

Full Length Research Paper

Estimating the Impact of a COMESA Customs Union on Zimbabwe Using a Tariff Reform Impact Simulation Tool (TRIST)

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The implications of the formation of a customs union on revenue and welfare of a country are ambiguous and depend on a number of factors. The theoretical ambiguities give rise to the need for empirical studies that generate information for a particular customs union that is under consideration. Zimbabwe is among the COMESA member states that are actively participating in the preparations for the implementation of the COMESA customs union that has so far missed two deadlines and is now scheduled for 2015. This study provides a quantitative assessment of the potential revenue and welfare implications of the COMESA customs union on Zimbabwe. The study uses the Trade Reform Impact Simulation Tool for analysis. The findings of the study reveal that the customs union imports will decline by US\$79 million. However, the country will witness increase in total revenue by 9.1%. The increase in revenue has been necessitated by the incorporation of VAT revenue into the model. It is therefore important for Zimbabwe to put in place austerity measures meant to improve revenue collection from other sources such as Value Added Tax and income tax if the import tariff revenue loss is to be curtailed.

Key words: Customs Union, Revenue Implications, Imports, Zimbabwe

INTRODUCTION

Prior to the 1990s African countries were using import substitution as a mechanism for industrialisation (Kaluwa and Kambewa, 2009). As results, economist and development partners castigated International Monetary Fund and World Bank for maintaining a long -silence on African industrialisation (Riddell et al., 1994; Thompson, 1992). As a result, IMF and World Bank sponsored trade liberalisation in Africa through the popular structural adjustment policies (Degefe, 1999; Oyejide, 1998). These Breton Woods Institutions argued that more open and liberalised trade regimes promote higher rates of economic growth than closed ones (Sachs and Warner, 1997 and World Bank, 1996).

Zimbabwe like other African economies, regulation of foreign trade has been a key feature of the Zimbabwean

economy for three decades during the UDI period (Unilateral Declaration of Independence) between 1965 and 1980. Under this period, international sanctions, and domestic policies to cope with them, induced import-substituting industrialisation. A sophisticated import control system was built up, which the new government continued to use after independence in 1980 (Rattso and Torvik, 1998). The post independence boom of 1980-82 was unsustainable on foreign exchange grounds, and the government resorted to administered foreign exchange allocation to control the current account deficit. This policy led to macroeconomic stability, but restricted growth (Green and Kadhani, 1986). To the surprise of most observers, the government then chose to go for full trade liberalisation, in fact more radical than most

developing countries (Rattso and Torvik, 1998). This is mainly because of increased political pressure to join the international trend of liberal economic reform. Outside Zimbabwe, both donors and the Bretton Woods institutions argued for liberalisation and would increase funding. Inside the country, the powerful Confederation of Zimbabwe Industries changed its opposition to trade liberalisation around 1987-88. Skalmes (1995) reports increasing concerns about the growth effects of regulation inside the ruling party ZANU (PF).

The Economic Structural Adjustment Programme (ESAP) was announced in July 1990 (Government of Zimbabwe, 1991). The programme contains all the elements of the orthodox Washington package, and trade liberalisation has been the main area of action. Trade reform was designed to be gradual and implemented over the 1990-95 period, but in fact implementation was swift (Rattso and Torvik, 1998). By 1994, all current transactions were outside government control, and the only restrictions left on the capital account concerned returns to investments made before independence and holding foreign assets abroad.

According to (Rattso and Torvik, 1998), the economy has not responded favourably to quick trade liberalisation. The immediate experience involved contraction in output and employment, a consumption boom, the inflow of imports and a rising trade deficit (Rattso and Torvik, 1998). Rattso and Torvik (1998) noted that the timing of the reform was unfortunate, since it coincided with serious drought in 1992.

According to Rattso and Torvik (1998) the economy expanded during trade liberalisation phase 1, 1990-91, as expected and contracted during phase 2, 1991-92, with drought. Compared to trend growth, output fell by about 10% in 1992. Merchandise imports rose by more than 20% on an annual basis (Rattso and Torvik, 1998). Real exports fell and the 1993 merchandise exports were still below the 1990 figure (measured in US dollars). The trade deficit at its worst reached 20% of GDP. The foreign debt accumulated fast during the liberalisation process in a country that previously had shown prudent control and independence from international financial markets. Imports crowded out domestic production. The negative effect on industrial production was influenced by the 1992 drought, with reduced agricultural income and demand and reduced access of inputs from agriculture to industrial processing. The interest rate shock associated with financial liberalisation raised the costs of working capital, and real wages dropped substantially with the overall rise in inflation (Rattso and Torvik, 1998). GDP drops by 0.7% when full and intermediate liberalisation is compared. Employment of unskilled workers falls by more than 1%. The expenditure-switching effects toward foreign goods are stronger than the expenditure increasing effects of increased savings. According to Rattso and Torvik (1998), the expansion of exports in Zimbabwe was too slow to compensate for the loss of

domestic market shares in the short run. Rattso and Torvik (1998) observed that the rise in the trade deficit of about 9% was as a result of liberalisation only. Even without the drought, the simulated deficit is comparable to the first years of independence, when it went up to about 10% of GDP (Davies et al, 1994).

