The Effects of Exchange Rates on Zimbabwe's Exports

Mable Chimhore¹ & Shynet Chivasa²
¹Zimbabwe National Statistics Agent, Harare, Zimbabwe
²Quality Assurance Directorate, Lupane State University, Zimbabwe
mchimhore@zimstat.co.zw, schivasa@lsu.ac.zw

Abstract: The study reviewed the effect of exchange rates on exports in Zimbabwe using the Ordinary Least Squares (OLS) technique. The objective of the study was to examine the effects of exchange rate on export growth in Zimbabwe using mainly the multicurrency era data. This is because the exchange rate plays a key role in policy formulation and implementation. The study is significant as understanding the role of exchange rate on export guides policymakers in coming up with the right policy mix to stimulate exports. Using secondary data from ZIMSTAT and World Bank, obtained results from a robust regression showed that South Africa's exchange rates (SAEXRT) were weakly significant at 10%, South Africa broad money supply (SAM2) was significant at 5% and imports (DDIMP) were important to Zimbabwe's export growth at 1% level of significance. To increase exports, there is a need for policy shift, shifting from overly focusing on foreign direct investment and increasing gross domestic product (GDP) because empirical results showed that FDI and gross domestic product were not significant in the model. Policies such as trade cooperation between South Africa and Zimbabwe may increase exports given the impact of South Africa's broad money supply on Zimbabwe's exports.

Keywords: Exchange rates, Exports, ordinary least, Zimbabwe.

1. Introduction

Export returns play a crucial role in many economies including Zimbabwe. The export-led growth hypothesis emphasized that an increase in exports creates employment, increases profit, triggers productivity and increases the country's foreign reserve buffer and thus performing the role of an engine of growth (Romer, 2012). In the same vein, (Edwards, 1998) stated that the export-led growth rule is confirmed by the argument that the foreign exchange from the export growth makes it possible to import capital goods used to increase the production potential of an economy. However, the export growth may be adversely or positively affected by various factors and the exchange rate is one of the key factors (Blanchard, 2010). Therefore, exchange rates strategies are viewed as vital macroeconomic instruments because they affect the decision-making of business investments in an economy. In addition, Paksay, Genc and Semic (2018) stated that exchange rates fluctuations affect many macroeconomic variables such as employment, inflation, interest rates, money supply and export growth. Thus, the significance of exchange rates to the well-being of an economy cannot be underestimated.

In the past decades, Zimbabwe has been facing an immense decline in economic activity. The recovery of the economy of Zimbabwe started with the launch of the Short Term Emergency Recovery Programme (STERP) in March 2009, which abandoned local currency and opted for multicurrency as hyperinflation had rendered the local currency useless. The multicurrency system brought hyperinflation and currency devaluation to an end, laying a foundation for economic recovery. (Sloman, 2006), proclaims that a country that goes through the exchange rate uncertainty could possibly embrace either currency boards in which the country adopted a multicurrency system with the United States of America dollar (USD) as the major currency. This helps to get rid of exchange rate uncertainties which have negative effects on exports and the general economic activities. According to Tulasombat, Buchapatmaska and Ratanakomut (2015), the exchange rate fluctuations affect exports as it gives uncertainty to the exports earnings whereby risk-averse exporters will reduce their volume of exports. Despite the increasing number of studies, the definite impact of the exchange rate on exports is an open and debatable question.

