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RELATIONSHIP BETWEEN INFLATION AND INTEREST RATES IN SWAZILAND REVISITED

Abstract
The stability of economies all over the world over is largely a function of inflation and interest rates. Over the past two decades, Swaziland's economy experienced increasing inflation and interest rates with the blame leveled against the absolute Monarchy's inability to manage the economy. In particular, the period of 2010 to 2014 was the hardest hit because of increasing poverty levels. The purpose of the study was therefore to assess the relationship between inflation and interest rates in the context of Swaziland with a view to constructing fiscal and monetary policies capable of driving an efficient economy going forward. The study employed a confirmatory and quantitative approach based on a review of secondary data over the period. The source and description of data included quarterly based data within the 2010–2014 period comprising information on interest rate, gross domestic product and inflation figures from the Central Bank of Swaziland, the national library, and the Central Statistical Department of Swaziland. A descriptive approach, using Microsoft excel, was used to analyze the data. The study findings showed that there was a positive relationship between interest rates and inflation. Recommendations were that, Swaziland could craft appropriate fiscal and monetary policies towards controlling the prevailing economic challenges despite the peculiar socio-political nature where the absolute Monarchy holds executive authority and accountability.

Keywords economic performance, economic growth, Central Bank of Swaziland, monetary policy, fiscal policy, government spending, South Africa

JEL Classification E31, E43

INTRODUCTION
Swaziland is among the few countries in the world that are governed by an absolute Monarchy with the few including Brunei, Oman and Saudi Arabia (Islam et al., 2017). Absolute Monarchies have been criticized since time immemorial for wielding executive power and authority believed to be the source of economic miseries in the respective economies (Gylych et al., 2015). For the period 2010 to 2014, the Kingdom of Swaziland experienced the worst economic crisis with government critics attributing the crisis to the executive authority's failure to manage inflation and interest rates (The World Economic Forum Report, 2017; The Standard Bank Report, 2017). Efforts to explore, understand and document the effect of inflation and interest rates in contemporary Swaziland by the Standard Bank Report (2017), the World Economic Forum (2017) and the International Monetary Fund Country Report (2015) did not go as far as analyzing the relationship between interest rates and inflation in the context of Swaziland. Understanding the relationship between these two economic fundamentals is key to the growth and economic performance of a country.
In addition, the discussion on Swaziland’s economy was at a global platform level with lessor emphasis and relevance on Swaziland. This study therefore seeks to close the gap by analyzing the relationship between interest rates and inflation and make recommendations as well as drawing conclusions on the nature of the relationship based on empirical evidence from secondary data sources.

1. LITERATURE REVIEW

1.1. Inflation

There are as many definitions on inflation as there are academicians with most concluding that inflation erodes the purchasing value of money. Thus, Ramlan and Suhaime (2017) define inflation as the rate at which the general level of prices for goods and services is rising and, consequently, the purchasing power of currency is falling. Islam et al. (2017) provide a similar definition as they view it as a situation where prices persistently increase with money losing its value. The definition by Ayub et al. (2014, p. 51) seems to describe the situation in Swaziland. Thus, they defined inflation as an increase in domestic prices of the commodities relatively more than increase in the prices of the commodities globally. The general understanding of what inflation is, however, based on the concept of money as viewed by Umaru and Zubairu (2012, p. 183) who asserted that inflation entails an economic situation having too much money chasing too few goods. Inflation of this nature creates a situation where an increase in money supply in an economy grows at a faster rate than the actual production of the necessary goods and services. This situation of the circular flow creates an imbalance between the demand and supply of goods and services within an economy. In the case of Swaziland, inflation is reported using the Consumer Price Index (CPI) collected by the Swaziland Central Statistics Office, which is under the Ministry of Economic Planning (Umaru & Zubairu, 2012, p. 183).

1.2. Interest rate

Semuel and Nurina (2015, p. 3) defined interest rate as a value that is gained in the effort of a value that has been saved or invested. Ng’etich and Wanjau (2011, p. 58) argued that interest rate is the price a borrower pays for the use of borrowed money from a lender/financial institutions or fee paid on borrowed assets (Umaru & Zubairu, 2012, p. 183). This notion describes interest rate as the percentage of money that is borrowed and measures the value of the money used by other people. However, the International Monetary Fund (IMF) summarizes the functions of interest from three perspectives:

- Incentives on the return on financial assets so as to promote deferred consumption which is also perceived as saving for the future activities.
- Interest having been considered as critical aspect of cost of capital that influenced the level of loanable money to the general public.
- The notion that is being established here points to the fact that interest rate in any given economic situation has a dramatic impact on several other factors or variables which would in turn become a critical determinate of the level of investment activities and eventually, economic growth and development in general.

