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The Dynamics Of Money Supply, Exchange Rate And Consumer Prices In Eswatini

Thandeka Simelane[16]

Abstract

The study investigates the dynamics of money supply, real exchange rate and consumer prices over the period 2006Q1 and 2022Q1 by employing a Vector Error Correction(VECM) model in Eswatini data. The results of the study indicate the existence of a long run relationship between consumer prices in Eswatini, M2 and GDP ES. In the long run, a 1 per cent increase in broad money supply(M2) decreases consumer price index (CPI ES) by 3.9 per cent(significantly), whilst a 1 per cent increase in the real exchange rate(RER) increases the CPI ES insignificantly by 6.1 per cent and finally, a 1 per cent increase in GDP ES decreases the CPI ES by 14.1 per cent(significantly). There is however no significant relationship in the short run. Granger causality tests also significantly confirms a causal relationship from GDP ES to M2, CPI ES to RER and RER to GDP ES.

Key Words*: Broad Money Supply, Real Exchange Rate, Consumer Price Index, Vector Error Correction Model(VECM)*

1. Introduction

Economic indicators such as consumer price inflation, GDP growth and the exchange rate movements continue to gain popularity and visibility both domestically and internationally. Inflation developments have been headlining news since the 1970's, at the wake of soaring oil prices to record high figures (Greenidge & Dacosta, 2009). GDP on the other hand was developed in the 18th century, mordenised by Simon Kuznets (1937) and adopted at the Bretton Woods conference in 1944, has since

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been used as the main measure of a country's economy. Money supply on the other hand, is amongst the least popular indicators when compared to consumer prices, exchange rate movements and GDP, especially in the Eswatini contex. This can partly be attributed to lack of knowledge about the effects of its movements since more focus is on consumer prices, which affect wages as well as purchasing power and the exchange rate which also has a bearing on consumer price movements and imports.

The primary monetary policy objective of the Central Bank of Eswatini is to maintain the exchange rate peg(1-to1) with the South African Rand, as prescribed by the Common Monetary Area(CMA) agreement. As a result, if the South African economy is hit by a significant economic shock, Eswatini is affected due to the CMA agreement, smaller size of the Eswatini economy and South Africa being a major trade partner. In neighboring South Africa, monetary policy is defined as decisions by monetary authorities to influence the supply of money thus achieving economic growth, stable prices and full employment (Chicheke, 2009). Since the Central Bank of Eswatini's secondary objective is to ensure price stability, the South African monetary policy definition applies to Eswatini and money supply is therefore expected to be influenced by the monetary policy decisions of the bank.

Money supply can generally be defined as the total money(currency) in circulation in an economy. However, Eswatini has a rather limited definition of the money supply due to the small size of the economy. Money supply in Eswatini is divided into three broad categories, namely narrow money supply(M1), quazi money supply and broad money supply(M2). M1 is composed of demand deposits and currency in circulation, whilst quazi Money(also known as near money) composed of savings accounts, money market funds and time deposits. The highest aggregate of money supply in Eswatini is the broad money supply(M2), which is comprised of both M1 and quazi