Background of the Study: When the Bretton Woods system collapsed, many countries adopted the new regime of flexible exchange rates. The exchange rates fluctuations have increased among these countries because of the free movement of goods between borders (Dooley, Folkerts-Landau and Garber, 2004). The exchange rate plays a crucial role in public debate on trade and trade policy in Zimbabwe. Like many other
developing countries, Zimbabwe's economic success depends on the rest of the world and the government of Zimbabwe (GOZ)'s macroeconomic policies. The ‘crush’ of the Zimbabwe dollar in 1997, led the country's exports earnings to decline by 49% from US$ 2.6 billion in 1997 to US$ 1.3 billion in 2006 causing the foreign exchange buffer to decrease (GOZ, 2012). Similarly, the real sectors of the economy which are agriculture, mining and manufacturing had a negative growth as they succumbed to economic instability faced by the country. Zimbabwe has previously pursued foreign exchange strategies that hampered the growth of exports. For instance, due to foreign currency shortages, the Tradable Foreign Currency Balance Systems (TFCBs) was implemented in 2005 as a dual exchange rate system. The TFCBs framework was coupled with a rampant broad money supply growth which was constantly increasing from 669.9% in May 2006 to 1 438.3 % in November 2006 (Reserve Bank of Zimbabwe (RBZ), 2005). The increased money supply resulted in high speculative demand and it prompted the monetary authorities to depreciate the currency. The TFCBs framework conditions were compelled exporters to retain 70% of their export earnings in foreign currency accounts (FCA), and relinquish 30% to the Reserve bank of Zimbabwe using the foreign currency auction-rate which was pegged at Z$260000 to 1 US$.

The corporate foreign currency accounts balances were reserved for up to 30 days, after which any remaining foreign currency balances were liquidated into the interbank foreign exchange market. In addition, exporters were supposed to sell their foreign currency in FCA balances, at an auction determined rate on the interbank market through authorized dealers (RBZ, 2005). Due to these foreign exchange controls in Zimbabwe, the black market for foreign currency came into existence and was dominated by the US Dollar. Also, the dual-listed counters on the Zimbabwe stock exchange became channels for foreign currency externalization and parallel market dealings (RBZ, 2005). Hence, the black market value for the US Dollar was Zimbabwean $ 330 per US Dollar in January 2002, but it widened to Z$5500000 in July 2006 (ZIMSTAT,2008). Thus, the domestic currency was overvalued between the year 2002 and 2006, which drove the government to create special systems for tobacco and gold exporters, while the parallel market premiums were blowing up. Hence, the overvaluation together with the extremely lax monetary and fiscal policies adversely affected the exporters as the increasing of the parallel market premium led to smuggling at the cost of legal exports. Zimbabwe's top export basket is comprised of a few conventional primary products, whose global prices were vulnerable to numerous market changes. These products include gold, ferroalloys, raw tobacco, raw sugar and diamond.

In order to enlarge the export basket, the government emphasized growing trade in services. This saw the services sector contributing 50% to the GDP but accounted for 10% in terms of foreign currency earnings. The sector included tourism, financial, education, health, energy, transport and communications, construction and related engineering services (Industrial Policy Zimbabwe, 2012). The Reserve Bank of Zimbabwe proposed a twenty-five percent point increase in interest rate, in December 2015 in order to bring to an end the quantitative easing policy (RBZ, 2016). As a result, changes in long-term interest rates had a bearing on exchange rates, asset price developments and capital flows. The appreciation of the US dollar against the currency of Zimbabwe's major trading partner (South Africa) raised an alarm concerning the country’s export volumes and its trade balance. Hence, the demand for precious minerals like gold and platinum was eroded and their prices declined by 14.6% and 30.9% respectively, in 2015 (RBZ, 2016). Thus, the export receipts for Zimbabwe were further dampened by the appreciation of the US dollar against the Rand. To stimulate the growth of exports, the government implemented several strategies, for instance in 1995, export processing zones (EPZs) were established to promote foreign direct investments (FDI) which would then transform into an increase in manufactured exports.

The EPZ program came with a number of export incentives to promote export-oriented production and development. Hence, Zimbabwe became Africa's breadbasket because of its exports which were mainly on agricultural products like beef, maize, tobacco and other products. But the implementation of the Land Reform policy in 2000 affected the output of these products which resulted in their decrease since Land distribution is in process. The reduction of agricultural exports was much more noticeable than that of mineral exports. Thus, the agricultural production decreased by 51% between the period of 2000 to 2007 and also GDP fell by at least 40% during the same period (RBZ, Monetary Policy Statement, 2009). However, the discovery of precious metals like diamond, platinum and other minerals improved the exports volumes, whereby the mining sector accounts for 52 % of the export earnings. The decline in the commodity prices worldwide affected the country's revenue and also the deficit in the trade balance remained unjustifiable. In
order to survive these challenges, Zimbabwe has been emphasizing on value addition thus production and exportation of processed goods. The Industrial Development Policy (IDP) Framework (2012) aimed at redirecting the economy towards export orientation and international competitiveness. The policy expected to see Zimbabwe being transformed from being an exporter of primary goods to an exporter of secondary and tertiary goods.

