Report

Sectoral and fiscal impact of the AfCFTA in Rwanda

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Acronyms

AfCFTA	African Continental Free Trade Area
CET	common external tariff
COMESA	Community of Eastern and Southern Africa
DRC	Democratic Republic of Congo
EAC	East African Community
ECOWAS	Economic Community of West African States
FTA	free trade agreement
GDP	gross domestic product
GHG	greenhouse gas
IPR	intellectual property rights
ISDS	investor-state dispute settlement
LDC	least developed country
MFN	most favoured nation
NTB	non-tariff barrier
REC	regional economic community
RTP	Rwanda Trade Portal
SADC	Southern African Development Community
SMEs	small and medium-sized enterprises
SPS	sanitary and phytosanitary measures
TBT	technical barriers to trade
VAT	value-added tax

Executive Summary

The African Continental Free Trade Area (AfCFTA) is a critical instrument for African countries to diversify and transform their economies. The agreement, amongst other things, addresses the liberalisation of tariffs, removal of non-tariff barriers and implementation of trade facilitation measures to achieve this goal.

The AfCFTA is also an important instrument for Rwanda to complement and enhance its successful transformational path. It opens market access opportunities beyond the East African Community (EAC) in both goods and services. Based on this study's estimates, full implementation of the agreement is likely to increase real incomes in Rwanda by 3.2%, intra-Africa exports by 38% and intra-Africa imports by 35% by 2035.

Current trade and tariff structure

In 2021, Rwanda's intra-African exports were valued at almost $800 million, comprising an almost 50% share of its total global exports. However, these exports were mainly concentrated in 25 products (75% of the total) and were mostly destined for EAC members: the Democratic Republic of Congo (DRC), Tanzania and Uganda. Therefore, there is scope to expand Rwanda's exports to other African countries outside the EAC with substantial value addition, to Community of Eastern and Southern Africa (COMESA) members (Ethiopia, Egypt, Congo and Sudan), and to Ghana.

Since Rwanda is a member of both the EAC and COMESA, it applies tariff rates based on common harmonised rules. Rwanda also follows the standards and regulations set under the COMESA–EAC customs regime, including on rules of origin, collection of taxes and duties, trade remedies, and dispute settlement. It also covers the identification, removal and monitoring of non-tariff barriers (NTBs) to trade.

Impact of the AfCFTA on trade and revenue

The AfCFTA is estimated to generate an increase in Rwandan total imports by 0.6% and a fall in tariff revenue of 15.3% (around $41 million), but there are significant variations at a disaggregated product level. Almost the entire impact on the tariff revenue is generated by the reduction on the tariffs on gold originated in the imports coming from Cameroon, South Africa and Burkina Faso. Consequently, Rwanda should exclude this product from liberalisation in the AfCFTA schedules to minimise the lost tariff revenue and maximise the welfare implications of the agreement..

The overall increase in imports from intra-Africa trade under the AfCFTA can partially offset the reduction in the tariff revenue. The first effect is through the value-added tax (VAT). Rwanda applies a general VAT duty of 18% on a wide range of goods and services, both domestically produced and imported goods. Therefore, an increase on imports would, in general, lead to an increase in VAT collection. Excise duties could also partially offset the effect generated by the tariff revenue loss. Excise duties are also applied on both domestic and imported products and are typically applied to certain consumer goods. Our calculation shows that Rwanda would increase the collection of excise revenue only by $364,000.

The AfCFTA Adjustment Fund, recently launched in Rwanda, is expected to address some of the aspects associated, amongst other aspects, to addressing the effects of tariff revenue across the continent. In particular, the AfCFTA Adjustment Fund is designed to address the tariff revenue. Rwanda, for example, could use these funds to develop tax revenue capabilities to offset the fall in tariff revenue.

Given that trade with most of the Rwandan export partners is already duty free (because of EAC and COMESA membership), the effect on exports across the continent is expected to be limited. However, the analysis on some key markets with whom Rwanda has no trade agreements suggest some important effects.The AfCFTA will remove tariff barriers into key markets such as South Africa, Nigeria, Morocco and Ghana. Total exports to these countries would grow between 0.7% (Nigeria) and 9.3% (Ghana). However, the base value are very modest. In general, the exports of the affected products would increase between 6.5% (trade advertising material to South Africa) and 79% (Articles of apparel of man-made fibres to Morocco) (See Table A in the Annex).

Inclusivity agenda: climate, gender, and poverty

Trade liberalisation under the AfCFTA agreement will have ramifications for climate change, gender equality and poverty alleviation in partner countries.

Climate: The initiative to include a climate-conscious economic transformation agenda under the AfCFTA will help countries to reduce greenhouse (GHG) emissions and adapt to the impacts of climate change. Rwanda's exports are primarily in agricultural commodities that contributed to 45.6% of overall GHG emissions in Rwanda. The Government of Rwanda has already made significant efforts to integrate adaptation and mitigation strategies into its broader agricultural policy. The AfCFTA also provides Rwanda with an opportunity to diversify its exports into less energy-intensive manufactured goods that will spur green-industrialisation. This includes subsectors such as textiles, machinery and equipment.

Gender: The AfCFTA has the potential to increase women's participation in trade, which could contribute to a rise in continental gross domestic product (GDP) by 40%. In Rwanda, the government's efforts have reduced gender gaps by increasing female participation in market-oriented farming and agriculture. Apart from agriculture, opportunities in Rwanda's services sectors can be leveraged as services typically employ more women (than men). In Rwanda, transportation, accommodation and food (under tourism), and the business and administration service sectors, can absorb larger female participation in line with AfCFTA and Rwanda's goals towards women's empowerment.

Poverty: Trade liberalisation under the AfCFTA can improve livelihoods and reduce poverty. In Rwanda, around 70% of the population is engaged in farming and export a few agricultural commodities that face several volatilities. As a result, limited access to finance and resources leave the poor vulnerable. Under the AfCFTA, export diversification can lower this volatility and help poorer communities build resilience to shocks. This can be supplemented with 'trade plus one' policies to improve access to electricity for rural households, provide better connectivity, irrigation facilities, and to improve the links to exporting markets for small traders, farmers, and small and medium-sized enterprises (SMEs). Rwanda also stands to benefit from increases in re-exports of petroleum products and electrical goods, which can lead to redistribution of income and a reduction in poverty.

Recommendations

The African Continental Free Trade Area (AfCFTA) agreement aims to create a single market for goods and services among African countries, with the goal of increasing intra-African trade and promoting economic development. One of the key aspects of the AfCFTA is the reduction of import tariffs, which can lead to a loss of revenue for countries that rely heavily on these tariffs. However, the promotion of trade and investment, improvements in infrastructure, trade facilitation measures, and targeted policies can help Rwanda reap the benefits of the AfCFTA in an inclusive manner.

Rwanda may consider including gold among its sensitive products to minimise the loss in tariff revenue. The implications of excluding gold are minimal from the welfare point of view.

In addition, to maximise the deep integration impact of the AfCFTA, Rwanda can consider the following recommendations:

- increase and diversify exports to non-EAC and non-COMESA African markets
- improve the investment climate
- invest in trade-related infrastructure and human capital
- improve domestic tax collection
- promote trade facilitation
- prioritise poverty reduction, gender equality and climate change.

Overall, Rwanda has the potential to benefit significantly from AfCFTA by increasing trade and promoting economic growth. By implementing these recommendations, the country can take full advantage of the opportunities presented by the agreement while minimising the welfare losses associated with tariff liberalisation and increased competition.

Contents

1. Introduction

The African Continental Free Trade Area (AfCFTA) is a critical instrument for African countries to diversify and transform their economies. The AfCFTA will reduce barriers between African Union Member States with the aim of increasing intra-African trade in goods and services, and investment. The agreement addresses liberalisation of tariffs, removal of non-tariff barriers (NTBs) and implementation of trade facilitation measures to achieve this goal. It is a comprehensive agreement that also covers non-trade issues such as competition policy, protection of intellectual property rights, investment protection, as well as development of specific industries that are vital to the development of value chains on the continent.

Since Rwanda is a least developed country, it will be allotted extra time to progressively cut tariffs on non-sensitive products that cover 90% of tariff lines by the year 2031 (a 10-year period), and on sensitive products (covering 7% of tariff lines) between the years 2027 and 2034 (World Bank, 2022). The AfCFTA is also an important instrument for Rwanda to complement and enhance its successful transformational path. The AfCFTA is high on the agenda of Rwanda’s policy-makers, and it has made significant strides to implement the provisions of the agreement such as developing an AfCFTA implementation strategy. For Rwanda, the AfCFTA opens market access opportunities beyond the East African Community (EAC) in both goods and services. To this end, Rwanda began trading under the AfCFTA guided Trade Initiative in 2022 by exporting coffee to Ghana[1].

The World Bank (2020) found that the full implementation[2] of the agreement would increase real incomes in Rwanda by 3.2%, intra-Africa exports by 38% and intra-Africa imports by 35%. The AfCFTA may also lead to a much-needed increase in investment through investment and other deep integration protocols by creating a large unified market of 1.3 billion people with a combined gross domestic product (GDP) of $3.4 trillion (World Bank, 2022). A simulation exercise by the World Bank (2022) finds that Rwanda will experience an increase of inward-foreign direct investment (FDI) by 56.1 to 74.8% after the implementation of the AfCFTA and related protocols that may harmonise policies on investment, competition, e-commerce and intellectual property rights.

While the agreement may lead to general efficiency and competitiveness gains across the continent, the benefits are not expected to be evenly distributed and some sectors may be negatively affected. Increased competition may affect inefficient firms and sectors that operate within the domestic market and are protected by high barriers. Consumers, on the other hand, may suffer because of trade diversion generated by the replacement of efficient into inefficient sources of products benefited by the agreement. However, consumers may also benefit where trade is created as they will have access to cheaper products.