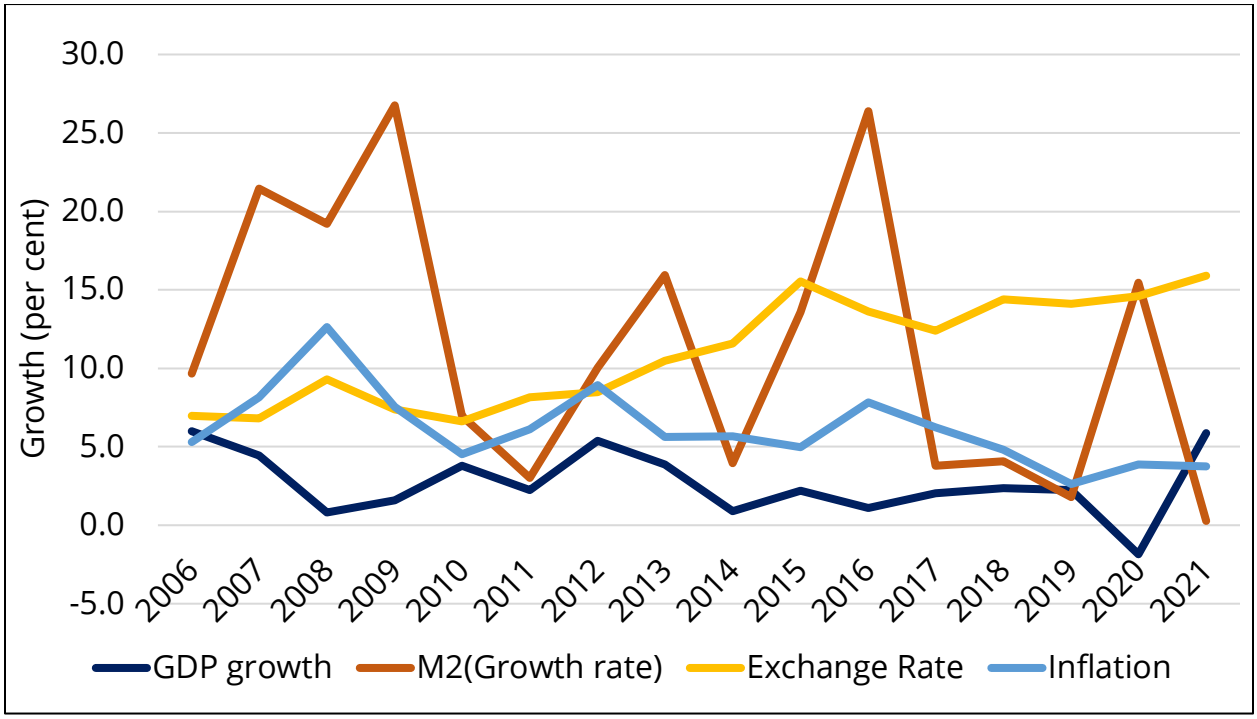
money. For the purposes of this study, our focus will be on the highest aggregate for money supply (M2), consumer prices and the exchange rate.

The Quantity Theory of Money (QTM) can be used to explain the theory of money whereby the equation of exchange states that price level movements result from changes in the quantity of money (Fisher, 1912). This brings about the importance of understanding the dynamics money supply, exchange rate and consumer price movements in Eswatini. There is currently limited research on the dynamics of money supply, exchange rates and consumer prices in Eswatini. Therefore, the purpose of this study is to investigate the dynamics of money supply, exchange rates and consumer prices in Eswatini with the view of determining the existence of the relationship in the long-run and the short-run of such movements. The rest of the paper is divided into 5 sections, namely stylized facts in section 2, Literature review in Section 3, data and methodology in section 4, Results in section 5 and finally the summary and recommendations in section 6.

2. Stylized Facts

We note a general increase from 9.7 per cent to 21.5 per cent in the growth of money supply(M2) in the period 2006 to 2007. This growth was immediately followed by a 19.2 per cent growth in 2008, slightly lower than the previous year, on account of the global financial crisis(GFC) of the year 2007/8.

Figure 1: Money Supply, Exchange Rate, Inflation and GDP growth Trends in Eswatini



Source: *Central Bank of Eswatini and Central Statistics Office*

The negative effects of the GFC were also observed in inflation, exchange rate(E/US) and GDP growth rates. Inflation increased from an average of 5.3 per cent in 2006 to an average of 12.6 per cent in 2008, whilst the exchange rate depreciated from E6.8/US dollar in 2007 to E9.3/US dollar in 2008. GDP growth declined from a 4.4 per cent growth in 2007 to a 0.8 per cent low in 2008. Other noticeable decreases in money supply (M2) growth were during the year 2010 to 2011 driven by a substantial reduction in net foreign assets for the year 2010 and 2011. However, inflation, the exchange rate and GDP growth were not affected during this period as they seem to have recovered from the effects of the GFC.

The year 2014 also recorded a significant reduction in the growth of money supply with M2 reflecting an increase of 3.9 per cent in 2014 from 13.6 per cent growth

observed in 2013, owing to a decrease in transferable(demand)deposits. GDP growth was also low in 2014 at 0.9 per cent from 3.9 per cent growth in 2013, owing to the El'nino induced draught of the year 2013 to 2014, which mainly affected the agricultural and manufacturing sectors in the Southern African region. The exchange rate also depreciated significantly during the period 2013 to 2015, from E10.5/US dollar in 2013 to E15.5/US dollar in 2015, whilst inflation recorded moderate rate increases in the same period.