1.3. Relationship between inflation and interest rate

There has been a debate about the impact of the relationship between inflation and interest rate on the general behavior of a given economy. Ayub et al. (2014, p. 51), following the Fisher hypothesis, suggest that there is a positive relationship between inflation and the interest rate in any economy the world over. This notion is based on the understanding that both variables are money driven affecting both the demand and supply side of an economy, as in the case of debtors and creditors (Semuel & Nurina, 2015 p. 4).

Geetha et al. (2011, p. 1) contended that based on the financial theory, inflation rate reflected by con-
sumer price index (CPI) represents an overall upward price movement of goods and services. This notion suggests that the general value for money would depreciate because there would be so much money chasing few goods. The notion behind this concept is that since both interest rate and inflation are money driven, the inflation would reduce the demand for money which in turn would reduce the value at which the money was borrowed for re-injection into the capital investment for production (Geetha et al. 2011, pp. 1-3), thus the relationship. The Central Bank of Swaziland has undertaken monetary policies to try and curb inflation, however, the country’s economic growth remains slow (Geetha et al., 2011, pp. 1-3).

1.4. Inflation and interest rates in Swaziland

Economic growth was at its highest in the Kingdom of Swaziland around 1988 recording 18.58%, as the country benefited from the Republic of South Africa and Mozambique’s political unrests (Geetha et al., 2011, pp. 1-3). It is critical to note that Swaziland is geographically located in South Africa and this geographical location makes development in South Africa relevant to Swaziland. Since 1990 to 1991, this period saw Swaziland’s economic growth falling to 1.76% particularly in 1991 and has remained below 5% ever since (Mkhatshwa et al., 2005). During this period, many companies returned to South Africa due to the political stability in the country. Swaziland policy makers are presently faced a challenge of balancing and stabilizing inflation and economic growth, but the relationship between inflation and interest rates is still a far solved challenge. Even though monetary policies are prepared to keep inflation under threshold, the Swaziland economy has grappled to show signs of expanding or improvement. The Central Bank of Swaziland has tried to keep interest rates low and inflation rate at a single digit, but economic growth still remains low (Central Bank of Swaziland Financial Report, 2012).

The persistent and appreciable increase in the general price level over time refers to inflation and interest rates that give important information to dealers and investors on the financial markets (Kanjumba et al., 2016). This term does not refer to goods becoming more expensive, but rather that the purchasing power of money has decreased. Inflation refers to the cost of holding cash, while rate of interest is the cost of holding wealth in another form of asset other than cash.

According to the Central Bank of Swaziland Financial Report (2012), the inflation rate of the country continues to be the highest compared to its Southern African Customs Union (SACU) counterparts despite its downward trend seen in the last few years. The average inflation rate (CPI) of SACU during 1997 was 7.3% which dwindled to 5.25% in 2006 but marginally increased to 6.92% in 2007 and again dwindled to 5.9% in 2012 (Economic Report Integration SACU, 2012). The major causes of inflation are pressures likely emanating from continued increases or hike in food prices due to hike in oil prices and a relatively weaker Rand /Dollar exchange rate. It is important to note that Swaziland uses the Swazi Rand as its currency, which is pegged at the same level to the South African Rand. Countries in the SACU region have pegged their currency against the South Africa currency (Rand) with an exchange rate of 1:1. Hence, all these currencies have a weaker exchange rate when trading as compared to the US Dollar (which is the commonly used currency in the foreign market) and the Euro. The global oil prices have climbed by nearly 20% in the past two months driven by geopolitical tensions in the Gulf; the world’s largest source of crude oil.

According to Kanjumba et al. (2016), since May 2012, Swaziland’s inflation rate has maintained a downward trend at a slow pace, falling slightly from 8.72% in July 2012 to 8.45% in August 2012. Transport, housing and utility prices benefited from the falling inflation level. Transport prices decreased by 2.9%, while housing and utility also decreased by 5.4%. In spite of this, the country’s inflation rate remains the highest compared to the countries in the SACU region. The pace of the fall of the inflation rate continues to be influenced by exogenous factors such as food prices, which are imported from the major trading partner, South Africa. Approximately 89% of Swaziland’s imports are from South Africa.
since she cannot produce enough for the domestic population. On the contrary, the country imports more than it exports. This heavy reliance on imports results in fluctuation inflation rates that are beyond the control of the Swaziland’s Government.