Government resources would be affected directly through a loss in tariff revenue that the agreement may generate. While this is a general expected result, its combination with potential trade diversion scenario will lead to a general welfare loss in the

[1] More information here: https://www.pacci.org/rwanda-begins-trade-under-afcfta/

[2] Full implementation involves the liberalisation of tariffs, removal of non-tariff barriers (NTBs) and trade facilitation measures.

affected sectors[3]. One study finds that Rwanda may experience a welfare loss in the medium term when agricultural tariffs are reduced (Chauvin et al., 2016). However, the government revenue lost may be partially, or totally, offset by the income revenue generated by other taxes like sales tax, excise duties and ad-valorem/value-added tax (VAT) on imports and exports. In Rwanda, customs duties (or import tariffs) comprise only a 27% share in total tax revenues from imports; hence, revenue losses are expected to be less than 1% of total government revenue (World Bank, 2020).

This report aims to assess the impact of the AfCFTA on tariff revenue of the Government of Rwanda on a sectoral level, as well as identify the overall sectoral impact through exports and import changes under the agreement. The rest of the report is organised as follows: Section 2 describes Rwanda's current trade and tariff structure, while Section 3 highlights the main provisions of the AfCFTA in terms of goods, services, and Phase II and III issues. Section 4 then defines the methodology used to determine the revenue and sectoral impact of the AfCFTA, and Section 5 explains the main results. Finally, Section 6 concludes the report and provides recommendations to increase trade under AfCFTA and minimise welfare losses.

[3] Trade diversion occurs when a trade agreement generates an increase of imports from efficient suppliers in favour of inefficient suppliers. Trade creation occurs when as a result of a trade agreement, imports increase from efficient exporters. The general welfare effect of a trade agreement results from the sum of trade creation, trade diversion and tariff revenue loss.

2. Description of current trade structure

2.1 Products and services exported/imported

According to the data from UN Comtrade for 2021, Rwanda's exports to other African countries were valued at almost $800 million, comprising an almost 50% share of its total global exports of $1.56 billion. The top 25 products exported by Rwandan to Africa (intra-Africa exports) were valued at over $595 million and comprised three-quarters of the total intra-Africa exports. Such product concentration exposes Rwanda to demand-driven threats from destination countries that can impact local exporters. For example, all exports of medical and other scientific instruments and appliances made their way to Tanzania; similarly, all exports of 19 out of top 25 products, including light oils, medium oils, palm oil and wheat, were sent solely to the Democratic Republic of Congo (DRC); the rest of the listed products (Table 1) were exported only to EAC members Tanzania or Uganda. There is scope to expand Rwanda's exports to other African countries outside the EAC, given the opportunity presented by tariff liberalisation under the AfCFTA.

Moreover, it seems that Rwanda re-exports some of its imports to EAC members, without substantial value addition. These products include light oils, palm oil, medium oils, semi-milled or wholly milled rice, Portland cement, cane and beet sugar, vegetable fats and oils, footwear (rubber or plastic outer soles or straps), and mobile phones. Exceptions are wheat or meslin flour and maize or corn flour. Rwanda imports these products in their raw forms but exports them in their respective flour forms – leading to value addition. Therefore, there is scope for Rwanda do more value addition to other groups of exports before they are exported to the African market, thereby inserting itself into value chains.

Table 1 Rwanda exports to Africa (2021)

HS code	Product description	Value (in thousands of $)	Share in total (%)
901890	Medical and other scientific instruments and appliances	87,518	11.0
271012	Lights oils and preparations	57,589	7.2
151190	Palm oil and its fractions	49,016	6.1
190110	Food preparations for infant use	48,404	6.1
271019	Medium oils and preparations	46,656	5.9
110100	Wheat or meslin flour	39,047	4.9
110620	Flour of sago or of roots or tubers	33,605	4.2
110630	Semi-milled or wholly milled rice	31,680	4.0
252329	Portland cement	20,726	2.6
170199	Cane and beet sugar	20,706	2.6

630900	Worn clothing and clothing accessories	20,017	2.5
392490	Household articles and toilet articles, of plastics	16,886	2.1
090240	Black fermented tea and partly fermented tea	15,222	1.9
030354	Frozen mackerel	13,471	1.7
721430	Bars and rods, of non-alloy free-cutting steel	11,475	1.4
090111	Coffee (excluding roasted and decaffeinated)	10,887	1.4
030323	Frozen tilapia	10,143	1.3
110220	Maize or corn flour	9,906	1.2
190219	Uncooked pasta, not stuffed not containing eggs	9,150	1.1
170114	Raw cane sugar	8,528	1.1
151620	Vegetable fats and oils and their fractions	8,102	1.0
010290	Live bovine animals	7,627	1.0
640220	Footwear with outer soles and uppers of rubber or plastics, with upper straps or thongs	6,921	0.9
851712	Telephones for cellular networks	5,958	0.7
190531	Sweet biscuits	5,949	0.7
Total selected products		595,332	74.7
Total exports		797,235	-

Source: UN Comtrade 2022

In 2021, Rwanda's imports from Africa comprised a 30.8% share of its total global imports. They were, however, like its exports, highly concentrated. For example, 63.9% of intra-Africa imports were concentrated in 25 products (Table 2) valued at $743 million, while total intra-Africa imports were valued at $1.15 billion in 2021. Of the top 25 products imported by Rwanda, gold led with a 32% share, followed by cane or beet sugar and semi-milled or wholly milled rice, at 4.8% each. Both were, however, mostly re-exported to other EAC members.

Interestingly, Rwanda imported 57.5% of this gold from EAC member Tanzania with zero tariffs. The remaining 42.5%, valued at $156 million, was imported at a non-zero tariff rate. Any liberalisation of goods trade under the AfCFTA will, therefore, lead to a loss from this portion of gold imports. On the contrary, cane and beet sugar imported from Malawi will not lead to loss in tariff revenue, as Malawi is a Community of Eastern and Southern Africa (COMESA) member (like Rwanda) and enjoys duty-free access to Rwanda; the same is the case with imports of Portland cement from Kenya (EAC) and several other products in Table 2.

Table 2 Rwanda imports from Africa (2021)

HS code	Product Description	Value (in thousands of $)	Share in total (%)
710812	Gold including gold plated with platinum (unwrought)	368,262	32.0
170199	Cane and beet sugar	55,094	4.8
100630	Semi-milled or wholly milled rice	54,981	4.8
252329	Portland cement	41,071	3.6
850239	Generating sets (auto)	23,781	2.1
730661	Tubes and pipes of iron or steel	20,879	1.8
690100	Bricks, blocks, tiles, and other ceramic goods	17,505	1.5
100590	Maize (excluding seed for sowing)	16,265	1.4
340119	Soap and organic-surface active products	14,414	1.3
120242	Groundnut, shelled, whether or not broken	13,196	1.1
071410	Manioc (cassava), fresh, chilled, frozen, or dried	12,106	1.1
721420	Bars and rods of iron or non-alloy steel with indentations	12,045	1.0
151620	Vegetable fats and oils	11,371	1.0
151219	Sunflower seed or safflower oil	10,956	1.0
030559	Dried fish (not smoked)	10,428	0.9
151190	Palm oil	9,691	0.8
250100	Salt (including table salt)	9,428	0.8
340290	Surface-active preparations	8,857	0.8
170490	Sugar confectionary, not containing cocoa	8,662	0.8
720430	Waste and scrap of tinned iron or steel	8,125	0.7
640220	Footwear with rubber and plastic soles or uppers	7,343	0.6
Total selected products		734,463	63.9
Total imports		1,149,900	-

Source: UN Comtrade 2022

2.2 Main destination and origin of products

In 2021, Rwanda’s imports were over twice the value of its exports, according to the latest data from UN Comtrade. Just over half of the exports were shipped to other African markets (intra-African exports), while about a third of its imports were sourced from within the continent (intra-African imports). Rwanda’s regional trade is fairly concentrated with two main partners from the East African Community (EAC), Tanzania, and Kenya as well as the newly-admitted EAC member Democratic Republic of Congo (DRC). In 2021, 45.3% of total exports and 21.3% of total imports were traded with these three partners.[4] In other words, most of Rwanda's intra-Africa exports and more than half its intra-Africa imports were traded within the new EAC, leaving little room for non-EAC African countries. Data shows that only 5.3% of exports were destined for non-EAC African countries and about 9.5% of goods were imported from African countries outside the EAC (Table 3). To this end, there is scope to expand trade with non-EAC countries under the AfCFTA.

The next big markets outside the EAC for Rwandan exports were (in descending order of present value of exports) Ethiopia (COMESA co-member), Egypt (COMESA co-member), Sudan (COMESA co-member) and Ghana, each with exports over $2 million (each) in 2021. In terms of import sources, South Africa, Egypt (COMESA co-member), Malawi (COMESA co-member), Cameroon and Burkina Faso (in descending order of present value of imports) were the largest suppliers outside the EAC with over $20 million (each) in imports to Rwanda. Importantly, EAC and COMESA have aligned their common external tariff (CET) and both offer free trade under their respective agreements.[5]

Under the AfCFTA, the aim for the Government of Rwanda should be to promote intra-African exports to non-EAC and non-COMESA markets to benefit from the new preferential tariff rates, which may be different from those agreed under the EAC or COMESA. Both these regional economic communities (RECs) are working with the South African Development Community (SADC) to form a tripartite agreement such that the 26 member countries can enjoy a tariff-free zone. Rwanda should look to use the AfCFTA to expand trade opportunities beyond this tripartite zone.

