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Analyzing How the Central Banks Decisions Affect the Stock Market

Amina Sammo

School of Finance & Financial Management, Business University Costa Rica

Email: minasammo@gmail.com

Abstract

Central Banks all over the world use the Central Bank Rate to control inflation. Inflation occurs when the money in circulation is too much in comparison to the few goods available for trade. Inflation causes the prices of goods to go up: therefore, central banks can control inflation by regulating liquidity. This is often done by increasing the Central Bank Rate, and hence making expensive to acquire money, in an attempt to reduce money supply in the economy. The effect of this could be reflected by fluctuation of stock prices at the financial markets (Investopedia, n.d.). Stock markets are exceedingly volatile, and this makes investors very keen and vigilant on any factors that may cause stock price fluctuations. Stock Market Performance helps investors to predict and anticipate price fluctuations. Business owners, policy makers, economists as well as curious Kenyans have tried to ascertain the correlation between the Central Bank Rate and Stock Market Performance over time, especially in the wake of globalization. There have been major stock market crises over the world which could have possibly been averted if it were indeed possible to control stock market prices using interest 2 rates. Such crises usually affect the entire international trade markets, and their effects are eventually felt domestically

Keywords: Inverted Yield Curve, Exchange Rates, Foreign Exchange Market,

1.0 INTRODUCTION

A Stock Market refers to a market where shares of publicly listed companies are traded through over-the-counter markets or stock exchanges. It is, however, not a single trading place. Zuravicky (2005) explained that the stock market is a market in which stocks are purchased and sold in a practice called trading. He further added that it is in reality a network of several interlinked markets. It enables all willing participants to acquire shares of publicly listed companies in order to raise capital for that company's profitable operations (Buehler & Kohut, 2000). Stock Market Performance gives an indication of how the entire stock market, or a given stock, is fairing (Shauna, 2003).

Fluctuations in stock prices and indices predict stock trends, as well as that of the whole economy or a specific sector, in the foreseeable future. This enables investors to make informed decisions on their investments and expenditure. In any economy, stock market performance plays are key role in signifying the health of the economy given that the financial sector is the most crucial. Stock Market Indices are used as a statistical measure of the general performance of the economy or a given sector (Investopedia, n.d). The performance of a specific stock is shown by fluctuations in its stock price. Just like a rise in stock prices indicates positive stock 4 performance while a decrease shows declining performance, a higher stock index marks a better performing market or sector, as compared to a lower stock index. The NSE 20 Share Index is a price-weighted index

2.0 DETERMINANTS OF STOCK MARKET PERFORMANCE

In the stock market, there are the bullish investors, those who invest with the prospect of a rise in stock prices, and the bearish investors, who anticipate for the stock market conditions to worsen and thus stock price to fall accordingly. Regardless, all these investors seek to take advantage of the stock price fluctuations to maximize their returns (Mehwish, 2013). These fluctuations in stock prices are affected by various fundamentals, for instance, interest rates, 16 the rate of inflation, currency exchange rates, government decisions on key economic factors, performance of the company, real output, as well as market efficiency (Karitie, 2010).

2.1 Interest Rates

https://damaacademia.com/dasj May 2020 Pages: 30-35 Volume 5 | Issue 5

The most important rate of interest to investors is the Central Bank Rate. This rate determines how much commercial banks will charge investors for borrowing funds. If this rate increases, the general public has less money at their disposal since the cost of acquiring money goes up. This also affects businesses in the same way given that their cost of production increases diminishing their profit margins, and also indirectly, in that consumers have less discretionary money to spend, reducing companies' sales, and so do their profits and revenues (Mwanza, 2012). Consequently, it also slows down the growth rate of these companies. The central bank uses interest rates, that is, the Central Bank Rate, to regulate the amount of money supply in an economy (Hsing, 2004).

This in turn, has a substantial effect on stock prices at the financial markets. For instance, if the interest rates are low, consumers will have extra funds at their disposal to trade in fewer goods, as explained above. The prices of goods such as publicly traded shares will thus go up in accordance with the law of supply and demand. This will eventually turn into greater returns to the investors and an overall buoyant market. If the interest rates were to rise, the overall effect will be the opposite of the above.

2.2 Inflation

Inflation is the sustained rise in the overall prices for goods and services (Investopedia, 2016). Interest rates and inflation go hand in hand. Central Banks all over the world use the Central Bank Rate to control inflation. Inflation occurs when the money in circulation is too much in comparison to the few goods available for trade. Inflation causes the prices of goods to go up: therefore, central banks can control inflation by regulating liquidity. This is often 17 done by increasing the Central Bank Rate, and hence making it expensive to acquire money, in an attempt to reduce money supply in the economy. High inflation in an economy usually slows down sales and thus lower profits are realized. Companies' growth is also slowed down and such changes usually cause lower stock prices, which translates to poor stock market performance.

