

## Exports-Led Growth or Growth-Led Exports: Zimbabwe's experience and lessons for the future

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### Abstract

*While other countries are drifting away from an export led growth strategy, Zimbabwe is taking the same route. The Zimbabwean export strategy is premised on the National Trade Policy, promulgated by the Ministry of Industry and Commerce on the 29<sup>th</sup> of March 2012, which states this strategy as one major growth strategy. At the same time, the industrial development policy presented the same day outlines the various industries that will facilitate this strategy. The aim is to increase exports to stimulate growth. These policies again are supported by the government's move to try special economic zones. There is no consensus on the lead-lag relationship between exports and economic growth. Based on this argument, the current research seeks to study whether an exports-led growth or a growth led exports strategy is applicable to the Zimbabwean situation. A Granger causality methodology was employed to test for the direction of causality. Findings indicate independence between the export variable and GDP. The Zimbabwean government is therefore advised not to rely on exports as an engine for growth. The policy maker is recommended to find other strategies to stimulate growth other than using exports.*

**Key words:** exports, growth, Granger causality, Zimbabwe

### Introduction

The National Trade Policy, promulgated by the Ministry of Industry and Commerce on the 29<sup>th</sup> of March 2012, clearly states export led growth strategy as one major growth strategy. At the same time, the Zimbabwe industrial development policy (2012) outlines the various industries that are likely to facilitate this strategy. The aim is to increase exports to stimulate growth. This again is shown by the government's move to try special economic zones. This study is meant to find out whether this strategy will work for Zimbabwe. The strategy being taken by Zimbabwe is an offshoot of the Chinese style of growth where China had exports constituting more than 50% of industrial production (Xu, 2010).

Since the introduction of Economic Structural Adjustment Programme (ESAP) in 1991, Zimbabwe has been embarking on trade liberalisation programmes as a way to stimulate exports. These were aimed at improving economic competitiveness and hence enhance growth of the economy. Export processing zones were also introduced with that in mind. However,

trade and economic growth data reveal some controversial issues where it is not clear as to whether all these efforts are yielding positive results.

The current study is aimed at testing the applicability of the exports-led growth (ELG) hypothesis, a hypothesis that argues that exports growth will lead to economic growth of a country. Despite a widespread number of studies along this area, our argument is in line with that by Caves (1971) and Kwan and Kwok (1995) who argue that the studies of this nature must be done on country specific data. Thus, a Zimbabwean study will give a clearer picture to the policy-makers. Findings from this study fail to establish the existence of exports led growth hypothesis.

### **Brief literature survey**

The works of classical economists such as Adam Smith, David Ricardo, John Stuart Mill and James Mill cannot be ignored in as far as trade and economic growth is concerned. These authors among others advocated for free trade to stimulate growth of an economy.

Although still debatable, some economists for instance Romer (1990) argue that growth in exports stimulates growth. Export led growth has its roots in the works of mercantilists who propounded that a nation must amass wealth through exporting more and importing less. In its most modern form this theory is linked to Keynesian theory where it is argued that the growth in net exports will lead to economic growth. This originates from the Keynesian demand led growth. Demand for a country's exports will make the country acquire more necessary skills to produce more and more. Models of economic growth propounded by Romer (1990), among others, argue that a country involved in international trade will be able to acquire specialised inputs, which include technology, to be able to produce more hence stimulate growth in that country.

The ELG hypothesis is based on the argument that as a country exports more of the good, it acquires technology used in production which has spill-over effects. Also the country will be learning by doing. This leads to economies of scale specifically dynamic economies of scale. Critics of this theory however argue that this hypothesis is falsified by the fallacy of composition. If all countries use this theory then no one country will experience growth at all because all will be aiming at exporting without importing so much. This reduces world exports and will not yield expected results.

Empirical literature relating to export led growth can fall into two broad categories. The first one relates to those relating to developed countries while the second is for the developing countries group, Henriques and Sadorsky (1996). Our area of study is for the developing world with specific reference to Zimbabwe.

In the group of developed countries, Henriques and Sadorsky (1996) find no evidence of export led growth in Canada. Instead they found that GDP growth precedes export growth.