The Zimbabwean government was criticised for devaluing too little too late before the exchange rate float in 1993 (Rattso and Torvik, 1998). To make matters worse, Zimbabwe Government did not have complementary policies to mitigate the effects of trade liberalisation.

Still now Zimbabwe is still stalled by economic and political changes. As noted by Mkwesalamba and Chizemba (2007), countries which do not have sound governance, credible policies and supply capacities find it difficult to gain from regional integration.

Statement of the Problem

The circumstances Zimbabwe finds itself are more difficult than when it embarked on partial liberalisation through ESAP. Zimbabwe went through a decade long economic decay, that is, 1998 – 2008. To make matters worse, the country has to make a major climb down on its import tariffs.

Generally, Zimbabwe's MFN national tariff regime is designed in such a way that capital goods attract duty rates of 0-5%, raw materials, 0-5%, intermediate goods, 10-25% and finished goods are charging at least 40%. This tariff regime is aimed at promoting industrialisation and economic growth by taxing (customs duties) less the factors of production and heavily taxing finished products to protect domestic industries especially those still in their infancy stage. However, the tariff structure shows a huge departure from the COMESA CET which has a maximum CET rate of 25%. The country's tariff structure is widely dispersed with some tariff lines as high as 100% compared to the 25% dispersion under the COMESA CET.

An analysis of Zimbabwe's national tariffs shows that only 19% of the total tariff lines are complying with the COMESA CET rates. The remaining 81% require some adjustments which imply a significant change in the country's trade and tariff policy landscape. Studies conducted by the COMESA Secretariat (2003) and Nhara and Mudungwe (2003), showed that the key tariff bands in terms of contribution to customs duty for Zimbabwe were 5%, 25%, 40% and 60%. These bands contributed a total of around 70% of customs duty collectable in 2002.

It is apparent from the implementation of the COMESA CET will definitely have an impact on Zimbabwe in terms of customs revenue. The question that needs to be addressed empirically is whether the impact is to what extent will Zimbabwe lose its import tariff revenue.

The significant adjustment of the tariff policy will also have an impact on the welfare of the consumers and producers in the country, exports and imports. The country is recovering from an economic crisis which has seen the decline of the industrial capacity utilisation to as low as 10%. It is clear that the country is not yet ready for competition from outside the region.

Objectives of the Study

The study seeks to achieve the following main objectives:
To examine quantitatively the statutory and collected revenue implications of the proposed COMESA CET on Zimbabwe;

To examine the impact of COMESA customs union on VAT and excise duties;

To examine the impact of the proposed COMESA CET on Zimbabwe imports;

To come up with appropriate policy options for Zimbabwe that can be used in negotiations and policy formulation.

LITERATURE REVIEW

This section looked at selected literature on economic integration and specifically on the welfare and revenue implications of a customs union. The assessment will cover both theoretical and empirical literature.

Economic Integration Theory

The impetus for regional economic integration draws its rationale from the standard trade theory which states that free trade is superior to all other trade policies. Economic integration refers to a move by member states trading together reducing or eradicating all forms of trade barriers (Salvatore, 2007).

Peters (1979) identified various forms of economic integration in a sequence starting with the least restrictive set of association. The loosest form of association is represented by trade preferences or partial scope agreements focus on liberalisation of trade in specific commodities or sectors. A typical example is a Preferential Trade Agreement (PTA). With PTA countries only agree to reduce tariffs only on some set of product categories while higher or non discriminatory tariffs still prevail on all other product categories.

A free trade area is the second level and most common type of economic integration in which members remove all barriers on trade (tariffs, quotas and non-tariff barriers) among themselves but retain their independent external tariffs. A customs union is the third form of integration. It allows free trade among its members and adopts a common external tariff against countries outside the customs union. Members of a customs union

harmonise their trade policies toward the rest of the world. In a common market, members move beyond a customs union, and beyond narrow integration or commodity trade reforms, to allow the free movement of labour and capital within the union.

The most advanced type of economic integration is an economic union which goes further than the common market by harmonising or even unifying the monetary and fiscal policies of member states. A political union represents the ultimate stage of economic and political integration in which the legislative and judicial process of member states are either unified or federated under consensually agreed arrangements.