Since 2012, the Ministry of Industry and Commerce together with the Ministry of Small and Medium Enterprises has been working together for better policy coordination for Small and Medium Enterprises (SMEs). The ministries aimed at rationalizing and improving the support services and access to technology for SMEs in order to promote their exports. Also, the export market training program for SMEs was established with the view of developing an export culture within the SMEs. In addition, the policy sought to diversify and expand Zimbabwe's export base by and reaching out to new markets and at the same time promote the consumption of goods produced locally (GOZ, 2012). Also, the government has been improving customs administration and eliminating customs delays as a way of simplifying exporting and importing procedures, for example, the Chirundu one-stop border post. Furthermore, the duty drawback system for imported raw materials needed to manufacture exports goods was put in place as an incentive to support export growth.

In the same vein, Zimbabwe resuscitated the export credit reinsurance fund in order to restore exporters' confidence and it also joined African Trade Insurance Agency (ATI). ATI is a Common Market for Eastern and Southern Africa (COMESA) institution which provides export credit, political risk and investment insurance. In addition, Zimbabwe's participation at regional and international trade fairs. Publicity campaigns were intensified as witnessed by the deployment of trade promotion officers in strategic and potential markets (GOZ, 2012). Despite all these strategies to develop the export growth, the merchandise exports started declining from US$ 3,882 million in 2012 to US$3,507 million in 2013 and US$2,716 million in 2015 as shown in figure 1 below which shows the country's merchandise export performance for the period 1995 to 2015. This was probably due to de-industrialization and land redistribution and also some factors like the appreciation of the US dollar against other currencies as aforementioned which has led to the reduction in merchandise exports.

Figure 1: Merchandise exports for the period of 1995 to 2015


Most of Zimbabwe's exports are destined to the SADC bloc, with South Africa being the major trading partner followed by Mozambique inter alia (RBZ, Monetary Policy Statement, 2015), as shown in figure 2.
Though the government implemented policy reforms and undertook measures to revive the export sector, in the past decades, continuous real exchange rate fluctuations together with policy irregularities undermined these efforts. Despite the adoption of the multicurrency regime, export levels continued to decline. The critical question for Zimbabwean policymakers is whether managing exchange rate changes can improve export performance. Though a number of studies have been done on how exchange rates affect exports most studies were carried out in industrialized or developed countries, with only a few studies conducted in Africa. The study was narrowed down to a developing country, Zimbabwe and it focused on the exchange rates of the US Dollar to South African Rand, its effects on the export volumes in Zimbabwe. Given South Africa is Zimbabwe’s major trading partner, the South African Money supply and exchange rate were used, also considering fixed exchange rates as they create great stability in international trade.

2. Literature Review

This section’s focus is on both theoretical and empirical literature reviews on how exchange rates affect exports. Exchange rate-export relationship theories are reviewed first and then followed by a review of studies that examined the relationship between exchange rate and exports.

Theoretical Literature: A number of theoretical models revealed that the effect of exchange rates on exports may be negative or positive depending on the demand for domestic goods and the time taken on trade transactions. Some of the theories are reviewed below.

Elasticity Approach: Lesko and Muchova (2020) stated that the elasticity approach assesses how exports and imports react to changes in the exchange rate. This approach determines the degree to which depreciation would positively affect net exports. If the country experiences currency depreciation locally produced goods become cheaper as compared to imported goods. Thus, exports would increase while imports would decrease. If demand for imports demand is very sensitive to exchange rate change, domestic currency deterioration would cause a disproportional decrease in the country’s import bill (Panshak, Civcir and Odzeser, 2019). A nation’s foreign exchange reserves depend on its demand for imports and its export supply. An excess supply of foreign currency would cause the net exports to decline and excess demand of foreign currency would result in an improvement of the net exports. The elasticity approach depends on the Marshall-Lerner condition, which states that if the sum of import and export elasticities is greater than the unit, currency devaluation is likely to improve the net exports. If the total price elasticities of demand for exports and imports are less than one, the devaluation of a currency could make imports cheaper relative to exports leading to a decline in the net exports. If the Marshall Lerner condition holds, devaluation may only lead to the improvement of the net export if the sum of import and export elasticities of demand is more than
one. Thus, in this case, it can be noted that the direction of the exchange rate effect on exports is influenced by the elasticities of both imports and export.

