**THE IMPLICATION OF IMPOSING TARIFFS ON DOMESTIC MANUFACURING PRODUCTION IN UGANDA**

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**Abstract**

During the reading of Uganda’s budget for FY 2019/20, new tariffs were stipulated—partly as means of attaining Uganda’s import substitution aspiration. This study examines the implications of increased import duties on selected products in a production and supply constrained environment. The study examines the trade (trade creation and diversion), revenue and welfare effects using the WITS-SMART simulation model. The results show that the net trade effect is negative across the 10%, 25%, 35% and 60% tariff rates. There is a minimal loss in consumer welfare that the nation can withstand in the short term. The total revenue effect is positive across all tariff lines, but not significant. We note that the expected revenue gains from the tariff increments may not be realized in the short run since most of Uganda’s trading partners are within the EAC and COMESA and thus exempted from this tariff change. We conclude that the government should first identify and address the supply side constraints of producers and their capacity deficiencies and then focus on stimulating domestic production, rather than imposing import duties to boost production. In addition, there is an urgent need to apply empirical analysis to determine the appropriateness of new tariffs vis-à-vis revenue mobilization.

Keywords: Tariff, Trade, Welfare, Revenue

**Introduction**

The East African Community (EAC) partner states presented their country positions on the intent to review import duties on goods entering the regional bloc, in preparation for the negotiations to bring the Common External Tariff (CET) into effect on July 1, 2019. It was argued that the region has experienced several economic changes and that new trade policy issues have emerged, therefore, the present rates no longer apply and are ineffective. The CET review was intended to improve economic growth and development, support social welfare, promote intra-EAC trade, increase food security, create employment and increase domestic revenue for the EAC economies.

Uganda’s 2019/20 budget was read on 13th June 2019 in unity with the rest of the EAC partner states. According to the Finance Minister, Uganda’s GDP grew by 6.1%, in 2018/19 and the target was to raise the revenue to GDP ratio to 18% for the next 5 years. Pertinent to this is improving tax collection and administration (through tax amendment and increasing import tariffs to encourage industrialization). To achieve this objective, the government proposed a Financing Strategy for FY 2019/20 to mobilize revenue and this included raising import duties on select products

According to the KPMG (2019) report, import duties for the selected commodities were increased in the following ranges 10%, 25%, 35% and 60%2. This increase in tariffs went into effect on July 1, 2019, and it was expected to increase the price of imports and increase demand for the locally manufactured goods, boost industrialization and protect infant firms.

It is important to note however, that the manufacturing sector in Uganda still faces many constraints including; weak institutional support; inadequate access to affordable credit, such as the lack of adequate financial infrastructure to support micro, small, and medium enterprises (MSMEs); inadequate entrepreneurship and managerial skills; costly and insufficient physical infrastructure, more so quality transport, energy, and communication infrastructure; unreliable supply of inputs; low level of technology and innovations; and manufacturing activities are characterized by low value-added ‘manufacturing’ (AFDB, 2014).

However, much as local manufacturers stand to gain, are they in a position to meet this increase in demand for their products? How fast can they adjust to meet this demand? Do they have the necessary inputs readily available in a production and supply-constrained environment? It was, therefore, essential to identify the products whose tariffs were increased and assess the overall welfare, revenue and trade effects of the increased import duties.

* 1. **Objectives of the Study**

This study examines the implications of increased import duties on selected products in Uganda. Specifically, the study seeks to;

1. Identify the products whose tariffs were increased.
2. Assess the overall welfare, revenue and trade effects of the increased import duties.
3. Analyze whether the tariff increments achieved their intended objective of increasing revenue mobilization through increased tariffs and promoting import substitution.
   1. **Significance of the Study**

From a policy perspective, the study examines whether the new tariffs were sufficient in increasing revenue and building domestic capacity. Therefore, the study provides empirical evidence to guide the government on;

1. the appropriateness of tariff increments on the economy in terms of trade, welfare and revenue, and
2. trade policy to boost domestic production, address challenges to promote export competitiveness.

This rest of the paper is structured as follows; Chapter two synthesizes the review of literature. Chapter three presents the methodology; Chapter four discusses the results, and Chapter 5 presents the conclusion and policy implications.