However, commodities may fair well during inflation as their prices rise. This leaves consumers with less discretionary funds to spend, and economic growth becomes stunted (Hsing, 2004). On the other hand, deflation, which is falling prices as businesses lose pricing power, translate to averagely lower profits for businesses and generally decreased economic activity. Stock prices also decrease, and the stock market goes on a bear run; investors start disposing off their shares and transfer their monies to fixed-income investments in pursuit of better returns. In order to stabilize the economy, the Central Bank may lower the CBR so as to encourage borrowing, and eventually, increased spending to awaken economic activity.

2.3. Exchange Rates

Very evidently, the prevailing foreign currency rates directly affect the prices along with the value of securities in foreign countries. Fluctuations in currency exchange rates usually reduce or increase the cost of carrying out business in any country. This in turn affects the prices of shares of companies that carry out trade in foreign currency, for instance, banks and companies that import trade goods. Alternatively, Domestic currency depreciation makes local firms more competitive, this leads to an increase in their export revenues and consequently higher stock prices. It is hard to predict the short-term exchange rate fluctuations given that they are often caused by events, announcements and futures trading, as 18 opposed to the lone-term fluctuations that are driven by the fundamental market forces of supply and demand (Hsing, 2004).

Granger (2000) stipulated that multinational firms are highly affected by fluctuations in exchange rates; volatility in the exchange rates results in fluctuations in the value of a firm's foreign operations. This could cause a profit or a loss on its balance sheet and consequently changing the firm's stock price. This way, changes in exchange rates are expected to cause movements in stock prices. Currency devaluation could lead to either a rise or a decrease in a firm's stock price subject to whether the particular firm is more of an exporting firm or a heavy consumer of imported inputs. Adler and Dumas (1984) found that even firms whose operations are wholly domestic may be affected by fluctuations in exchange rates, if such movements affect their input and output prices, and consequently the demand for their products and services.

https://damaacademia.com/dasj May 2020 Pages: 30-35 Volume 5 | Issue 5

2.4 Government Decisions on Economic Policies

The government, many at times, makes decisions that affect the economic environment in which companies operate. Also, when a new government takes over power, new policies are made. Such decisions may be good for business, while sometimes they create an adverse environment for business. Even so, such policies may favour certain groups of people, as opposed to others, for instance, locals against foreigners. They may also lead to changes in interest rates as well as inflation rates, which in turn affect stock market performance and the economy as a whole. Election cycles affect the economies of countries all over the world (Hirsch, 2012).

3.0 THE CHANGING NATURE OF VALUATION

Graham Dodd is considered to be the father of stock valuation. In 1934, he wrote a book explaining how the modern theory of valuation has departed from the traditional principles. He believes that the old approach was more dependent upon the past performance. This means that the dividends that the firm has paid in the past, the absence of any debt and the strong track record of the management were considered major factors in stock valuation. However, this has changed now since the entire theory has become more future-oriented. This means that a firm's value is now based on the amount of cash flow it can provide in the future. This means that even a firm has not paid a single penny in dividend till date, its valuation can be justified by saying the value will be received in the future.

However, the basic theory of finance says that a dollar today is more valuable than a dollar tomorrow. Hence, the future cash flow dollars of a company need to be discounted at the present rate to arrive at a valuation. The discount rate being used therefore has a huge bearing on the final stock value. Since the discount rate is derived from the interest rate, interest rates become extremely crucial. It is for this reason that central banks decision to hike or lower the rates can have a massive impact on the stock market. It is for this reason that it can be said that 2018 will have a general negative trend. The Fed is planning about four consecutive interest rate hikes and this may lead to some form of a correction in the stock market.

3.1 How Exactly Do Interest Rates Affect Stocks?

There are two reasons why changes in the interest rates affect the valuation of stocks:

1. Firstly, lower interest rates encourage firms to borrow money. Lower interest rates mean that the firm has access to cheaper credit. This means that interest will form a smaller share of their total expenses. The amount of interest saved will be simply added to the profit. Hence, lower interest rates create a temporary speculative boom.
2. Secondly, the interest rate is a major factor in the discount rate that is used to calculate the value of the firm. Hence, a lower interest rate would mean a lower discount rate. This would lead to temporary bloating of the value of the firm.