Table 3 Rwanda's trade with African partners (2021)

Partner	Value (thousands of $)		Share (%)	
	Exports	Imports	Exports	Imports
Tanzania	96,536	496,091	6.2	13.3
Kenya	24,093	280,794	1.5	7.5
Congo, Dem. Rep.	569,140	18,231	37.6	0.5
South Africa	835	129,552	0.1	3.5
Egypt, Arab Rep.	11,360	56,905	1.0	1.5
Malawi	827	47,984	0.1	1.3
Cameroon	45	45,621	0.0	1.2
Uganda	25,108	187	1.6	0.0
Burkina Faso	70	22,193	0.0	0.6
Ethiopia	23,503	336	1.5	0.0
Zambia	1,565	13,481	0.1	0.4

[4] This is the "new-EAC" that includes DRC. Since DRC was recently admitted, the presented trade data was not covered by the tariff liberalisation under the EAC for DRC. However, since the report urges Rwanda to trade with partners outside the EAC bloc in the future under the AfCFTA, DRC has been regarded as an EAC member in this context. Other large EAC partners were Uganda and South Sudan (UN Comtrade, 2021): https://comtradeplus.un.org/

[5] See COMESA website: www.comesa.int/comesa-customs-union/

Sudan	4,508	8,566	0.3	0.2
South Sudan	7,937	382	0.5	0.0
Eswatini	278	6,814	0.0	0.2
Congo, Rep.	7,106	5	0.5	0.0
Mauritius	27	5,243	0.0	0.1
Morocco	76	4,236	0.0	0.1
Nigeria	866	3,217	0.1	0.1
Mozambique	252	3,112	0.0	0.1
Ghana	2,305	349	0.1	0.0
Madagascar	142	2,222	0.0	0.1
Senegal	3	840	0.0	0.0
Zimbabwe	135	693	0.0	0.0
Somalia	749	2	0.1	0.0
Gabon	17	671	0.0	0.0
Niger	313	238	0.0	0.0
Tunisia		544	-	0.0
Burundi	341	172	0.0	0.0
Mali	12	373	0.0	0.0
Eritrea	325	0	0.0	0.0
Liberia	60	244	0.0	0.0
Cote d'Ivoire	29	272	0.0	0.0
Central African Republic	268	2	0.0	0.0
Angola	145	20	0.0	0.0
Namibia		99	-	0.0
Sierra Leone	2	62	0.0	0.0
Libyan Arab Republic		62	-	0.0
Seychelles		46	-	0.0
Togo	6	27	0.0	0.0
Mauritania		25	-	0.0
Chad	7	16	0.0	0.0
Benin	6	14	0.0	0.0
Guinea	2	6	0.0	0.0
Botswana	5		0.0	-
Lesotho		2	-	0.0
Djibouti		0	-	0.0
Cape Verde		0	-	0.0
Gambia, the		0	-	0.0
Total Africa	*797,235*	*1,149,900*	*51.0*	*30.8*
Total	**1,562,489**	**3,733,697**	**100.0**	**100.0**

Source: UN Comtrade 2022

2.3 Tariff structure

At present, the average applied rates are at 12.4% on all tariff lines, with agricultural goods attracting a higher average tariff rate of 20% (Table 4). On a disaggregate level (Table 5), dairy products (51.7%), sugars and confectionary (26%), and beverages and tobacco (25.3%) attracted the highest applied duties (under most favoured nation (MFN) tariffs), although their combined share in total imports was only 3.2% in 2021. For non-agricultural goods, imports by Rwanda were the highest in the minerals and metals category, which attracted an average tariff of 10.6%, with a maximum applied rate of 27% (MFN).

Table 4 Applied tariff summary

Summary		Total	Ag	Non-Ag
Simple average MFN applied	2021	12.4	20.0	11.2
Trade weighted average applied	2020	17.5	36.9	13.8

Source: WTO

Table 5 Applied tariff rates by product group

	MFN applied duties			Imports	
Product groups	AVG	Duty free	Max	Share	Duty free
		(%)		(%)	(%)
Animal products	23.1	7.7	25	0.1	51.0
Dairy products	51.7	0	60	0.3	0
Fruit, vegetables, plants	22.0	8.7	25	0.8	2.0
Coffee, tea	19.6	16.7	25	0.0	4.8
Cereals & preparations	23.2	11.4	*75*	7.5	0.6
Oilseeds, fats & oils	11.6	20.5	25	4.0	4.5
Sugars and confectionery	26.0	0	*80*	2.0	0
Beverages & tobacco	25.3	0	35	0.9	0
Cotton	0.0	100.0	0	0.0	100.0
Other agricultural products	10.7	39.0	25	0.3	50.5
Fish & fish products	24.8	0.3	25	1.1	0
Minerals & metals	10.6	38.8	*27*	34.2	11.6
Petroleum	4.3	61.4	25	9.0	96.4
Chemicals	3.5	80.1	25	10.6	65.7
Wood, paper, etc.	13.5	28.6	25	2.4	15.2
Textiles	19.5	7.4	*100*	2.8	10.7
Clothing	25.2	0	50	0.9	0
Leather, footwear, etc.	12.1	28.2	25	1.6	7.4
Non-electrical machinery	3.1	76.2	25	6.6	78.1
Electrical machinery	8.0	54.4	35	8.3	83.3
Transport equipment	5.8	59.6	25	3.7	72.5
Manufactures, n.e.s.	14.5	32.3	25	3.0	76.7

Source: WTO

As mentioned in Section 2, unwrought gold was the largest single import. As it was chiefly imported from Tanzania (57.5%), a fellow EAC member, this share was imported duty free. Meanwhile, another 19.2% was imported from South Africa and 12.4% from Cameroon, both at a tariff rate of 25% in 2021. As we will see, the elimination of the duties applied to this product coming from these countries will command almost all the tariff revenue effect.

The next largest import was chemicals and petroleum products, both attracting an MFN applied rate of 25%, apart from imports originating in EAC countries. In fact, all the other six members of the EAC[6] export duty free to Rwanda. Rwanda is also part of COMESA,[7] under which it also enjoys duty-free imports.

Since Rwanda is a member of both the EAC and COMESA, it applies tariff rates based on common harmonised rules. For instance, the EAC is a common market (established 2009) that applies a common external tariff (CET); this has four bands: 0%, 10%, 25% and a maximum rate of 35%, for all products imported in the community. This CET structure has only been applied since 2022.[8] For trade within the community, members allow for free movement of goods, services and factors of production.

Similarly, under COMESA, members maintain a full free trade area guaranteeing free movement of goods and services, as well removal of all tariff and non-tariff barriers. COMESA's CET is aligned with that of the EAC.[9] This means Member States like Rwanda do not have to choose between REC memberships; with the same CET, COMESA and EAC are moving towards becoming a single customs union.[10]

2.4 Other customs requirements

The Rwanda Revenue Authority's Customs Service Department (CSD) and the Rwanda Trade Portal (RTP) regularly publish the information required to import goods into Rwanda on their websites. The CSD has established special regimes to facilitate trade and imports to Rwanda. These include direct delivery, clearance on truck and quick release regimes. Although they allow for efficient and standardised import procedures, they require many steps in terms of paperwork, filling of application forms, approvals and verification checks[11] that can create temporary delays to trade. However, there exists a system called the Blue Channel/Gold Card facility that allows compliant Rwandan taxpayers to be exempt from physical customs checks at the border; instead, they are subject to post-clearance audits.[12]

[6] That is, Burundi, Kenya, South Sudan, Tanzania and Uganda.

[7] COMESA's other members are: Burundi, Comoros, DR Congo, Djibouti, Egypt, Eswatini, Eritrea, Ethiopia, Kenya, Libya, Madagascar, Malawi, Mauritius, Seychelles, Somalia, Sudan, Tunisia, Uganda, Zambia, and Zimbabwe.

[8] For more information see: EAC Customs Union (2022) 'Common External Tariff: 2022 Version' (http://repository.eac.int/bitstream/handle/11671/24409/CET%202022%20VERSION%20260722.pdf?sequence=1&isAllowed=y).

[9] Any loss of revenue resulting from the CET will be addressed via the adjustment facility and the infrastructure fund under the COMESA Fund.

[10] See COMESA website: https://www.comesa.int/comesa-customs-union/

[11] See Rwanda Revenue Authority, 'Importers Procedures': https://www.rra.gov.rw/en/customs-services/importers/import-procedures

[12] See Rwanda Revenue Authority, 'Blue Channel facility': https://www.rra.gov.rw/en/customs-services/importers/understanding-the-blue-channel-facility-offered-by-the-rra/customs-services

This preferential release procedure allows for shorter wait times and facilitates imports by Rwanda.

The RTP, on the other hand, lays out the necessary practical information, from the import duty applicable across product groups, the permits required and how to fill in the paperwork, to the level of clearance required, depending on the port of import.

Rwanda also follows the standards and regulations set under the COMESA–EAC customs regime, including on rules of origin, collection of taxes and duties, trade remedies, and dispute settlement. National and regional measures that can act as non-tariff barriers are covered under the tripartite FTA, which aims to identify, remove and monitor the NTBs to trade.[13] This will lead to policy harmonisation and coordination between the 29 Member States, as well reduce the cost of trading and doing business across the members in pursuit of greater intra-regional trade. To this end, all three RECs have established NTB monitoring mechanisms under the principles of transparency and accessibility. Naturally, this will ease the implementation of AfCFTA protocols as well, having already collaborated across the three RECs.

[13] See Trade Barriers website: https://www.tradebarriers.org/about

3. Description of AfCFTA main provisions

3.1 Trade in goods

The AfCFTA Protocol on Trade in Goods concerns the rules of origin that form transparent, clear and predictable criteria to confer preferential treatment under the AfCFTA agreement. The aim of this protocol is to deepen market integration at the regional and continental levels, boost intra-Africa trade, promote regional and continental value chains, and foster economic transformation of the continent through industrialisation. It covers products that were either wholly obtained in a Member State or have undergone substantial transformation (Annexes 5 and 6 of the protocol).[14] For the purpose of the agreement, all Member States are considered to be a single territory; that is, the protocol adheres to the cumulation of origin principle.

Additionally, Members States are required to adopt:

- customs tariff nomenclatures in conformity with the Harmonised System of Preferences
- a valuing system for goods based on principles of non-discrimination, transparency and uniformity.

They are encouraged to:

- Cooperate on the use of international standards in customs procedures and formalities, thereby harmonising such practices across the Member States.[15]
- Promote automation of customs operations by upgradation to modern data processing systems to facilitate effective customs operations and transmission of data among the Member States.
- Develop joint training programmes, exchange staff and resources, including professional, scientific and technical data, and support each other in customs modernisation and simplification.
- Undertake trade facilitation to harmonise procedures and logistics, and expedite the processing of goods across borders. To this end, they could establish a national committee on trade facilitation.
- Establish a single window for all documentation by importers and exporters.
- Adopt or maintain electronic payment of duties, taxes, fees and other charges.

