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Book

Import substitution: how do increased import duties in Uganda affect trade, revenue and welfare

Provided in Cooperation with:

Economic Policy Research Centre (EPRC), Kampala

Reference: Nattabi, Aida K./Luwedde, Justine et. al. (2020). Import substitution: how do increased import duties in Uganda affect trade, revenue and welfare. Kampala, Uganda : Economic Policy Research Centre.

<https://eprcug.org/publication/import-substitution-how-do-increased-import-duties-in-uganda-affect-trade-revenue-and-welfare/?wpdmdl=13655&refresh=620b3d4a5da371644903754>.

This Version is available at:

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IMPORT SUBSTITUTION: HOW DO INCREASED IMPORT DUTIES IN UGANDA AFFECT TRADE, REVENUE AND WELFARE



Aida K. Nattabi, Justine Luwedde and Isaac M.B. Shinyekwa

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RESEARCH SERIES No. 154

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November 2020

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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 realised 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 mobilisation.

Keywords: Tariff, Trade, Welfare, Revenue, SMART

1.0 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 ineffective¹. 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 industrialisation). To achieve this objective, the government proposed a Financing Strategy for FY 2019/20 to mobilise revenue and this included raising import duties on select products (see Table 1 in appendix B).

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 industrialisation 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 characterised 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.

1.1 Objectives of the study

This study examines the implications of increased import duties on selected products in Uganda.

Specifically, the study seeks to;

- i. Identify the products whose tariffs were increased.
- ii. Assess the overall welfare, revenue and trade effects of the increased import duties.
- iii. Analyse whether the tariff increments achieved their intended objective of increasing revenue mobilisation through increased tariffs and promoting import substitution.

1.2 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 (i) the appropriateness of tariff increments on the economy in terms of trade, welfare and revenue, and (ii) trade policy to boost domestic production, address challenges to promote export competitiveness.

This rest of the paper is structured as follows; Chapter

¹ EAC's present CET is 0% on raw materials and capital goods, 10% on intermediate goods and 25 % on finished goods, and this was agreed upon by the EAC member states on June 23, 2003.

² See Appendix for a detailed list of commodities, and their old and new tariff rates.

two synthesises 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 favourably 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,³ 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 utilises 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 liberalisation 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

³ It’s time consuming to develop a country’s industrial base, therefore import duties should be introduced moderately.

⁴ The country’s poultry association in 2013 applied for higher import duty on broilers to limit competition from Brazil and USA. South Africa’s imports of chicken are said to have increased by 90% between 2009 and 2012, causing concern about the potential impact on prices and lifespan of the industry.

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 analyse 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.⁶

The SMART model is a partial equilibrium modelling 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 behaviour 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,

⁵ The producer price increased by 6% and the retail by 3.4%.

⁶ In this case, the analysis is for tariff increments.

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 favour 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. (Details of the model specification regarding trade creation and diversion, welfare and revenue impacts are in the Appendix A).

3.1 Data Sources and Caveats

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.⁷ 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 (see appendix, Table 1B), excluding its EAC partner states. The simulation was run in different categories of the varying tariff increments; 10%, 25%, 35% and 60% (see Table 1, 2 and 3).

⁷ The study excluded wheat whose tariff was reduced to zero from 10%. Due to unavailability of data, commodities such as partly refined base oil, lubricants in liquid form, lubricating grease, granite, marble and clay (ceramic) tiles were excluded from the analysis.

4.0 FINDINGS

4.1 Introduction

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 shows that some commodities have more impact than others.

4.2 Results and Discussion

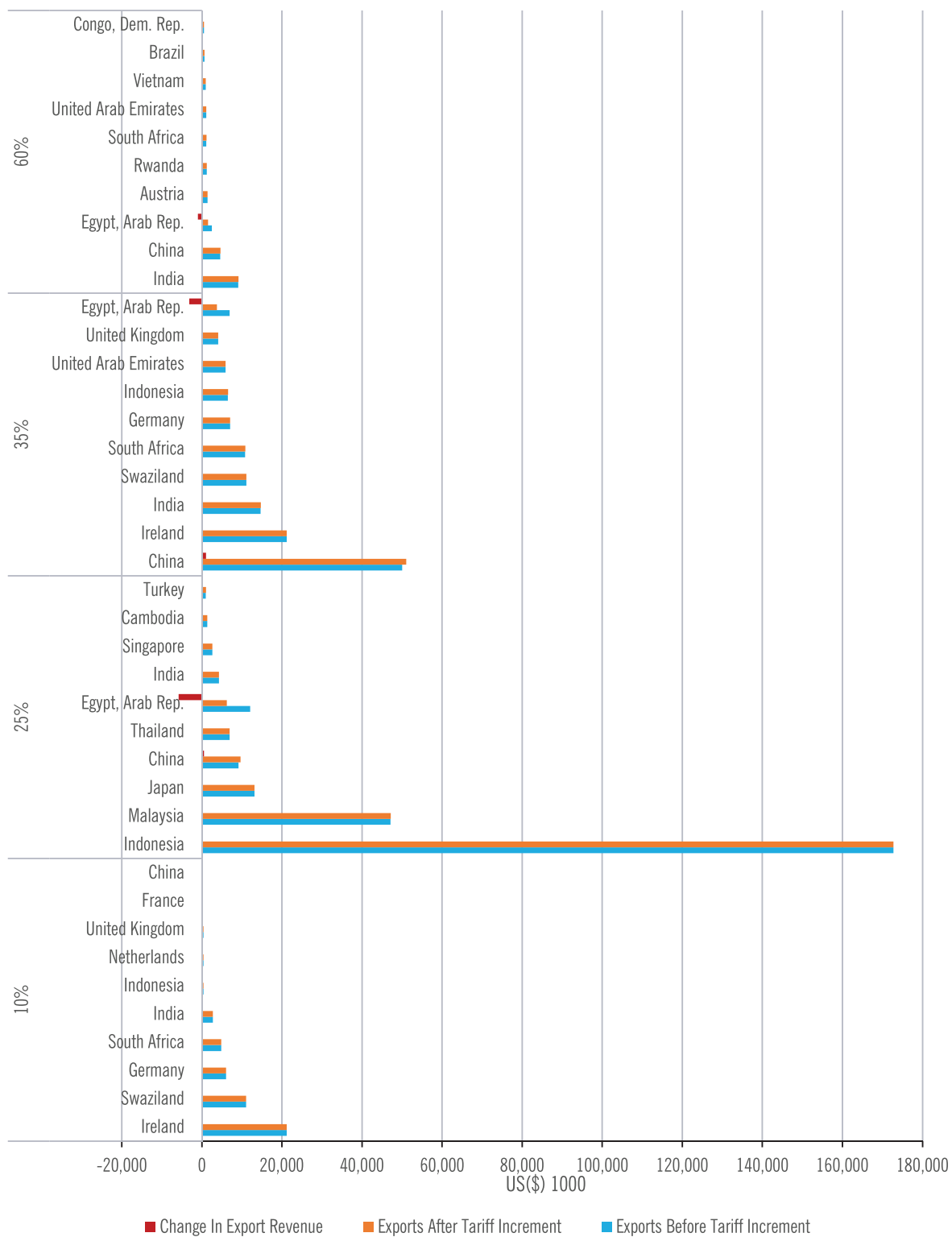
Following the simulation, we identified the major supply markets for the selected commodities, extracting exports values for these countries for comparison before and after the tariff is imposed (see Figure 1). We choose the top 10 exporters in each tariff band for the convenience of analysis and realise 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; these include television sets and electronic accumulators, and registers a growth of exports in this

category after the new tariff is imposed.

