Original Paper

Trade Liberalism-Capital Inflow: An Inclusive Framework for Zimbabwe

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Abstract

This study sought to determine a framework of upholding trade liberalism for increased capital inflows in the form of Foreign Direct Investment (FDI) for Zimbabwe.   The study used the ARDL-ECM in the determination of the nexus between the two variables, for the data covering 1980 to 2021. Eviews Version 9.0 Statistical Package was used to run the regressions. Data were obtained from the Reserve Bank of Zimbabwe, International Monetary Fund and World Bank. The study found that in the short-run, trade openness has a significant inverse relationship with capital flows (FDI), whilst in the long-run there is a significant positive relationship between them for Zimbabwe. The study recommend that there be duty free on capital goods, that the government give incentives on exporters, that all goods exported go through the process of value addition, that the government provide subsidies on exporters and, that the government ensure efficiency at ports through infrastructure development.

Keywords

Trade Liberalism, Capital Flows, ARDL

1. Introduction

Policy reforms to eliminate obstructions on trade to kindle capital flows in various economies, is now a cause of concern in both policy and academic circles. Advocates of trade liberalization contend that the drive provide enticements for capital inflows that create positives in the domestic economy. In fact, trade liberalization policies are often intended to open economy to international business activities. Despite the seemingly benefits that come along with trade liberalization, Zimbabwe trade liberalization policies have been marred by inconsistencies, thus, limiting capital inflows. This study, therefore, seeks to determine a framework that enhances growth in the capital inflows (FDI) through trade liberalism for Zimbabwe.

1.1 Background of the Study

It is, remarkable from the postulates of international trade theories, that economies are better off in a free trade system than in autarky, taking cognizance of the different levels of specialization in production from which economies have comparative advantage over. The Neo-Classists contend that capital flows from rich economies to poor economies are due to the high marginal productivity of capital in poor economies. Lukas (1990) found no evidence to sustain the assertion, citing that structural rigidities add to the variables that inhibit free flow of capital. Antras and Caballero (2007), as well as, Shah and Samdani (2015) gave weight to trade integration as an ideal policy for developing economies given that they provide basis for improved output growth and inflow of capital. Ude and Agodi (2015) posit that although trade liberalization tend to diminish the governments' fiscal space through tariff reduction, the benefits outweighs the costs. There are, however, still some differences in the economics circles as to whether or not, countries are better-off with the adoption of liberalization policies. This paper, therefore, seeks to determine a framework of upholding trade liberalism for increased capital inflows in the form of Foreign Direct Investment (FDI) for Zimbabwe, as guided by the works of Galan (2006), and Ude and Agodi (2015).

1.1.1 Zimbabwe's Trade Liberalization History

Apart from the controversy surrounding the role of trade liberalization on economic development, the push for trade liberalism in Zimbabwe remain relevant. Since 1991, Zimbabwe has taken independent measures to liberalize her trade system under the ESAP with the help of the Bretton Woods Institutions, followed by further liberalization in the multilateral (WTO), regional (SADC, COMESA) and bilateral contexts. Currently, Zimbabwe is in her second phase of trade liberalization under ZIMPREST - the successor program to ESAP, as well as the new round of WTO, Lome Convention, SADC and COMESA trade negotiations. She undertook market-oriented economic reforms in 1991, which followed an import substitution development strategy. The reforms comprised of the implementation of several controls on trade, and the exchange rate and foreign currency flows. Primarily, these policies were advisable, but later they caused some serious anomalies, such as industrial ineptitude, low productivity, rent-seeking behaviour, market distortion, public sector decline, and more importantly, drying up of foreign exchange resources, hence the need to come up with a framework that comes along with the benefits of adopting trade liberalization for Zimbabwe.

- **Zimbabwe Exports and Imports Trends**

The volumes of exports and imports in Zimbabwe has not been increasing on a consistent manner since 1980. Figure 1.1 below depicts the trend of the volumes of imports and exports in Zimbabwe for the period 1980 to 2020. From 1980 to 1998, an upward trend was recorded in both export and import volumes. In this period, imports were more than exports for several years, only exports exceeded imports in the period 1984 to 1989. The difference between exports and imports in this period was also low. However, starting in 2000, it witnessed a very large disparity between exports and imports. The trends then increased slightly until 2008, when they suddenly decreased. The trends continued to

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decline until 2010 and then began to rise again for the remainder of the study period. Some of the variability in these trends is a result of changing trade policies, where economic entities that import and export goods and services have been affected by some trade policies that include changes in import duties and tariffs and other barriers to international trade. Given that this study seeks to determine the connection between trade liberalism and capital flows, the following section discusses capital flows in the context of Foreign Direct Investment.