Static and Dynamic Benefits of a Customs Union

In theory, the formation of a customs union is associated with some static welfare effects and dynamic benefits. One of the benefits is the administration savings from the elimination of customs officers, border patrols for trade among member states (Salvatore, 2007). The removal of economic barriers among member states will result in a better division of labour and consequently in an increase in production and prosperity. The elimination of trade barriers among member states are also associated with increased competition which stimulates development through efficiency and utilisation of new technology.

Many countries are too small to support separately activities that are subject to large economies of scale. This might be because insufficient quantities of specialised inputs are available, or because markets are too small to absorb the sales necessary to cover costs. The formation of a customs union offers one route to overcome the disadvantages of smallness, by pooling resources or combining markets thereby forming a critical mass. The larger market brings countries into closer contact and competition with each other.

Revenue and Welfare Effects of a Customs Union

The earliest customs union theory generally believed that any economic integration that represents a movement towards freer trade should be beneficial and welfare enhancing. It is believed that free trade maximises world welfare. A customs union reduces tariffs and is therefore a movement towards free trade hence it was believed that a customs union increases world welfare. However, this belief was challenged by Viner (1950) when he showed that the net impact of a regional trade agreement on welfare is uncertain and depends on a number of economic circumstances.

Bhagwati (1971) also contributed to the discussion by arguing that the absence of substitution in consumption is not a sufficient condition for a trade-diverting customs union to be welfare-reducing. He argues that Lipsey's

analysis, while excellent in highlighting the consumption gain, is insufficient in its treatment of the question as to why Viner overlooked the possibility that a trade-diverting customs union may none the less be welfare-improving. He demonstrated that variability in production can also be a source of welfare gain that can exceed the welfare loss due to the diversion of trade; hence, a net gain can accrue to the home country as a result of a trade diverting union even if fixed consumption coefficients are assumed. It is generally believed in the reviewed literature that when the benefits of trade creation exceed the costs of trade diversion then there is a net welfare gain in the formation of a customs union.

Empirical literature

There are two general types of economic models in the trade literature that have been used to analyse the welfare and revenue impact of regional integration namely ex-ante simulation studies and ex-post econometric analyses such as the gravity model. The ex post analysis reviews the impact of RTAs by using simple investigation of intra-regional trade patterns following the formation of the RTA. The ex-ante approach is undertaken at an earlier date before the formation of the RTA. Each of these modelling approaches has its own strengths and weaknesses and is suitable under different circumstances.

A number of studies were carried out by the World Bank in recent years aimed at investigating the impact of various trade agreements using the Tariff Reform Impact Simulation Tool (TRIST). These studies were commissioned in Bolivia, Burundi, Ethiopia, Jordan, Kenya, Madagascar, Malawi, Mozambique, Nigeria, Seychelles, Tanzania and Zambia by the World Bank in 2009. The research was undertaken by Hamilton in 2009.

In Mozambique, Hamilton (2009) examined the impact of a complete tariff liberalisation on imports from Southern Africa Customs Union (SACU) members using TRIST model. The model projected a short-term fall in tariff revenue by 38.3 % as well as a reduction in total revenue by 13.5 %. Imports are not projected to be heavily impacted (decrease of 1.0 %) (Hamilton, 2009).

Hamilton (2009) used the TRIST model to hypothesise complete tariff liberalisation on imports from EAC member states on Burundi. According to Hamilton (2009) the short-term impact of this reform is projected to involve revenue losses of 8.1 % (tariff revenue) and 3.4 % (total revenue). Hamilton (2009) noted that imports are expected to increase marginally by 0.5 %. Burundi imported BIF344 billion worth of goods from 94 import partners, distributed across 2,354 tariff lines.

According to Hamilton (2009) Burundi's top ten trading partners were: Saudi Arabia, Belgium, Uganda, Kenya, Japan, China, India, France, the United Arab Emirates (UAE) and Germany. Brenton et al (2009) using the

TRIST model, observed that Malawi and Zambia revenue is expected to increase by 26.2 % and 24.6 %, respectively, if a COMESA customs union is implemented. However, Brenton *et al* (2009) estimated the potential tariff revenue was lost by around 40 % to 50 % in low income countries caused by exemptions.

Hamilton (2009) also investigated the impact of a COMESA FTA on Ethiopia. The results suggest that an elimination of all tariffs on goods from COMESA FTA countries results in a fall in tariff revenue by 4.8 % as well as a reduction in total revenue by approximately 2.4 %. According to Hamilton (2009), imports are not projected to be heavily impacted (increase of 0.2 %).