Money supply growth also saw a reduction in the year 2017 with M2 increasing by a low 3.8 per cent in 2017, from 26.4 per cent growth in 2016. This could be attributed to a reduction in currency in circulation for both 2016 and 2017, owing to a contractionary monetary policy during that period. A noticeable change in trend of money supply is the decline in growth for M2 in 2019, owing to a reduction in time deposits(a component of quazi money) and net foreign assets. M2 increased from 1.8 per cent in 2019 to 15.4 per cent growth in 2020 due to a reduction in currency in circulation and net foreign assets, thus coinciding with the COVID-19 pandemic, which led to the Central bank of Eswatini implementing an aggressive expansionary monetary policy to cushion the economy against the devastating economic effects of the pandemic.

3. Literature Review

We note a study by Greenidge and Dacosta(2009) where they pointed out that theories on causes of inflation are formulated on demand pull and cost-push theories. They asserted that cost-pull inflation results from an increase in factor prices at a higher rate than productivity (a decrease in aggregate supply) and this may be due to an exponential increase in wages or the price of raw materials(Greenidge & Dacosta, 2009). These increases tend to lead to higher production costs which may lower the employment rate and reduce output.

Studies such as the West African Monetary Policy Agency(2009) established that the relationship between money supply and inflation depends on the unique country specific circumstances. For example, in some countries, the relationship between money supply and inflation is positive, implying that monetary policy contributed to movements in the general price level whereas some countries have a negative relationship between inflation and money supply which confirms other determinants of inflation other than monetary policy decisions(West African Monetary Policy Agency, 2009).

A correlation attempt to determine the link between excess money supply growth and inflation by Qayyun(2006) established a positive association between money growth and inflation and the excess money growth was an important contributor to the rising inflation in Pakistan thus supporting that inflation is a monetary phenomenon in Pakistan. A vector autoregression by Holod(2000) found that exchange rate shocks affect price level behavior significantly and that money supply responds to positive shocks to the price level in Ukraine.

The dynamics of money supply, exchange rate and inflation in Nigeria using quarterly data for the period 1986Q1 to 2008Q4 were explored by Akinbobola(2012) using a Vector Error Correction Mechanism(VECM). The results of the study established that in the long run, money supply and the exchange rate have significant inverse effects on inflation which could be explained by challenges in the supply chain of goods from both domestic and foreign supply outlets (Akinbobola, 2012). The study further established that the real output growth and foreign price level changes have direct effects on inflationary pressure in Nigeria.

Chhiber and Shafik (1990) found that growth in money supply is a key variable in explaining inflation in Ghana, with a significant positive relationship found between

the parallel exchange rate and inflation. Simwaka, *et al* (2012) established that for the period January 1995 to March 2021 in Malawi, inflation results from both monetary and supply side factors with monetary supply growth driving inflation with 3 to 6 lags and exchange rate adjustments playing a relatively more significant role in propagating cost-push inflation.

Tyrkalo & Adamyk(1999) and Doroshenko(2001) considered relations between money supply and inflation as well as the relationship between money supply and GDP. They confirmed a long-run positive relationship between money growth and inflation. Novoseletska and Myhaylychenko(2004) note that the stability of the nominal exchange rate could contribute to moderate growth rates of prices, suggesting a somewhat positive relationship.

4. Data And Methodology

4.1 Data

4.1.1 Data Analysis

The study employed quarterly data for the period 2006Q1 to 2022Q1 on the Eswatini economy. Four variables were used and their definitions and sources are detailed in Table 1 below;

Table 1: Variables

Variable	Definition	Source
M2	Broad Money Supply	Central Bank of Eswatini
RER	Real Exchange Rate	Central bank of Eswatini
CPI ES	Consumer Price Index of Eswatini	Central Statistics Office
GDP ES	Quarterly Gross Domestic Product of Eswatini	Central Statistics Office

4.1.2 Stationarity Tests

The data was tested to determine the presence of unit roots by employing the Augmented Dickey Fuller(ADF) and Philips-Perron(PP) tests at 10 per cent, 5 per cent and 1 per cent level of significance and the following results were obtained;