- **Zimbabwe Capital Flows Trends**

The government of Zimbabwe inherited a highly introverted economy at independence in 1980. However, to encourage FDI, the government of Zimbabwe adopted the IMF-funded Economic Structural Adjustment Program (ESAP). The policy was designed to liberalize trade by removing controls and trade restrictions, thereby increasing FDI flows (Robinson, 2002). In a bid to provide FDI, the country introduced the Zimbabwe Development Agency (ZIDA) Bill in 2019. This resulted in the growth FDI inflows from economies such as China and Russia. Intra-Regional FDI also played a role, with countries such as South Africa, Mauritius, Botswana, Kenya and Zambia contributing significantly. However, though seemingly increased capital flows, there is still subdued FDI to Zimbabwe. This study, therefore, seeks to recommend a trade liberalisation-Capital Flow Framework which seeks to grow the inflow of capital to Zimbabwe.

2. Review of Related Literature

2.1 Theoretical Framework

- **Heckscher-Ohlin Theory**

The theory states that as a result of different factors endowed in across economies, the economies enjoy comparative advantage. The factors of production being capital and labour. It is, argued by the theory that on one hand, countries which are highly endowed with capital, should concentrated on producing and exporting goods which are capital intensive. On the other hand, countries which are highly endowed with labour, should concentrate on producing goods which are labour endowed. It follows, therefore, that the theory holds the view of factor endowment which follows two approaches under the factor ratio. The factor ratio is simply a situation where a country is considered, for instance labour abundant if the ratio of the total amount of labour to the total amount of capital is greater compared to other country, thus demanding the production, and exporting of labour-intensive goods by the country concerned. The applicability of the model in the Zimbabwe context, can be explained in relation to the country's stage of economic development. Given that Zimbabwe is a Lower Middle Income Economy, characterised of being labour intensive, there is a sense in which, she has to concentrate on exporting goods which are labour intensive and import goods which are of capital intensive. It, therefore, follows that this study is really necessary, of determining an inclusive framework that would enhance capital inflow through the FDI.

- **Neoclassical Theory of Capital Flows**

The literature which states that there exists constant return to scale and the factor inputs, cements the Neo-Classical theory which posit that capital flows from rich to poor economies. The assumption for this assertion is premised on that poor countries have enough markets which are not being serviced by domestic firms, hence capital flows to countries were return on investment are highly likely. If capital is, therefore, allowed to flow freely, new investments would be created only in the poorer economies (Alfaro, Kalemli-Ozcan, & Volosovych, 2008).

2.2 The Empirical Framework

A study conducted by Antras and Caballero (2009) on the relationship between Trade Integration and Capital Flows in less financially developed economies was based on the theoretical assumption, that trade integration provides the required incentives for capital mobility in developing countries. After testing the data, the study found that trade integration augmented net capital inflows. Antras and Caballero (2009) recommended that protectionism as a capital flow rebalancing policy, is detrimental process of growth and development in the developing countries.

In a study by Anyawu and Yamaego (2015) on the dynamics between Trade Liberalization and FDI in Indian industries, the results shown that the FDI is vertically integrated as industries with higher cross border trade activities attracted high FDI. Anyawu and Yamaego (2015) concluded, that foreign equity inflows are largely dependent on the dynamic nature of domestic firms.

A study by Ang (2008) was done seven South Asian countries to explore the impact of Institutional Factors and Macroeconomics Policy Reforms. Panel data covering the period 1996-2007 were used on an Ordinary Least Squares in the determination of the results. The study revealed that economic trade integration generated negative effect on inflow of FDI. Ang (2008) recommended that for the FDI inflows, integration of political and economic policy must be a priority for the seven South Asian countries.

