

# EFFECT OF MONETARY POLICY ON KENYAN ECONOMIC GROWTH

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**Abstract:** This study investigated the impact of monetary policy on Kenyan economic growth. Monetary policy constitutes both the rules and targets set by the central bank to achieve the ultimate objectives of the economy. However their effectiveness depends on the transmission channels of monetary policy which include interest rate, exchange rate, credit to private sector and money supply (M2). To achieve the objectives of monetary policy geared towards the economic growth which was the economic growth the monetary policy implementation depended on monetary policy frameworks. The study took an explanatory nature in trying to relate the policy reactions functions to monetary transmission channels, by emphasizing their interdependence on the actual conduct of the monetary policy. However even with the implementation of this policy on Kenyan economy, its impact is not fully depicted by the trending results of the Kenyan GDP. The main objective of the study was to find out how transmission of money through monetary policy tools in Kenya related with the performance of the Kenyan economic growth. The study used secondary discrete data for the period of 1991-2012 whose main source is the Central Bank Of Kenya which is the Monetary Authority in the country. A descriptive data analysis was applied so as to take into account the dynamic financial changes that took place in the Kenyan economy of which some of those situations include the financial liberalization that took place in 1991 to the likes of the Kenyan shilling highest depreciation rate against the US Dollar in 2011 among other financial changes. Through a multivariate regression analysis, the trends of the monetary policy transmission channels which included Interest rate depicted by Central Bank Rate (CBR), Exchange Rate (EX), Credit to private Sector (PSC) and Money Supply (M2). The results showed that indeed there was an effect of the independent variables on the dependent variable though whereby Interest rate, exchange rate and credit to private sector depicted a negative effect while Money supply showed a positive effect in the short run. As a result of those variances on the effect of the independent variables on the dependent variable, the researcher recommended some policy recommendations for better long run performance and growth of the Kenyan economy.

**Keywords:** Real Gross Domestic Product, Economic Growth, Central Bank Rate, Balance of payment, Tools of Monetary Policy, Transmission channels, Monetary policy frameworks and Error Correction Model.

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## 1. INTRODUCTION

Monetary policy in any country is the process by which its' the monetary authority controls the supply of money, often targeting a rate of interest for the purpose of promoting economic growth and stability (Friedman, 1948). In Kenya, the implementation of this policy initially lied on the hands of Monetary Policy Advisory Committee (MPAC) however its role was taken over by Monetary Policy Committee (MPC) with an aim of strengthening the functioning of the monetary policy and by doing so unlike the MPAC, the MPC is executed with the responsibility of policy formulation.

The central bank implements these instruments of monetary policy with the guidelines of the three monetary policy frameworks (Barry 1992) which include; Monetary Targeting Framework (MTF) which uses reserves money as the operating target and money supply as the intermediate target with inflation being the ultimate target (Rogoff, 1985), Exchange Rate Targeting Framework (ERTF) which targets optimality of the exchange rate as a target (Mankiw, 2002) and, Inflation Targeting Framework (ITF) which uses inflation as the nominal target (Roberto, 2008).

Proper implementation of these monetary policy frameworks would signify how monetary policy tools accelerate the economic growth trends (Friedman, 1960). However, these instruments affect the economy through various mechanisms of transmission to the ultimate policy objectives depicted by these frameworks. The study analyzed four channels of monetary policy transmission. The first transmission channel was interest rate channel, which is depicted by the central bank rate since it is the lender of the last resort. Through an expansionary monetary policy, the result is that there is a reduction in the real interest rates, which in turn affect investments and consumption of durable goods since they become cheaper. Moreover the corresponding shift on the aggregate demand is eventually reflected on the aggregate increase in both output and prices (Carlstrom & Fuerst, 1995).

The second transmission channel was exchange rate channel works through both aggregate effects. On the demand side an expansionary monetary policy lowers the domestic real interest rate bringing about depreciation of the domestic currency with respect to the foreign currencies. This in turn leads to a higher net export and aggregate demand since the domestic goods are cheaper to the foreigners. On the supply side, the real depreciation as a result of monetary policy expansion leads a raise in domestic prices of imported goods and results to a rise in inflation (Rogoff, 1995).

The third transmission channel is credit to private sector which through monetary policy can affect both the prices and output effects. This effect is through the credit rationing arising from information asymmetries between financial institutions and firms and consumers to which they lend (Gertler, 1995).

The fourth transmission channel is the money supply channel, an expansionary monetary policy leads to a higher money supply in the economy and in-turn lowers the rate of interest hence making equity markets attractive for investment (Bernanke, 1998). However Kenya being a developing country has been struggling in maintaining an increasing economic growth trend over the years which is implicated by the Gross domestic product per the population growth rate which has been below 1500 mark which is the level of a middle income country (Kenya National Bureau of Statistics Report– Third Quarter 2012 GDP Release).