Karingi et al. (2002) analysed the likely implications of a COMESA FTA and of a COMESA customs union using the Global Trade Analysis Project (GTAP) model and the GTAP 5 database. The study involved five countries namely Malawi, Tanzania, Uganda, Zambia and Zimbabwe. The welfare results of the COMESA customs union showed that all member countries would benefit in terms of real incomes from the customs union with Zimbabwe's real GDP expanding by 0.79 %age points. On the trade front, the results showed that the customs union leads to significant changes in the total volume of trade. However, the terms of trade effects of the customs union establishment indicated that only Zimbabwe loses while all the other four countries experience improvement in the short run. On the total effects on welfare of the implementation of the customs union, the results indicated that all countries will gain with Zimbabwe having a welfare gain equivalent to US\$10.4 million. The authors therefore recommended that COMESA should move beyond the FTA to a customs union. The study did not however touch on the revenue implications of the customs union. This study therefore fills the gap by empirically analysing the revenue implications of the COMESA customs union. Castro et al. (2004) conducted a study on the trade and revenue impacts of the East African Community (EAC) Customs Union using a partial equilibrium model and 2002 data. The study was undertaken before the implementation of the customs union to predict how import flows and customs revenue was expected to change for Kenya, Tanzania and Uganda following the implementation of the EAC Customs Union. The study analysed the proposed phased internal tariff where Tanzania and Uganda were to temporarily maintain tariffs on selected imports from Kenya. The results of the study suggested modest increase in regional trade flows, increase in third country imports for Kenya and Tanzania, and decline in third country imports for Uganda. They also conclude that the implementation of the Customs Union will lead to increases in producer and consumer welfare for Kenya and Tanzania economies driven by the reduction in import prices. Uganda will however experience more expensive imports. The region as a whole will experience modest decline in customs revenue.

A similar study conducted by Okello (2008) concluded

that while the EAC customs union would generate more trade among the member countries, Kenya's manufacturing sector remains far advanced than other member countries and may spell doom for Uganda in the short and medium terms.

From the above discussion, it is apparent that the impact of a customs union on imports, prices and revenue is ambiguous from a theoretical point of view. The various theoretical contributions point to potentially important effects and fundamental guidelines, but no general conclusions can be drawn from theory alone. This therefore implies that the question of whether a customs union is welfare-increasing or not is essentially an empirical question that must be settled by examining data specific of COMESA customs union on Zimbabwe. The TRIST model has shown to be a useful tool in evaluating the impact of trade reforms on statutory revenue, collected revenue and other domestic sources of revenue such as VAT and excise duties which other models such as WITS/SMART and general computable has failed to do. In this regard, the TRIST model is adopted in this study.

RESEARCH METHODOLOGY

A Tariff Reform Impact Simulation Tool (TRIST) developed by the World Bank was used in this study. TRIST is a trade policy impact assessment tool build in Excel spreadsheet that can be used to simulate the short term implications of tariff reform on revenue (World Bank, 2012). The model gives an indication which sectors of the domestic economy are likely to be most affected in terms of output and employment.

TRIST uses country's revenue authorities reported data for imports and collected duties from the tariff, VAT and excise tax at the tariff line (Harmonised System (HS) 8 digit) level, broken down by trading partner groups (World Bank, 2012). The use of TRIST model allows for the identification of tariff exemptions and the trading partner specific collection rates for tariffs, VAT and excise duties (World Bank, 2012). This provides for more accurate projections than when using statutory tariff rates.

The TRIST model estimate short-term tariff, VAT and excise revenue and import value changes at tariff line level. This is important as it enable the government to evaluate the effects a trade policy reform. For example, through TRIST model government will be able to know in advance major casualty of tariff reform. This will therefore enable the government to either classify such products as sensitive product which will be exempted from trade policy reform or provide relevant safety nets.

The TRIST model also calculates the resulting changes in applied tariffs and prices by sector. Through the TRIST model the impact of a trade policy reform on domestic prices of products by sector can be estimated. This is an important outcome as it is one of the objectives of this study. Many developing countries have suffered from food riots as food prices soared after member states undertook to liberalise the agricultural sector. Also, the TRIST model will also show the extent to which applied tariffs have changed after a tariff reform.

In addition, it gives an indicative idea of the magnitude of output and employment losses by sector (the quality of results will depend on availability of detailed data). However, this fundamental was not undertaken because of unavailability of data at the time this

research was undertaken.

This study used the following tariff reform scenarios:

Considered a full COMESA customs union, here the study assumed that Zimbabwe will only have a customs union with COMESA only. Zimbabwe imports from all other trading partners will pay duty at rates governed by the common external tariffs.

