EXISTING TRENDS IN FOREIGN EXCHANGE RATES OF KENYA'S MAIN TRADING CURRENCIES

Ouma Johnmark Obura, MBA
Prof. M. S. Mukras, PhD
Dr. David Oima, PhD
Maseno University, Kenya

Abstract
　　Performance of a security market reflects the economic situation of a country as it is affected by both a country's domestic and foreign economic events. Given the current increased level of cross borders transactions with the value of total exports growing by 25.6% between 2007 and 2008 and imports increasing by 27.4% between the same periods, it was likely that fluctuations in foreign exchange rate market continued to fuel changes in financial markets like Nairobi Securities Exchange market. Since securities markets trade on assets with varying degree of risks, foreign exchange rates fluctuations was believed to be a factor that affect the performance of financial markets. The purpose of this study was to determine the trend of foreign exchange rates fluctuation of Kenya's main trading currencies, the US Dollar, the Euro and the UK Pound. The study used secondary data collected between the periods January, 2006 to December, 2010 from the Central Bank of Kenya website in establishing the existing trend of foreign exchange rates fluctuation in Kenya. Descriptive statistics, Pearson Product Moment Correlation and Trend Analysis were used in the study. The findings revealed the existence of positive trends in US dollar and the Euro exchange rates and negative trends in UK pound exchange rates. Therefore the study recommended that market players like corporate investors and investment mangers should closely monitor these trends as they are useful in predicting future financial market outcomes.

Introduction

Performance of a securities market by large reflect the economic situation of a country. That being said in a globalised world, the narrative is a bit more complex as securities prices are affected by both the country's domestic economic situation and by foreign economic events like foreign exchange rates fluctuations. Given an increased level of international flow of goods, services and capital with value of total exports growing by 25.6% from Kshs. 274.7 billions in 2007 to Kshs. 344.4 billion in 2008 while that of imports increasing by 27.4% to reach Kshs. 770.7 billion in 2008 compared to Kshs. 605.1 billion in 2007, it is likely that importance of the foreign economic events will continue fuelling the fluctuations in financial sector, (Economic Survey of Kenya, 2011).

Foreign exchange rate is the price of one country's currency expressed in another country's currency. In other words, that it is the rate at which one currency can be exchanged for another. Exchange rate is a national and international political, social and economic indicator.

Foreign exchange market developments and its trend have cost implications for the households, firms and the state. Benita and Lauterbach (2004) showed that exchange rate volatility have real economic costs that affect price stability, firm profitability and a country's stability. Exchange rate volatility has implications for the financial system of a country especially the stock market (Frank and Young, 1972; Taylor and Tonks, 1989). The value of one currency versus another is determined by the international exchange rate and, in most cases, is subject to fluctuations based on open trading of currency in foreign exchange markets. This fluctuation is believed to have an effect on the overall performance of Securities market like Nairobi Securities Exchange Market. This research is therefore designed to establish the axisting trend in Kenya's main trading currencies i.e the US Dollar, the Euro and the UK Pound.

The study by Cottani, *et al* (1990) evaluated the growth effects of real exchange rate (RER) misalignments and their volatility. They calculated RER misalignments as deviations of actual RERs from their equilibrium for 60 countries over 1965-2003 using panel and time series cointegration methods. Using dynamic panel data techniques they found out that RER misalignments hinder growth but the effect is non-linear: growth declines were larger, the larger the size of the misalignments. Although large undervaluations hurt growth, small to moderate undervaluations enhanced growth. These results are robust when controlling for movements in the equilibrium real exchange rate. However, they established that it was difficult to follow a progrowth RER policy. Finally, growth was found to be hampered by highly volatile RER misalignments.

Methodology

In order to fulfill this objective, a descriptive study was adopted. Monthly data from January 2006 to December 2010 and relating to the exchange rates of the three major currencies (US dollar, Pound and Euro) obtained from Central Bank of Kenya website were used. Pearson product moment correlation and trend analysis was conducted by use of EViews software version 6.

Results And Discusion

Descriptive Statistics

The mean of all the variables were positive. The variables were not very highly dispersed from the mean as seen from the standard deviations. All the variables were negatively skewed. All the variables however, had relatively peaked distributions. The Jarque – Bera statistics for all the variables were not significant as shown from the probabilities, implying that the null hypothesis of normality for the variables was upheld (See Table 1 below).