## **2. STATEMENT OF THE PROBLEM**

The study through a long-run neoclassical growth model analyzed critically the relationship between the monetary policy functions and transmission channels by emphasizing on their interdependence. Its only through Proper implementation of the monetary policy tools, transmission channels as well as the monetary policy framework that could ensure an ultimate long run economic growth propelled by the monetary policy in Kenya. It's vital to rigorously study how these tools inter-relate with each other through the transmission channels and guided by the monetary policy framework so that the central bank of Kenya can be able to ensure there is a stable and prosperous economic growth.

The performance of the monetary policy in a developing economy like Kenya ensures that there is an increasing growth rate of the economy through regulating the amount of money in circulation so as to control inflation as well as maintaining equilibrium in the balance of payments (BOP). It is therefore crucial in ensuring proper functioning and implementation of the monetary policies. In regard to that this study will be beneficial to the government, policy makers, internal and external investors, future scholars and students as well as the broader society as a whole.

## **3. LITERATURE REVIEW**

Many studies have been done by researchers on how the monetary policy drives the economic growth of a country. The literature review was based on the mechanism of transmission on every monetary policy tool as well as on how the monetary policy frameworks were implemented across countries globally. The literature was divided across Developed economies, highly developing economies and slow developing economies. In addition to that the concept of transmission mechanism was addressed which plays a link among the tools of monetary policy towards the economic growth.

### **3.1 DEVELOPED ECONOMIES EVIDENCE:**

Bhattarai (2011) examined the impact of Exchange rate and money supply on growth, inflation as well as on interest rate in UK and found out that the depreciation of the sterling pound and the higher interest rate had a negative impact on economic growth. Osasohan (2014) examined empirically the impact of monetary policy on UK economic growth using a time series data for a period from 1940-2012 and through Vector Error Correction Model (VECM) on all the endogenous variables found out a long run existence relationship among the variables. He specifically found out that both inflationary rates as well as money supply were significant monetary policy tools that drove the economic growth.

### **3.2 HIGHLY DEVELOPING ECONOMIES EVIDENCE:**

Fernald et al.,(2014) analyzed the monetary policy effectiveness in China and found out that increases in bank reserve requirements reduced economic activities while also changes in interest rates had an impact on economic activity and price levels. Zhang & Sun (2017) examined the confidence in monetary policy in China response by the entrepreneur and found out that the private sector had more inspiration when the central bank adapted easing monetary policies which lead to better economic environment and economic growth.

Alavinasab (2016) examined the impact of monetary policy in Iran by using time series data with incorporation of the Error Correction Model (ECM) to take care of any data lost during a short run regression analysis and found out that money supply, exchange rate as well as inflation had a long run significance on economic growth.

### **3.3 SLOWLY DEVELOPING ECONOMIES EVIDENCE**

These mostly were studies done in African countries whose trend was not significant to their potential and the available resources at their disposal. Sylvie (2015) did an analysis on the monetary policy tools in Rwanda and found that there was integration among the tools moreover exchange rate and money supply were significant on economic growth trends. Fasanya et al.,(2013) found out that inflation, exchange rate and external reserve were an important force in driving the economic growth in Nigeria. Precious (2014) did a study in South Africa for the period between 2000-2010 using Johansen co-integration and Error Correction Model and found out that money supply, repo rate and exchange rate had a positive impact on economic growth.

Kamaan (2014) did a quantitative study to measure the effectiveness of monetary policy on economic growth in Kenya. The findings from the study showed that Central bank rate in the short run had a negative impact on the economic growth however eventually in the long run there was a positive impact hence being significant. On the other hand inflation and Inter-bank rates in the short run had a positive impact while in the long run they became insignificant.

### **3.4 CONCEPT OF TRANSMISSION MECHANISM:**

These monetary policy instruments affect the economy through various mechanisms of transmission to the ultimate policy goal. Many studies have been done in many countries for instance Friedman,(1988) study in USA from 1953-1978 on transmission channels and their impact on the Real GDP, the results showed that both credit and money convey the same information about determinants of prices, therefore supporting a two-target monetary policy framework based on both money and credit.

Bernanke (1986) study done in USA for the period from 1953-1984 showed that credit shocks had an impact on the output, however money and credit had approximately equal important force on the monetary transmission mechanism. Bernanke & Blinder (1992) on the period from 1959-1989 showed that nominal interest rates were good forecasters of real GDP and monetary policy works affected the composition of bank assets implying that tight monetary policy affected the supply of bank loans.