According to The World Economic Forum (2017), Swaziland has the highest wage bill in Sub-Saharan Africa, with the country’s public service wage bill currently exceeding 18% of the Gross Domestic Product (GDP). This takes Swaziland to the highest level in Sub-Saharan Africa. The huge bill is because of the bloated civil service, cited as one of the reasons why the country is experiencing inflationary difficulties. Swaziland is classified as a lower middle-income country since the 1970s to early 1990s. The country had similar economic indicators as those of East Asian countries thus qualifying for this classification.

Nevertheless, Khalid et al. (2012) contend that, economists frequently focus on labor market activities in order to implement policies that control price inflation. Some even consider unemployment to be the main source of price inflation. The common argument by Khalid et al. (2012) is that, if the aggregate demand on goods and services caused by unemployment falls below some natural rate, inflation is expected to increase. This statement is supported by the Central Bank of Swaziland (2000) which reported that the employment rate continued to fall in 1989 from 28.6% to 21.7% in 1995, but Swaziland inflation rose from 7.7% – 12.4% in the same period. This, therefore, suggests that the above statement is true in the case of Swaziland. The standard argument by Khalid et al. (2012) is that labor costs tend to push up prices leading to the wage-price spiral that further causes the inflation pressure to increase.

Currently, the wages in Swaziland are increasing in order to match up with the standard of living (Swaziland Public Service Report, 2014). In 2014, the wages of civil servants were increased by 15% and according to the latest report from the Swaziland Central Statistics Office (2014), there has been an increasing trend in the level of inflation in the period of August 2013 – August 2014. This then raises the question as to why wages and inflation increase simultaneously. To shed more light on this, the current study intends to:

- examine the trend of interest rate of Swaziland in the period of 2010 to 2014;
- examine the trend of inflation rate of Swaziland in the period of 2010 to 2014;
- determine the relationship between interest rate and inflation rate in Swaziland over a period of 2010 to 2014; and
- determine solutions of reducing high inflation rate in Swaziland.

2. METHODOLOGY

This study adopted a descriptive quantitative research design that gave conclusions on the relationship between inflation and interest rate in Swaziland for the period of 2010–2014. Data for the study was analyzed based on Meta-analysis approach because the study was based on secondary data in consonant with Yin (2009) who argued that secondary data analysis enables researchers to analyze a group of data using statistical means in the form of texts, tables and graphs that existed in the public domain.

This study adopted a descriptive quantitative research that engaged the quantitative projections of the findings about the interest rate as well as the inflation rate for Swaziland over the period of five years (2010–2014), basing the population on the primary data about interest and inflation rates for Swaziland that was published by the Central Bank of Swaziland in the public domain with data ranging from 1989 to 2014. Purposeful selection data was employed because the study needed data that would provide information on trends of both inflation and interest rates. Purposeful sampling technique is an ideal and popular technique of collecting secondary data on a quantitative scale (Yin, 2009). Hence, the researchers purposefully selected data on the levels of both inflation and interest rates over a considered period of 5 years in the context of Swaziland (2010 to 2014). The five-year
period was considered decided on because the researcher believed that a time range of 5 years was sufficient enough to provide information about the possible relationships between inflation and interest rates depending on the various forms of trends of the variables under study (Teddlie & Yu, 2007, p. 77). The same period was also the period of dramatic consideration in contemporary Swaziland.

2.1. Data collection methods and document review

Data for the study was collected from various sources, which include the public library as well as the internet in particular, the Central Bank of Swaziland and the Central Statistical Department of Swaziland (Lawal 2013, p. 40). The data sources enabled the study to become more meaningful because the study was able to verify the research findings from several sources. Peersman (2014, p. 3) argues that the usage of several data sources in collecting secondary data helps to overcome the weaknesses inherent in each source as opposed to a single secondary source are considered more credible. The researchers requested for relevant information from the Central Bank of Swaziland as well as from Mbabane Library and the Central Statistical Department of Swaziland. Mueller and Hart (2016, p. 10) define document review as a secondary form of data collection which can be used as a way to explore alternate relationships between variables or from different research perspectives which might have been conducted before the study at hand. Document review is also referred to as secondary data collection method. Document review was used as the first step in collecting necessary data. Document review was done through an in-depth review of related literature using both online access to journals and books as well as using local public library in both Manzini and Mbabane cities of the Kingdom.