India is also a significant source of electronic accumulators, as well as essential oils and resinoids; perfumery, cosmetic or toilet preparations (see appendix B, Table 4B). Commodities from the 60% category are majorly supplied by India and China, which are outside the EAC bloc. These include sweet biscuits and toothbrushes from India and tomato sauce from China. For most exporting countries, the volume of commodities traded with Uganda remained mostly unchanged. However, Egypt faced the most extensive loss in export revenue, especially for products in the 25% and 35% tariff lines categories (see Figure 1).

Figure 1 Top 10 major supply markets to Uganda for select commodities, before and after the tariff increment (US\$ 1000)



Data source: ITC/Trade Map, 2019

4.3 Trade Effects

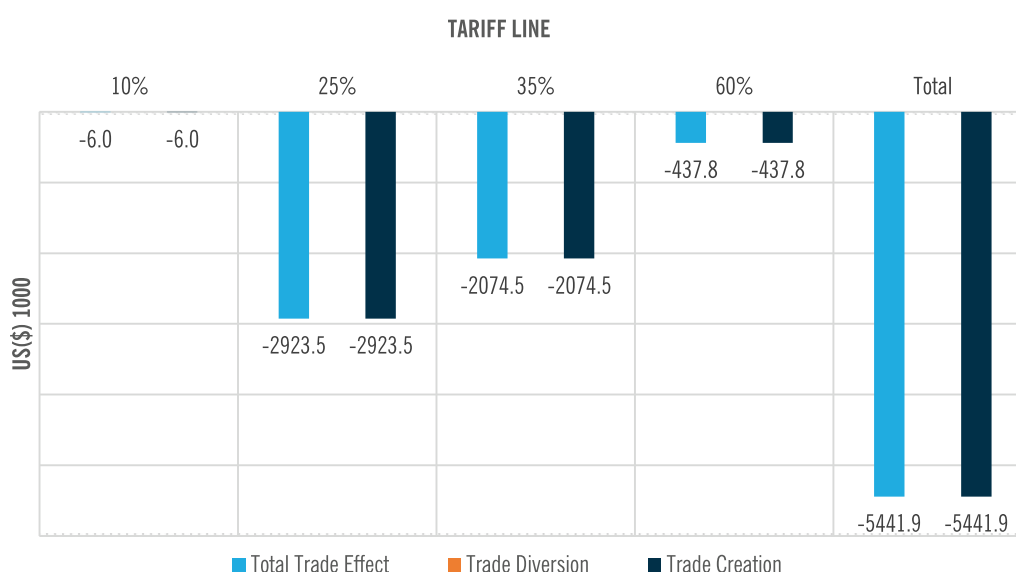
Figure 2 shows zero trade diversion and negative trade creation of US\$ 5.4 million. The negative trade creation points to the continued importation of the select commodities despite a hike in the tariffs. The trade creation effects for most products across the 25%, 35% and 60% tariff lines were negative, 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;

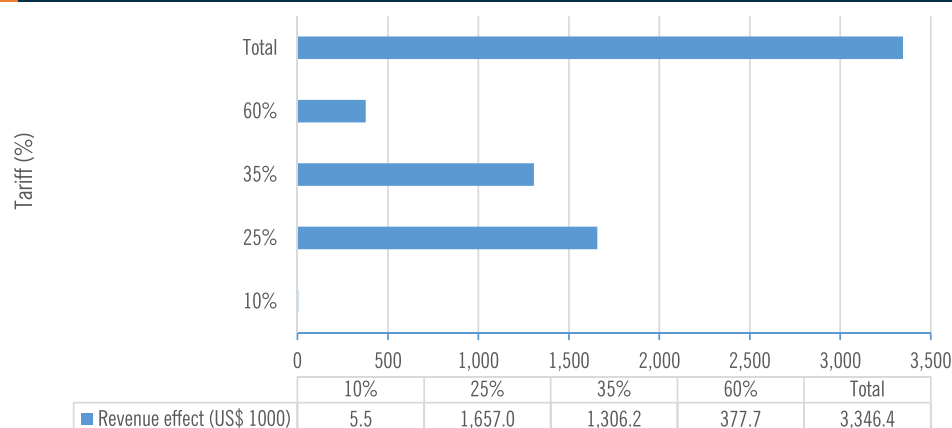
bread spreads (60%) from France, Turkey and UAE; and Sunflower oil from Malaysia (see appendix B Table 5B). Trade diversion was zero for products such as; Exercise books, toothbrushes, ballpoint pens, mineral water, butter and milk products, coffee, tea and frozen meats most of which are produced locally.

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.

Figure 2 Total Trade Effects (US\$ 1000).



Data source: ITC/Trade Map, 2019

Figure 3 Revenue Effect (US\$ 1000).

Data source: ITC/Trade Map, 2019

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 (see figure 3). Given the government's goal to increase revenue mobilisation 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 (see Table 1) 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

Table 1 Selected commodities with notable changes in tariff revenue at 25% tariff increment (in value of US\$ 1000).

Product Description	Product Code	Imports Before	Import Change	Old Revenue	New Revenue	Change Revenue
Flat-rolled products of iron or non-alloy steel (USD 200MT and USD 250MT)	721049	19401.2	-1665.1	607.8	1589.4	981.6
	721070	32100.2	-882.8	971.8	1477.3	505.5
	721650	1422.9	-148.6	123.7	200.1	76.4
Steel articles of chapters 72 and 73 comprising of; corrugated iron sheets (galvanised and pre-printed), pre-painted coils, galvanised coils, hoop iron, twisted bars, flat bars, mild steel plates	721491	167.2	-29.4	4.2	34.5	30.3
	721499	545.5	-29.2	40.0	54.3	14.3
Semi processed edible oils	151219	773.5	-130.1	54.7	148.6	93.9
	151190	56981.3	-26.5	8264.6	8287.6	22.9

Data source: ITC/Trade Map, 2019

Table 2 Select Commodities with notable changes in tariff revenue at 35% tariff increment (in value of US\$ 1000).

Product Description	Product code	Imports before	Import change	Old Revenue	New revenue	Change in revenue
Television Sets	852872	18,915.5	-1,074.6	2,386.9	3,122.2	735.2
Electronic Accumulators	850720	9,722.2	-362.1	2,179.0	2,330.6	151.5
Chocolates	180610	588.9	-115.2	28.3	103.7	75.5
	180690	1,435.8	-109.7	269.6	319.8	50.2
Essential oils and resinoids; perfum ery, cosmetic or toilet preparations	Chapter 33*	84,744.4	-103.1	9,800.0	9,886.3	86.3
Soap and organic surface active products for use as soap	340111	7,178.1	-96.6	479.8	537.1	57.3
	340119	1,670.8	-52.6	136.0	151.2	15.2
Imported toothpaste and other mouth wash preparations of subheadings 306.10.00 and 3306.90.00	330610	10,985.9	-79.6	2,546.9	2,608.4	61.6
Instructional charts and diagrams	491199	3927.5	-23.7	181.1	196.5	15.4
Chewing gum	170490	6,808.0	-18.0	525.2	541.9	16.7
Tomato paste and other preserved tomatoes of heading 20.02	200290	3,622.2	-15.9	869.4	895.1	25.7

Data source: ITC/Trade Map, 2019

*Represents aggregated products.