[14] Full text can be accessed here: https://au-afcfta.org/wp-content/uploads/2022/01/Compiled-Annexes-to-the-CFTA-Agreement_E-1.pdf

[15] Specifically based on the revised Kyoto Convention on Simplification and Harmonization of Customs Procedures and WTO Trade Facilitation Agreement.

- Measure average release times of goods and notify the Sub-Committee on Trade Facilitation of their methodologies, any bottlenecks and effects on efficiency.

They are also urged to implement the provisions of the Protocol on the Elimination of NTBs[16] by establishing a national monitoring committee and national focal points on NTBs. These will, among other tasks, identify, resolve and monitor NTBs, as well as sensitise stakeholders (the business community) on NTB reporting mechanisms. However, members are permitted to apply anti-dumping, countervailing and safeguard measures in accordance with World Trade Organization (WTO) agreements.

The AfCFTA agreement entered into force on 30 May 2019, once 24 countries had deposited their instruments of ratification. As of October 2022, 44 of the 54 (81.5%) signatories had submitted their offers, with Rwanda being the third such country to submit its offer in May 2018 under the EAC. Forty-five (45) countries have also complied with their domestic requirements for the ratification of the AfCFTA agreement. As of November 2022, six members[17] - including Rwanda – were trading under the agreement with elimination (partial or complete) of tariffs on 90% of non-sensitive goods;[18] 81% of the tariff lines were already covered under the rules of origin. Since Rwanda is a least developed country (LDC), it has been given 10 years for elimination of tariffs on non-sensitive goods and 13 years for elimination of tariffs on sensitive goods.

3.2 Services

The Services Protocol forms a part of the main AfCFTA agreement and entered into force on 30 May 2019. The protocol aims to gradually eliminate restrictions that are incompatible with the AfCFTA agreement, the AfCFTA Protocol on Trade in Services, the Negotiating Guidelines for Services Negotiations under the AfCFTA Protocol on Trade in Services, and the AfCFTA Modalities for Services Negotiations. However, it remains incomplete and as a result, trade in services under the AfCFTA is yet to begin.

Services commitments differ from tariff commitments as, at present, the former only bind existing practices in the form of positive lists. To this end, countries have not made any new services liberalisation commitments other than those already committed to under the WTO's General Agreement on Trade in Services (GATS) or existing trade agreements. However, the protocol aims to apply the GATS-plus

[16] Including subsidies and tax benefits that may be restrictive, customs entry procedures, technical barriers to trade, sanitary and phytosanitary measures, quotas or quantitative restrictions, and other charges on imports.

[17] Cameroon, Egypt, Ghana, Kenya, Rwanda, Tanzania, and Mauritius. For more information see: Modern Ghana (2022) 'Ghana, six others begin trade under AfCFTA' (www.modernghana.com/news/1198102/ghana-six-others-begin-trade-under-afcfta.html#:~:text=Ghana%2C%20six%20others%20begin%20trade%20under%20AfCFTA%2029.11.2022,are%20Cameroon%2C%20Egypt%2C%20Kenya%2C%20Rwanda%2C%20Tanzania%2C%20and%20Mauritius).

[18] The agreed modalities for tariff negotiations require 90% of tariffs to be eliminated for non-sensitive goods. Non-least developed countries (LDCs) must do this in 5 years, while LDCs are given 10 years for complete elimination. Moreover, 7% of tariff lines can be sensitive goods; for these, non-LDCs must eliminate tariffs in 10 years and LDCs in 13 years. Finally, a third category of lines – 3% can be excluded from liberalisation, not exceeding 10% of total intra-Africa trade. See the Trade Law Centre (TRALAC), 'African Continental Free Trade Agreement (AfCFTA): Comparative analysis of tariff offers' (www.tralac.org/documents/resources/infographics/4276-afcfta-comparative-tariff-offer-analysis-march-2021/file.html).

approach; that is, members will need to offer more access under the AfCFTA to other members than they have under the GATS to other WTO members. This will take some time, as it requires new liberalisation commitments to be legislated domestically before they can be used.

Overall, the Services Protocol seeks to enhance continental market access for service providers, but it was contingent on specific commitments to be made by countries in each of the service sectors by 2022. Five services sectors were prioritised by the Secretariat, namely, business services, communications, financial services, tourism and travel, and transport services. Seven additional sectors[19] were optional for countries, based on requests.

The countries are required to make national treatment, market access and other commitments under each of the subsectors of a service sector and each of the four modes of supply.[20] The commitments come in the form of two categories, ‘unbound’ and ‘none’, or in between limitations that will apply to a subsector or sector. Limitations can be based on the number of foreign suppliers, employment of local personnel, value of transactions or legal status of the firm/individual. Countries could also apply horizontal limitations that apply across sectors.

The Services Protocol is based on the principle of reciprocity, such that even the negotiations are being conducted on a request–offer basis. To this end, each state party will make an initial offer that can be challenged by other parties in the form of additional liberalisation requests. It also leaves room for bilateral negotiations (or under the auspices of a REC) on service liberalisation that can make special commitments for select member countries under the AfCFTA. The enforcement of the commitments will be carried out by the Committee on Trade in Services and be supplemented by regulatory cooperation between state parties, who can hinder or facilitate overall services trade under the agreement (TRALAC, 2020). The resultant regulatory frameworks will be based on best practices form RECs and other regional agreements in the world.

According to latest data, 48 state parties, including Rwanda, have already submitted their initial or revised offers and, to that end, ratified the protocol. Liberalisation of services would be a positive development for Rwanda given its landlocked geographical position. The Government of Rwanda recognised the importance of the sector (share of 47.8% of GDP in 2021[21]) to spur growth and development in its National Export Strategy II[22] . Travel and tourism, followed by freight and transportation services are the largest generators of service export receipts in Rwanda.

[19] These were construction, education, health and social, recreational and cultural, distribution, environment, and other services.

[20] There are four modes of supply: cross border, consumption abroad, commercial presence, and presence of natural persons.

[21] Statistics from the EAC Strategy for Trade in Services adopted in February 2023: https://www.eac.int/component/documentmananger/?task=download.document&file=bWFpbl9kb2N1bWVudHNfcGRmX0xZclhnenZySXdWS0lCT0ZKWU9oVkRNRUFDIFN0cmF0ZWd5IGZvciBUcmFkZSBpbiBTZXJ2aWNlcyBBZG9wdGVkIEZlYiAyMDIz&counter=1181

[22] Full text can be found here: https://www.minicom.gov.rw/index.php?eID=dumpFile&t=f&f=11243&token=e1931f6070946a7e99d5542dced559367753d45f

To support these sectors, the Rwanda Development Board (tourism) aims to use marketing and training for service providers to increase the arrival of tourists in Rwanda. Similarly, the Ministry of Commerce (transport, logistics, and distribution) aims to develop container facilities at ports, investment towards the completion of the Kigali logistics platform, and expand the services of RwandAir, the national airline. Such services are also considered as intermediate inputs into manufacturing and can be potential growth escalators in Rwanda. The National Export Strategy II also recognises the importance of business services covering professional, ICT, and other business services. To this end, it has targeted development of ICT talents and jobs, brand building, export promotion, and the creation of the Kigali Innovation City.

Under the EAC, Rwanda has already liberalised trade in some professional, tourism (including eco-tourism), and education services. To this end, it does not apply any restrictions on market access and national treatment for modes 1 to 3. If Rwanda were to make commitments that bind these existing practices under the AfCFTA, it is likely to gain through greater intra-African exports of services beyond the EAC market.

3.3 Other provisions

Section 3.1 on trade in goods already covers some of the salient features of the main agreement on trade facilitation. Specifically, the agreement is based on the general principles of transparency, simplification, harmonisation and standardisation of customs law, procedures and requirements. It covers directions on the following topics, among others:

- **Publishing a description of procedures**, documentation requirements, regulations, applied rates of duties, other fees, and charges rules for valuation of products, restrictions or prohibitions, penalties, and other guidelines for import, export or transit of goods
- **Maintaining enquiry points** to answer queries in a reasonable amount of time.
- **Pre-arrival processing** that includes information on import documentation to begin processing prior to arrival of goods.
- **Adopting electronic payments** for duties, taxes, fees and other charges.
- **Determination of authorised operators** that may be given additional measures for import, export and transit of goods.
- **Enabling expedited shipments** or release if applied for by the trader, while maintaining customs control.
- **Enabling release of perishable goods** to avoid their loss or deterioration, keeping in mind the regulatory requirements, providing approved storage facilities.
- **Using information and communication technology** for online provision of information required for import, export or transit of goods, and exchanging data across state parties.

- **Establishing a single window** for submission of documentations.

Emphasis has also been given to the existing NTB monitoring mechanisms under the RECs and their role in capacity building and sensitisation of stakeholders. To this end, Rwanda established the Rwanda National Trade Facilitation Committee (NTFC) under the WTO and Ministry of Trade and Industry in 2017. In line with the provisions under the AfCFTA, the NTFC already contributes to the improvement of the trade environment by promoting transparency, simplification, harmonization and standardization of operations to reduce trade costs. The Rwanda Revenue Authority also created the Rwanda e-Single Window to submit documents and declare goods while crossing the border[23].

Apart from trade facilitation, the AfCFTA agreement also covers a separate annex on non-tariff barriers to identify, categorise, report and progressively eliminate NTBs within the AfCFTA. This includes technical barriers to trade (TBT), sanitary and phytosanitary measures (SPS), other specific limitations, and charges on imports. To monitor these, a Sub-Committee on NTBs was established by the Secretariat, in addition to national monitoring committees and focal points. Rwanda maintains TBT enquiry points[24] in accordance with WTO provisions to assist traders, as well as an SPS Protocol under the EAC to enforce sanitary and phytosanitary measures, standards and promote intra- and inter-regional trade[25].