2.2. Validity and reliability of the data

To ensure validity and reliability, alternative criteria for demonstrating rigor within document review, namely true value, consistency, neutrality and applicability (Lincoln and Guba (1985) as cited in Noble and Smith (2015, p. 1)), were applied. Based on this notion, this study maintained consistency, neutrality and applicability of the subject matter by undertaking an in-depth review of the data collected. The researcher also used other techniques as cited by Noble and Smith (2015, p. 2) appropriately.

3. FINDINGS AND DISCUSSION

3.1. Trends of interest rates

The interest rate for Swaziland as projected over a period of five years running from 2010 to 2014 are 2010 (10%), 2011–2014 (9%) running. The findings of the study indicate that since 2010, the interest rate was recorded to have reached 10% as the highest but the country maintained a stable interest rate of 9% from 2011 to 2014. The Central Bank of Swaziland maintained a controlled system that would regulate the demand for money. This measure was put in place following the indication of increase in inflation in 2010. The hike in interest rate was used as a measure to discourage the borrowing power of money from the financial institutions in the country.

The 10% interest rate was imposed by Central Bank of Swaziland to allow only few institutions or individuals to borrow money from the financial institutions. In return, this enabled the country to bring the inflation to manageable levels. This strategy brought about a considerable decrease in the inflation levels due to the high cost of money. An example to support the above strategy could be cited with the Central Bank of Nigeria (Ogege & Shiro, 2012, p. 250) where the bank removed the maximum interest rate in 1993, thus enabling both individuals and firms to borrow as much money as possible at a relatively lower percentage. This resulted in a high increase in the demand for the money and subsequently the prices of both goods and services. This forced the government to reconsider the interest rates.

3.2. Trends in inflation rates for 2010 to 2014

The variations of the findings of inflation are characterised by stable increase from 4.5% in the year 2010, 6.1% in 2011, and to the highest indication in 2012 with 8.9%. However, subsequent percent-


age scores indicated a 5.6% in 2013 and 5.7% in 2014. The general analysis of the inflation as given in section 3.1 reveals stable increase inflation rate in the years 2010 to 2012, which indicate that there was general increase in consumer goods in the country which might have consequently caused high cost of living.

The Southern African Customs Report (SACU, 2012, p. 8) stated that one of the contributors of having a reasonably high rate of inflation in the year 2012, following a subsequent increase during 2010 and 2011, respectively, was that there was an overall increase in prices for housing and utilities – 12%, food and non-alcoholic beverages which was rated at 1.6%, and the transport sector that was rated at 8.0%. Based on this outcome, it can be argued that a huge percentage of inflation that reached the highest peak in 2012 in Swaziland was the result of the demand pull inflation. One of the major reasons why the inflation would reach highest levels in the economy was as a result of the monetary factors and dominance of the demand side of the economy whose determinants brought about increases in the level of money supply in excess of domestic demand (Umaru & Zubairu, 2012, p. 184). The understanding is that the demand pull inflation resulted from having a lot of money which stimulated the purchasing powers of the economy. This ultimately spurs the production and the demand factor used in production.

### 3.3. Relationship between interest rate and inflation rate in Swaziland over the period of 2010 to 2014

The general trend in Figure 1 indicates that the interest rate maintained a higher percentage gap with regards to the comparisons of the inflation rate apart from the year 2012 where both the difference between inflation rate and interest was only 0.1%. In the year 2010, the interest rate was the highest among all the years with 10% as compared to the inflation rate that was scored at 4.5%. The subsequent years indicated a 9% interest rate and 6.1% inflation in the year 2011. The year 2012 indicated a 9% score of interest rate and 8.9% of the inflation rate. However, the remaining years, namely 2013–2014, indicated a balanced score of 9% interest rate and a 5.6% inflation in 2013 followed by a slight increase by 5.7% as indicated in section 3.1.

This general indication shows that the idea of keeping inflation slightly above the inflation rate was to ensure the cost of borrowing money was higher as compared to the savings or the engagement of what can be termed as investment spending. Interest rates’ level and volatility influence fiscal positions as they directly influence servicing costs and sustainability of debt (Chowdhury & Afzal, 2015, p. 79). Similarly, the level and volatiliv

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**Figure 1.** Relationship between inflation rate and interest rates
ty of inflation rates have impact on public finances. From the above revelation, it can be argued that the main factor that destabilizes the entire economic growth is the influence of money circulation in an economy. Therefore, it is important for government to develop mechanisms that would control or regulate the entire circulation of the money and the interest rate.