Table 1: Descriptive Statistics of the Study Variables

	US dollar	Pound	Euro
Mean	73.03500	127.8122	99.34883
Median	72.87000	127.3650	99.74500
Maximum	81.43000	143.5700	112.2000
Minimum	61.90000	113.9800	85.84000
Std. Dev.	5.497666	7.439127	7.477953
Skewness	-0.208068	-0.110416	-0.021577
Kurtosis	1.945138	2.057415	1.737775
Jarque-Bera	3.214759	2.343083	3.987686
Probability	0.200412	0.309889	0.136171
Sum	4382.100	7668.730	5960.930
Sum Sq. Dev.	1783.236	3265.096	3299.267
Observations	60	60	60

Correlation Results

From the Pearson's product moment correlation analysis presented in Table 2, the UK Pound is negative correlated to US Dollar and the Euro is also negatively correlated to the UK Pound. However, the Euro was found to be positively correlated to the US Dollar.

Table 2: Foreign Exchange Rates Correlation Results

	US Dollar	Pound	Euro
US Dollar	1		
Pound	-.568[**]	1	
Euro	.564[**]	-.530[**]	1

Existing Trend in Foreign Exchange Rates fluctuation in Kenya.

The study objective sought to establish the existing trend in foreign exchange rates fluctuations in Kenya. Consequently, foreign exchange rates fluctuations' were measured by examining fluctuations in the three major currencies of Kenya's main trading partners over the five year period. These currencies were the US dollar, the UK pound and the Euro.

Existing trend for the US dollar exchange rate

Analysis of the existing trend for the US dollar exchange rate across the five years revealed results reported in Figure 1 below.
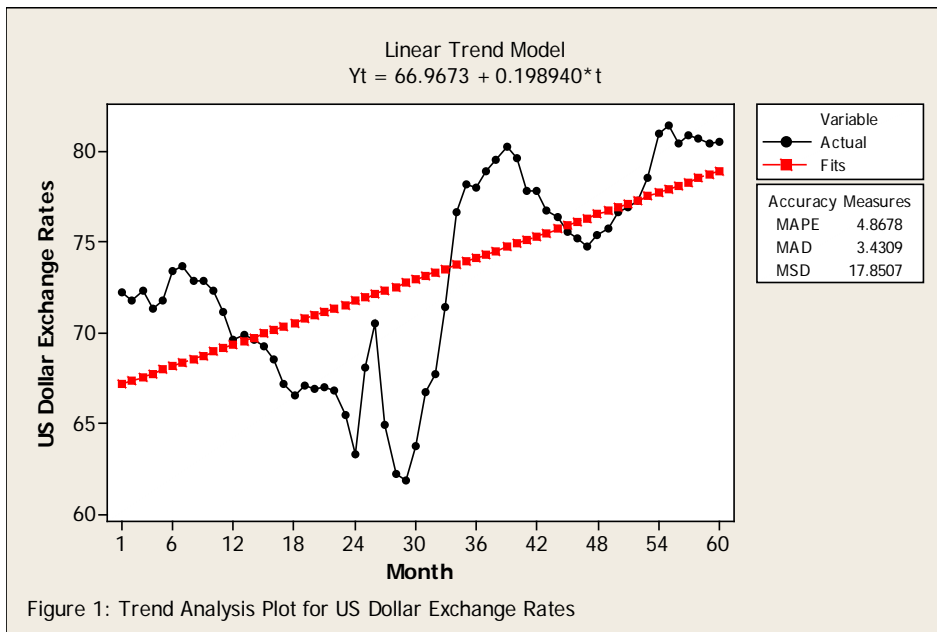

Figure 1: Trend Analysis Plot for US Dollar Exchange Rates

Results show that there was a series of peaks in the US dollar exchange rates at the 7th, 26th, 39th and 55th months. Similarly there were four troughs at the 4th, 24th, 29th and 47th months. Consequently, the US dollar exchange rate decreased at a steady rate, from approximately Ksh74 in the 7th month to Ksh 63 in the 24th Month. This then increased to almost Ksh 71 in the 26th Month before dropping further to Ksh 62 in the 29th month. From the 29th month, the US dollar rose drastically to almost ksh 80 by the 39th month before once again dropping to Ksh 75 by the 47th month. The exchange rate once again rose between the 47th month and 55th month to stand at approximately Ksh 81. By the 60th month, the US dollar stood at roughly Ksh 81. Consequently, the US dollar exchange rate was observed to have been fluctuating during the five year period, reaching a high of Ksh 81 and a low of Ksh 62 during the period. The fitted trend line showed that there was an increasing trend in US dollar exchange rate with a gradient of