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 (see Figure 1).

Table 2 shows 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 (see appendix B, Table 4B).

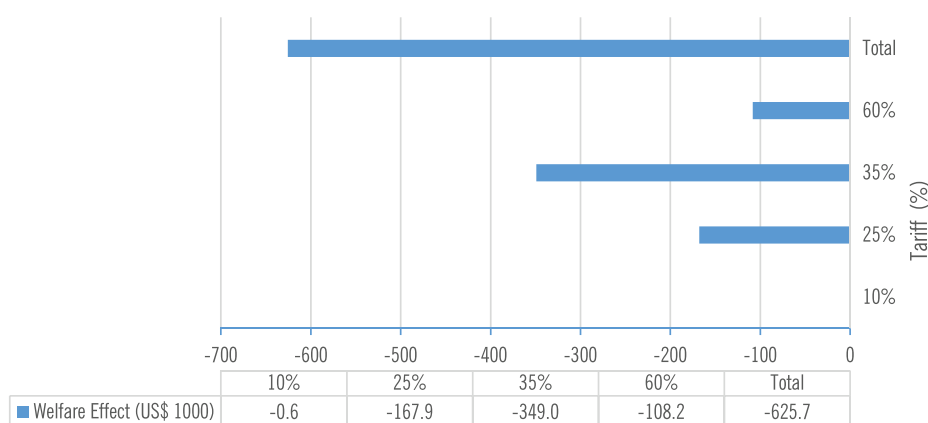
For the products in the 60% tariff lines category (see appendix Table 9B), the results show a revenue effect of US\$ 0.4 million. Products in this category include toilet paper, toothbrushes, ball point pens, butter, ginger, crisps and onions among others. Refined sunflower seed or safflower oil and 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.

Table 3 Select Commodities with notable changes in tariff revenue at 60% tariff increment (in value of US\$ 1000).

Product Description	Product Code	Imports Before	Import Change	Old Revenue	New Revenue	Change In Revenue in
Refined sunflower seed or safflower oil	151219	773.5	-130.1	54.7	148.6	93.9
Cocoa powder in packing with a net content exceeding chocolate and other food preparations containing cocoa	180610	588.9	-115.2	28.2	189.2	75.5
Bread Spreads	180690	1,435.8	-109.7	269.6	319.8	50.2
Cooked Potatoes fresh or chilled, other than seed	200410	410.6	-78.1	19.6	75.9	56.3
	070190	556.5	-37.4	3.2	6.9	3.7
Tomato sauce	210320	2,421.9	-25.8	509.9	585.8	75.9
Biscuits	190531	8,813.9	-10.1	1,953.1	1,961.6	8.5
	190520	75.8	-7.7	4.3	12.4	8.1

Data source: ITC/Trade Map, 2019

4.5 Welfare effect

Figure 4 Welfare effects (US\$ 1000).

Data source: ITC/Trade Map, 2019

The total welfare effect across all the different tariff categories was a loss of approximately US\$ 0.6 million (see Figure 4) 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 (see appendix B, Table 8B). Television sets and flat-rolled products of iron or non-alloy steel had the most significant impact on welfare (see Table 4 for welfare effects on select products across all tariff categories). 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.

Table 4 Welfare Effect on selected Products (in value of US\$ 1000).

Tariff Category	Product Description	Product Code	Consumer surplus
10%	Odoriferous mixtures of a kind used as raw materials in the food or drink industries flavours	330210	-0.6
25%	Flat-rolled products of iron or non-alloy steel	721049	-100.7
		721070	-34.3
		721650	-18.1
	Steel articles of chapters 72 and 73 comprising of; corrugated iron sheets (galvanised and pre-printed), pre-painted coils, galvanised coils, hoop iron, twisted bars, flat bars, mild steel plates	721491	-4.0
		721499	-2.6
	Semi processed edible oils.	721090	-2.8
		151219	-19.6
151190		-3.8	
	151530	-0.01	
35%	Television Sets	852872	-161.8
	Electronic Accumulators	850720	-85.7
	Chocolates	180610	-15.4
		180690	-23.5
	Soap and organic surface-active products for use as soap	340111	-6.9
		340119	-4.6
	Imported toothpaste and other mouth wash preparations of subheadings 306.10.00 and 3306.90.00	330610	-18.7
	Tomato paste and other preserved tomatoes of heading 20.02	200290	-3.9
	Essential oils and resinoids; perfumery, cosmetic or toilet preparations	Chapter 33	-21.8
	60%	Refined sunflower seed or safflower oil	151219
Cocoa powder in packing with a net content exceeding chocolate and other food preparations containing cocoa		180500	-38.9
		180610	
		180620	
		180631	
		180632	
Bread Spreads		180690	-23.5
Cooked Potatoes fresh or chilled, other than seed		200410	-10.8
		70190	-0.4
Processed tea of heading 09.02 and Subheadings 101.20.00		90220	-6.0
Tomato sauce		210320	-5.9
Biscuits	190531	-2.2	
	190520	-0.9	

Data source: ITC/ Trade Map, 2019

The minimal loss in consumer surplus is evident given the absence of close substitutes for some commodities across the different tariff increment categories, yet, the local manufacturers may not adapt fast enough to meet the local demand with quality products. Moreover, some of the taxed commodities are intermediate inputs, required for further production, which ultimately constrains the domestic production, and therefore

supply of some consumer products. Additionally, the minimal loss of can be attributed to the continued importation of commodities from the EAC, particularly Kenya, which offsets majority of the potential consumer welfare loss. Therefore, the new tariff increments result in a minimal welfare loss, which the nation can withstand in the short term.

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 mobilisation 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 realised 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;

- 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.
- To maximise 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 mobilisation, and import substitution, albeit in a constrained supply environment.