3.4 Phase II and III provisions

The Phase II negotiations in the AfCFTA include the Protocol on Investment, Protocol on Competition Policy and the Protocol on Intellectual Property Rights. Each protocol will take effect after 22 state parties have ratified it. Importantly, the AfCFTA aims to preserve what has already been achieved by the RECs under each of the protocols. The Protocol on Investment is the most developed protocol up for negotiation in Phase II. The Committee on Investment was established in May 2021 to oversee the negotiations, while the Technical Working Group on Intellectual Property Rights (IPR) was developed to undertake related technical work. The protocol aims to establish a robust and transparent continental legal framework for the promotion, facilitation and protection of investments. This will also safeguard the rights of both the states to regulate investment and the rights of the investors. In particular, the protocol will assist in regulation of investment between state parties and help government set employment and sustainable development agendas when inviting new investment.

The Investment Protocol includes a provision on non-discrimination of foreign investors vis-à-vis local firms, the right to establishment, market opening, investor–state dispute settlement (ISDS) mechanisms, and expropriation or nationalisation rules, among others. AfCFTA state parties have, however, raised concerns about the inclusion of traditional ISDS rules that put the state under tremendous pressure, are

[23] For more information see: https://www.sw.gov.rw/

[24] For more information see: https://www.rsb.gov.rw/standards/wto/tbt-enquiry-point

[25] For more information see: https://www.eac.int/agriculture/sanitary-and-phytosanitary-measures-sps

costly, and mostly favour multinational corporations (MNCs).[26] Under this area, Rwanda released the Investment Promotion Law 2015[27] to promote and facilitate investment in Rwanda. Under this law, all business sectors have been opened for foreign investors. Moreover, foreign investors are free to engage in all economic activities, recruit or dismiss employees, freely source their inputs, and use property. An investor is also granted equal treatment as Rwandan investors in matters of incentives and investment facilitation, expropriation laws, protection of intellectual property, and repatriation of capital and assets (having fulfilled tax obligations in Rwanda). To this end, the adoption and internalisation of the AfCFTA Investment Protocol would be straightforward for Rwanda in these covered areas of cooperation.

The AfCFTA also recognises the importance of healthy competition among businesses that promotes efficiency, innovation and substantial cost reduction for goods and services traded in the pan-African market. To this end, the Protocol on Competition Policy is being developed and negotiated. It aims to address issues related to excessive market power by a few players (monopoly, oligopoly, cartel, mergers and acquisitions, etc.) and restrictive business practices that can hinder entry and exit by firms, and lead to price-fixing cartels or other predatory behaviour to eliminate local competition and flout market-sharing agreements. The protocol also offers the opportunity for national competition authorities to share experiences and collaborate towards a common policy. The overall aim of the protocol is to enhance governance and transparency of industrial and competition policy in African state parties. Rwanda, through the Rwanda Inspectorate, Competition, and Consumer Protection Authority, ensures the protection and promotion of consumer rights and healthy competition among enterprises. This protection is accorded under the Law on Competition and Consumer Protection[28] developed by the Government of Rwanda, pursuant to the EAC Competition Act of 2006, and covers anti-competitive practices, prohibition of price discrimination, mergers, and consumer protection and rights.

The promotion and protection of intellectual property rights is under the Committee on IPR established in May 2021. It is responsible for facilitating and coordinating on all related negotiations, as well as organising capacity building activities to prepare state parties and stakeholders for the negotiations and the development of the protocol. The aim of the protocol is to protect the Trade-Related Aspects of Intellectual Property Rights (TRIPS) and covers trademarks, industrial designs, geographical indicators, copyrights and patents, plant-variety protection, and utility models (du Plessis, 2021). It will facilitate the flow of knowledge-rich goods and services across the AfCFTA market, protect consumers, encourage innovation, reward entrepreneurs, and attract investment. Rwanda already protects IPR through the ratification and adoption of the protocol on patents and industrial designs within the framework of the African regional intellectual property organization (ARIPO) in

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[26] For more information see: Trade Unions and Trade in Africa (2021) ‘AfCFTA Protocol on Investment’ (www.tradeunionsinafcfta.org/unpacking-the-afcfta-protocol-on-investment/#:~:text=The%20African%20Continental%20Free%20Trade%20%28AfCFTA%29%20agreement%E2%80%99s%20Protocol,they%20envision%20when%20companies%20invest%20in%20their%20countries).

[27] Full text available here: https://rdb.rw/wp-content/uploads/publications/Investment%20Promotion%20Law%202015%20(Investment%20code)).pdf

[28] Full text available here: https://www.rica.gov.rw/index.php?eID=dumpFile&t=f&f=26821&token=83e0d2e30b177265852ebbc409aa8a2bf9516afd

2011. Before this, the Government of Rwanda had instated a national law on IPR[29] that covered IPR of inventors, innovators, creators, authors, performers, producers, and related organisations, the acquisition, and use of the these rights, as well penalties in case of infringements.

The negotiations on digital trade and e-commerce have been postponed to Phase III of the negotiation process. Negotiations are ongoing and are expected to be finalised by June 2023. The Protocol on Digital Trade aims to promote the emergence of Africa-owned e-commerce platforms at the national, regional and continental levels. It is critical to boosting intra-Africa trade. In May 2021, the Committee on Digital Trade was established to coordinate and facilitate negotiations on the protocol. The issues covered will include, *inter alia*, the definition of digital trade, the framework based on existing national policies, rules inhibiting access, data localisation provisions, market intelligence, cyber security, consumer protection and privacy, payment systems, marketing rules, digital identities, return of goods, and a list of prohibited goods.[30] As Rwanda already legally protects consumers, investors, and intellectual property rights, together, with the Data Protection Law[31] covering protection of personal data and privacy, collection, storage, and usage of such data, are vital for developing a modern digital economy to facilitate e-commerce, international financial transactions, and other digital services. Hence, under the AfCFTA, Rwanda has a favourable position in internalisation and adoption of several additional protocols discussed in this subsection.

[29] For more information see: https://rdb.rw/neworg1/intellectual-property-rights/#tab-2-3

[30] For more information see: Ecommerce Forum South Africa (2022) ‘The digital trade protocol at the AfCFTA’ (https://ecomafrica.org/blog/2022/09/03/the-digital-trade-protocol-at-the-afcfta/).

[31] Full text here: https://dpo.gov.rw/dpp-law/

4. Analysis

4.1 Impact of the AfCFTA on goods imports and tariff revenue

Table 6 shows the impact of our simulation on imports and on the tariff revenue disaggregated by product at 6 digits for the top 20 products most affected by tariff revenue loss. The third column shows the value of imports on the baseline, followed by the percentage change impact. The AfCFTA would generate an increase in Rwandan imports by 0.6% in total, but there are significant variations at a disaggregated level when particular products are considered.

The fifth column of Table 6 shows the notional tariff revenue at the baseline. This is obtained by applying the respective MFN or FTA tariff rate to the value of imports from each partner. It is expected that this calculation will not yield the actual tariff revenue, because of several factors not taken into consideration in the analysis. These disparities are explained primarily by differences in customs valuation used to calculate the tariff to pay and the existence of special regimes (for example, temporary admission) with special rates. These elements are defined at the transaction level and were unavailable for this analysis. However, the notional tariff revenue is primarily used to define a baseline consistent with the simulation exercise.

The following column shows the change in the notional tariff revenue generated by reducing to zero the tariff paid by AfCFTA members. They include primarily all non-EAC or COMESA members. The last column shows the percentage change in tariff revenue. In general terms, the AfCFTA would generate a fall in tariff revenue of 15.3%.

At present, Rwanda imposes an MFN tariff of 25% on imports of gold under the HS 4-digit code 7108. Under the AfCFTA, the country is required to reduce the tariff rate to 0% by 2030 with a reduction of 2.5 basis points every year, starting 2020.[32] Since gold is a major import, Rwanda will face a sizeable reduction in tariff revenue from gold imports. This fall is primarily explained by the elimination of duties on imported gold from Cameroon, Burkina Faso and South Africa.

Some small revenue losses (in terms of share of present tariff revenue) could originate from the complete reduction of tariffs on imports of prepared sardines, wine and liqueurs, cane sugar, and woven fabrics.

Table 6 Impact of AfCFTA on imports and tariff revenue (in thousands of $)

HS17	Description	Base imports	Percentage change (%)	Notional tariff revenue	Change in tariff revenue	Percentage change (%)
710812	Gold, incl. gold plated with platinum, unwrought, for non-monetary purposes (excl. gold in powder form)	368,262	5.0	34,573	-34,573	-100.0
170114	Raw cane sugar, in solid form, not containing added flavouring or colouring matter (excl. cane sugar of 1701 13)	8,583	5.4	2,029	-785	-38.7