**Delayed Beneficial Effect or J-Curve Effect:** Onakoya and Johnson (2019) posit that when the exchange rates are higher, the country’s commodities become expensive to customers outside the country and thus, with high, real exchange rates (e) the nation’s export(X) volumes decreases and the imports (IM) bill increases because foreign goods become cheaper. Furthermore, Onakoya and Johnson (2019) indicated that depreciation improves net exports through the delayed beneficial effect or J-curve effect. The delayed beneficial effect theory states that the impact of depreciation is discovered in prices and quantity in the first two months after depreciation. Thus, the import price increases in the domestic country and the export prices decline as quantities of both imports and exports slowly adjust. This takes some time for consumers to realize a price change and also for businesses to move from expensive to less expensive suppliers. Therefore, a depreciation may lead to an initial worsening of the trade balance as imports or exports slowly adjust to change in exchange rate leading to a decrease in net exports (- NX = X - IM /e). Also, Blanchard (2010), states that as time progresses, the impact on the change in the comparative costs of both import and export strengthen. Thus, when real exchange rates deteriorate to an extent that the cost of imports rises in domestic currency terms, the higher import cost would lead to a decrease in the imports demand and the net exports eventually rises. The rise in exports may take six or more months to manifest and is called the delayed beneficial effect or the J-curve effect.

**Marshall Lerner Condition:** Also the Marshall Lerner condition shows that real depreciation affects the net exports (NX) through three different channels (Dornbusch, Fischer and Startz, 2011). Firstly, real depreciation makes domestic goods become cheap in foreign countries which leads to an increase in international demand for locally produced goods thereby increasing exports. Secondly, real depreciation makes imports more expensive in the domestic country. Thus, the consumers and firms shift their demand towards domestic goods resulting in a decrease in imports. Lastly, if the relative price of foreign goods increased as compared to locally produced goods, the nation’s import bill will rise. Due to depreciation, the same quantity of imports costs more to buy in terms of domestic goods (Romer, 2012). A real depreciation may result in a trade balance improvement if the sum of proportionate change in the real exchange rate (EE), change in exports (XX) and change in imports (IMIM) would be greater than zero as shown in the equation below: \( NXX = EE + XX - IMIM = EE + NXX > 0 \). Therefore when the real depreciation causes the net export to increase, then Marshall Lerner Conditions are present.

**Empirical Literature:** A number of empirical studies produced inconclusive results. Some studies revealed an inverse relationship between exports and exchange rates while other studies reported that exchange rates affect exports positively. In examining the empirical literature, Nyeadi, Atiga and Atogenzoya (2014) used the OLS estimator which the current study adopted. The study investigated how exchange rates affected Ghana’s export growth. By employing the OLS technique, it was found that exchange rates had no impact on the export of goods and services. However, gross domestic product, gross national product, total investment and import growth had a significant impact on exports performance. Sekati, Tshoku and Metsileng (2020), studied the impact of real exchange rate volatility on exports in South Africa and found contrasting results. Using GARCH models, Sekati, Tshoku and Metsileng (2020)’s findings supported the assertions that the exchange rates had a significant and negative impact on South Africa’s exports to the United States of America.