Shah and Samdani (2015) conducted a study on Africa, the Commonwealth of Independent States, Latin America, Asia and Eastern Europe. The study was on the effectiveness of trade openness and FDI. The results of the study showed that there is a long-term positive impact on trade openness and FDI inflows. Based on the results, Shah and Samdani (2015) recommended that for the capital inflows to be realised, pre-emptive measures on liberalization policies must be put in place.

Again, a study by Adams (2013) was done on 29 sub-Saharan African economies. The study was meant to determine the effectiveness of trade liberalization implications on FDI inflows. The study used both the static and dynamic estimation tools. It was determined that a positive relationship existed between the variables of the study, with trade openness positively related to FDI. Adams (2013) recommended that there must be a trade costs reduction if economies are to enjoy free flow of commodities across countries. From the information reviewed, the benefits that coms along with trade liberalization in enhancing FDI inflows seem to outweigh the costs. This study, therefore, seeks to determine the implications of the two variables in the Zimbabwe context.

3. Research Methodology

The study adopted the ARDL for the long-run results, and an unrestricted Error Correction Model (ECM) for the short-run relationships. The data which covered the period 1980-2021, were obtained from RBZ, IMF and WB databases. In line with theoretical literature, with some modifications, the functional form of the model that was used in this study in relation to trade liberalization and capital flows is as specified below:

$$FDI_{t} = \beta_0 + \beta_1 LTO_t + \beta_2 RGDP_t + \beta_3 INFL_t + \beta_4 EXD_t + \varepsilon_t$$

Where: ε_t is an error term with zero mean and a constant variance, β's are parameters to be estimated.

FDI_t: Foreign Direct Investment

$RGDP_t$:   Real GGDP

LTO_t: Trade Openness

$INFL$:   Inflation

EXD_t: External debt

As borrowed from studies which were done by Dhaliwal et al. (2011), Dhaliwal et al. (2012), Zhou et al. (2017) and Vitolla et al. (2019b), the following variables were included in the regression analyses in order to determine the relationship between them.   In analysing the effect of trade openness on capital flows, the study adopted the ARDL model as proposed by Pesaran and Shin (1998) and Pesaran et al. (2001). The study preferred the ARDL because the ARDL can be applied to series that are integrated of order (1) and order (0). This means that the ARDL is appropriate regardless of the order of integration of variables. The ARDL model used was specified as follows:

$$\Delta FDI_t = \emptyset_o + \sum_{k=i}^{n} \emptyset_1 FDI_{t-1} + \sum_{k=i}^{n} \emptyset_2 \Delta LTO + \sum_{k=i}^{n} \emptyset_3 \Delta RGDP_t +$$
$$\sum_{k=i}^{n} \emptyset_4 \Delta INFL_t + \sum_{k=i}^{n} \emptyset_5 \Delta EXD_t + \mu_t$$

If the null hypothesis is rejected, it implies that there is cointegration and the error correction model (ECM) is estimated. The ECM is used to assess the speed of adjustment towards long-run equilibrium and is specified as follows:

$$\Delta FDI_t = \beta_0 + \sum_{i=0}^{p} \beta_1 \Delta LTO_{t-1} + \sum_{i=0}^{q} \beta_2 \Delta RGDP_{t-1} + \sum_{i=0}^{r} \beta_3 \Delta INFL_{t-1} + \sum_{i=0}^{s} \beta_4 \Delta EXD_{t-1} + ECM_{t-1} + \mu_t$$

Where, ECM is the error correction term, β_0 is the constant, β_1 to β_4 are the short-run impact multipliers and p, q, r, s are the lag length which were determined by the Akaike information criterion.

4. Results of the Study

4.1 Normality Test

Table 1. Normality Test Results

	FDI	RGDP	LTO	EXD	INFL
Mean	124797983.7	15153009556	0.401689	59.91536	3613272.43
Median	4000000000	14976453900	0.332151	61.11235	3.91015261
Standard Deviation	175139154.4	3033880452	0.183936	25.65727	2.30488654
Kurtosis	2.057640141	-1.349018108	-0.154431	2.462666	40.9990011
Skewness	1.571545928	-0.118155154	1.045597	0.963112	6.40301028
Minimum	-30506683.75	9582735200	0.201870	12.03111	-2.40950000
Maximum	717865322.2	20114560000	0.860019	146.5215	147597576
Jacque-Bera	33.18396	4.521546	3.224618	56.76471	33.59876
P-Value	0.082868	0.902854	0.756395	0.068456	0.00018
Observations	41	41	41	41	41