Their method of investigation was a VAR model. In a study involving Canada among other countries, Konya (2004) found out that export-led growth hypothesis does not hold, instead growth driven exports held. The same paper established that exports and growth are independent in Luxembourg and the Netherlands. However, ELG was found to hold for Iceland while a bi-directional causality was found in Sweden and the UK. Among other countries like Spain and Switzerland, the results were controversial and hence could not be given a clear conclusion. The findings from this study by Konya (2004) reveal again the mixed results pertaining to the hypothesis.

Razmi and Hernandez (2011) established that Asian countries can sustain growth through export led growth. The results were revealed from a panel data study. Ogbokor (2005) established, using OLS, the existence of ELG in Zimbabwe. However, the study looked at a relatively short period of time (1991 to 2003). In 1991, Zimbabwe embarked on adjustment programmes that intended to enhance international competitiveness. So during this period it may be plausible to assume that exports were the major drivers of growth. Chiguiswa *et al* (2011) also established that for disaggregated data, ELG holds in Zimbabwe. The methodology used in the study by Chiguiswa *et al* (2011) is the Autoregressive Distributed Lag model. Their period of study was 1977 to 2006. Our study includes more current data than these previous studies.

In the case of Costa Rica, Medina-Smith (2001) established that even though export led growth could be argued to hold it has a small impact on the Costa Rica economy. This was arrived at after a Cobb-Douglas production function was used in testing this theory. In this model, exports were included as a third input. In a study including Costa Rica, Zuniga (2005) established that ELG hypothesis does not hold in that country. This merely tries to support the findings of Medina-Smith (2001).

The export-led growth hypothesis was also tested in Ethiopia by Allaro (2012). Using Granger (1969) methodology and data set from 1974 to 2009 the ELG hypothesis was found to hold in that country. On the contrary, Waithe *et al* (2011) in Mexico, using a neoclassical augmented production function, established a negative relationship between exports and GDP. The possible reason was argued to be the high import content of exports.

Araujo, Teixeira and Soares (2015) studied the Brazilian economy to see if the export led growth was applicable. Using the Granger causality approach on aggregated data they failed to establish the direction of causality but managed to do so using disaggregated data. Contrarily Bilas, Bosnjak and Franc (2015) used the same methodology but found export led growth to hold in Croatia. The study covered the period 1996 to 2012.

In a study involving three Arab countries, Jordan, Kuwait and Egypt, Daud and Basha (2015) found mixed results. Using Granger causality, bidirectional causality between GDP and exports

was found for Jordan while unidirectional causality running from exports to GDP was found in Kuwait and Egypt. It therefore can be concluded that export-led growth was found to hold for Kuwait and Egypt.

For Pakistan, Sri Lanka and Korea, research shows mixed findings, Bashir, Iqbal and Nasim (2015), Tahir, Khan, Isra and Qahar (2015) and Jin and Jan (2015). While Bashir, Iqbal and Nasim (2015) managed to find significant causation between exports and real GDP in Pakistan using Cointegration, VECM and Granger causality, Khan, Isra and Qahar (2015) failed to find that in Sri Lanka. A statistically insignificant result of causality between export growth and economic growth was established in Korea by Jin and Jan (2015). Jin and Jan (2015) went a step further by employing instrumental variable for export but this did not validate the ELG hypothesis in Korea.

Despite being a long time debate, literature reviewed showed that there are mixed findings on the causality between exports and GDP growth. This lack of consensus has therefore motivated the authors to make a country specific study that will give results applicable to a country which is currently using this growth approach.

### Methodology

The export-led hypothesis in this study is tested using the Granger (1969) model of study. Annual data used is for the period 1980-2012. The model is specified as follows:

$$GDP_t = \alpha \sum GDP_{t-1} \text{-----} 1$$

$$X_t = \beta \sum X_{t-1} \text{-----} 2$$

$$GDP_t = \delta \sum GDP_{t-1} + \phi \sum X_{t-1} \text{-----} 3$$

$$X_t = \eta \sum X_{t-1} + \gamma \sum GDP_{t-1} \text{-----} 4$$

$X_t$  and  $X_{t-1}$  represent current exports and export of the previous year, respectively.

$GDP_t$  and  $GDP_{t-1}$  represent current GDP and its previous level respectively.

Given the nature of the research, the authors carried out the necessary diagnostic tests and presented the results in the following section. The diagnostics undertaken include unit root tests and lag length selection.