**2.0 Literature Review**

**2.1 Theoretical Perspective**

A tariff has two main competing purposes, a fiscal role to raise revenue for public expenditure; and a protective role to provide support for distressed or strategic domestic infant industries, by limiting competition from foreign firms. Slaughter (2004) and Tybout (2000) for example contend that protectionism, whether through tariff and non-tariff barriers, allows infant industries to “learn by doing” and boost their productivity before engaging in international trade. The infant-industry argument gives the infant firms leeway to innovate, increase economies of scale, boost productivity and compete favorably on the domestic market, without pressure from international competitors.

Similarly, Suranovic (2010) also argues that a temporary increase in domestic prices allows the infant firms to cover their high costs of production while remaining in the market. It also allows firms to achieve a given level of efficiency and capability, which facilitates their competitiveness with their foreign counterparts. Basically, the infant firms have a chance to grow without external interference (Adelman, 2001). On the contrary however, Shafaeddin (2000) cautions that continued protection of the infant industry may hinder its development as an efficient production process to allow competitiveness on the world market. Infant industry protection should hence be temporary and not extreme to eliminate foreign competition bearing in mind the circumstances of the country in question.

The theory of trade acknowledges the relevance of trade restrictions, where in the event of domestic market failures interferences such as protectionism would be ideal. Theoretically, the demand for imports is expected to decline once tariffs are increased, which eases competition for the domestic firms, especially the infant ones due to an increase in import prices. Oslington (2012) argues that when a tariff is high, but constant across imports irrespective of their origin, trade may be diverted from its free flow in contrast to a moderate tax, which gives different preferences to imports based on their country of origin or the threshold existing before the application of partial reductions in duties via reciprocity measures.

In addition, tariffs increase the prices of inputs and the greater the weight of the protected imports in a given economic activity, the more significant the impact on that activity. He stressed Jacob Viner’s argument about the situation in Manitoba where a tariff reduction in Canada pushed US producers out of the market, and highly-priced imports were purchased from Canadian producers. This was the case for both consumer goods and inputs for Manitoba’s agricultural export industries, as well as for government purchases.

Substantially, trade theorists agree that tariffs create distortions on the economy, which leads to uneven resource allocation. These distortions might result in the loss of revenue, which the government utilizes in implementing several public programmes, especially if sound policies do not follow the tax reforms. Yet, the country is highly dependent on import duty revenue (Kowalski, 2005). Furthermore, they disrupt the demand and supply patterns and the welfare of the citizens (Goerzen et al, 2016). In contrast, tariff liberalization allows for better allocation of resources by creating changes in relative prices thereby increasing production and consumption.

**2.2 Empirical Literature**

According to Davids et, al. (2015), chicken ranked highest in South Africa’s meat industry, accounting for 17.9% share of agricultural production in 2011. Through a partial equilibrium framework, simulations were run to determine the effects of different import tariff scenarios to this effect4. Their results revealed that higher tariffs on chicken imports would favor the local producers given that their prices would increase, and on the other hand, the purchaser price would increase too, which would affect consumption, especially by the low income population5. Therefore, they advocated for a ‘balanced’ approach other than protectionism to lessen the impact on consumer prices, such as a ‘zero VAT rating’. This is a scenario where protectionism might distort consumer prices, causing a decline in welfare much as the industry might thrive, which is contrary to the theory that protectionism leads to not only increased production but also domestic consumption of local products.

Critics also argue that protectionism exposes infant industries to risk in the sense that their growth is slow compared to foreign enterprises. Eduardo & Shane (1995) presented an example about the ineffective infant industry protection of the Brazilian computer industry due to the gap in technology between the computer industry in the country and the rest of the world. It is thus argued that if the domestic firm lacks capacity to innovate, it can choose to adopt the traditional and less efficient technology and this depends on the available resources and the local demand and supply factors, which in turn generate more income for the local economy, as opposed to seeking self- sufficiency (Porter, 1990). This is similar to the free trade economists’ argument that in the open market economy, technology spillovers from developed countries are relatively easy to acquire, which makes protection needless, ineffective and expensive.

In sum, the literature review suggests that import tariffs generate revenue but reduce consumer welfare. A substantial amount of literature also adopts a multiple linear regression approach, partial equilibrium framework to study trade, revenue and welfare effects of tariff changes in developing countries. The literature further points out that most LDCs have limited data on the local manufacturers especially regarding pricing mechanisms, efficiency, rate of entry and exit, and economic externalities, hence empirical studies portray gaps that remain unexplained. This study therefore analyses the implications of tariff increments on select products on Uganda’s trade, welfare and revenue using the World Integrated Trade Solution (WITS) Single Market Partial Equilibrium Simulation Tool (SMART) WITS SMART model.