Table 2: Stationarity Test Results for Quarterly Data(in Logs)

VARIABLES	Augmented Dickey Fuller	Phillips Perron	Order of Integration
M2	0.100790[0,9631]	-0.565646[0.8703]	I(1)
RER	-1.009220[0.7452]	-0.963911[0.7611]	I(1)
CPI ES	-0.260923 [0.9994]	-0.257542 [0.9247]	I(1)
GDP ES	-0.179611[0.9351]	0.092060[0.9627]	I(1)

,**, represents a stationary variable at 10%, 5% and 1% level of significance, p-value in parenthesis[ ]**

All the variables are integrated of the order 1(one) meaning M2, RER, CPI ES and GDP ES have a unit root and their first differences are stationary. The presence of a unit root in the data increases the possibility of cointegrating relationship or relationships among the variables and the existence of such a relationship needs to be determined using the Johansen Cointegrating test as suggested by Johansen(1988).

4.1.3 Cointegration Test

It has been established that the four variables are integrated of order 1(one) and therefore a linear combination involving two or more these variables could be stationary. To test for a cointegrating relationship of the variables, we employ a Johansen(1988) trace statistic given by the following equation;

$$\lambda_{trace} = -T \sum_{i=r+1}^{n} \log (1 - \widehat{\lambda_1}) \qquad (1)$$

Where T is effective sample and $\widehat{\lambda_1}$ is the estimated Eigenvalues. However, the Johansen's (1988) trace test has been proven to have a finite sample bias which tends to indicate too many cointegrating equations(Juselius, 2006; and Reimers, 1992). To correct this bias, Reimers(1992) suggests the use of the following modified test as shown in the equation below;

$$\lambda_{trace} = -(T - nk)\sum_{i=r+1}^{n} \log\left(1 - \widehat{\lambda 1}\right) \qquad (2)$$

Where T is defined as in equation 1, n and k are the number of variables in the system and leg length used when testing cointegration, respectively. The trace test suggests 1 cointegration equation whilst the maximum eigenvalue test suggests 0 cointegration equations at the 5 per cent level of significance. The results of the cointegration test are presented in Table 3 and 4 below;

Table 3: Unrestricted Cointegration Rank test(Trace)

Hypothesized No. of CE(s)	***Eigenvalue***	***Trace Statistic***	***0.05 Critical value***	***Prob.******
None *	0.327374	52.93101	47.85613	0.0155
At most 1	0.232434	28.34393	29.79707	0.0728
At most 2	0.129468	11.94304	15.49471	0.1597
At most 3	0.052548	3.346706	3.841465	0.0673

Source: Authors' own computation using Eviews

Table 4: Unrestricted Cointegration Rank Test(Maximum Eigenvalue)

Hypothesized No. of CE(s)	***Eigenvalue***	***Max-Eigen Statistic***	***0.05 Critical value***	***Prob.******

None *	0.327374	24.58709	27.58434	0.1155
*At most 1 **	0.232434	16.40089	21.13162	0.2023
At most 2	0.129468	8.596333	14.26460	0.3213
At most 3	0.052548	3.346706	3.841465	0.0673

Source: Authors' own computation using Eviews

4.2 Empirical Model

Following the results of the Johansen Cointegration test where 1(trace test) and 0(maximum eigenvalue test) cointegrating equation was established among the four variables, a Vector Error Correction Model(VECM) is the most appropriate model for the study to avoid misspecification, as opposed to the Vector Auto Regression(VAR) model. To establish the relevance of our variables in the model, we begin by specifying the Quantity Theory of Money(QTM) equation pioneered by Irvin Fisher(Fisher, 1912). The two specific forms of the QTM (parameters are expressed as growth rates) are as follows;

$$Mv = py \tag{3}$$

$$M = kpy \tag{4}$$

Equation (3) is known as the income equation where M is the money supply, v is the velocity of money, p is the general price level and y is the gross domestic output. The QTM assumes that the variables v and y are constant, depend on real factors and the causal relationship runs from money to prices in the short run. Equation (4) is the Cambridge version of the Quantity Theory of Money which proposes that the real demand for money(M/P) is proportional to the real Gross Domestic Product (k) and equal to the equal to the reciprocal value of the income velocity of money(k=1/v). Dimitrijevi *et al*. (2012) proceeds by taking the logarithmic transformations and differencing the equations according to time to derive the following equations;

$$\pi = m^s - y_r \quad (5)$$

$$\frac{M_s}{P} = \frac{M_d}{P} \quad (6)$$

This specification implies that the inflation rate is equal to the difference between the growth rate of money supply(equal to growth rate of money demand) and the growth rate of the volume of production(equation). This means that the growth of money supply increases in the same proportion as the growth of the volume of production, then the economy would not have price increases, but if the money supply is increasing faster than production growth, then prices would increase and by extension, inflation would come into effect.