0.198940. The trend equation within the five year period of study was estimated to be as below:

$$Yt = 66.9673 + 0.198940 \, t \qquad (1)$$

Existing Trend of the UK Pound Exchange Rate

The Actual five series chart for the UK pound exchange rate revealed a series of peaks and troughs which suggested a decline in the exchange rate of the UK pound within the five year interval (See Figure 2 below).


Figure 2: Trend Analysis Plot for UK Pound Exchange Rates
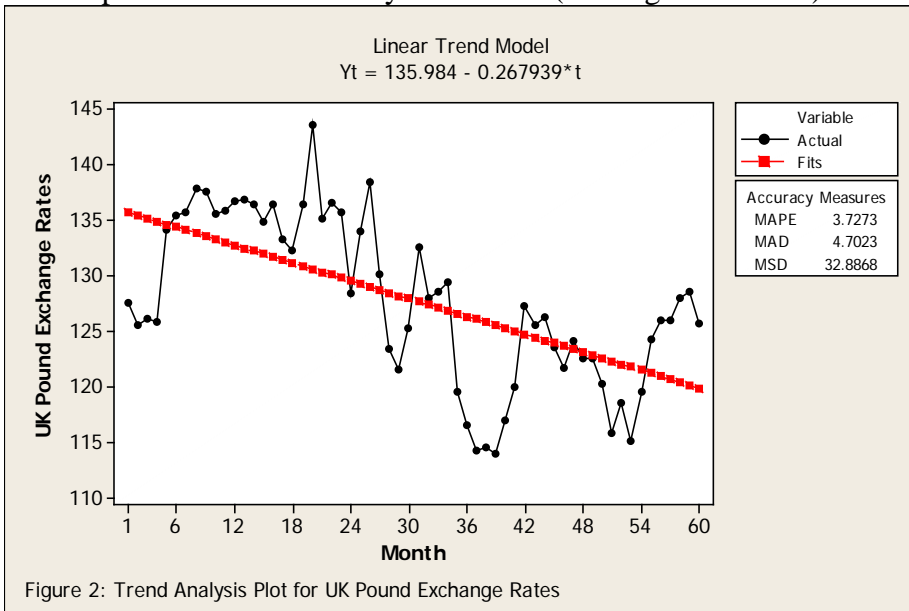
The highest exchange rate for the UK pound within the five year period was approximately Ksh144 realized in the 20th month. The least exchange rate within the same interval was roughly Ksh114 realized in the 39th month. The long term trend however showed a decreasing trend with a slope of -0.267939 within the stated period. The linear trend model was estimated as:

$$Yt = 135.984 – 0.267939t \qquad (2)$$

Existing Trend of the Euro Exchange Rate.

The series of peaks and troughs in the actual time series chart presented in Figure 3 indicates that the exchange rate for the Euro also kept fluctuating within the five year period of study. There was a sharp drop in the exchange rate for the Euro from Ksh 92 in the 24th month to Ksh 68 in the 25th. This sharp drop in the Euro could be attributed to the global financial crisis which occurred within this period (CBK Annual Report, 2009). The value of Ksh 68 was the smallest exchange rate value within the five year period, while the highest value was approximately Ksh 112 reported in the 58th month.