COMESA FTA, these are member states in COMESA who have implemented the FTA with Zimbabwe. As a result, trade between Zimbabwe and these countries will be duty free for the agreed tariff lines. These countries are Zambia, Sudan, Mauritius, Malawi, Egypt, Madagascar, Kenya, Burundi, Rwanda, Libya, Comoros, Seychelles and Djibouti.

COMESA non FTA, some member states in COMESA have applied for reprieve (derogation) to implement the COMESA FTA. The countries considered in this study which are part of the COMESA non FTA are Democratic Republic of Congo, Uganda, Swaziland, Ethiopia and Eritrea.

SADC non COMESA, the study took this as another trade partner whose trade with Zimbabwe will not enjoy preferential treatment from COMESA. SADC non COMESA are member states which are in SADC but not in COMESA. These are South Africa, Botswana, Angola, Tanzania, Mozambique, Lesotho and Namibia.

The EU is included as a Zimbabwe trading in this study. Twenty – seven member states which were considered under the EU regional group are Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and United Kingdom.

Other Zimbabwe major trading partners which include USA, China, United Arab Emirates, Kuwait, India and Japan were included in this study to evaluate the impact of various tariff reforms on Zimbabwe. The list of Zimbabwe's major trading partners seemed to have left out traditional partners such as South Africa, Zambia and the United Kingdom because these countries are already covered under SADC non COMESA, COMESA FTA and EU, respectively.

The last Zimbabwe trading partner is classified under the rest of the world (ROW). ROW includes all countries outside the list above. As a result, this study included all Zimbabwe trading partner even those outside the WTO it evaluating the impact of trade policy reforms on Zimbabwe.

The parameters used in this study are the customs union where COMESA nomenclature was used with the approved CET. After defining tariff reform scenarios and model parameters, the study undertook simulation of trade policy single Excel Import responses to tariff changes are modelled in a partial equilibrium framework. The base year used in this study is 2012. This simple approach does not take into account secondary growth or competitiveness effects.

After simulation, the following results are expected excluding impact on output and employment since there was not data for such analysis.

Imports by product and trading partner; Tariff surcharge and VAT revenue by product and trading partner; and Applied tariff rates and price changes by sector.

RESEARCH FINDINGS

Discussion of empirical findings on the impact of COMESA

customs union on imports, statutory revenue, collected revenue, VAT and excise duties in Zimbabwe is explored in this section.

Impact of COMESA Customs Union on Revenue and Imports

The adoption of COMESA CET is expected to drive Zimbabwe imports by 1.2% as imports bill is expected to fall from US\$6.857 billion to US \$6.778 billion (US\$79 million decline). This outcome is consistent with the findings of Hamilton in Mozambique. Hamilton (2009) observed that the SACU has resulted in Mozambique's imports marginally falling by 1%.

The implication of a COMESA CET on tariff revenue is positive. Zimbabwe's expected import tariff revenue before a COMESA customs union was expected to be at US\$467.5 million. However, the implementation of the customs union would have seen tariff revenue surging to US\$585.4 million. This therefore means that Zimbabwe's tariff revenue is expected to increase by 25.2% if a full customs union was employed by Zimbabwe. This outcome is consistent with the findings of Brenton *et al.* (2009) in Malawi and Zambia. Brenton *et al.* (2009) observed that Malawi and Zambia revenue is expected to increase by 26.2% and 24.6%, respectively. The impact of the COMESA CET on total revenue (tariff revenue, VAT and excise duties) in Zimbabwe has been positive (Table 1).

Zimbabwe revenue is expected to increase by US\$121 million to US\$1.448 billion after a full implementation of the COMESA CET. There two possible explanations to the increase in revenue. Firstly, some tariff lines could have witnessed a surge in imports after import duty was aligned downwards. Secondly, previously lowly taxed goods especially the intermediate goods will be expected to be taxed at higher rates hence the increase in import tariff revenue especially those in the range of 0–5% which constitute 35.3% of total tariff lines will have to be raised to 10% if they fall under intermediate goods as prescribed under COMESA nomenclature.

Impact of COMESA CET Zimbabwe on Imports by Destination

Overall, Zimbabwe imports are expected to decline by 1.2%, that is, US\$79.2 million. A review of imports performance by trading partner shows that, Zimbabwe imports from rest of the world, dropped by US\$1.39 million after adopting COMESA customs union (Table 2). Zimbabwe imports from COMESA FTA rose by US\$12.3 million. The result confirms with economic theory. A removal of import tariff lowers imports cost, and as such economic agents' appetite for imports rises. However, it is disheartening to note that Zimbabwe trade within

COMESA despite Zimbabwe ambitious drive to promote its trade in COMESA its trade still remain very low in comparison with its trading partners and its trade in SADC. Zimbabwe imports from the EU, USA, United Arab Emirates (UAE) and China are expected to rise by US\$5.7 million, US\$12.8 million, US\$1.9 million and US\$2.5 million, respectively. The increase in imports can be attributed to the alignment of tariffs in line with the new requirement of 0% for capital goods and raw materials, 10% for intermediate goods and 25% for finished goods. However, imports from SADC non COMESA countries (member states in SADC which are not in COMESA such as Mozambique, Botswana and South Africa) witnessed a massive decline of US\$114.2 million.