[32] AfCFTA e-tariff book: https://etariff.au-afcfta.org/advancesearch

160413	Prepared or preserved sardines, sardinella and brisling or sprats, whole or in pieces (excl. minced)	3,277	27.6	819	-676	-82.5
170199	Cane or beet sugar and chemically pure sucrose, in solid form (excl. cane and beet sugar containing added flavouring…	98,291	0.4	11,281	-581	-5.1
220429	Wine of fresh grapes, incl. fortified wines, and grape must whose fermentation has been arrested by the addition of alcohol…	1,523	18.6	379	-293	-77.3
380891	Insecticides, put up in forms or packings for retail sale or as preparations or articles (excl. goods of subheadings 3808.52 to 3808.69)	25,962	0.5	3,084	-279	-9.0
870332	Motor cars and other motor vehicles principally designed for the transport of <10 persons, incl. station wagons and…	7,593	1.6	911	-192	-21.1
330499	Beauty or make-up preparations and preparations for the care of the skin (other than medicaments), incl. sunscreen	8,556	0.9	833	-132	-15.9
220870	Liqueurs and cordials	702	8.4	174	-114	-65.5
220421	Wine of fresh grapes, incl. fortified wines, and grape must whose fermentation has been arrested by the addition of alcohol	1,914	4.3	478	-105	-22.0
551419	Woven fabrics containing predominantly, but < 85% synthetic staple fibres by weight, mixed principally or solely with…	643	8.3	159	-102	-64.2
731431	Grill, netting and fencing, of iron or steel wire, welded at the intersection, plated, or coated with zinc (excl. products of wire…)	450	22.6	112	-99	-87.9
940360	Wooden furniture (excl. for offices, kitchens and bedrooms, and seats)	5,606	0.9	1,306	-97	-7.4
730890	Structures and parts of structures, of iron or steel, n.e.s. (excl. bridges and bridge-sections, towers and lattice masts, doors	18,069	0.2	2,958	-89	-3.0
360300	Safety fuses; detonating fuses; percussion or detonating caps; igniters; electric detonators (excl. grenade detonators and…	1,620	3.7	86	-72	-83.1
721790	Wire of iron or non-alloy steel, in coils, plated or coated (excl. plated or coated with base metals, and bars and rods)	3,565	1.5	319	-66	-20.5
730722	Threaded elbows, bends and sleeves of stainless steel (excl. cast products)	350	10.3	87	-63	-72.7
852872	Reception apparatus for television, colour, whether or not incorporating radio-…	5,005	0.6	552	-59	-10.7
271320	Petroleum bitumen	13,994	0.3	1,344	-57	-4.3
732620	Articles of iron or steel wire, n.e.s.	1,049	2.0	262	-55	-21.1
Total selection		575,016	3.7	61,748	-38,489	-62.3
Rest of products shocked		1,256,559	0.1	155,944	-2,861	-1.8
Non-shocked products		1,902,122	-	51,996	-	-
Total		3,733,697	0.6	269,688	-41,350	-15.3

Source: Authors' calculations

As we have seen, the AfCFTA will generate an increase in imports by 0.6%. This modest increase in imports can partially offset the reduction in the tariff revenue. The first effect is through Rwanda's value-added tax (VAT).

Rwanda applies a general VAT duty of 18% on a wide range of goods and services. VAT is applied on both domestically produced and imported goods. Therefore, an increase on imports would, in general, lead to an increase in the VAT collection. It is hard to assess the actual impact on VAT revenue as this depends on the specific duty applied to the product (some products are not affected by VAT). Moreover, the tax is applied on the value added at each stage of production/commercialisation and not on the value of the product. However, the rise in revenue generated by the VAT could partially offset the fall in tariff revenue generated by the AfCFTA.

Excise duties could also partially offset the effect generated by the tariff revenue loss. Excise duties are also applied on both domestic and imported products and are typically applied to certain consumer goods.

Table 7 Excise duty rates applied on goods in Rwanda

PRODUCT	DUTY APPLIED
Natural fruit juice	5%
Lemonade, soda, and other non-natural juices	39%
Industrial packed mineral water	10%
Beer produced with locally sourced inputs	30%
Other beer	60%
Wine produced with locally source inputs	30%
Other wine	70%
Brandies, liquors, and whiskey	70%
Cigarettes	36% of retail price and FRW 130 per pack of 20 cigarettes
Premium oil (excluding benzene)	FRW 183 per litre
Gas oil	FRW 150 per litre
Lubricants	37%
Vehicles with an engine capacity of less than 1500cc	5%
Vehicles with an engine capacity between 1500cc and 2500cc	10%
Vehicles with an engine capacity of more than 2500cc	15%
Powdered milk	10%

Source: Own elaboration based on Rwanda Revenue Authority Tax Handbook[33]

A calculation based on rates presented in Table 7 and the impact on imports suggests that Rwanda would increase the collection of excise revenue by $364,000 under the AfCFTA. This suggests a very small offset of the impact on the tariff

[33] https://tax-handbook.rra.gov.rw/

revenue loss ($41m), which, as we have seen, it is primarily explained by the effect on the imports from gold.

The AfCFTA Adjustment Fund, recently launched in Rwanda, is expected to address some of the aspects associated, amongst other aspects, to addressing the effects of tariff revenue across the continent[34]. Details on how to access to this Fund are still to be defined but it is not expected that access will be based on specific sectors but in terms of the general loss in revenue that can be generated.

4.2 Impact of the AfCFTA on exports

The partial equilibrium model can be used to assess the impact of the AfCFTA on Rwanda's exports. This involves modelling the import behaviour of its African partners. This is a complicated task as it involves running the model for each of the other AfCFTA partners and it is outside the scope of this work.

However, it is possible to obtain a reasonably comprehensive picture in this area by understanding that the impact of the AfCFTA on Rwanda's exports is going to be primarily driven by an improvement in market access to some key partners. Rwanda, as part of the EAC and COMESA, is not expected to increase its exports significantly to members of those RECs. Market access into Rwanda's key regional partners, such as Kenya, Uganda, Tanzania and DRC, and into other key partners (e.g., Egypt), is already liberalised. Consequently, it is not expected to be improved further by the AfCFTA (at least in relation to tariff reductions).

The AfCFTA provides Rwanda with the opportunity to expand exports into other African markets – although the benefits are expected to be concentrated in those with the highest general demand, which will depend on size of their economies. In this sense, the AfCFTA will help to reduce tariff barriers into key markets such as South Africa, Nigeria, Morocco and Ghana. Consequently, we focused the analysis to assess the impact on Rwanda's exports into these four countries.

Table 8 presents the impact of the AfCFTA on Rwanda's exports to these countries. Here, Rwanda's exports are limited to a few products. In a significant number of cases, the MFN duty is already zero, so the impact on those products is null.

In general, the impact on Rwanda's exports in this static exercise is limited. Total exports to these countries would grow between 0.7% (Nigeria) and 9.3% (Ghana). However, the base value are very modest. In general, the exports of the affected products would increase between 6.5% (trade advertising material in South Africa) and 79% (Articles of apparel of man-made fibres in Morocco) (See Table A in the Annex).

Table A in the annex presents a detailed list of the affected products. In most cases, the impact is explained by one single product. For example, the increase in exports to Ghana is explained primarily by a jump in the exports of insecticides. In the case of the exports to South Africa, the increase is explained substantially by an increase in the exports of kidney beans; however, there is a widest range of products that will

[34] https://au-afcfta.org/2023/03/afcfta-adjustment-fund-operationalised-with-the-signing-of-the-host-country-agreement-with-the-republic-of-rwanda/

see an increase of exports to this country. For Morocco, the impact is exclusively explained by the increase in exports of jackets made of man-made fibres. Finally, for Nigeria, the largest impact is explained by the increase in the exports of wood pulp.

Table 8 Impact of AfCFTA on Rwanda's exports to Ghana, Morocco, Nigeria and South Africa

Destination	Total exports ($ 000)	Exports affected ($ 000)	% change in affected products	% change in total exports
Ghana	2,305	752	28.4	9.3
Morocco	76	8	78.8	8.1
Nigeria	866	26	24.5	0.7
South Africa	835	238	20.8	6.0

Source: Authors' calculations

This exercise, in addition of being limited to just a few markets, does not take into consideration the market opportunities that the AfCFTA may create in products currently not traded. For example, it is possible that products these partners currently import from non-Africa partners maybe replaced by imports from Rwanda (and other African partners). This trade diversion effect, while generally negative for the importer from a welfare point of view, constitutes a net benefit for exporters that see increased sales to their partners.

Moreover, this exercise does not take into consideration the impact the AfCFTA will have in relation to trade facilitation and reduction of non-tariff barriers. The adoption of protocols aimed at making compliance and certification of quality and safety standards easier and more transparent can constitute a significant boost to the exports of Rwanda to other African countries.

4.3 Climate and gender implications

Trade liberalisation under the AfCFTA agreement will have ramifications for climate change and gender equality.

Climate

Africa accounts for less than 4% of total greenhouse gas (GHG) emissions[35] but stands to be impacted negatively by climate change. Although increased trade is likely to add to GHG emissions, measures to shorten supply chains to supply regional markets will be less damaging for the environment.

The AfCFTA has, therefore, provided the continent, and Rwanda, with an opportunity to challenge the threats posed by climate change by encouraging intra-regional trade

[35] For more information see: Thomas, A.R. (2022) 'AfCFTA – The environment case for continental Africa free trade area', Sierra Leone Telegraph (www.thesierraleonetelegraph.com/afcfta-the-environmental-case-for-continental-africa-free-trade-area/#:~:text=Free-trade%20agreements%20like%20the%20AfCFTA%20are%20not%20usually,trade%20as%20a%20major%20contributor%20to%20carbon%20emissions).

and **shifting domestic production away from mining activity and dependence on commodities**.

The initiative to include a **climate-conscious economic transformation** agenda under the AfCFTA will help to reduce greenhouse emissions and adapt to the impacts of climate change. Rwanda's exports are primarily in agricultural commodities. Evidence suggests that **agricultural production can mitigate and contribute to carbon emissions** (Wreford et al., 2010). There exist carbon-mitigating agricultural and land-use practices such as improved cropland, grazing land management, restoration of degraded land, cultivation with organic soils, water management, agroforestry, livestock and manure management, and substitution of fossil fuel for energy produced from agricultural feedstocks (Smith et al., 2007).

Agriculture contributed to 55.1% of overall GHG emissions in Rwanda in 2015, with a major contribution from livestock-related activities (World Bank and CIAT, 2015; UNFCCC, 2020). Recent analysis on the potential for emissions reduction in Rwanda in 2030 estimates that the agricultural sector accounts for 49% of the total potential, led by soil conservation measures, reduction in enteric fermentation emissions from livestock, and the use of windrow composting (UNFCCC, 2020).

The **Government of Rwanda has already made significant efforts to integrate climate change adaptation** and mitigation strategies into its broader agricultural and economic development policy. According to an old policy, the government aimed to **transform the agricultural sector from subsistence-based to fully commercialised sustainable farming** by 2020. Other policies were aimed at improving management of pastures, developing hillside agriculture,[36] using improved grass varieties, utilising pest- and disease-resistant crop varieties, and soil conservation techniques (World Bank and CIAT, 2015).