In simpler words, a lower interest rate creates a false image making a firm look more profitable than it actually is.

3.2 What Happens When Interest Rates Rise Again?

The increase in the interest rates leads to a precipitous fall in the stock market. This is mainly because of the following reasons:

- Lower interest rates led to malinvestment. This means that the projects that were selected because credit was so cheaply available end up subtracting from the value of the firm instead of adding to it. The end result is that the scarce resources are squandered away.
- Firms know that their production will not be as profitable when interest rates are increased. This is because they will have to pay a larger share of their income as interest. As a result, when interest rates hikes are announced, companies try to cut production. They try to sell off their assets and pay back loans which have suddenly become unsustainable.
- The high valuation of the stocks which was being justified by the possible gains that will be received in the future suddenly crashes. This is because the future dollar becomes more expensive. This changes the time preference of the investors, and they try to cash in today instead of waiting for the future.

https://damaacademia.com/dasj May 2020 Pages: 30-35 Volume 5 | Issue 5

In short, the entire economy is misled by the central banks when they drop interest rates. For a short while, they create an artificial boom which is followed by an even larger bust. The problem with this is that people do not want to suffer the consequences and start afresh. As a result, they ask central banks to lower the rates even further. This creates another temporary boom which negates the losses made from the earlier bust. However, this boom is also temporary at best and is likely to lead to another bust. Hence, it is the low-interest rates set by the central bank that creates business cycles. This is exactly what happens after every bust. For instance, consider the government policies of zero interest rate after the 2008 subprime crisis.

4.0 Empirical Literature Review

Various studies related to the effect of the central bank rate on stock market performance have been conducted by both monetary and financial economists in the recent past. However, most of these studies were carried out in mostly developed markets, with only a small number of them being done in small and emerging markets, such as Ghana and other African countries.

4.1 Global Empirical Studies

Due to the advanced nature of the developed markets, most of the studies in this area were done in developed markets where information as well as the relevant data is readily available. A lot of these studies have covered a wider perspective, such as the effect of monetary policy decisions on stock market returns. The Central Bank Rate is usually used widely as one of monetary policy strategies. For instance, in 2008, Ioannidis and Kontonikas examined the effect of the monetary policy on securities returns over the period 1972-2002 in thirteen OECD (The Organization for Economic Co-operation and Development) countries. Using regression methods on the stock market variable against monetary policy variable, they established that there was a positive correlation between securities returns and the level of money supply. Their findings pointed out that monetary policy adjustment have a significant negative effect on nominal, as well as inflation-adjusted securities, returns. Such a correlation was significantly dissimilar from zero at the 5% level in 10 out of the 13 countries. Even so, the gravity of the links varied from one country the other, perhaps due to their intrinsic structural differences (Ioannidis and Kontonikas, 2008).

In the USA alone, Bernanke and Kuttner (2005) investigated the effect of movements in the federal funds rate on stock market returns. They used the Campbell and Ammer model and found that stock price indices increased by 1% for a 0.25% decrease in interest rates. In the Asian markets, Yoshino et al. (2014) sought to elucidate on the reaction of stock markets to monetary policy, a case of the Tehran Stock Exchange (An Asian Stock Market perspective). Using the VECM (Vector Error Correction Model), they examined the reaction of Asian stock market prices to shocks of monetary policy changes. They found that stock prices continuously rise in reaction to exogenous monetary policy easing. Also, they determined that there exists an endogenous reaction of the stock prices to monetary policy as shown by variance deposition results.

Closer to home in Africa, Nemaorani (2012) studied the relationship between interest rate changes and securities returns in Botswana for a 10-year period running from 2001 to 2011. He used regression method on real and nominal securities returns against short-term interest rates. He found that the relationship between interest rate fluctuations and stock returns was a statistically significant, positive relationship. He explained the counterintuitive results by the fact that the key participants in the domestic stock market was mostly commercial banks, who also benefit the most from increases in lending rates as they exclusively take part in the Bank of Botswana Certificates.