The Impact of a COMESA Customs Union on Revenue in Zimbabwe

This section discusses the statutory revenue, actual revenue collected, VAT and excise revenue.

Impact on Statutory Revenue

Statutory revenue is the revenue which the government expect to receive if all imports are levied relevant import duties without concessions. Goods destined for the export processing zones, those procured by the NGOs, diplomats and top government officials like the first family are taxed under this heading without exemptions. The importance of this analysis is to investigate the extent to which exemptions affect revenue collections. Are exemptions of concern to Zimbabwe?

The country's revenue is expected to fall by 1.4 % to \$956 million after adopting COMESA CET (Table 3). The decrease in revenue could have been propelled by decline in imports after adopting the COMESA CET. Major sources of revenue to Zimbabwe by destination in descending order are SADC non COMESA countries, United States, EU and Japan (Table 3).

Zimbabwe revenue from SADC non COMESA countries stood at US\$564 million. However, after the adoption of COMESA CET Zimbabwe revenue shed US\$28.4 million. Zimbabwe revenue on imports from the United States was US\$165 million and rose to US\$171 million after the implementation of the COMESA CET. By and large, imports from United States contributed a surge in revenue by US\$6 million. This is in line with a surge imports from the United States.

Collected Tariff Revenue Impact

Unlike the statutory tariff revenue which hypothetically shows what is due to the country in terms of revenue if no concessions are given, the collected tariff revenue is the

Table 1. The Impact of Revenue and Imports on Zimbabwe after COMESA CET (US\$ Million).

Details	Value US\$
Impact on imports:	
Imports pre CET	6,857.061
Imports post CET	6,777.905
Change in imports	-79.156
% change in imports	-1.2%
Impact on Revenue:	
Tariff revenue Pre CET	467.538
Tariff revenue Post CET	585.379
Change in tariff revenue	117.840
% change in tariff revenue	25.2%
Total Tax Revenues on Imports	
Total revenue Pre CET	1,327.474
Total revenue Post CET	1,448.150
Change in Total revenue	120.675
% change in Total revenue	9.1%
Total Tax Revenues on Imports and Domestic Production	
Total tax revenue Pre CET	1,327.474
Total tax revenue Post CET	1,448.150
Change in total tax revenue	120.675
% change in total tax revenue	9.1%
Collected Tariff rate:	
Collected applied tariff rate Pre	6.8%
Collected applied tariff rate Post	8.6%
% change in collected applied tariff rate	26.7%

Source: Author's Own Calculations Based on TRIST Simulations

actual revenue collected. Normally, there is a variance between statutory tariff revenue and collected revenue. The difference between the statutory revenue and the actual revenue collected guides this study to proffer solutions to the Government of Zimbabwe on the impact exemptions on revenue.

Under the status core, before the implementation of the COMESA CET, Zimbabwe expect to collected US\$467.5 million in tariff revenue. However, after adopting the COMESA CET actual revenue collected is expected to rise to US\$585.4 million. This represent a US\$117.8 million increase, that is, 25.2% of total revenue collected (Table 4).

It is worth to note that the actual collected revenue is 51.8 % lower than the statutory revenue expected. The result suggests that Zimbabwe borders are porous. Most goods could be smuggled into the country without paying required import duty. There could be rampant corruption at the border. Senior government officials exempted from paying import duties could be abusing the system. This

outcome is consistent with the findings of Brenton et al. (2009) estimated the potential tariff revenue was lost by around 40% to 50% in low income countries.

Value Added Tax

Value added tax is domestic tax instrument collected on all commodities traded within the country. For imports, all imported goods and services pays VAT as well in addition to import tariffs such as import duty and surtax. In principle, unlike customs duties, both VAT and excise taxes are not distortionary since they are applied to both domestic and foreign sources of supply. In practice, the domestic tax base - for VAT in particular - tends to be very small in developing countries (Breton et al., 2009). Thus, it is very important to take into account changes in VAT and excise receipts that follow the reform of customs duties since it is total revenues from trade that are of interest to policy makers. As tariffs are reduced and

Table 2. Impact of a full COMESA CET on Zimbabwe Imports by Source (US\$ Millions).