Several new projects have also been identified to this end, including, the promotion of on-farm biogas production using bio-digestors to reduce dependence on traditional biomass fuels that are vulnerable to climate change. This move under the Ministry of Infrastructure, and Ministry of Local Government under the Government of Rwanda would also reduce the pressure on forests and forest biodiversity. Other interesting projects under the Ministry of Agriculture that can help in climate mitigation are (UNFCCC, 2020):

- Soil and water conservation (crop rotation) of up to 600,000 Ha, leading to prevention of soil erosion and reduction of CO_2 and N_2O emissions
- Promotion of better livestock feed under the Rwanda Livestock Master Plan
- Adoption of more efficient manure management systems under the Rwanda Livestock Master Plan
- Increased use of organic waste in soil fertilizers

[36] The Land Husbandry, Water Harvesting, and Hillside Irrigation programme was initiated in 2009 to develop hillside agriculture and improve its resilience to climate change and variability.

- Installation of 165,000 Ha land protection terracing structures in sloped arable areas to present soil erosion, leading to reduction of CO_2 and N_2O emissions a

Apart from improved agricultural practices, the AfCFTA also provides Rwanda with an **opportunity to diversify its exports into less energy-intensive manufactured goods** that will spur green industrialisation and decrease the overall energy intensity of the Rwandan economy. This includes subsectors such as **textiles, machinery and equipment** (IEA, 2020), which are already being promoted under the 'Made in Rwanda' initiative to benefit from the AfCFTA.

Gender

Trade liberalisation can affect decision-making in households, which can have gender and poverty implications. This is especially true if trade impacts women within the household by creating jobs and empowering women. For instance, a World Bank study (2018) finds that **cross-border trade in Africa provides income for hundreds of thousands of poor women**. The empowerment of women within the household is also associated with better nutrition and education for children, which can lead to higher productivity in the long term. The study (World Bank, 2018) also found that female-headed households in Ghana were likely to benefit more from the implementation of the ECOWAS common external tariff. This evidence can therefore be a precursor for the prospective gender implications of the liberalisation of tariffs under the AfCFTA. Hence**, the nexus between trade and gender is a critical area for attention**.

The **AfCFTA has the potential to increase women's participation in trade,** which could contribute to a rise in continental GDP by 40%. The agreement can address challenges faced by women and reduce gender disparities. At present, women-led SMEs account for 60% of Africa's GDP and generate more than 450 million jobs. **In Rwanda, the government's efforts have reduced gender gaps** and signal a continuation of political will aimed at eliminating all forms of discrimination against women. The AfCFTA' s recognition of gender sensitivity and equality as significant elements of regional integration can help Rwanda in this area.[37]

Rwandan boasts one of the highest female labour participation rates in the world and has been called a role model for gender equality. **The labour force participation rate for women was 51.8%** according to the latest report released by the National Institute of Statistics of Rwanda.[38] Of these, 72.9% were employed in farming, forestry and fishing activities (Table 9). Moreover, 43% of females were involved in market-oriented agriculture and 44.2% were engaged in subsistence farming. Government efforts towards **increasing female participation in market-oriented farming** and agriculture can empower women, reduce gender gaps in employment and income, and improve regional trade under the AfCFTA.

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[37] Part of a speech at an event conducted by UN Economic Commission for Africa (UNECA) on 25 February to 5 March 2022 in Kigali, Rwanda. For the full speech see: www.uneca.org/sites/default/files/TCND/ARFSD2022/Sideevent-presentation/Finalised%20Report%20on%20ARFSD%20Side%20Event%20on%20ACFTA%20and%20Gender%20Equality.pdf

[38] National Institute of Statistics of Rwanda (2022) 'Labour force survey trends – November 2022 (Q4)' (www.statistics.gov.rw/publication/1893).

Apart from agriculture, **opportunities in Rwanda's service sector can be leveraged** to this end. According to global standards, services sectors typically employ more women (than men). The main domestic service sectors in Rwanda are transportation, accommodation and food (under tourism), and business and administration. These accounted for 11.2% of total employment in November 2022, of which only 6.6% were women across the four sectors (Table 9). Favourably, all of these service sectors are tradable and can absorb larger female participation in line with AfCFTA and Rwanda's empowerment goals for women.

Table 9 Employed female population by economic activity

Economic activity	Total employed population	Female employment
Agriculture, forestry and fishing	1,616,544	847,958
Mining and quarrying	65,304	13,881
Manufacturing	172,259	76,931
Construction	349,928	54,317
Transportation and storage	210,487	5,747
Accommodation and food service activities	94,045	34,777
Professional, scientific, and technical activities	27,121	6,536
Administrative and support service activities	68,620	26,475
Education	179,074	92,349

Source : Labour Force Survey, November 2022 (Q4) (www.statistics.gov.rw/publication/1893)

54.4 Poverty implications

Trade has been recognised as the engine for growth and poverty reduction in the 2030 Agenda for Sustainable Development (World Bank, 2018). Some of the channels through which **trade liberalisation can improve livelihoods and reduce poverty** are as follows (Winters et al., 2004; World Bank, 2018):

- **Trade spurs economic growth** and leads to macroeconomic stability. This affects the distribution of income and can reduce associated inequalities, as well as raise the standard of living.
- **It impacts relative prices**. Since the poor are both consumers and producers, trade can reduce the price of what the poor consume and increase the price of what they sell. It can increase the access to materials, markets,

inputs and technology that raise productivity. Relative prices can also affect wages and employment.

- **It increases** foreign exchange reserves and **government revenue,** which can support better and inclusive policies. To this end, trade reforms must be implemented in a way that ensures benefits reach the poorest. For example, policies directed at reducing agricultural trade costs can directly benefit rural households that produce such goods. Such trade costs can include information barriers, lack of market connect, absence of a platform to sell produce, etc.

The **relationship between trade liberalisation and improvement in government revenue is not a straight line**. This is only possible in the long term. Initially, trade liberalisation will reduce tariffs, and therefore, tariff revenues. But liberalisation will **increase overall trade and collection of excise duties, consumption taxes or VAT on imports**. It also involves the removal of quantitative restrictions in favour of low tariffs on imported goods – this too will increase revenue. Although in principle, tariff liberalisation aims to reduce tariffs to zero, in practice, countries take many years to reach that level. **Developing and least developed countries, like Rwanda, are given more time to reduce tariffs**. In the meantime, the signing of a free trade agreement will increase overall trade among members at the pre-determined tariff rates until they are reduced. Finally, because free trade will spur domestic consumption and production, direct and indirect tax collection will also improve overall revenues.

However, **not all people living in poverty are affected equally**; *this depends on where they live, what they consume, what they produce, their gender, skill level and where they work*. It also depends largely on whether trade increases import competition through improved market access, in which case it will drive out the small and uncompetitive traders, leading to poverty aggravation.

Moreover, **trade in commodities and agricultural goods**, two categories that are produced by rural households, **is susceptible to price and weather-related volatility**. This is especially true for **Rwanda, where around 70% of the population is engaged in farming,** with them exporting just a few agricultural commodities. Such trade may increase incomes during a peak period of commodity price boom, but a decline in international prices will certainly reduce incomes. Given their limited access to finance and lack of resources, the poor are left vulnerable. However, export diversification, both geographical and for products, can lower this volatility and help poorer nations build resilience to external economic shocks (Rwigema, 2021).

Yet **trade alone cannot end poverty.** It must be supported by direct policy actions (‘trade plus one’ policies) that:

- lower **trade costs** for goods and services that are critical to poverty reduction (‘*pro-poor bias’*; Nicita et al., 2014)
- raise **investment** in public infrastructure
- create and improve the **enabling environment**
- are aimed at increasing **inclusiveness** of small traders

- improve the **education and skill level** (including digital skills) of the poor, especially women
- reduce the **remoteness** of markets for SMEs
- improve **access to finance** and resources at low costs, and develop safety nets in the event of price volatility.

Given its landlocked geographical position, **Rwanda has been commercially isolated, with underdeveloped trade linkages**. For Rwanda, 'trade plus one' policies can be in the form of improved access to electricity for rural households, better air, rail and road connectivity to move goods, better irrigation facilities to increase agricultural productivity, and by improving the export connect for small traders, farmers and SMEs (Rwigema, 2021).

Under the AfCFTA, **Rwandan exporters will get tariff-free access to a large African market**. Increased sales of traditional exports, as well as re-exports[39] of consumer and capital goods, will lead to growth in GDP. Evidence suggests that re-exports have a multiplier effect on ancillary services such as transport, logistics, packaging and storage and, to that end, contribute to their growth – in addition to spurring overall economic growth (Prohoros, 2023; Devadason, 2020; Prakash and Chand, 2022). Re-exports are often underestimated by policy-makers. Yet **Rwanda stands to benefit from increases in re-exports of petroleum products and electrical goods,** which can lead to redistribution of income and a reduction in the incidence of poverty. This is, however, contingent on development of related infrastructure and the services sector in the country.

Trade growth under the AfCFTA can also be backed by the '**Made in Rwanda' policy,**[40] which is a holistic roadmap to increase Rwandan's competitiveness through value chain development. If Rwanda is able to address its supply-side constraints, which are exacerbated by its landlocked position, it can improve its export and re-export skills and capacity. This will contribute to an improved trade balance vis-à-vis Africa, increased employment and lower poverty.

[39] Re-exports are exports of foreign goods in the same state as previously imported; they are to be included in a country's exports.

[40] For the full policy document see: Republic of Rwanda, Ministry of Trade and Industry (2017) 'Made in Rwanda Policy' (https://rwandatrade.rw/media/2017%20MINICOM%20Made%20in%20Rwanda%20Policy%20(1).pdf#:~:text=The%20Made%20in%20Rwanda%20Policy%20is%20a%20holistic,enhancing%20Rwanda%E2%80%99s%20domestic%20market%20through%20value%20chain%20development).