The model employed in this study is therefore specified according to Johansen(1988) maximum likelihood procedure based on the Vector Error Correction Model(VECM), which we specify according to the following equation:

$$\Delta x_t = \alpha + \sum_{t=1}^{p} \omega_i \Delta x_{t-i} + \Pi x_{t-p} + \varepsilon_t \quad (7)$$

Where Δ is the first difference of the lag operator, x_t is a (k x 1) vector of time series variables in logs(CPIES, RER, M2, CPIUS), α is the (k x1))vector of constants, ω_i are (k x k) matrices of parameters, ε_t is a sequence of zero-mean p-dimensional white noise vectors and Π is a (k x k) matrix of parameters, whose rank contains information about long-run relationships among the variables error correction term).

5. Empirical Results

5.1 Long Run Results

Optimal lag selection criteria for the model as determined by the LR, FPE and AIC is 2. The results of the long run relationship between CPI ES, M2, RER and GDP ES are presented as follows;

$$Ln(CPI\ ES) = -3.908584Ln(M2) + 6.106155Ln(RER) - 14.06294Ln(GDP\ ES) + 183.3410 \quad (8)$$

Table 5: Cointegrating test Results

Cointegrating Equation	CointEq1
Ln(CPI ES)	1.000000
Ln(M2)	3.908584
	(2.09473)
	[1.86591]
Ln(RER)	-6.106155
	(1.44658)
	[-4.22109]
Ln(GDP ES)	14.06294
	(9.09321)
	[1.54653]
C	-183.3410

Source: Authors' own computation using Eviews
Standard errors in ( )
t-statistics in [ ]

From equation (8), it is implied that in the long-run, a 1 per cent increase in broad money supply(M2) decreases CPI ES by 3.9 per cent(significantly), whilst a 1 per cent increase in the real exchange rate(RER) increases the consumer price index of Eswatini (CPI ES) insignificantly by 6.1 per cent and finally, a 1 per cent increase in GDP ES decreases the CPI ES by 14.1 per cent(significantly). This implies that in the long run, M2 and GDP ES negatively affects CPI ES in Eswatini.

5.2 Vector Error Correction Mechanism

Due to the cointegrating relationship among the variables, the vector error correction specification produces the following results;

Table 6: VECM Estimates

Error Correction	*D(LNCPI ES)*	*D(LNM2)*	*D(LNRER)*	*D(LGDP ES)*
CointEq1	-0.002327	-0.026606	0.014525	0.002483
	(0.00169)	(0.00625)	(0.01048)	(0.00285)
	[-1.37643]	[-4.25641]	[1.38542]	[0.87018]
D(LNCPIES(-1))	0.064098	0.112992	0.912991	0.489769
	(0.13791)	(0.50985)	(0.85515)	(0.23272)
	[0.46480]	[0.22162]	[1.06764]	[2.10452]
D(LNCPIES(-2))	-0.045335	0.122818	2.275393	-0.484928
	(0.13909)	(0.51424)	(0.86251)	(0.23473)
	[-0.32593]	[0.23883]	[2.63810]	[-2.06593]
D(LNM2(-1))	-0.028779	-0.378053	-0.215489	0.103664
	(0.03469)	(0.12824)	(0.21510)	(0.05854)
	[-0.82966]	[-2.94792]	[-1.00183]	[1.77093]
D(LNM2(-2))	0.036669	-0.242879	-0.273669	0.009743
	(0.03364)	(0.12437)	(0.20860)	(0.05677)
	[1.09004]	[-1.95283]	[-1.31191]	[0.17162]
D(LNRER(-1))	0.004744	0.002842	-0.053006	-0.055808
	(0.02186)	(0.08082)	(0.13556)	(0.03689)
	[0.21702]	[0.03517]	[-0.39102]	[-1.51278]
D(LNRER(-2))	0.015974	-0.151912	0.044984	0.057717
	(0.02205)	(0.08153)	(0.13675)	(0.03722)
	[0.72436]	[-1.86322]	[0.32895]	[1.55089]
D(LNGDPES(-1))	0.058656	0.835467	-0.430415	-0.392685
	(0.08084)	(0.29889)	(0.50131)	(0.13643)