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(Sections E1-E3, pp.168-176)

APPENDIX A

Model specification

According to Laird and Yeats (1986) the derivation of the model can be summarised as follows⁸;

The Uganda's J_{th} import demand (M) function for i^{th} commodity produced in the k^{th} partner state Eq. (1).

$$M_{ijk} = f(Y_j, P_{ij}, P_{jk}) \quad (1)$$

The k^{th} partner state's export supply function for i^{th} commodity is expressed as in Eq. (2).

$$X_{ijk} = f(P_{ikj}) \quad (2)$$

The partial equilibrium equation is thus expressed as in Eq. (3).

$$M_{ijk} = X_{ijk} \quad (3)$$

In a FTA situation the domestic price of the i^{th} commodity in the Uganda's J_{th} market will be equal to k^{th} partner state's export price plus transport and insurance charges. This price would change by an amount equivalent to the ad valorem incidence of any tariff as in Eq. (4).

$$P_{ijk} = P_{ikj}(1 + t_{ijk}) \quad (4)$$

The export revenue earned k^{th} partner state can be simplified as expressed Eq. (5).

$$R_{ikj} = X_{ikj} \cdot P_{ikj} \quad (5)$$

Trade Creation

The trade creation effect can be defined as the increased demand in Uganda for i^{th} commodity from the k^{th} partner state. In this case, the price decreases as a result of tariff increase on the i^{th} commodity. Therefore, from Eq. (1) to (5); the total difference in domestic price with respect to tariffs and foreign price can be derived from Eq. (4).

$$\partial P_{ijk} = P_{ikj} \cdot \partial t_{ijk} + (1 + t_{ijk}) \partial P_{ikj} \quad (6)$$

A simple expression for the elasticity of import demand in regard to the domestic price can be written as follows:

$$\frac{dM_{ijk}}{M_{ijk}} = E_m \frac{dP_{ijk}}{P_{ijk}} \quad (7)$$

Here, we substitute Eq. (4) and (6) into Eq. (7) leading Eq. (8).

$$\frac{dM_{ijk}}{M_{ijk}} = E_m \frac{dt_{ijk}}{(1+t_{ijk})} + \frac{dP_{ijk}}{P_{ijk}} \quad (8)$$

The expression for the elasticity of export supply with respect to the world price can be rearranged as in Eq. (9).

$$\frac{dP_{ikj}}{P_{ikj}} = \left(\frac{dX_{ikj}}{X_{ikj}} \right) / E_x \quad (9)$$

⁸ Notations in the model;

M- imports; *Mn* - imports from non-preference-receiving countries

X- exports; *t* - tariff rate distortion

P- price *TC*- trade creation

W- welfare *TD*- trade diversion

R- revenue *i* - subscript denoting commodity

Y- national income ad valorem terms *j*- subscript denoting domestic/importing country data

V- output in the importing country *k*- subscript denoting foreign/exporting country data

Em- elasticity of import demand with respect to domestic price *d*- prefix denoting change

E - elasticity of export supply with respect to export price

Es- elasticity of substitution with respect to relative prices of the same product from different sources of supply

From Eq. (3) it follows that

$$\frac{dM_{ijk}}{M_{ijk}} = \frac{dX_{ikj}}{X_{ikj}} \quad (10)$$

Eq. (10) can be substituted into (9) and the result into (8) thus the expression can be used to compute the trade creation effect. From Eq. (3) this can be equated to exports of the i^{th} commodity to the j^{th} country. The expression for trade creation as expressed in Eq. (11).

$$TC_{ijk} = M_{ijk} \cdot E_x \cdot \frac{dt_{ijk}}{(1+t_{ijk}) \cdot (1+E_m/E_x)} \quad (11)$$

Important to note is that if the elasticity of export supply on the world market is infinite then the denominator on the right hand side of Eq. (11) can be ignored.

Trade Diversion

Trade diversion refers to the situation where trade is diverted from a more efficient exporter towards a less efficient one in response to a change in the import price. Therefore, if prices fall in a foreign country, more goods will be purchased from that country and less from countries where the price remains unchanged.

(i) Without Explicit Values for the Elasticity of Substitution

If the elasticity of substitution between alternate suppliers is not known, then the trade diversion effect can be computed using a formula by Baldwin and Murray (1977). However, it necessitates the calculation of the level of import penetration by non-preference-receiving countries, which means the level of imports from non-preference receiving countries in apparent domestic consumption (defined as domestic output of the i^{th} plus imports of i^{th} less exports of the i^{th} commodity). The formulation for trade diversion as expressed in Eq. (12).

$$TD_{ijk} = TC_{ijk} \cdot \frac{M_{nij}}{V_{ij}} \quad (12)$$

(ii) With Explicit Values for the Elasticity of Substitution

The approach applies if explicit values can be obtained for the elasticity of substitution between goods from different sources. However, in the absence of market penetration data we can assume values for the elasticity of substitution (and conduct simulations across a range of reasonable estimates). Elasticity of substitution can hence be defined as the percentage change in relative shares due to a one percent change in the relative prices of the same product from other sources as expressed in Eq. (13).

$$E_s = \frac{d\left(\frac{\sum M_{ijk}}{\sum M_{ijK}}\right)}{\left(\frac{\sum M_{ijk}}{\sum M_{ijK}}\right)} \bigg/ \frac{d\left(\frac{P_{ijk}}{P_{ijK}}\right)}{\left(\frac{P_{ijk}}{P_{ijK}}\right)} \quad (13)$$

With imports from k^{th} country and K denotes imports from the k^{th} countries (RoW excluding EAC partner states). From this expression, the percentage change in the relative shares of the alternative suppliers can be expressed in terms of the elasticity of substitution, and the percentage change in relative prices and the original relative shares of imports from the alternative sources. Thus the expression for trade diversion (TD) gain or loss, can be obtained in equation (14):

In equation (14), relative price movement is specified in terms of the shift in tariffs or the ad valorem incidence of non-tariff distortions for the two foreign sources.

$$TD_{ijk} = \frac{M_{ijk} \sum_k M_{ijk} \sum_K M_{ijk} \cdot E_s \cdot \frac{d(P_{ijk}/P_{ijk})}{P_{ijk}/P_{ijk}}}{\sum_k M_{ijk} \sum_k M_{ijk} + \sum_K M_{ijk} + \sum_k M_{ijk} \cdot E_s \cdot \frac{d(P_{ijk}/P_{ijk})}{P_{ijk}/P_{ijk}}} \quad (14)$$

Total Trade Effect

The total trade effect is a result of the sum of trade creation and trade diversion effects. The sum can be for suppliers of individual products or across product groups.

Revenue Effect

In the WITS/SMART model the tariff revenue is given as the product of the tariff rate and the value of imports. The percentage increase in revenue is equivalent to the percentage increase in imports plus the percentage increase in prices. This can be shown in Eq. (5) the total difference of revenue with respect to import price and the value of imports brings about Eq. (15):

$$dR_{ijk} = P_{ijk} \cdot dX_{ijk} + X_{ijk} \cdot dP_{ijk} \quad (15)$$

Dividing the expression on the left-hand side (LHS) of Eq. (15) with the LHS expression of Eq. (5) and the right hand side of Eq. (15) with the RHD of Eq. (5).

$$\frac{dR_{ijk}}{R_{ijk}} = \frac{(P_{ijk} \cdot \partial X_{ijk} + X_{ijk} \cdot \partial P_{ijk})}{(P_{ijk} \cdot X_{ijk})} \quad (16)$$

Reducing Eq. (16) and substituting from Eq. (10) gives Eq. (17).

$$\frac{dR_{ijk}}{R_{ijk}} = \frac{dM_{ijk}}{M_{ijk}} + \frac{dP_{ijk}}{P_{ijk}} \quad (17)$$

In other words, equation (17) can be written as:

$$\frac{dR_{ijk}}{R_{ijk}} = \left(\frac{dt_{ijk}}{(1+t_{ijk})} \right) \cdot E_m + \left(\frac{(1+E_x)}{(E_x-E_m)} \right) \quad (18)$$