Using a different methodology but obtaining the same results as Sekati, Tshoku and Metsileng (2020) established a negative relationship between exchange rates and export performance. Applying Cointegration Analysis, Genc and Attar (2014) explored the effect of exchange rates on imports and exports in the 22 emerging countries. The study found that in the long run exchange rates and export were co-integrated. Tulasombat, et al. (2015), scrutinized the relationship between exchange rates and agricultural exports in Thailand using the linear regression method and found an inverse relationship between real exchange rates and exports. From the reviewed literature above, it is apparent that the relationship between exchange rates and exports exist but the nexus is still ambiguous and varies across countries and periods under review. Thus the study sought to establish the relationship between Zimbabwe exports and the exchange rate.
3. Methodology

The section presents the methodology used in assessing the impact of exchange rates on exports in Zimbabwe using data from ZIMSTATs and the World Bank. Model specification and statistical diagnostic tests and model results are discussed in this section.

**Model Specification:** The underlying theory on effects of exchange rates on exports and empirical studies carried by Sandu and Ghiba (2011), Nyeadi, et al. (2014), and Genc and Attar (2014) provides the foundation for the ordinary least squares model that was used in the study. The export growth or volume function as expressed below: EXPg =f(SAEXRT, GDP, FDI, IMP, SAM2)

The model is then specified as:

\[ EXPg = \alpha + 1GDP + 2IMP + 3SAEXRT + 4 FDI + 5 SAM2 + t \]

Where \( EXPg \) is the dependent variable and is defined as the growth of exports

Explanatory variables are as follows:

- **GDP** – gross domestic product
- **IMP** – import growth
- **EXRT** – exchange rates
- **FDI** – foreign direct investment
- **SAM2** – broad money supply
- **t** – Error term capturing all other variables

**Variable Justification**

**Exports:** These are goods and services transactions between residents of a country and the rest of the world including changing of ownership from residents to non-residents of general merchandise. The export growth is the dependent variable.

**Gross Domestic Product:** It is the monetary value of all finished goods and services produced within the country’s borders at a given time period (Mankiw, 2019). Since exports bring revenue into the country which enhances the importation of capital goods that in turn increase in GDP is expected to influence exports positively.

**Broad Money Supply (M2):** Broad money supply is the total currency held by the public, transaction deposits at banking institutions plus savings deposits. A decrease in money supply will lead to an appreciation of exchange rates, a decrease in output and hence a reduction of exports. An increase in the money supply of export receiving countries is expected to have a positive effect on exports as this improves international demand for exports (Blanchard, 2010). Thus local money supply is expected to negatively influence the exports while the international money supply is expected to positively influence exports.

**Foreign Direct Investment:** It is the establishment of business entities or securing of business assets in another country, such as proprietorship made by a company or individual in one country to another country. Foreign direct investment is an important tool for technology transfer which in turn increases the exporting capability in the host country (Blanchard, 2010). Hence foreign direct investment is expected to influence exports positively.

**Imports:** These are the total goods and services brought into the country from abroad. The rise in imports may increase exports if the imports are of capital goods or raw materials which in turn increase production. Hence, a positive coefficient is expected for this variable.

**Exchange Rates:** This refers to the rate at which one national currency exchanges for another, and the rate is expressed as the amount of one currency that is necessary to purchase one unit of another currency (Blanchard, 2010). The exchange rates are expected to negatively affect the export growth on the basis that the appreciation of the major currency (USD) against the currency (Rand) of the country’s dominant trading partner South Africa, reduces the volume of goods and services exported.
Model Estimation Procedures: The study employed the Ordinary Least Squares (OLS) method because of its ability to produce the minimum sum of squared deviations between the explained and the explanatory variables and also its ability to produce estimates that are Best Linear Unbiased Estimates (BLUE), (Gujarati and Porter, 2008). GARCH could have been used to validate the OLS results, but the sample size was too small for GARCH to bring out meaningful results, and thus OLS was the best model to apply for the study.