Trading Partners	Imports Pre CET	Imports Post CET	Change US\$	% Change
Rest of the World	324.95	323.56	(1.39)	(0.43)
COMESA FTA	454.78	467.08	12.30	2.70
COMESA non FTA	22.84	23.06	0.224	0.98
SADC non COMESA	3,284.41	3,170.16	(114.25)	(3.48)
EU	1,501.45	1,507.19	5.75	0.38
USA	554.01	566.85	12.84	2.32
China	290.69	293.21	2.52	0.87
UAE	77.31	79.17	1.86	2.40
Kuwait	152.71	152.71	(0.0)	(0.00)
India	106.98	106.64	(0.34)	(0.32)
Japan	86.93	88.27	1.34	1.54
Total	6,857.06	6,777.91	(79.16)	(1.15)

Source: Author's Own Calculations Based on TRIST Simulations.

Table 3. The Impact of COMESA CET on Zimbabwe Revenue: Statutory Revenue (US\$ Millions).

Trading Partners	STR Pre CET	STR Post CET	Change US\$	% Change
Rest of the World	25.23	25.93	0.70	2.80
COMESA FTA	37.76	40.69	2.93	7.76
COMESA non FTA	0.64	0.75	0.100	15.67
SADC non COMESA	563.98	535.56	(28.42)	(5.04)
EU	97.98	99.46	1.48	1.51
USA	164.78	170.74	5.97	3.62
China	31.79	33.93	2.14	6.73
UAE	8.78	9.46	0.68	7.77
Kuwait	5.98	5.98	0.0	0.00
India	6.08	6.19	0.11	1.81
Japan	27.06	27.79	0.72	2.67
Total	970.06	956.48	(13.58)	(1.40)

Source: Author's Own Calculations Based on TRIST Simulations

Table 4. The Impact of a full COMESA CET on Zimbabwe Revenue: Collected Tariff Revenue.

Trading Partners	CTR Pre CET	CTR Post CET	Change US\$	% Change
Rest of the World	17.56	21.65	4.09	23.29
COMESA FTA	2,134,413.00	2,138,656.00	4,243.00	0.20
COMESA non FTA	0.16	-	(0.16)	(100.00)
SADC non COMESA	193.03	346.19	153.15	79.34
EU	40.55	29.13	(11.43)	(28.17)
USA	153.29	128.00	(25.29)	(16.50)
China	24.69	25.86	1.16	4.71
UAE	7.38	5.78	(1.6)	(21.65)
Kuwait	0.004	0.005	0.001	43.19
India	4.23	5.73	1.51	35.73
Japan	24.51	20.90	(3.61)	(14.72)
Total	467.54	585.38	117.84	25.20

Source: Author's Own Calculations Based on TRIST Simulations.

Table 5. The Impact of a full COMESA CET on Zimbabwe Revenue: VAT (US\$ Millions).

Trading Partners	VAT Pre CET	VAT Post CET	Change US\$	% Change
Rest of the World	22.44	22.58	0.14	0.62
COMESA FTA	21.04	22.38	1.34	6.39
COMESA non FTA	3.38	3.40	0.014	0.42
SADC non COMESA	314.68	317.97	3.29	1.04
EU	49.51	48.79	(0.72)	(1.46)
USA	100.34	98.53	(1.81)	(1.80)
China	38.95	39.52	0.566	1.45
UAE	8.76	8.80	42.39	0.48
Kuwait	0.000070	0.000069	(0.0)	(1.85)
India	6.13	6.23	0.100	1.63
Japan	16.05	15.74	(0.31)	(1.96)
Total	581.28	583.93	2.65	0.46

Source: Author's Own Calculations Based on TRIST Simulations

Table 6.2 The Impact of a full COMESA CET on Zimbabwe Revenue: Excise Duties (US\$ Millions).

Trading Partners	Excise Pre CET	Excise Post CET	Change US\$	% Change
Rest of the World	1.44	1.44	-	-
COMESA FTA	-	-	-	-
COMESA non FTA	-	-	-	-
SADC non COMESA	16.90	17.09	0.18	1.08
EU	238.38	238.38	-	-
USA	0.102	0.102	-	-
China	-	-	-	-
UAE	0.943	0.943	-	-
Kuwait	20.90	20.90	-	-
India	-	-	-	-
Japan	-	-	-	-
Total	278.66	278.84	0.18	0.07

Source: Author's Own Calculations Based on TRIST Simulations.

US\$314.6 million, US\$98.5 million, US\$48.8 million, US\$39.5 million, US\$21.1 million and US\$15.7 million, respectively (Table 5).