Welfare Effect

The welfare effect is realised when consumers in the importing country benefit from reductions in domestic prices after the removal or reduction of tariffs or the ad valorem incidence of non-tariff distortions. However, for increase in imports, there is a net welfare gain which is equal to the domestic consumers' valuation of the extra imports minus the cost of extra imports at supply price (excluding tariffs)". Therefore, the net welfare gain can be estimated as the increase in import value multiplied by the average between the ad valorem incidence of the tariff barrier before and after their elimination. This welfare gain can also be assumed to be an increase in consumer surplus as expressed in Eq. (19):

$$W_{ijk} = 0.5(dt_{ijk} \cdot dM_{ijk}) \quad (19)$$

The coefficient 0.5 captures the average between the ad valorem incidence of the tariff barrier before and after their elimination/reduction. Eq. (19) assumes that elasticity of export supply is infinite (Lang 2006). In the case where the elasticity of export supply is less than infinity the supply price is higher than before. The new domestic price of imports does not drop to the full extent of the tariff change and import expansion is less than in the case of infinitely elastic export supply. Welfare can still be computed using Eq. (19) but can be interpreted as a combination of consumer surplus and producer surplus.

APPENDIX B

Table 1B: Tariff Increments of select products at 10%, 25%, 35% and 60%

HS Code	Item description	Old rate	New rate
0701.90.00, 0710.10.00, 2004.10.00, 2005.20.00	Cooked Potatoes fresh or chilled, other than seed	25%	60% for one year
0409.00.0017.02	Honey	25%	60% for one year
6907.21.00, 6907.22.00, 6907.23.00, 6907.30.00, 6907.40.00	Granite, marble, and clay (ceramic) tiles	25%	35% for one year
2002.90.00	Tomato paste and other preserved tomatoes of heading 20.02 from 25% to 35%	25%	35% for one year
22.02	Imported ready to drink juices of heading 2202 from 25% to 60%	25%	60% for one year
8528.72.90	Increase import duty on imported television sets from 25% to 35%.	25%	35% for one year
9503.00.00	Increase import duty on imported toys of heading 9503 from 25% to 35%.	25%	35% for one year
3306.10.00, 3306.90.00	Increase import duty on imported toothpaste and other mouth wash preparations of subheadings 306.10.00 and 3306.90.00 from 25% to 35%.	25%	35% for one year
0901, 2101.11.00, 2102.12.00	Increase import duty of processed coffee of heading 09.01 and Subheadings 2101.11.00, and 2101.12.00 from 25% to 60%.	25%	60% for one year
09.02, 2101.20.00	Increase import duty of processed tea of heading 09.02 and Subheadings 101.20.00, from 25% to 60%	25%	60% for one year
0910.11.00, 0910.12.00	Increase import duty on ginger of subheadings 0910.11.00 and 0910.12.00 from 25% to 60%.	25%	60% for one year
20.07	Increase import duty on jams, marmalades, jellies and the like of heading 20.07 of the CET from 25% to 35%.	25%	60% for one year
Chapter 33	Shoe polish.	25%	35%
Chapter 15	Semi processed edible oils.	10%	25%
02.01, 02.02, 02.03, 02.04, 02.07, 16.02	Frozen meats of; chicken, bovine animals, meat of swine, meat of sheep.	25%	60%
2008.11	Peanut butter	25%	60% for one year
1806.90.00	Bread spreads	25%	60% for one year
2005.20.00	Potato and other crisps	25%	60% for one year
7.03	Onions, shallots, garlic, leeks etc., fresh or chilled	25%	60% for one year
1512.29.00	Refined cotton seed oil	25%	60% for one year
1512.19.00	Refined sunflower seed or safflower oil	25%	60% for one year

HS Code	Item description	Old rate	New rate
18.05, 18.06	Cocoa powder in packing with a net content exceeding chocolate and other food preparations containing cocoa	25%	60% for one year
67.04	Wigs, false beards, eyebrows and eyelashes, etc. human hair	25%	35%
7308.30.00, 3926.90	Doors, windows and their frames and thresholds for doors of iron and steel and Plastic/polymers	25%	35%
4.05	Butter and other fats and oils derived from milk; dairy spreads	25%	60% for one year
1901.20.90	Mixes and doughs for the preparation of bakers' wares of heading 19.05:	25%	35% for one year
63.06	Tarpaulins	25%	35% for one year
GAZETTE ISSUES FOR ONE YEAR RENEWAL			
8702.10.99	Buses for transportation of more than 25 persons		25%
4011.40.00	New pneumatic tyres of rubber, of a kind used on motorcycles.	10%	35%
7210.11.00, 7210.20.00, 7216.50.00	Flat rolled products of iron or non-alloy steel products of iron or non-alloy steel	0%/25%/0%	25% or USD 200/MT whichever is higher for one year
7210.41.00, 7210.49.00, 7210.61.00, 7210.69.00, 7210.70.00, 7210.90.00, 7212.30.00, 7212.40.00	Flat rolled products of iron or non-alloy steel	25% and 10% where applicable	25% or USD 250/MT whichever is higher for one year
7212.60.00	Flat rolled products of iron or non-alloy steel	10%	25% or USD 250/MT whichever is higher for one year
1704.10.00	Chewing gum	25%	35% for one year
1704.90.00	Other sugar confectionery (sweets)	25%	35% for one year
18.06, 17.04	Chocolates	25%	35% for one year
19.05	Biscuits	25%	60%
2103.20.00	Tomato sauce	25%	60% for one year
2201.10.00	Mineral water	25%	60% for one year
2710.19.10	Partly refined base oil	0%	10%
2710.19.51	Lubricants in liquid form	25%	35%
2710.19.50	Lubricating greases	25%	35%
34.01	Soap and organic surface active products for use as soap	25%	35%
48.19	Cartons, boxes, cases, bags and other packing containers of paper	25%	35%
4818.10.00	Toilet paper	25%	60%
8420.20.00	Exercise books	25%	60%

HS Code	Item description	Old rate	New rate
4911.10.00	Trade advertising material	25%	35%
4911.91.00	Pictures, designs and photographs	25%	35%
4911.99.10	Instructional charts and diagrams	25%	35%
94.03, 94.01, 9402.90.90	Furniture and parts thereof	25%	35%
63.01	Blankets	25%	35%
7210.20.00, 7210.30.00, 7210.41.00, 7210.61.00, 7210.69.00, 7210.90.00, 7212.30.00, 7212.40.00, 7212.50.00, 7212.60.00, 7213.10.00, 7213.20.00, 7213.99.00, 7214.10.00, 7214.20.00, 7214.30.00, 7214.91.00, 7214.99.00, 7215.10.00, 7215.50.00, 7215.90.00, 7216.10.00, 7216.21.00, 7216.22.00, 7216.50.00, 7216.61.00, 7216.69.00, 7216.91.00, 7216.99.00, 7228.10.00, 7228.20.00, 7228.30.00, 7228.40.00, 7228.50.00, 7228.60.00, 7228.70.00, 7228.80.00,	Steel articles of chapters 72 and 73 comprising of; corrugated iron sheets (galvanised and pre-printed), pre painted coils, galvanised coils, hoop iron, twisted bars, flat bars, mild steel plates	10% and 25% where applicable	25% or USD 350MT whichever is higher.
94.04	Mattress supports and mattresses	25%	35%
9603.21.00	Toothbrushes	25%	60%
9608.10.00	Ball point pens	25%	60%
85.07	Electric accumulators	25%	35%
1001.99.10, 1001.99.90	Wheat (wheat grain)	35%	10% for one year
7323.10.00	Iron or steel wool; pot scourers and scouring or polishing pads, gloves and the like	25%	35% for one year
8311.10.00	Coated electrodes of base metal, for electric arc-welding	10%	35% for one year
3605.00.00	Safety matches	25%	25% or USD 1.35/Kg whichever is higher for one year