Figure 3: Trend Analysis Plot for the Euro Exchange Rates
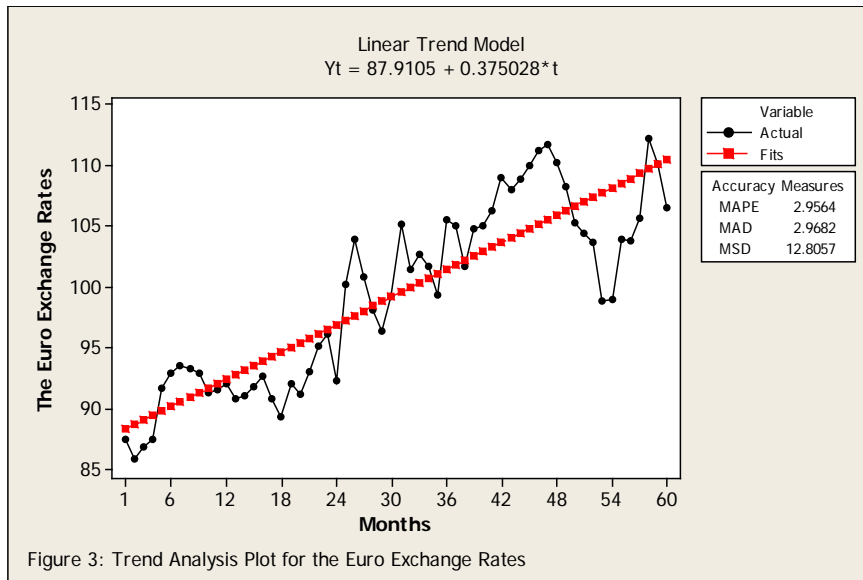
The long term underlying pattern in the exchange rate for the Euro shown by the fitted trend line indicated that there was an increasing trend in the exchange rate with a gradient of 0.385. The linear trend model was estimated as:

$$Yt = 87.9105 + 0.375028t \qquad\qquad (3)$$

Summary

Results of the trend analysis for the Exchange rates of the three major currencies traded at the Nairobi securities exchange market indicated that while there were fluctuations in the actual time series data for all the three exchange rates, there existed overall patterns in the long term tendency of these exchange rates. The US dollar exchange rates and the Euro exchange rates were found to have had an increasing trend within the five years while the UK pound exchange rates had a decreasing trend during the same period.

The observed decline in actual time series values in the US dollar exchange rates and the Euro exchange rates in the first 24 months from January 2006 are consistent with the finding by Kiptui and Kipyegon (2008). According to these authors, in this period, the Kenya shilling appreciated leading to a decline in the exchange rates, and attracting public attention particularly from exporters who argued that the strengthening Kenya shilling was eroding their competitiveness. Besides, the sharp drop observed in the Euro exchange rates between the 24th and 25th months could be explained by the observed appreciation in the shilling in the short period from 2005 to 2006 (Kiptui and Kipyegon , 2008).

The findings that the trends in the US dollar exchange rates and the Euro exchange rates were increasing support the findings by the CBK annual

report (2009). This report indicated that the shilling depreciated mainly during the first half of the fiscal year 2008/2009 triggering sale of shares allocated to foreign investors and consequently leading to huge outflows of foreign exchange and subsequently to the increase in exchange rates. Besides, as noted in the Monetary Policy Statement (2009), that the policy of a market determines shilling and the relaxation of exchange controls exposes the currency to domestic and external shocks consequently increasing its fluctuation level.

Conclusion

The study sought to establish the effect of foreign exchange rates fluctuations on the performance of Nairobi Securities Exchange market. It can be concluded that there existed positive trend in both the dollar exchange rates and the euro exchange rates and a negative trend in the UK pound exchange rates.

Based on the conclusion that there existed positive trends in both the US Dollar exchange rates and the Euro exchange rates and negative trend in the UK Pound exchange, the study recommends that market players like corporate investors and investment mangers should closely monitor these trends as they deem useful in predicting future financial market outcomes.

References:
Benita, G. & Lauterbach, B. Policy Factors and Exchange Rate Volatility: Panel Data
Verses a Specific Country Analysis, Research Unit. Foreign Exchange Activity Department,
Bank of Israel, Jerusalem, 2004.
CBK Annual Report, 2009.
Cottani, Joaquin A., Cavallo, F. Domingo, and Khan, M. Shahbaz, "Real Exchange
RateBehaviour and Economic Performance in LDCs", Economic Development and Cultural
Change, 1990.
Economic Survey Report, Kenya, 2011.
Frank, P., & A. Young. Stock Price Reaction of Multinational Firms to Exchange Realignments, Financial Management, Winter, pp.66–73, Principles of Economics, New York, McGraw Hill/Irwin, 1972.
Kiptui, M. & Kipyegon, L. External shocks and Real Exchange Rate Movements in Kenya. Central Bank of Kenya, 2008.
Monetary Policy Statement, 2009.
Taylor, M.P., and Tonks I. The Internationalization of Stock Markets and the Abolition of UK Exchange Control, Review of Economics and Statistics, 1989.