3.4. Recommendations for reducing the high inflation rate

3.4.1. Revising the monetary policy

Economic tool that is used for managing the expansion and contraction of the volume of money in circulation for achieving certain declared national objective is monetary policy (Ogege & Shiro, 2012, p. 248). Monetary policy becomes an effective instrument because it is considered to be an economic measure that deals with the discretionary control of money supply by the Central Bank of a given country with the objective of establishing the entire demand and supply of money. The result of this control measure would be achieving stability of prices through targeting inflation rates, stimulating exchange rate leading towards positive balance of payment, and acceptable levels of employment.

Consequently, the monetary policy is used as a tool for establishing a more stabilized circulation of money in an economy to achieve certain economic objectives. The ideology behind Khan and Sattar (2014) definition is establishing the influence of the purchasing power by the money in circulation. This is because money influences both the demand and supply side of the economy and through the control of its supply the entire economy would reach a more balanced state of demand that is equal to the supply side. It is for this reason that Ogege and Shiro (2012, p. 248) argued that through a well balanced form of financial regulation and control of the monetary supply in an economy, a country would achieve the desired state of both macro and micro economic objectives both in the short- and long-term periods.

A case study analyzed by Murwirapachena et al. (2013, p. 579) clearly illustrates the utility of fiscal policy as an instrument to achieve certain economic objectives in a certain period of time. They argued the case of South Africa around 1980 where the South African government used fiscal policy as a tool to influence the level of economic behavior in an effort to achieve the economic objective of full employment. The general findings of the study established that the country had experienced several expansionary fiscal policies up to around 2010 which made government face several national budget deficits, causing the overall GDP to rise from about 1.3% in 1980 to about 4.8% in 2010, though a surplus was recorded in only two respective years of 2007 (0.3%) and 2008 (0.7%).

3.4.2. Tightening the fiscal policy

The fiscal policy can promote a sustainable economic growth with low level inflation rate as long as there is a narrow or managed deficit gap in the national budget. This is because fiscal policy measures are taken by influencing aggregate demand and supply, attempting to create better employment conditions and acceptable inflation levels, promoting the policy of steady trade balance and supporting sustainable economic growth. The fiscal policy as a control tool is perceived to have been used as an instrument that would in some way be used alongside the monetary policy to control the flow of money with regards to the aggregate spending on both capital and non-capital goods (Osuala, & Jones, 2014, p. 204). This measure would have a direct bearing and control of key issues such as employment, production and the entire price stability because the more the production is, the more will there be demand, thereby increasing production and prices for goods and services.

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3.4.3. Reviewing the supply side economic policies

The third mechanism that can be employed in managing the levels of inflation is reviewing the supply side of the economy. Mehrara and Sujoudi (2015, p. 89) argued that supply pressure comes as
a result of the capital reduction, supply reduction and demand for labor and reduction of other inputs. The understanding behind this notion is that prices for commodities would rise and to some extent bring about an increase in the general prices. However, the main idea of handling the increase in inflation is the fact that if the supply side was to bear a sustained long-term economic effect of functionality such as increased long-term effect of competitiveness as privatization and deregulation, it might in the long run help reduce costs of business, leading to lower inflation. The understanding behind this notion is all factor inputs or production become fixed costs in the long run and at the same time enable the expansion of respective firms through the economies of scale.

The above authors believed that a sustained increase in the general level of prices in the long run can only be created by the continuous growth of money supply due to the expansion of the factors of production. However, this would happen gradually and would inform the policy makers the ideal time to provide the necessary interventions. In other words, if the supply side of the economy was not constrained, then it would be practical to have a more stable supply since high prices or inflation take place in the event the demand is higher than the supply side, otherwise, in the case that the supply is meeting the demand at the right time and right quantity, the level of equilibrium price would be within the manageable limits (Desta, 2016).

CONCLUSIONS

The conclusions that are drawn from this study with regards to establishing the relationship between inflation and interest rates are based on the understanding that while inflation is an economic situation in which the consumer prices of goods and services rise over a considerable period of time and in the long run destabilize the entire economy, some of the causes of the inflation include the demand and supply side of the economy, that causes both the demand pull and cost push inflation. However, there are several measures that can be used to control the rate of inflation in an economy such as using fiscal and monetary policies. These policies included several techniques or approaches such as introduction of the interest rates that would control the demand of money by reducing the aggregate demand when the interest rate is high, and vice versa.

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