RAW MATERIALS AND INDUSTRIAL INPUTS TO BE CONSIDERED FOR DUTY REMISSION FOR A PERIOD OF ONE YEAR

3302.10.00	Odoriferous mixtures of a kind used as raw materials in the food or drink industries flavors	0%	10%
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Source: KPMG, 2019

Table 2B: Major Supply Markets and Import trends (US\$ 1000) for commodities in the 10% tariff line

HS Code	Item description	2014	2015	2016	2017	2018	2019	Major Supply Markets
3302.10.00	Odoriferous mixtures of a kind used as raw materials in the food or drink industries flavors	43,096	44,672	39,824	50,218	47,844	41,133	Ireland, Swaziland, Germany, South Africa, India

Data Source: ITC/Trade Map, 2020

Table 3B: Major Supply Markets and Import trends (US\$ 1000) for commodities in the 25% tariff line

HS Code	Item description	2014	2015	2016	2017	2018	2019	Major Supply Markets
Chapter 15	Semi processed edible oils.	268,131	210,122	230,788	275,492	248,426	81,268	Indonesia, Malaysia, Kenya, Thailand
8702.1099	Buses for transportation of more than 25 persons	10,351	12,888	10,259	12,573			Japan, Kenya, India, China, UAE
7210.11.00, 7210.20.00, 7216.50.00	Flat rolled products of iron or non-alloy steel products of iron or non-alloy steel	2377	2753	2081	1701	1445	794	China, India, UAE, Kenya
7210.41.00, 7210.49.00, 7210.61.00, 7210.69.00, 7210.70.00, 7210.90.00, 7212.30.00, 7212.40.00	Flat rolled products of iron or non-alloy steel	47661	54195	55434	64416	65728	54070	Kenya, China, Egypt, Tanzania
7210.20.00, 7210.30.00, 7212.50.00, 7212.60.00, 7213.10.00, 7213.20.00 7213.99.00, 7214.10.00, 7214.20.00, 7214.30.00 7214.91.00, 7214.99.00, 7215.10.00, 7215.50.00 7215.90.00, 7216.10.00, 7216.21.00, 7216.22.00 7216.50.00, 7216.61.00, 7216.69.00, 7216.91.00 7216.99.00, 7228.10.00, 7228.20.00, 7228.30.00 7228.40.00, 7228.50.00, 7228.60.00, 7228.70.00 7228.80.00,	Steel articles of chapters 72 and 73 comprising of; corrugated iron sheets (galvanised and pre-printed), pre painted coils, galvanised coils, hoop iron, twisted bars, flat bars, mild steel plates	117133	74040	81274	59575	79233	106885	Belgium, UAE, China, Kenya, Turkey, India, Egypt
3605.00.00	Safety matches	940	627	1,375	768	766	1,210	India, Kenya, Egypt

Data Source: ITC/Trade Map, 2020

Table 4B: Major Supply Markets and Import trends (US\$ 1000) for commodities in the 35% tariff line

HS Code	Item description	2014	2015	2016	2017	2018	2019	Major supply markets
4911.10.00	Trade advertising material	1,206	849	567	896	864	344	China, South Africa, India, Kenya
4911.91.00	Pictures, designs and photographs	42	43	48	43	59	53	Canada, China, South Africa, Germany
4911.99.10	Instructional charts and diagrams	6,992	6,547	21,264	5,292	3,928	2,978	UK, Kenya, Mauritius, China, India
94.03, 94.01, 9402.90.90	Furniture and parts thereof	21,330	19,947	22,282	18,075	18,457	13,767	China, Spain, Malaysia, UAE, Kenya
63.01	Blankets	4,882	4,840	4,250	4,312	3,869	2,760	China, Kenya, India, UAE, Pakistan
94.04	Mattress supports and mattresses	1,380	1,113	781	1,035	998	811	China, South Africa, UAE, Canada
85.07	Electric accumulators	19,489	18,863	18,845	22,419	22,672	14,453	China, India, Kenya, Republic of Korea, Mexico
2002.90.00	Tomato paste and other preserved tomatoes of heading 20.02 from 25% to 35%	2,865	2,037	3,533	2,685	3,622	220	Italy, China, UAE. Egypt, Kenya
8528.72.90	Increase import duty on imported television sets from 25% to 35%.	9,931	8,963	8,971	10,905	18,916	15,395	China, Egypt, Mauritius, UAE, Vietnam
9503.00.00	Increase import duty on imported toys of heading 9503 from 25% to 35%.	1,372	1,223	1,050	1,111	1,136	635	China, South Africa, USA, UK, India
3306.10.00, 3306.90.00	Increase import duty on imported toothpaste and other mouth wash preparations of subheadings 306.10.00 and 3306.90.00 from 25% to 35%.	10,296	10,272	8,959	10,964	11,428	4,806	China, Indonesia, Thailand, Tanzania, South Africa
1901.20.90	Mixes and doughs for the preparation of bakers' wares of heading 19.05:	73	94	131	252	542	176	Turkey, France, South Africa, Netherlands, Egypt
63.06	Tarpaulins	131,088	111,569	147,497	121,408	121,499	59,113	China, Belgium, South Africa, UAE, Kenya
1704.10.00	Chewing gum	12,149	11,490	8,209	8,865	10,919	14,351	Kenya, Pakistan, India, France
1704.90.00	Other sugar confectionery (sweets)	8,407	8,055	6,790	6,819	6,808	3,827	Kenya, India, South Africa, China, UAE

HS Code	Item description	2014	2015	2016	2017	2018	2019	Major supply markets
18.06	Chocolates	2,615	2,199	1,806	2,033	2,421	2,036	Egypt, South Africa, Turkey, UAE, Kenya
7323.10.00	Iron or steel wool; pot scourers and scouring or polishing pads, gloves and the like	604	543	303	435	806	593	Kenya, China, UAE, UK, India
8311.10.00	Coated electrodes of base metal, for electric arc-welding	1,715	2,158	2,911	3,179	3,723	2,977	China, India, UAE, Kenya, South Africa

Data source: ITC/Trade Map, 2020

Table 5B: Major supply markets and Import trends (US\$ 1000) of commodities in the 60% tariff line