**3.0 Methodology**

This study employed a quantitative approach to analyze the tariff increments of critical commodities, as highlighted in the 2019/2020 Uganda National Budget. The study adopted the WITS SMART model based on the work by Laird and Yeats (1986), who derived equations that can be used to estimate various trade policy changes arising from the tariff alterations. The SMART model uses the Common Format for Transient Data Exchange (COMTRADE), The Trade Analysis Information systems (TRAINs), Para tariffs and non- tariff measures and the Integrated Data Base (IDB) and Consolidated Tariff Schedules (CTs) databases that permit simulations for tariff changes.

The SMART model is a partial equilibrium modeling tool which is included in WITS for market analysis. It was developed by the United Nations Conference for Trade and Development (UNCTAD) and the World Bank during the 1980s, mainly to measure the impact of General Agreement on Trade and Tariffs (GATTs) rounds. The SMART model concentrates on a given import market and its export partners and also evaluates the impact of a tariff change by estimating different values for a set of variables. In addition, the tool does not take into consideration economic interfaces between the various markets in a particular economy.

Moreover, the SMART model relies on the Armington assumption to model consumer behavior based on the assumption that substitution between different import sources (different varieties) is imperfect in nature. This means that, goods (defined at the HS 6 digit level) which are imported from other countries, though similar, are imperfect substitutes. In addition, in the SMART model, it’s assumed that a change in trade policy does not only affect the price level of a particular good but also the prices of the different goods in comparison. The SMART reports the effect of a trade policy change on trade flows (e.g. imports from the other sources), trade creation and trade diversion.

In the context of the EAC, trade creation is projected in the SMART model by elasticities of export supply. However, we need to examine the consistency of the new tariffs with commitments under the EAC CET. Assuming that these import prices will increase the domestic market and therefore the market allocation shares will adjust in favor of domestically produced substitutes that are cheaper. If more locally manufactured commodities are demanded, the manufacturers will boost production and supply to meet this increase in demand. Therefore, we can assume a trade creation effect for the local manufacturers.

Similarly, trade diversion in the WITS SMART model can be estimated via elasticity of import substitution. In this regard, when the tariff increment comes into force, import prices will increase on the domestic market, pushing consumers to seek cheaper substitutes, hence diverting trade from her partners. Given that the Ugandan market is too small to affect world prices (price-taker), the assumption is that the trade diversion effect would be neutral, and that import quantities would remain unaffected. There is an infinite inelasticity of supply, despite the change in price on the local market (WITS, 2011).

Looking at the revenue and welfare effects, when a small country imposes a tariff, the national welfare falls and the higher the tariff line, the greater the country will lose in terms of national welfare. It is assumed that the tariff brings about a redistribution of income, therefore the producers gain whereas the consumers lose.

Therefore, since Uganda is a small country it is assumed that the tariff may have no effect on the price in the world market, hence there will be no changes in welfare for both the producers and consumers. Yet, even if there is a reduction in imports, a reduction in exports because of that change on the world market is presumed to be very minimal to have an evident effect

**3.1 Data Sources**

We use data for the commodities that were earmarked for a tariff increment in the 2019/2020 Uganda National Budget, as listed in the KPMG Budget Brief, 2019, based on 60 products with their sub-groups. The data used for this analysis is in-built in WITS which integrates Trade Analysis Information System (TRAINS) with other trade-related databases, such as UN COMTRADE, WTO Integrated Data Base (IDB) and WTO Consolidated Tariff Schedules (CTS). WITS uses real import figures as reported by countries (in US$) at customs points at different product levels. The critical caveat of this database is that it does not capture informal trade statistics reported at country levels. The trade data used for this analysis is from 2018, at the Harmonized System (HS) level at six digits, being that at the tariff line, majority of the commodities lacked data at the time the simulation was done.

3.2 Method of Simulation This study uses a SMART model to estimate the trade, revenue, and welfare effects of tariff increments on selected products. The analysis captures the potential trade, welfare and revenue effects after the tariff increments come into force, as Uganda trades with her partners on selected products excluding its EAC partner states. The simulation was run in different categories of the varying tariff increments; 10%, 25%, 35% and 60%.

**4.0 Findings**

4.1 This section presents the results and their discussion based on the study objectives. We start by identifying the major import supply markets, then delve into the trade effects including trade creation and diversion. This is followed by the presentation of the revenue effects and highlights the salient commodities; we finally conclude with the welfare effects, which show that some commodities have more impact than others.