Diagnostic Tests

Unit Root Test: This study adopted the Augmented Dickey-Fuller (ADF) to test for the existence of unit root. The utilization of non-stationary time series data in a Classical Linear Regression Model gives biased or misleading results that are inconsistent and have a low Durbin Watson (DW) statistic, (Gujarati and Porter, 2008). To avoid the violation of the basic Classical Linear Regression Model (CLRM) assumptions and from getting spurious results data was tested for unit root. The unit root results are shown in Table 2,

Table 1: Unit Root Test Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>ADF Probability Value</th>
<th>Integration Order</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXP</td>
<td>1.000</td>
<td>0</td>
<td>Non stationary</td>
</tr>
<tr>
<td>GDP</td>
<td>1.000</td>
<td>0</td>
<td>Non stationary</td>
</tr>
<tr>
<td>IMP</td>
<td>1.000</td>
<td>0</td>
<td>Non stationary</td>
</tr>
<tr>
<td>SAEXRT</td>
<td>0.8643</td>
<td>0</td>
<td>Non stationary</td>
</tr>
<tr>
<td>FDI</td>
<td>0.4981</td>
<td>0</td>
<td>Non stationary</td>
</tr>
<tr>
<td>SAM2</td>
<td>0.0000</td>
<td>0</td>
<td>Stationary</td>
</tr>
</tbody>
</table>

Table 1 above shows that the variables are not stationary, with the exception of SAM2 only being stationary. Hence the data was differenced and tested at different levels as shown in table 2 below:

Table 2: Unit Root Results after Differencing

<table>
<thead>
<tr>
<th>Variable</th>
<th>ADF Probability Value</th>
<th>Integration Order</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEXP</td>
<td>0.0249</td>
<td>1</td>
<td>Stationary</td>
</tr>
<tr>
<td>DDGDP</td>
<td>0.0285</td>
<td>2</td>
<td>Stationary</td>
</tr>
<tr>
<td>DDIMP</td>
<td>0.0612</td>
<td>2</td>
<td>Stationary</td>
</tr>
<tr>
<td>DSAEXRT</td>
<td>0.0357</td>
<td>1</td>
<td>Stationary</td>
</tr>
<tr>
<td>DFDI</td>
<td>0.4981</td>
<td>1</td>
<td>Stationary</td>
</tr>
<tr>
<td>SAM2</td>
<td>0.0000</td>
<td>0</td>
<td>Stationary</td>
</tr>
</tbody>
</table>

D behind the variables means first difference and DD means second difference.

The Augmented Dickey-Fuller Test (ADF) which tests the existence of a unit root was used to test for stationarity of variables after differencing. Table 2 above shows that SAM2 is integrated of order zero. The variables EXP, SAEXRT GDP, IMP and FDI are not stationary and they had a unit root. After being differenced EXP, SAEXRT and FDI became stationary at the integration of order one while GDP and IMP became stationary at integration at order two.

Normality Test: Normality is one of the Classical Linear Regression Model (CLRM) assumptions and testing for normality is very important in regression analysis. The study employed the Jacque-Bera test for normality test. The presence of heteroscedasticity normally gives us the confidence intervals and significant test which are unreliable and also overestimated standard errors. Normality test results are shown in Table 3 below;
Table 3: Normality Test Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Pr (Skewness)</th>
<th>Adj (X²)</th>
<th>Prob&gt;X²</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEXP</td>
<td>0.0000</td>
<td>14.92</td>
<td>0.006</td>
</tr>
<tr>
<td>DDGDP</td>
<td>0.0005</td>
<td>11.39</td>
<td>0.0034</td>
</tr>
<tr>
<td>DDIMP</td>
<td>0.0000</td>
<td>15.81</td>
<td>0.0004</td>
</tr>
<tr>
<td>DSAEXRT</td>
<td>0.010</td>
<td>9.06</td>
<td>0.0108</td>
</tr>
<tr>
<td>DFDI</td>
<td>0.136</td>
<td>8.46</td>
<td>0.0146</td>
</tr>
<tr>
<td>SAM2</td>
<td>0.0000</td>
<td>20.67</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

The null hypothesis is that the data is normally distributed and the skewness is zero. From the above table, the skewness for DEXP, DDGDP, DDIMP and SAM2 is zero and thus is normally distributed. The variables that satisfy the normality assumption may lead to unreliable results.

4. Presentation and Analysis of Results

After the data was subjected to diagnostic tests, it was then further processed to highlight the effects of the exchange rate on Zimbabwe’s exports.