Source: E-Views Statistical Packages Version 9.0

Table 1 above shows the mean, median, minimum, maximum and standard deviation valued of the variables used in the regression model. The mean values of FDI, RGDP, LTO and INFL are greater than their medians and the data of these variables are positively skewed except for RGDP which is negatively skewed. The mean value of EXD is lower than its median. The coefficient of variation of FDI of 1.4 (standard deviation divided by the mean) is greater than 1 which means that FDI has high variability around its mean. The coefficient of variation of RGDP is 0.20 which is less than 1. This means that RGDP is not very volatile. The coefficient of variation of LTO is 0.45 which is less than 1. This means that LTO is not very volatile. In the same manner, the coefficient of variation of EXD is 0.43 which is less than 1. This means that EXD is not very volatile. The coefficient of variation of INFL is 6.37 which exceeds 1. This means that INFL is very volatile.

4.2 Correlation Test

Table 2. Karl Pearson Correlation Matrix Test Results

	FDI	LTO	RGDP	INFL	EXD
FDI	1.000000				
LTO	0.68	1.000000			
RGDP	0.58	0.24	1.000000		
INFL	-0.05	-0.01	-0.18	1.000000	
EXD	0.09	0.14	0.03	0.36	1.0000000

Source: E-Views Statistical Packages Version 9.0

The above correlation matrix shows that there is no multicollinearity between the variables because all the correlation coefficients are less than the 0.8 which is the rule of thumb of multicollinearity (Gujarati, 2003). The correlation matrix also shows that LTO, RGDP and EXD are positively correlated with FDI, whilst INFL has a negative association with FDI.

4.3 Unit Root Test

Table 3. ADF Unit Root Test Results

Variable	ADF test statistic	Critical value 1%	Critical value 5%	Critical value 10%	Probability	Comment
FDI	-2.6698	-3.6056	-2.9369	-2.6069	0.0008	I(0)
LTO	-4.6778	-3.6105	-2.9389	-2.6079	0.0005	I(1)
RGDP	-3.2769	-3.6329	-2.9484	-2.6128	0.0023	I(0)
INFL	-6.3039	-3.6056	-2.9369	-2.6068	0.0000	I(0)
EXD	-6.3790	-3.6104	-2.9389	-2.6079	0.0000	I(1)

Source: E-Views Statistical Packages Version 9.0

The ADF test results above shows that FDI, RGDP and INFL are stationary in their level form. INFL is stationary in levels at 1% level of significance. RGDP is stationary in its level form at 5% level of significance. FDI is stationary in its level form at 10% level of significance. EXD and LTO are non-stationary in its level form.

4.4 Lag length Selection Criteria

The Akaike information criteria was used to select the lag length of the variables in the ARDL specification. Table 4 below shows the results of the lag length selection.

Table 4. Akaike Information Criteria Lag Length Selection

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-736.0789	NA*	1.46	40.05832	40.27601*	40.13506*
1	-735.6348	0.744062	1.51	40.08837*	40.34960	40.18047
2	-735.4911	0.233141	1.58	40.13465	40.43942	40.24210
3	-734.3824	1.737872	1,58	40.12878	40.47709	40.25157
4	-734.3814	0.001577	1.67	40.18278	40.57462	40.32092

Source: E-Views Statistical Packages Version 9.0

The lag length for the study was informed by AIC. Hence, a lag length of one (1) was adopted for this study.

4.5 Cointegration Test

Table 5. Cointegration Test Results

Significance level	I0	I1
10%	2.67	3.44
5%	3.15	4.07
2.5%	3.21	4.23
1%	4.13	5.09

F-Statistic 6.395738

Source: E-Views Statistical Packages Version 9.0

The results for the study confirm the existence of cointegration amongst variables, as supported by an F-statistic value of 6.395738, which is above the upper bound critical value at 5% levels. These results are enough to motivate study to adopt the ARDL for the long-run results, and an unrestricted Error Correction Model (ECM) to determine the short-run relationships.