4.2 Results and Discussion Following the simulation, we identified the major supply markets for the selected commodities, extracting exports values for these countries for comparison before and after the tariff is imposed (see Figure 1). We choose the top 10 exporters in each tariff band for the convenience of analysis and realize that consumers are likely to continue importing majority of the commodities after the tariff change. This is because most of these commodities are not produced locally. In addition, in the short term, people cannot easily adjust their consumption so welfare declines due to spending more money because of increased commodity prices. On the other hand, the government collects more revenue because of the tariff increment.

For the 10% category, the majority of the imports originate from Ireland, Swaziland and Germany. These include manufacture/industrial inputs such as odoriferous mixtures of a kind used in the food or drink industrial flavors. Indonesia, Malaysia and Japan, are the principal supply markets of products whose tariffs were increased to 25% outside the EAC. Uganda imports large portions of semi-processed edible oils such as crude palm, and palm oil and its fractions from Indonesia and Malaysia (see appendix B, Table 3B). The country also heavily imports buses from Japan and iron and non-alloy steel products from China. China accounts for the largest exports to Uganda in the 35% category; this in this category after the new tariff is imposed.

**4.3 Trade Effects**

The negative trade creation points to the continued importation of the select commodities despite a hike in the tariffs. The trade creation effects for most products across the 25%, 35% and 60% tariff lines were negative, significantly for products such as; flat-rolled iron and steel products from China, essential oils, soap from South Africa, chocolates from Egypt and toothpaste from China. The effect on electric accumulators from China, and television sets from Korea were quite significant. The trade creation effect was positive for shoe polish and toilet paper which may be explained by the domestic production at home, thus domestic consumers purchased less of the imported goods as prices increased and goods became more expensive and less competitive on Uganda’s market. This can also be explained by the fluctuations in the flow of imports due to the high tariffs.

The results also show that there is no trade diversion along the different tariff lines. This means that at the new tariff levels, trade distortion was minimal and the pattern of trade did not change. However, negligible trade diversion was visible at the 60% increment on; bread spreads (60%) from France, Turkey and UAE; and Sunflower oil from Malaysia. Trade diversion was zero for products such as; Exercise books, toothbrushes, ballpoint pens, mineral water, butter and milk products, coffee, tea and frozen meats most of which are produced locally.

This may also be explained by the exclusion of the EAC partners especially Kenya from the simulation were Uganda imports most of her products. EAC partners may not be affected by the tariff increments because they are part of the Common Market. This may also indicate that Uganda depends more on imports from other countries as opposed to locally produced goods. Overall, the results indicate that Uganda experienced a negative total trade effect, amounting to US$ 5.4 million. The tariff line that exhibits the highest negative trade effect was 25% equating to US$ 2.9 million; followed by 35% totaling to US$ 2.1 million; 60% amounting to US$ 0.4 million and lastly 10% equating to US$ 0.01 million. This is indicative of a lag in the market response to the tariff changes coupled with the fact that the existing supply constraints do not permit an increase in production, hence continued importation.

**4.4 Revenue effect**

The revenue effect is positive and totals to US$ 3.3 million. The tariff line that generated the most revenue was 25% at US$ 1.7 million, followed by 35% at US$ 1.3 million, 60% amounting to US$ 0.4 million, and 10% with the least total of US$ 0.01 million. Given the government’s goal to increase revenue mobilization through increasing tariffs of certain commodities, this gain in revenue is not significant.

The negligible increase in revenue (US$ 0.01 million) in the 10% tariff line category is because the second majority of odiferous mixtures originates from Swaziland (see Figure 1), which is part of COMESA and therefore enjoys a zero tariff rate on its commodities to Uganda. The largest exporter of this product to Uganda is Ireland, while Egypt’s exports declined in this category of exporters.

The results show a revenue effect of US$ 1.7 million (see appendix B, Table 7B) for products in the 25% tariff category. This positive revenue effect can be attributed to the insignificant decline in the import value despite the tariff increment. Similarly, the change in the export revenue of the trade partners (excluding EAC) exhibited a negligible decrease. The products in this category include; semi-processed oils, buses, flat- rolled iron products, steel articles such as corrugated iron sheets, safety matches among others. The most significant sources of revenue in this category were; flat-rolled products of iron or non-alloy steel estimated to bring about a total revenue gain of US$ 1.6 million. The largest none EAC exporter of this product to Uganda is China. However after the tariff increase, Kenya’s exports of flat-rolled products of iron or non-alloy steel to Uganda increased by US$ 2.1 million. Egypt experienced the most significant loss in export revenue of the aforementioned products.