The contribution of VAT revenue is in line with the contribution of imports to Zimbabwe by these trading partners. The same trading partners who topped VAT revenue contributions are the same who were top sources of Zimbabwe imports after the country implemented COMESA CET for the simple reason that VAT is an *ad valorem* tax. Hence, trading partners which supply more goods to Zimbabwe is expected to pay more VAT.

Excise duty

Excise duty is a domestic tax levied selected products such as beer, tobacco, wines and spirits, second hand

motor vehicles and fuels. For beer and tobacco particularly, government's intention to charge excise duties in addition to revenue is to discourage overconsumption of those commodities on health grounds. These products are facing an inelastic demand. Hence, the government finds it easy to raise revenue by levying excise duties on these products.

Table 6 shows the contribution of excise duty into the national coffers. Revenue generated by excise tax before COMESA CET stood at US\$278.7 million. The country witnessed a marginal increase in excise tax after adopting the COMESA CET. Expected excise revenue increased by US\$0.183 million. This represent 10% total tax revenue generated in 2012 in Zimbabwe. This outcome is consistent with the findings of Hamilton (2009) in Ethiopia. Hamilton revealed that Ethiopia's excise duties constitute 10.5% of total tax revenue.

CONCLUSION AND POLICY OPTIONS

This study evaluated the implications of COMESA customs union on imports and revenue in Zimbabwe. A TRIST model was used to categorically separate the sources of revenue which the conventional trade analysis tools have failed to address.

The outcome of this study shows that Zimbabwe's imports are expected to fall by 1.2% if the country adopts the COMESA customs union. Consistently with the fall in imports, Zimbabwe's statutory revenue (expected revenue without exemptions) is also anticipated to decline by 1.4%. However, the implementation of the customs union would have seen collected tariff revenue (after taking into account of exemptions) surging by 25.2% to US\$585.4 million.

The adoption of COMESA customs union by Zimbabwe is expected to drive up VAT and excise duties US\$2 million and US\$0.183 million, respectively. After taking into account all sources of revenue, that is, import duties, VAT and excise duties, the implementation of a COMESA customs union is expected to increase total revenue by 9.1%.

From this foregoing discussion, it came out clear that Zimbabwe offers excessive exemptions which has led to the country losing actual collected revenue 51.8% of expected revenue. VAT imaged a major source of revenue in Zimbabwe contributing 40.3% of tariff revenue in Zimbabwe in 2012. Zimbabwe's trade performance in COMESA based on imports was a lacklustre. The policy implications that can be drawn from this study are:

The country need to consider improving the collection of revenue from alternative sources such as VAT, personal and company taxes and excise duty in order to cushion itself against the revenue loss impact of the COMESA CET. The country could reconfigure the income tax bands so that they become more progressive thereby raising more revenue. Government could also consider widening the tax base by taxing the informal sector, which has been growing rapidly in the past years. And, fiscal authorities need to consider VAT as an important trade policy instrument that can be used to mitigate loss of revenue due to trade liberalisation as suggested by Alfieri et al. (2006).

In order to deal with dismal tax collections, Zimbabwe should review its tax exemptions in and remove unnecessary concessions. In addition, the country should plug holes which provide room for possible corruption through digitalisation of the tax system.

The agreement by member states to have a basket of sensitive products will help to reduce the revenue loss for Zimbabwe. In this regard, Zimbabwe's negotiators should push for sensitive products that will not be subjected to tariff reduction for some time. This is crucial as it gives member states the needed policy space to develop their sensitive industries before opening up to third countries' competition. For Zimbabwe the sensitive products basket

should mainly be composed of finished products that are currently levied high duty rates.

To cushion the impact of tariff reduction on those industries that are currently enjoying tariff protection, there is need for government to come up with an appropriate timeframe and sequencing of tariff reforms to comply with the agreed COMESA CET. During the Thirteenth COMESA Summit of Heads of State and Government held in June 2009, member states were given a transition period of three years to align their national tariffs with the COMESA CET. Although the timelines has been extended to 2015, it seems that the timeframe is still short given the level of tariff adjustment that has to be undertaken and also considering that the country is still recovering from a decade long economic decay. The country should therefore request for an extension of the transition period by reasonable time so that it recuperates and build its competitiveness.

Zimbabwe should make use of the COMESA adjustment facility which is designed to assist member states that will incur adjustment costs due to tariff reductions. The COMESA adjustment facility is provision given by COMESA Fund to member states which demonstrate loss of government revenue emanating from tariff alignments to the COMESA CET. The country stands a chance to benefit from the COMESA Fund if it provides bankable projects on infrastructural projects aimed at trade facilitation. It is therefore prudent that the country start to withdraw money from this fund now.

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