4.6 ARDL-ECModel

Table 6. ARDL-ECM Model Test Results

Dependent Variable: Foreign Direct Investment (LNFDI)

Variable	Short-Run Co-efficient	Probability	Decision
LnLTO	-0.0113	0.007	Significant
LnRGDP	0.0391	0.021	Significant
LnINFL	0.2023	0.496	Significant
LnEXD	0.0054	0.036	Significant
ECT	-0.8431	0.000	Significant
Variable	**Long-Run Co-efficient**	**Probability**	**Decision**
LnLTO	0.1007	0.0016	Significant
LnRGDP	0.8031	0.0429	Significant
LnINFL	-0.0174	0.024	Significant
lnEXD	-0.0609	0.047	Significant

Source: E-Views Statistical Packages Version 9.0

The results presented on the Table 6 above shows error correction term (ECT) of 84% which is plausible for policy responsiveness. For the ECM, the trade openness has a significant negative coefficient of 0.0113. This suggest that a 1% increase in trade openness, result in a decrease in FDI by 1%. For the ARDL, the trade openness recorded a significant positive coefficient of 0.1007. This

suggest that a 1% increase in trade openness, result in 10% increase in FDI. The results could have been due to that since Zimbabwe is still growing, the increased importation of capital goods, and exportation of minerals and agricultural products stimulate the desire to invest in the country in the form of capital inflows (FDI). The high coefficient of the ECT motivates policy makers to formulate policies that promote trade openness so as to grow the much needed FDI for Zimbabwe.

4.8 Stability Tests

The model was diagnosed to determine if it is well specified.

Table 7. Stability Test Results

Test	P-value	Comment
Ramsey RESET Test	0.8089	The model is correctly specified
Serial-Correlation Test	0.9575	There is no serial correlation
Heteroskedasticity Test	0.3735	There is no Heteroskedasticity

Source: E-Views Statistical Packages Version 9.0

5. Conclusion and Policy Recommendations

The study found that the trade openness coefficient is statistically significant at influencing capital inflow (FDI). This means that, trade openness is important in determining capital flows in Zimbabwe. Due to globalization, most of the countries, especially developing countries have been ratifying some trade policies that had saw most countries removing trade barriers that have been in existence for so many years. The most obvious reason is that most developing nations have realized that they do not live in isolation and can grow their economies through engaging in international trade. This also could create a chance for improved capital flows into Zimbabwe since the study support that trade openness could attract capital inflows into the country.
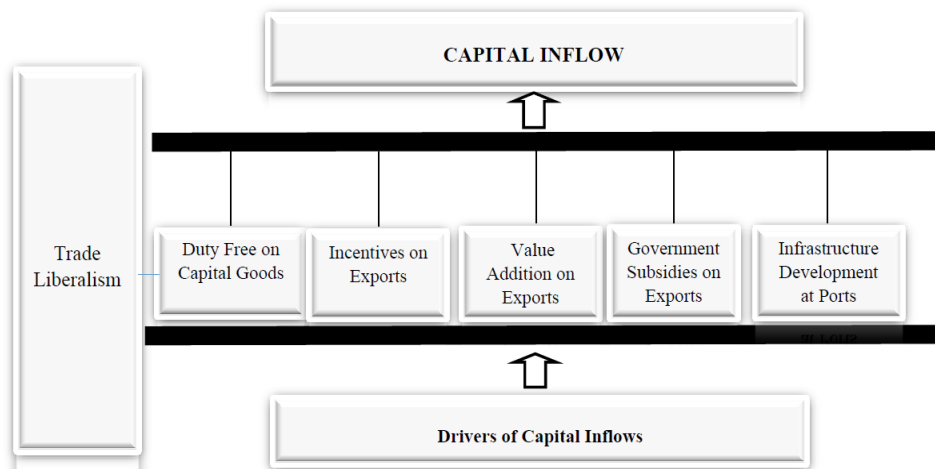

Figure 1. Trade Liberalism-Capital Inflow Framework (Self, 2022)

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Explanation of the Framework

In an endeavor to grow the capital inflow in the face of trade liberalism, the study recommend the following;

- that there be duty free on capital goods;
- that the government give incentives on exporters;
- that all goods exported must have gone through the process of value addition;
- that the government provide subsidies on exporters and;
- that the government ensure efficiency at ports through infrastructure development

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