Spencer & Andrew (1992) did study in UK from 1974-1992 focusing on the role of banks in transmission mechanism process showed that sectoral measures of money and credit provided more accurate and timely signals of future movements in inflation. Anil et al.,(1993) study in USA for the period of 1963-1989 showed that tighter monetary policy lead to a shift in firms' mix of external financing: commercial paper issuance rose while banks loan falls, suggesting that contractionary policy reduced loan supply thus affecting investment, interest rates and output.

Fackler, & Rogers, (1993) did a research in USA for a period of 1973-1989 and found that change in credit was at-least as important as any other variable in explaining the movements in output, prices and interest rates. Moreover there were significant effects from changes in exchange rates on credit. Pierre (1994) did a study in Canada for the period 1970-1990 and the results of the emphasized more on transmission mechanism through interest rates and exchange rates rather than through changes in monetary aggregates.

## **4. METHODOLOGY**

This paper adopted a quantitative study using secondary discrete data by applying a multivariate analysis which was best suitable to investigate the relationship between monetary policy instruments on the economic growth trends in consideration of transmission mechanisms and monetary policy frameworks. The study focused on census data on four

variables which included central bank rate, exchange rate, private sector credit and money supply (M2) which was extracted for the period from 1991-2012. The choice of the period was based on data availability from the sources as well as since it was after commencement of financial liberalization which took place in the early 90s. The data used was obtained mainly from Central Bank of Kenya, International Monetary Fund website, Economic journals, World Development Indicators, World Bank annual reports, Business daily editions, Reuters editions, monetary policy committee reports (Biannual reports of the MPC).

Before carrying out an inferential statistics, preliminary tests were conducted on the census data to provide a general view of the distribution and behavior of variables. This entailed displaying the trends of the variables in form of tables, graphs, and charts. In addition to that Residual test for normality of the data series was also conducted and the Jacque Bera coefficient as well as its p –value observed for significance test.

A stationarity test was done to avoid a spurious regression which entailed testing for the presence of Unit Root (non-stationarity) through use of an Auto Regressive (AR) test as well as the Engle-Granger Two Step Procedure was applied to test for the presence of co-integration which simply implied the existence of a long-run relationship among the variables.

## **5. RESULTS AND DISCUSSION**

The regression analysis results obtained showed that the coefficient of interest rate was -0.053904 implying that there was a negative effect on the economic growth. As for the Exchange rate the results of R-Squared was very close-approximately equal to 0.5 hence confirming a fair significance to the economic growth however the coefficient of the exchange rate was -0.049408 depicting that the fluctuation of the Kenyan shilling against the commonly used currency which was US Dollar, had rather a negative effect on the economic growth.

Provision of credit to the private sector showed confirmed significance in explaining trends of economic growth in Kenya as far as R-Squared value was concerned. However the coefficient value was equal to -0.289814 confirming a negative relationship between credit to private sector and economic growth.

Finally, as for the Money supply (M2, the R-squared value confirmed the strength of M2 in explaining economic growth. In addition to that the coefficient was +0.355687, which implied a positive relationship between money supply M2 and economic growth.

## **6. CONCLUSION**

From the findings of this study it was evident that optimal adjustment of tools of monetary policy is very vital as they determine the performance of economic growth. However in addition to that their effectiveness depends on the transmission channels of monetary policy.

The optimality of money supply in was very crucial since it is a function of interest rate and therefore it plays a major role in determine the rates of investments done in all sectors including the private sector and the inflation rates. From the findings it was confirmed that indeed there was a positive relationship between the money supply M2 and the economic growth with reference to the coefficient of M2 being positive. However from the results the other variables, exchange rate (EX), credit to private sector (PSC) and Interest rate (CBR) had negative coefficients which implied an inverse relationship with economic growth showing that their performance did not favor the economic growth. From the studies done by other researchers and authors, studies done in USA mostly in different time periods the results showed that both credit and money convey the same information about determinants of prices.

In addition the results showed that nominal interest rates were good forecasters of real GDP and monetary policy works affected the composition of bank assets implying that tight monetary policy affected the supply of bank loans. Moreover a contractionary monetary policy reduced loan supply thus affecting investment, interest rates and output. A study done UK focusing on the role of banks in transmission mechanism process showed that sectoral measures of money and credit provided more accurate and timely signals of future movements in inflation

This research study agreed with what other authors found and analyzed on their studies on the effect of the monetary policy on the economic growth through the transmission mechanism channels.

In summary the study supported the three monetary policy framework based on Monetary Targeting Framework (MTF) which uses reserves money as the operating target and money supply as the intermediate target with inflation being the ultimate target, Exchange Rate Targeting Framework (ERTF) which targets optimality of the exchange rate as a target and Inflation Targeting Framework (ITF) which uses inflation as the nominal target with an aim of achieving economic growth of the country as the ultimate goal.

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