Robust Regression Estimation: Robust regression is a technique of weighted and unweighted least squares regression that can be employed on the parametric and non-parametric data for the elimination of outliers. The outliers in a data set have a tendency of pulling the least-squares fit too far from their direction by receiving extra weight than they deserve leading to spurious results from regression coefficients. The robust regression dampens the effects of the outliers for better fitting the rest of the data. Hence the results were considered reliable for reporting and interpretation. The regression results are presented in Table 4.

Table 4: Regression Results

<table>
<thead>
<tr>
<th>DEXP</th>
<th>COEF</th>
<th>STD ERROR</th>
<th>t</th>
<th>P&gt;t</th>
<th>(95% conf Interval)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DDGDP</td>
<td>-0.0843477</td>
<td>0.0653815</td>
<td>-1.29</td>
<td>0.219</td>
<td>-0.225957 - 0.0569004</td>
</tr>
<tr>
<td>DDIMP</td>
<td>0.2509522</td>
<td>0.0713115</td>
<td>3.52</td>
<td>0.004</td>
<td>0.968931 - 0.050113</td>
</tr>
<tr>
<td>DSAEXRT</td>
<td>-2.12e+08</td>
<td>1.08e+08</td>
<td>-1.97</td>
<td>0.070</td>
<td>-4.45e+08 - 2.04e+07</td>
</tr>
<tr>
<td>DFDI</td>
<td>0.8328289</td>
<td>0.9078919</td>
<td>0.92</td>
<td>0.376</td>
<td>-1.128552 - 2.79421</td>
</tr>
<tr>
<td>SAM2</td>
<td>-8.11e+07</td>
<td>3.59e+07</td>
<td>-2.26</td>
<td>0.042</td>
<td>-1.59e+08 - 3601307</td>
</tr>
<tr>
<td>CONS</td>
<td>7.85e+08</td>
<td>3.53e+08</td>
<td>2.22</td>
<td>0.045</td>
<td>2.22e+07 - 15.5e+09</td>
</tr>
</tbody>
</table>

Number of observations = 19

R-Squared = 0.6494

Prob> F = 0.03

Adjusted R = 0.5146

Root MSE = 3.7e+08

The variables SAERXT was negative and significant at a 10% level of significance, SAM2 was negative and significant at 5% and domestic imports were found to be positive and significant at a 1% level of significance. Thus, exchange rate uncertainty adversely affects exports as the marginal producers’ will shift to non-traded goods or limit their output due to their risk-averse leading to a decline in exports, as argued by (Sandu and Ghiba, 2011). Positive significant domestic imports were found to be consistent with our expectations and literature reviewed Nyeadi, et al. (2014) and Genc and Attar (2014). Both the R2 and Adjusted R2 were greater than 0.5 with values of 0.6494 and 0.5146 respectively. This shows that R2 is reliable and the model is of good fit as about 64% of variations in export growth are explained by combined variations in the explanatory variables. Moreover, the F- statistic probability value is 0.0355 which is less than 0.05 implying that the whole model is significant at a 5% level. The coefficient of South Africa’s broad money supply (SAM2) was found to be negative and statistically significant at 5%. The negative and significant SAM2 shows that as the South African money supply decreases, it leads to a reduction in spending by the South Africans and a decrease in Zimbabwe’s export volumes. These findings support the view that a reduction in international money supply reduces demand for exports (Dornbusch, Fischer and Startz, 2011).
5. Conclusion and Recommendations

The regression results show that South Africa’s exchange rates (SAEXRT) were weakly significant at 10%, South Africa broad money supply (SAM2) was significant at 5% and imports (DDIMP) is very important to the export growth, as it had a 1% level of significance. Given the conclusion, the study recommended a number of policy measures. To increase exports, there is a need to focus on domestic imports given their impact on export. Where imports are of a capital nature, there is a need to increase capital imports to increase the production of exports. There is also a need to shift policies from foreign direct investment because empirical results have shown that they don’t have any significant impact on export growth. Given the effect of South Africa’s broad money supply on Zimbabwe’s exports, policymakers may consider cooperation through a quota system to alleviate the negative effect of the reduction in South Africa’s broad money supply on Zimbabwe’s exports.

References