Naceur et al. (2009), studied how Middle East and North African markets respond to monetary policy changes. Securities prices were significantly affected in Jordan (the Middle East), and so were they in Morocco and Tunisia (North Africa). Tight monetary policies were found to cause a decrease in securities prices in Saudi Arabia and Oman. Most studies have used vector autoregressive models to study the effects of monetary policy variables, such as interest rates, on stock market performance. 21

4.2 Local Empirical Studies

https://damaacademia.com/dasj May 2020 Pages: 30-35 Volume 5 | Issue 5

Most studies in relation to this topic in Kenya focus on the mode of monetary policy transmission mechanism. The Central Bank Rate fluctuations affect the performance of the entire economy, as well as inflation, via various channels that constitute the monetary policy transmission mechanism. Recently, Chirchir (2012) examined the relationship between stock prices and interest rates in Kenya using the Toda and Yamamoto (1995) causality testing method. The variables used in the study were interest rates represented as monthly weighted-average lending rates by Kenyan commercial banks, and the NSE share index. Also, the sample data was drawn from the prevailing interest rates and NSE share index values for the period spanning from 2002 to 2012. His findings concluded that there lacked a significant causal relationship between the lending rate of commercial banks and stock prices. In 1998, Nyamute (1998) researched on the relationship between stock price movements and other financial variables such as interest rates, money supply, exchange rates and inflation rates in Kenya. He used regression models and found that there was a negative relationship between stock prices and interest rates.

In 2008, Ngigi (2008) studied the effect of fiscal and monetary policies, such as adjustments in the Central Bank Rate, on stock market performance in Kenya. They used the general to specific model specification and deduction method. He obtained values for the expected as well as the unanticipated fiscal and monetary policies and used them in finding a link to the securities market performance. He found that expected monetary policy decisions and unanticipated fiscal policies decisions have a negative impact on securities market performance securities market performance whereas unanticipated monetary policy decisions have a positive impact on securities market performance. However, anticipated fiscal policy was found to have no effect on stock market performance. Using the error correction model for data spanning from 1994 to 2000, Kosimbei et al (2012) examined the decision to use interest rate as opposed to reserve money, or a combination of the two policy instruments. They found that the decision to use interest rates, in comparison to reserve money, as an optimal monetary policy caused minimal losses. When used together, only minimal losses occur as compared to using the instruments separately. Taborda (2013) researched the relationship between the interest rate spread and profitability of commercial banks in Kenya.

He employed empirical studies and researched on banks that were in operation in Kenya as at December 2012. His secondary data was from CBK publications in addition to NSE data. He found that the spread does not significantly affect the profitability of commercial banks. Most commercial banks are listed at the NSE and contribute significantly to the entire market performance. In other relevant studies, Kilongosi (2005), sought to determine the impact of interest rates on net bank interest margin in commercial banks. His aim was to establish the magnitude to which interest rates influence the bank interest margin. He focused on commercial banks in Kenya for the period 1997 to 2004. His secondary data was collected from the NSE, Economics survey paper and CBK publications. His findings showed that commercial banks ought to concentrate their efforts on non-interest related strategies for their profitability.

5.0 CONCLUSION

The study concludes that Central Bank Rate has negative effect on stock market performance. Therefore, increase in Central Bank Rate will lead to reduced stock market performance as measured by Nairobi Securities Exchange All Share Index. Central Bank Rate determines how much commercial banks will charge investors for borrowing funds. Increase in CBR will lead to the general public having less money at their disposal since the cost of acquiring money goes up. This also affects businesses in the same way given that their cost of production increases diminishing their profit margins, and also indirectly, in that consumers have less discretionary money to spend, reducing companies' sales, and so do their profits and revenues. This therefore reduces the ability of investors to invest at the stock market and hence reduces stock market performance.

The study also concludes that inflation rate have a negative effect on stock market performance at Securities Exchange. Therefore, increase in inflation rate will lead to reduced performance of the stock market performance. Inflation occurs when the money in circulation is too much in comparison to the few goods available for trade. Inflation causes the prices of goods to go up: slows down sales and thus lower profits are realized. Companies' growth is also slowed down and such changes usually cause lower stock

https://damaacademia.com/dasj May 2020 Pages: 30-35 Volume 5 | Issue 5

prices, which translates to poor stock market performance. Inflation causes the prices of goods to go up: therefore, central banks can control inflation by regulating liquidity. This is often done by increasing the Central Bank Rate, and hence making expensive to acquire money, in an attempt to reduce money supply in the economy. The effect of this could be reflected by fluctuation of stock prices at the financial markets

The study also concludes that Central Bank Rate and inflation rate combined have significant negative effect on stock market performance. Therefore, increase in inflation and CBR will lead to reduced stock market performance. Inflation and CBR usually moves together since Central Banks use the Central Bank Rate to control inflation. This is often done by increasing the Central Bank Rate, and hence making it expensive to acquire money, in an attempt to reduce money supply in the economy. Reduced liquidity in the economy reduces the available funds for investment at the stock market and hence reduces stock market performance

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