### Results presentation

The data used in this research was obtained from Feenstra, Inklaar and Timmer (2015). This is a source of data for several countries and is often referred to as the Penn World Table. The results of the study are presented below.

### Diagnostic tests

Two major diagnostics were carried out and these are unit root and cointegration tests. The purpose of unit root test is to make sure that the results obtained are not spurious, while that for cointegration is to test for a long-run relationship. The ADF test for unit root test was employed while cointegration was tested using Johansen cointegration approach. Table 1 shows the unit root properties of the data employed.

**Table 1: Unit root test**

Variable	ADF statistics	ADF critical values (5% level)	Order of integration
Export	-4.3924	-1.9521	I(0)
GDP	-2.7160	-1.9521	I(0)

Table 1 shows that both exports and GDP are integrated of order zero. Thus they are level stationary. The results showed that there is a long-run relationship since the diagnostic tests show that the variables are integrated of the same order. This implies that there is association between the two variables; however, this should not be interpreted as evidence of export-led growth or growth-led exports since association is not causality.

### Pair-wise Granger Causality Results

The methodology employed gives results based on lag length. The best results are obtained from the optimal lag length. For purposes of lag length selection, the Akaike and Schwarz information criteria were used and results indicate a lag length of 2. Based on this, the major results of this study are as represented below. However, for comparison purposes we also show results for lags 1 and 3 but will concentrate on lag 2 more.

The findings in Table 2 indicate that export growth and GDP growth are independent for all lag lengths. This implies that the export-led hypothesis does not hold in Zimbabwe. GDP growth is also found not to Granger-cause exports growth. So growth-led exports hypothesis is also disqualified using Zimbabwean data. The reason for such findings might be because Zimbabwe exports mostly primary commodities and import finished goods.

**Table 2: Pair-wise Granger-Causality Results**

Hypothesis	Lag length	F-statistic	P-value	Decision
GDP Does not Granger cause Exports	1	1.34453	0.2560	Accept $H_0$
Exports do not Granger-cause GDP	1	1.30973	0.2621	Accept $H_0$
GDP Does not Granger cause Exports	2	0.51574	0.6033	Accept $H_0$
Exports do not Granger-cause GDP	2	0.70718	0.5026	Accept $H_0$
GDP Does not Granger cause Exports	3	0.24734	0.8623	Accept $H_0$
Exports do not Granger-cause GDP	3	1.01023	0.4070	Accept $H_0$

Thus the benefits of exports may be reversed by the imports of expensive goods. Our findings are in line with those found by Zuniga (2005) in Costa Rica. Konya (2004) in a study involving several countries also failed to find existence of the hypothesis in Canada just like Henriques and Sadorsky (1996 in Canada again. These findings are also in line with those found in Brazil by Araujo, Teixeira and Soares (2015) and in Sri Lanka by Khan, Isra and Qahar (2015). Thus our results are not unique in nature but are supported by previous findings elsewhere. It is imperative to note that our findings are contrary to those found by Ogbkor (2005) and Chigusiwa *et al* (2011). In the study by Chigusiwa *et al* (2011), ELG was found to hold for disaggregated data for the period 1977 to 2006. The major reason for us finding different results might be because they used disaggregated data while we have used aggregated data. Also for the case of Ogbokor (2005), our results refer to a relatively longer period which also encompass their period (1991- 2003). Also the effects of the government stances stemming from the pre-war period might be the possible reason why Chigusiwa *et al* (2011) got the result different from ours. Contrary to our findings also are the results found in Egypt and Kuwait by Daud and Basha (2015). These managed to validate the existence of ELG hypothesis.

## Conclusions

Findings indicate that the export led hypothesis does not hold in Zimbabwe. It was rejected using the simple Granger causality employed in the study where annual data for the period

1980 to 2012 was used. Based on the findings, the policymaker is advised to find other strategies other than the export-led growth since exports have been found not to lead growth. The government is advised to take the value addition strategy seriously if the export led growth is to materialise. Since Zimbabwe mostly exports primary goods, she may gain by exporting processed goods which have a higher value.

The lessons that Zimbabwe can learn from the findings are various in nature. The value addition strategy is one such way. This approach will aid in reducing the import content of our exports and also militate against the likely negative effects of the highly valued imports into the country. The paper recommends that a study involving finished exports as leaders of growth may be worth pursuing. This will be in line with the value addition stance of the government.

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#### Footnotes

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