctuations and Emerging Market Stock returns, *Staff Reports*, 24, Reserve Bank of New York.

Conover, C. Mitchell, Gerald R. Jensen, and Robert R. Johnson (2002). Emerging Markets: When Are They Worth It? *Financial Analysts Journal*, 58(2):86-95.

Coppejans, Mark and Ian Domowitz (2000). The Impact of Foreign Equity Ownership on Emerging Market Share Price Volatility, *International Finance*, 3(1):95-122.

Dahlquist, Magnus and Goran Robertsson (2001). Direct Foreign Ownership, Institutional Investors, and Firm Characteristics, *Journal of Financial Economics*, 59:413-440.

Dornbusch, Rudiger (1988). Balance of Payments Issues, in Rudiger Dornbusch and F. Leslie C. H. Helmers (eds.), The Open Economy: *Tools for Policy Makers in Developing Countries*, EDI Series in Economic Development, The World Bank, Oxford University Press.

Dybvig, Philip H. and Stephen A. Ross (2003). Arbitrage, State Prices and Portfolio Theory," in Constantinides, G. M., M. Harris and R. Stulz, eds., *Handbook of the Economics of Finance, Elsevier.*

Easley, David, Soeren Hvidkjaer and Maureen O'Hara (2002). Is Information Risk a Determinant of Asset Returns? *Journal of Finance*, 57(5), October.

Elton, Edwin J., Martin J. Gruber, Stephen J. Brown and William N. Goetzmann (2011). *Modern Portfolio Theory and Investment Analysis*, International Student Version, 8ed., John Wiley and Sons, Asia.

Ferson, Wayne E. (2003). Tests of Multifactor Pricing Models, Volatility Bounds and Portfolio Performance, in *Handbook of the Economics of Finance*, Constantinides, G. M., M. Harris and R. Stulz (eds.), Elsevier.

Fifield, S. G. M, D. M. Power and C. D. Sinclair (2002). Macroeconomic Factors and Share Returns: An Analysis Using Emerging Market Data, *International Journal of Financial Economics*, 7:51-62.

Forbes, Kristin J. and Menzie D. Chinn (2004). A Decomposition of Global Linkages in Financial Markets Over Time, *Review of Economic and Statistics*, 86(3):705-722.

Frankel, Jeffrey (2011). Monetary Policy in Emerging Markets,. Intriligator (eds.), *Handbook of Monetary Economics*, 3B, Elsevier B.V.

Gazioglu, S. (2008). Stock Market Returns in an Emerging Financial Market: Turkish Case Study, *Applied Economics*, 40(11):1363-1372.

Hassler, John (1999). Does Increased International Influence Cause Higher Stock Market Volatility? *Scandinavian Journal of Economics*, 101(1):1-9.

APPENDICES

Appendix I: Quarterly purchases Statistics for Foreign Institutional Investor

Year	Quarterly purchases				
	1	2	3	4	Total
2009	4,213	3,820	4,197	3,492	15,723
2010	8,125	7,533	6,909	8,140	30,707
2011	10,583	9,596	10,543	8,771	39,493
2012	6,977	13,933	13,078	20,244	54,232
2013	17,531	22,883	29,586	22,798	92,798

Appendix II: Quarterly Sales for Foreign Institutional Investor

	Quarterly Sales				
Year	1	2	3	4	Total
2009	1,537	1,805	1,927	2,110	7,379
2010	3,246	3,810	4,069	4,455	15,580
2011	6,421	17,551	8,214	7,086	39,272
2012	4,343	9,424	8,016	10,815	32,598
2013	17,515	13,780	16,239	36,120	83,654

Appendix III: Equity Turnover

Year	Quarterly Equity Turnover				
	1	2	3	4	
2006	14.67	24.74	24.40	31.10	94.90
2007	13.69	23.10	25.50	26.31	88.60
2008	15.07	25.42	28.60	28.42	97.50
2009	5.90	9.96	10	12.30	38.20
2010	16.0	27.0	35.3	25.22	103.50
2011	13.42	22.6	18.7	32.06	86.80
2012	13.4	22.6	21.5	29.2	86.70
2013	34.4	38.34	42.1	34.4	149.24