The results for specific products\ whose tariffs were increased to 35%, and registered notable changes in revenue. Products in this category include; essential oils, shoe polish, wigs, furniture, doors, windows, electric accumulators, TV sets etc. The total revenue effect is US$ 1.3 million, and television sets show the most significant revenue effect of US$ 1 million. This is possibly due to the sustained high demand for TVs despite the tariff increment and the absence of cheaper substitutes on the local and regional market. TV sets were mostly imported from China, whose export value is US$ 13.2 million (per simulation estimates).

On the other hand, Egypt and Mauritius registered an aggregated loss of US$ 2 million in export revenue for products in this category. However, shoe polish had a negative revenue effect of US$ 0.02 million (see annex, Table 8B) which is attributable to the availability of substitutes produced locally. This is also evident in fall of import value of the shoe polish from US$ 2.2 million in 2018 to US$ 1.7 million in 2019.

For the products in the 60% tariff lines category the results show a revenue effect of US$ 0.4 million. Products in this category include toilet paper, toothbrushes, ball point pens, butter, ginger, crisps and onions among others. Refined sunflower seed or safflower oil and cocoa had the highest revenue effect of approximately US$ 0.1 million please see Table 3, which could be explained by the limited substitutes on the domestic market. The biggest exporters of this product to Uganda were South Africa, Egypt and Turkey. It is important to note that toilet paper exhibited a loss in revenue of approximately US$ 0.1 million (see appendix B, Table 9B), probably due to the availability of the same on the local market and imports of the same from Kenya.

The total welfare effect across all the different tariff categories was a loss of approximately US$ 0.6 million which is a minimal loss in consumer surplus. Nonetheless, the highest loss was observed for products in the 35% increment bracket. These exhibited a welfare loss of US$ 0.3 million. Television sets and flat-rolled products of iron or non-alloy steel had the most significant impact on welfare. This impact can be explained by the lack of substitutes that are locally produced or regionally available. Other commodities like processed coffee, cooked potatoes, ready to drink juices, jams and marmalades had no effect on welfare because other substitutes are readily available on the local market.

**5.0 Conclusion and Policy Implications**

The paper examines the trade, revenue and welfare effects of increased imports duties on selected products in a production and supply-constrained environment. The trade effect was negative because generally no trade was created, hence the negative trade creation. Generally, the trade diversion effects were zero in the different tariff line categories, which means that at the new tariff levels, trade distortion was not significant and that the pattern of trade did not change, because Uganda is a price taker. The total trade effect was US$ 5.4 million. The total revenue effects from all the four (4) tariff lines was US$ 3.3 million, with flat-rolled products of iron or alloy steel contributing significantly to this value. However, this gain in revenue was not significant given the government’s goal of increasing revenue mobilization through increased tariffs.

On the other hand, the total welfare loss was US$ 0.6 million, which was minimal and can be withstood by the country in the short run. Nevertheless, this loss is a result of high prices and absence of close substitutes for particular commodities both locally and regionally, yet there was no significant change in the import value. Despite the insignificant welfare loss, the new tariffs imposed on Television sets and flat-rolled products of iron or non-alloy steel had the most significant impact on welfare. Therefore, in a production and supply- constrained environment, increasing import duties leads to a welfare loss, increases revenue but does not create trade because firms cannot immediately adjust their production levels and supply is limited.

While increasing tariffs on imports is necessary to build domestic production capacity, it is not sufficient on its own; the government needs to consider easing supply constraints. Additionally, it is important to note that the expected revenue gains from tariff increment may not be realized in the short run. This is because most of Uganda’s trading partners are within the EAC and COMESA, so the tariff increments do not apply to the goods imported from these partners.

Below are the policy recommendations that emerge from the analysis of the results;

1. To boost domestic production of selected commodities, the government should first identify and address the production and capacity constraints of the producers as opposed to increasing tariffs. Also, an assessment of the availability of alternative sources of intermediate inputs (products) needs to be undertaken especially if these are not available domestically. This will ensure that the tariff increments are not counterproductive.
2. To maximize revenue collection through tariff increments, the government needs to rely on empirical evidence on the appropriateness of proposed tariffs, in particular their effects in the short and long term. This will inform the government which commodities are responsive to tariff changes in terms of revenue mobilization, and import substitution, albeit in a constrained supply environment.

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