	[0.72554]	[2.79521]	[-0.85857]	[-2.87831]
D(LNGDPES(-2))	0.051405	0.016854	0.109550	-0.175264
	(0.07855)	(0.29040)	(0.48707)	(0.13255)
	[0.65444]	[0.05804]	[0.22492]	[-1.32222]
C	0.012986	0.035487	-0.012825	0.006977
	(0.00360)	(0.01332)	(0.02234)	(0.00608)
	[3.60397]	[2.66391]	[-0.57401]	[1.14749]

Source: Authors' own computation using Eviews
Standard errors in ( )
t-statistics in [ ]

R-squared	*0.129632*	*0.438879*	*0.206593*	*0.405989*
Adj. R-squared	-0.021009	0.341762	0.069273	0.303179
Sum sq. resids	0.007754	0.105993	0.298172	0.022083
S.E. equation	0.012212	0.045148	0.075724	0.020608
F-statistic	0.860538	4.519072	1.504461	3.948935
Log likelihood	190.6112	109.5429	77.47956	158.1681
Akaike AIC	-5.826168	-3.211060	-2.176760	-4.779616
Schwarz SC	-5.483082	-2.867974	-1.833674	-4.436530

Mean dependent	0.014673	0.024024	0.019317	0.006641
S.D. dependent	0.012085	0.055647	0.078491	0.024687

Source: Authors' own computation using Eviews
Standard errors in ( )
t-statistics in [ ]

The short run equations results can be expressed as an error correction mechanism with the CPI ES or the Broad money supply as the dependent variable as follows;

$$\Delta Ln(CPI\ ES) = -0.002327ECT_{t-1} + 0.064098\Delta LnCPI\ ES_{t-1} - 0.045335\Delta LnCPI\ ES_{t-2} - 0.028779\Delta LnM2_{t-1} + 0.036669\Delta LnM2_{t-2} + 0.004744\Delta LnRER_{t-1} + 0.015974\Delta LnRER_{t-2} + 0.058656\Delta LnGDP\ ES_{t-1} + 0.051405\Delta LnGDP\ ES_{t-2} + 0.012986 \quad (9)$$

And

$$\Delta LnM2 = -0.026606ECT_{t-1} + 0.112992\Delta LnCPI\ ES_{t-1} + 0.122818\Delta LnCPI\ ES_{t-2} - 0.378053\Delta LnM2_{t-1} - 0.242879\Delta LnM2_{t-2} + 0.002842\Delta LnRER_{t-1} - 0.151912\Delta LnRER_{t-2} + 0.835467\Delta LnGDP\ ES_{t-1} + 0.016854\Delta LnGDP\ ES_{t-2} + 0.035487 \quad (10)$$

The error correction term for equation (9) is insignificant at the 5 per cent level of significance whilst the error correction term for equation (10) is significant at 5 per cent level of significance. However, for all the equations, there is no significant relationship among the variables in the short run.

5.3 Impulse Response Functions

A 1 standard deviation positive shock to CPI ES increases M2 for the first 3 quarters, with a decline from the 3rd quarter to the 4th quarter, followed by a gradual increase for the rest of the 6 quarters. The RER sharply increases for the first 3 quarters, followed by a slow decrease for the rest of the 7 quarters. GDP ES sharply increases for the first 2 quarters, followed by a sharp decrease from the 2nd quarter to the 4th quarter, then normalizes for the rest of the period.

A 1 standard deviation shock to M2 sharply declines CPI ES for the first 2 periods, followed by a sharp decrease in CPI ES for the rest of the period. RER decreases for the first 3 quarters, then gradually increases thereafter. GDP ES sharply increases for the first 2 quarters, then slowly declines to converge around the mean for the rest of the period under review.