HS Code	Item description	2014	2015	2016	2017	2018	2019	Major Supply Markets
0701.90.00, 0710.10.00, 2004.10.00, 2005.20.00	Cooked Potatoes fresh or chilled, other than seed	4,232	980	1,287	5,829	915	1,240	Kenya, Egypt, South Africa, Netherlands, Rwanda
0409.00.00	Honey	122	80	101	126	145	40	United Arab Emirates (UAE), Tanzania, Thailand, India, China
22.02	Imported ready to drink juices of heading 2202 from 25% to 60%	13,812	15,147	8,331	7,314	7,737	7,772	Kenya, Austria, Thailand, Egypt, South Africa
0901, 2101.11.00, 2102.12.00	Increase import duty of processed coffee of heading 09.01 and Subheadings 2101.11.00, and 2101.12.00 from 25% to 60%.	18,542	15,980	9,470	17,292	677	363	Tanzania, Rwanda, Brazil, UAE, Kenya
09.02, 2101.20.00	Increase import duty of processed tea of heading 09.02 and Subheadings 101.20.00, from 25% to 60%	430	796	536	445	655	597	Kenya, China, Sri Lanka, Swaziland, UAE
0910.11.00, 0910.12.00	Increase import duty on ginger of subheadings 0910.11.00 and 0910.12.00 from 25% to 60%.	2	14	17	42	124	142	Nigeria, Kenya, Malaysia, Tanzania

HS Code	Item description	2014	2015	2016	2017	2018	2019	Major Supply Markets
20.07	Increase import duty on jams, marmalades, jellies and the like of heading 20.07 of the CET from 25% to 35%.	1,131	1,336	2,174	1,622	515	738	Kenya, UAE, South Africa, Egypt, Greece
02.01, 02.02, 02.03, 02.04, 02.07, 16.02	Frozen meats of: chicken, bovine animals, meat of swine, meat of sheep.	743	701	476	1049	448	233	Saudi Arabia, France, Kenya, Italy, Belgium
2008.11	Peanut butter	27	10	52	10	69	34	India, South Africa, UAE, China, Kenya
1806.90.00	Bread spreads	1,161	1,297	1,034	1,248	1,436	658	South Africa, Egypt, Turkey, UAE, UK
2005.20.00	Potato and other crisps	553	352	207	651	504	549	Kenya, South Africa, UAE, Malaysia, China
7.03	Onions, shallots, garlic, leeks etc., fresh or chilled	1,045	1,251	1,221	2,151	4,205	2,804	Tanzania, China, Kenya, UAE, South Africa
1512.29.00	Refined cotton seed oil	118	36	2	4	1	-	China, UAE, Italy, Tanzania
1512.19.00	Refined sunflower seed or safflower oil	747	920	212	512	773	1,041	Egypt, Malaysia, Kenya, Greece, Ukraine
18.05, 18.06	Cocoa powder in packing with a net content exceeding chocolate and other food preparations containing cocoa	2,666	2,396	1,936	2,308	2,698	2,093	Egypt, South Africa, Turkey, Kenya, Malaysia
4.05	Butter and other fats and oils derived from milk; dairy spreads	435	173	115	104	347	28	Kenya, Rwanda, Belgium, France, South Africa
19.05	Biscuits	19,721	12,853	8,319	10,442	9,509	7,643	India, Kenya, UAE, Vietnam, South Africa
2103.20.00	Tomato sauce	1,542	2,801	826	2,951	2,422	453	China, Egypt, UAE, USA, Oman
2201.10.00	Mineral water	62	76	94	45	34	22	Belgium, UAE, Netherlands, South Africa, Italy
4818.10.00	Toilet paper	1,949	1,638	1,617	1,937	1,224	1,291	Kenya, China, South Africa, UAE, Jordan
4820.20.00	Exercise books	2,793	2,733	1,384	1,798	1,448	769	Kenya, India, Tanzania, China, UAE
9603.21.00	Toothbrushes	1,052	649	550	906	951	92	Vietnam, China, India, UAE, Iran
9608.10.00	Ball point pens	5,045	5,785	5,561	7,079	6,735	8,759	Kenya, India, China, South Africa, UAE

Data Source: ITC/Trade Map, 2020

Table 6B: Effects of the 10 % tariff increment on select products (US\$ 1000)

HS Code	Item description	Old rate	New rate	Total trade effect	Trade Creation	Trade Diversion	Revenue Effect	Welfare
3302.10.00	Odoniferous mixtures of a kind used as raw materials in the food or drink industries flavors	0%	10%	-6.0	-6.0	0	5.53	-0.6

Data Source: ITC/Trade Map, 2019

Table 7B: Effects of the 25% tariff increment on select products (US\$ 1000)

HS Code	Item description	Old rate	New rate	Total trade effect	Trade Creation	Trade Diversion	Revenue	Welfare
Chapter 15	Semi processed edible oils.	10%	25%	-156.9	-156.9	0	116.9	-23.5
8702.10.99	Buses for transportation of more than 25 persons	10%	25%	0	0	0	0	0
7210.11.00, 7210.20.00, 7216.50.00	Flat rolled products of iron or non-alloy steel products of iron or non-alloy steel	0%/25%/0%	25% or USD 200/MT whichever is higher for one year	-148.6	-148.6	0	0	0
7210.41.00, 7210.49.00, 7210.61.00, 7210.69.00, 7210.70.00, 7210.90.00, 7212.30.00, 7212.40.00	Flat rolled products of iron or non-alloy steel	25% and 10% where applicable	25% or USD 250/MT whichever is higher for one year	-2559.4	-2559.4	0	1495.7	-137.7
7212.60.00	Flat rolled products of iron or non-alloy steel	10%	25% or USD 250/MT whichever is higher for one year	0	0	0	0	0

HS Code	Item description	Old rate	New rate	Total trade effect	Trade Creation	Trade Diversion	Revenue	Welfare
7210.20.00, 7210.30.00, 7210.41.00, 7210.61.00, 7210.69.00, 7210.90.00, 7212.30.00, 7212.40.00, 7212.50.00, 7212.60.00, 7213.10.00, 7213.20.00, 7213.99.00, 7214.10.00, 7214.20.00, 7214.30.00, 7214.91.00, 7214.99.00, 7215.10.00, 7215.50.00, 7215.90.00, 7216.10.00, 7216.21.00, 7216.22.00, 7216.50.00, 7216.61.00, 7216.69.00, 7216.91.00, 7216.99.00, 7228.10.00, 7228.20.00, 7228.30.00, 7228.40.00, 7228.50.00, 7228.60.00, 7228.70.00, 7228.80.00,	Steel articles of chapters 72 and 73 comprising of; corrugated iron sheets (galvanised and pre-printed), pre painted coils, galvanised coils, hoop iron, twisted bars, flat bars, mild steel plates	10% and 25% where applicable	25% or USD 350MT whichever is higher.	-58.6	-58.6	0	44.5	-6.6
3605.00.00	Safety matches	25%	25% or USD 1.35/Kg whichever is higher for one year	0	0	0	0	0
	TOTAL			-2923.5	-2923.5	-0	1,657	-167.8

Data Source: ITC/Trade Map, 2019

Table 8B: Effects of the 35% tariff increment on select products (US\$ 1000)