A 1 standard deviation shock to the RER increases CPI ES and M2 for the 10 quarters, whilst GDP ES declines and trends below the mean for the rest of the period. A 1 standard deviation shock to GDP ES decreases M2 for the 10 quarters, whilst the exchange rate declines for the 1st quarter then increases for the rest of the period. GDP ES slightly declines but remains constant for the rest of the period.

Figure 2: Impulse Response Functions

***Source**: Authors' own computation using Eviews*

5.4 Diagnostic Tests

5.4.1 Autocorrelation LM Test

We proceed to check for the existence of serial correlation of the residuals using the Autocorrelation LM test. The test indicates that we do not reject the null hypothesis of no autocorrelation(see Table 7 below) at the 5 per cent level of significance.

Table 7: Autocorrelation LM Test

Lag	*LM-stat*	*Prob*
1	15.09457	0.5187
2	21.51826	0.1603

Source: Authors' own computation using Eviews

5.4.2 Normality Test

Results of the Jarque-Berra test for Normality rejects the null hypothesis of normally distributed residuals as the p-value > 5 per cent. The residuals are not normally distributed.

Table 8: Normality Test Results

Component	*Jarque-Berra*	*df*	*Prob.*
1	4.381101	2	0.1119
2	0.525880	2	0.7688
3	2.556657	2	0.2785
4	21.18907	2	0.0000
Joint	28.65271	8	0.0004

Source: Authors' own computation using Eviews

5.4.3 Heteroskedasticity Test

The p-value of the Heteroskedasticity test is larger than 5 per cent indicating that the residuals are Homoscedastic at the 5 per cent level of significance (see Table 9 below).

Table 9: Heteroskedasticity Test

Chi-sq	*df*	*Prob.*
191.7753	180	0.2603

Source: Authors' own computation using Eviews

5.5 Granger Causality Tests

Results from Granger Causality test in Table 10 below indicate that GDP ES Granger causes variation in M2 at the 5 per cent level of significance and variation in CPI ES Granger causes variation in RER at the per cent level of significance. RER and CPI ES Granger causes variation in GDP ES at the 10 per cent level of significance. We note that there is no evident causal relationship among the other variables.

Table 10: Granger Causality Test Results

Dependent Variable	*Excluded*	*Chi-sq*	*df*	*Prob*
CPI ES	M2	2.664872	2	0.2638
	RER	0.542305	2	0.7625
	GDPES	0.680523	2	0.7116
	ALL	**4.100825**	**6**	**0.6630**
M2	CPIES	0.110874	2	0.9461
	RER	3.537263	2	0.1706
	GDPES	9.218819	2	0.0100
	ALL	**16.20541**	**6**	**0.0127**

RER	CPIES	8.355058	2	0.0153
	M2	2.125117	2	0.3456
	GDPES	1.134101	2	0.5672
	ALL	**11.56629**	**6**	**0.0724**
GDP ES	CPIES	8.341134	2	0.0154
	M2	3.280919	2	0.1939
	RER	5.319821	2	0.0700
	ALL	**19.86408**	**6**	**0.0029**

Source: Authors' own computation using Eviews

6. Conclusion

The study investigates the dynamics of inflation, money supply and the real exchange rate over the period 2006Q1 and 2022Q1 by employing a Vector Error Correction(VECM) model in Eswatini data. The results of the study indicate the existence of a long run negative relationship between Consumer Prices, Money Supply and GDP in Eswatini. In the long run, a 1 per cent increase in broad money supply(M2) decreases CPI ES by 3.9 per cent(significantly), whilst a 1 per cent increase in the real exchange rate(RER) increases the consumer price index of Eswatini (CPI ES) insignificantly by over 6.1 per cent and finally a 1 per cent increase in GDP ES decreases the CPI ES by 14.1 per cent(significantly). Granger causality tests also significantly confirm a casual relationship from GDP ES to M2, CPI ES to RER and RER & CPI ES Granger causes variation in GDP ES .

The results are short of our theoretical expectations. This could be attributed to the fact that Eswatini imports inflation from neighboring South Africa as its major trading partner, therefore changes in M2 or GDP domestically cannot necessarily contribute much to changes in consumer prices. This therefore implies that variation in

consumer prices can be attributed to other external factors other than M2 or changes in GDP.

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