HS Code	Item description	Old rate	New rate	Total trade effect	Trade Creation	Trade diversion	Revenue Effect	Welfare Effect
Chapter 33	Essential oils and resinoids; perfumery, cosmetic or toilet preparations	0.25	0.35	-103.1	-103.1	0	86.3	-21.8
3405	Shoe polish.	0.25	0.35	18.4	18.4	0	-22.8	0.1
67.04	Wigs, false beards, eyebrows and eyelashes, etc. human hair	0.25	0.35	0	0	0	0	0
7308.30.00, 3926.90	Doors, windows and their frames and thresholds for doors of iron and steel and Plastic/polymers	0.25	0.35	0	0	0	0	0
4011.40.00	New pneumatic tyres of rubber, of a kind used on motorcycles.	0.1	0.35	0	0	0	0	0
34.01	Soap and organic surface active products for use as soap	0.25	0.35	-149.2	-149.2	0	74.5	-11.5
48.19	Cartons, boxes, cases, bags and other packing containers of paper	0.25	0.35	-2.1	-2.1	0	0.544	-0.1
4911.10.00	Trade advertising material	0.25	0.35	-0.5	-0.5	0	0.415	-0.0
4911.91.00	Pictures, designs and photographs	0.25	0.35	-0.1	-0.0	0	0.05	-0.1
4911.99.10	Instructional charts and diagrams	0.25	0.35	-23.7	-23.7	0	15.386	-1.1
94.03, 94.01, 9402.90.90	Furniture and parts thereof	0.25	0.35	-3.641	-3.641	0	7.183	-0.9
63.01	Blankets	0.25	0.35	-0.1	-0.1	0	0.059	-0.1
94.04	Mattress supports and mattresses	0.25	0.35	-1.5	-1.5	0	1.428	-0.4
85.07	Electric accumulators	0.25	0.35	-362.1	-362.1	0	151.5	-85.7
2002.90.00	Tomato paste and other preserved tomatoes of heading 20.02 from 25% to 35%	0.25	35% for one year	-15.9	-15.9	0	25.6	-3.9
8528.72.90	Increase import duty on imported television sets from 25% to 35%.	0.25	35% for one year	-1074.6	-1074.6	0	735.2	-161.8

HS Code	Item description	Old rate	New rate	Total trade effect	Trade Creation	Trade diversion	Revenue Effect	Welfare Effect
9503.00.00	Increase import duty on imported toys of heading 9503 from 25% to 35%.	0.25	35% for one year	-0.0	-0.0	0	0.0	-0.0
3306.10.00, 3306.90.00	Increase import duty on imported toothpaste and other mouth wash preparations of subheadings 306.10.00 and 3306.90.00 from 25% to 35%.	0.25	35% for one year	-82.0	-82.0	0	62.7	-18.9
1901.20.90	Mixes and doughs for the preparation of bakers' wares of heading 19.05:	0.25	35% for one year	-5.454	-5.454	0	5.0	-0.9
63.06	Tarpaulins	0.25	35% for one year	-0.017	-0.017	0	0.01	-0.0
1704.10.00	Chewing gum	0.25	35% for one year	-7.53	-7.5	0	3.7	-0.1
1704.90.00	Other sugar confectionery (sweets)	0.25	35% for one year	-18.0	-18.0	0	16.7	-1.4
18.06, 17.04	Chocolates	0.25	35% for one year	-242.9	-242.9	0	142.3	-40.3
7323.10.00	Iron or steel wool; pot scourers and scouring or polishing pads, gloves and the like	0.25	35% for one year	-0.2	-0.2	0	0.1	-0.01
8311.10.00	Coated electrodes of base metal, for electric arc-welding	0.1	35% for one year	0	0	0	0	0
	TOTAL		TOTAL	-2074.5	-2074.5	0	1306.2	-349

Data Source: ITC/Trade Map, 2019

Table 9B: Effects of the 60% of tariff increment on select products (US\$ 1000)

HS Code	Item description	Old rate	New rate	Trade Creation	Trade Diversion	Total trade Effect	Revenue Effect	Welfare Effect
0701.90.00, 0710.10.00, 2004.10.00, 2005.20.00	Cooked Potatoes fresh or chilled, other than seed	25%	60% for one year	-115.5	0	-115.5	59.9	-11.1
0409.00.0017.02	Honey	25%	60% for one year	0.0	0	0.0	0.4	-0.1
22.02	Imported ready to drink juices of heading 2202 from 25% to 60%	25%	60% for one year	0	0	0	0	0
0901, 2101.11.00, 2102.12.00	Increase import duty of processed coffee of heading 09.01 and Subheadings 2101.11.00, and 2101.12.00 from 25% to 60%.	25%	60% for one year	0	0	0	0.0	0
09.02, 2101.20.00	Increase import duty of processed tea of heading 09.02 and Subheadings 101.20.00, from 25% to 60%	25%	60% for one year	-27.4	0	-27.4	0.0	-11.9
0910.11.00, 0910.12.00	Increase import duty on ginger of subheadings 0910.11.00 and 0910.12.00 from 25% to 60%.	25%	60% for one year	0	0	0	0	0
20.07	Increase import duty on jams, marmalades, jellies and the like of heading 20.07 of the CET from 25% to 35%.	25%	60% for one year	0	0	0	0	0
02.01, 02.02, 02.03, 02.04, 02.07, 16.02	Frozen meats of; chicken, bovine animals, meat of swine, meat of sheep.	25%	60%	0	0	0	0	0
2008.11	Peanut butter	25%	60% for one year	0	0	0	0	0
1806.90.00	Bread spreads	25%	60% for one year	-109.6	0	-109.6	50.1	-23.5

HS Code	Item description	Old rate	New rate	Trade Creation	Trade Diversion	Total trade Effect	Revenue Effect	Welfare Effect
2005.20.00	Potato and other crisps	25%	60% for one year	-0.0	0	-0.0	0.0	0
7.03	Onions, shallots, garlic, leeks etc., fresh or chilled	25%	60% for one year	0	0	0	0	0
1512.29.00	Refined cotton seed oil	25%	60% for one year	0	0	0	0	0
1512.19.00	Refined sunflower seed or safflower oil	25%	60% for one year	-130.1	0	-130.1	93.9	-19.6
18.05, 18.06	Cocoa powder in packing with a net content exceeding chocolate and other food preparations containing cocoa	25%	60% for one year	-115.2	0	-115	75.5	-38.9
4.05	Butter and other fats and oils derived from milk; dairy spreads	25%	60% for one year	0	0	0	0	0
19.05	Biscuits	25%	60%	-21.9	0	-21.9	20.9	-3.6
2103.20.00	Tomato sauce	25%	60% for one year	-25.8	0	-25.8	75.9	-5.8
2201.10.00	Mineral water	25%	60% for one year	0	0	0	0	0
4818.10.00	Toilet paper	25%	60%	109.7	0	109.7	-136.6	6.5
8420.20.00	Exercise books	25%	60%	0	0	0	0	0
9603.21.00	Toothbrushes	25%	60%	0	0	0	0	0
9608.10.00	Ball point pens	25%	60%	-1.2	0	-1.2	0.8	-0.02
	TOTAL		TOTAL	-437.8	0	-437.8	377.7	-108.2

Data Source: ITC/Trade Map, 2019

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