5. Conclusions and recommendations

The African Continental Free Trade Area (AfCFTA) agreement aims to create a single market for goods and services among African countries, with the goal of increasing intra-African trade and promoting economic development. One of the key aspects of the AfCFTA is the reduction of import tariffs. This is expected to lead to an increase of imports which will benefit consumers and increase the efficiency of the economy given that Rwanda may reduce existing trade diversion in the EAC and the COMESA. As such, the agreement would generate an increase of total Rwandan imports of just 0.6%.

As expected, the AfCFTA will lead to a reduction in tariff revenue. For Rwanda, the largest revenue loss will be incurred on its imports of gold from Cameroon, Burkina Faso, and South Africa. Our analysis has estimated import tariff revenue will fall by 15.3%. This amounts to $41 million. This fall can be offset by the rise in VAT collection on increased imported goods, which cannot be easily calculated ex ante, as well as additional excise revenue of about $364,000.

To secure that the effects of the agreement remain positive from the welfare point of view and given that the loss in tariff revenue is concentrated in a single product **Rwanda may include gold among its sensitive products and, consequently, exclude it from tariff liberalisation.** This will, consequently, reduce the tariff revenue loss whilst keeping the welfare-enhancing import effect mostly unchanged. The AfCFTA Adjustment Fund, recently launched, can also contribute to address tariff revenue loss.

The agreement, in general terms and in the short run, will not substantially increase exports to the continent. This is particularly the case considering that the most important Rwandan African trade partners are either members of the EAC and/or COMESA and, consequently, bilateral trade has been substantially liberalised. However, for the cases analysed, there is expected to be some growth in exports to key African partners (Ghana, Morocco, Nigeria and South Africa) as tariffs are removed, but this will be low and limited to some products where some trade is already recorded.

However, the AfCFTA provides instruments and opportunities to expand trade beyond existing products and sectors. This cannot be captured by the current study but it is expected that rules on non-tariff barriers such as SPS and technical barriers to trade, trade facilitation and the dispute settlement mechanism will contribute to create deeper integration links between Rwandan firms and their African counterparts and increase participation int continental value chains. In order for these opportunities to materialise, there are a wide range of complementary policies that need to be considered. They include, among many, improvements in infrastructure and trade facilitation. Moreover, targeted poverty alleviation, gender equality and climate compatible polices can contribute to further increase productivity and competitiveness of the economy.

Although not particularly ambitious, the services protocol can contribute to bind existing GATS commitments and, potentially, increase market access in key services for Rwanda such as business, financial, insurance and transport. At the same time, the investment, intellectual property rights and competition policy protocols, recently adopted by the Head of States, are expected to contribute to the creation of deep economic space across the continent.

In this sense, the services protocol presents a double role for Rwanda. On the one side, it can provide further diversification opportunities to transform its economy. On the other side, the availability of efficient and cost effective domestic and imported services is critical to secure the competitiveness of the rest of the sectors of the economy. Consequently, the service protocol is an enabler of goods trade.

To secure this, Rwanda should aim to go substantially further in the adopted GATS+ approach and remove any existing market access restrictions to the key services in any of the provision modes, contributing further to boost investment not only on the services sector but across the economy. As usual, the largest effects of the AfCFTA will come, rather than from partners, from Rwanda's own liberalisation efforts. In this sense, the generalised removal of import barriers across goods and services will contribute to increased efficiency of the economy, productivity of firms and welfare of consumers.

However, these positives effects require the adoption of complementary policies to maximise and target the impacts of the AfCFTA provisions. In this sense, Rwanda should look into the following:

Invest in infrastructure and human capital: Improving infrastructure such as roads, railways, ports, airports and border crossings can reduce trading costs and make exports more competitive in other African countries. This will also require collaboration with other Member States to create a seamless transport system across the continent. Rwanda should prioritise investments in education and skills development to increase the efficiency of customs officials and border agents. This can be achieved through capacity-building workshops and experience sharing with other countries.

Promote trade facilitation: Rwanda should continue to prioritise measures that reduce the time and cost of doing business across borders, such as simplifying customs procedures, reducing non-tariff barriers and harmonising regulations, in addition to improving their transparency. This will reduce trade costs and promote increased trade volumes.

Prioritise poverty reduction, gender equality and climate change: Rwanda should ensure that the benefits of increased trade are shared across all segments of society. To this end, the government should prioritise policies that promote poverty reduction, gender equality, and climate change mitigation and adaptation. For example, policies could be designed to provide opportunities for women entrepreneurs, and to promote green growth and sustainable development. Moreover, small and medium-sized enterprises (SMEs) are critical to reducing poverty under the AfCFTA, as they account for a significant portion of economic activity in many African countries. Rwanda should provide targeted support to SMEs, including access to finance, training and technology. This will enable them to take advantage of the opportunities presented by the agreement and become more competitive in regional and global markets.

Increase exports and investments: In general, the AfCFTA will help reduce tariff barriers into key markets such as South Africa, Nigeria, Morocco and Ghana. As a result of increased exports, losses from reduced import tariff revenue can be balanced with rises in exporter incomes. Rwanda can also attract foreign investment by creating a favourable business environment and offering incentives for companies to invest in the country. This would generate new revenue streams and help offset the revenue loss from reduced import tariffs.

Improve domestic tax collection: Rwanda can improve its tax collection system to ensure that it is able to collect the revenue it needs to support its public services and infrastructure. This may involve improving tax administration, reducing tax evasion and avoidance, and strengthening tax policy.

Overall, Rwanda has the potential to benefit significantly from AfCFTA by increasing trade and promoting economic growth. By implementing these recommendations, the country can take full advantage of the opportunities presented by the agreement, while minimising the welfare losses associated with tariff liberalisation and increased competition.

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Annex

Table A. Impact on exports to key partners by tariff line

Country	HS code	Product description	Partner MFN	Imports ($ 000)	Change in imports ($ 000)	% change
Ghana	340399	-- Other	10.0	0.1	0.0	22.1
Ghana	380891	-- Insecticides	12.5	745.8	211.6	28.4
Ghana	420221	-- With outer surface of leather or	15.0	0.1	0.0	22.6
Ghana	482010	- Registers, account books, notebooks	20.0	3.0	1.1	38.5
Ghana	580220	-- Other	20.0	0.0	0.0	51.5
Ghana	620899	-- Of other textile materials	20.0	0.1	0.1	44.3
Ghana	630900	Worn clothing and other worn articles	20.0	0.8	0.3	42.1
Ghana	842122	-- For filtering or purifying bever	5.0	1.2	0.1	10.7
Ghana	847130	- Portable automatic data processing	5.0	0.4	0.0	10.7
Ghana	847141	-- Comprising in the same housing a	5.0	0.2	0.0	10.2
Ghana	851829	-- Other	20.0	0.0	0.0	36.1
Ghana	852872	-- Other, colour	12.5	0.3	0.1	24.3
Ghana	940120	- Seats of a kind used for motor vehicles	20.0	0.3	0.1	38.0
Ghana	940490	- Other	20.0	0.0	0.0	37.7
Ghana	950300	Tricycles, scooters, pedal cars and	20.0	0.1	0.1	55.9
Morocco	620113	-- Of man-made fibres	30.0	7.9	6.2	78.8
Nigeria	030629	-- Anchovies (Engraulids spp.)	20.0	0.6	0.2	36.5
Nigeria	070999	-- Other	20.0	3.2	1.3	40.9
Nigeria	090111	-- Not decaffeinated	10.0	0.3	0.1	23.5
Nigeria	090112	-- Decaffeinated	10.0	0.9	0.2	25.4
Nigeria	160540	-- Other	20.0	0.4	0.2	57.8
Nigeria	470692	Wood pulp obtained by a combination	5.0	6.7	1.6	23.7
Nigeria	630900	Worn clothing and other worn articles	20.0	0.9	0.5	51.3
Nigeria	843229	-- Other	10.0	1.3	0.2	16.8
Nigeria	850440	- Static converters	5.0	3.2	0.4	11.3
Nigeria	901600	Balances of a sensitivity of 5 cg o	5.0	4.3	0.4	8.7
Nigeria	940540	- Other electric lamps and lighting	20.0	4.6	1.4	31.0
South Africa	071333	-- Kidney beans, including white pe	10.0	224.5	45.0	20.0
South Africa	090190	- Other	20.0	0.0	0.0	34.2
South Africa	091011	-- Neither crushed nor ground	15.0	6.9	1.7	24.4
South Africa	130219	-- Of hops	13.3	0.0	0.0	28.3
South Africa	210610	- Protein concentrates and textured	15.0	0.0	0.0	32.4
South Africa	210690	- Other	6.9	0.1	0.0	9.9
South Africa	220300	Beer made from malt.	5.0	0.0	0.0	12.4
South Africa	220600	Other fermented beverages (for exam	25.0	0.2	0.1	63.1
South Africa	330410	- Lip make-up preparations	20.0	0.0	0.0	41.3
South Africa	392620	- Articles of apparel and clothing	10.0	0.0	0.0	19.6

South Africa	392690	- Other	3.0	0.1	0.0	8.2
South Africa	401519	-- Other	15.0	0.0	0.0	31.1
South Africa	420229	-- Other	30.0	0.0	0.0	56.0
South Africa	420299	-- Other	30.0	0.0	0.0	60.6
South Africa	442090	- Other	30.0	0.7	0.4	56.2
South Africa	460212	-- Of rattan	20.0	0.4	0.2	48.9
South Africa	460219	-- Other	20.0	0.1	0.0	43.6
South Africa	460290	- Other	20.0	0.6	0.2	42.5
South Africa	481910	- Cartons, boxes, and cases- corrugated	10.0	0.0	0.0	26.6
South Africa	491110	- Trade advertising material	3.8	0.2	0.0	6.5
South Africa	540730	- Fabrics specified in Note 9 to Se	22.0	0.0	0.0	47.8
South Africa	610444	-- Of artificial fibres	45.0	0.0	0.0	67.5
South Africa	610449	-- Of other textile materials	45.0	0.0	0.0	70.3
South Africa	610469	-- Of other textile materials	45.0	0.0	0.0	74.9
South Africa	610799	-- Of cotton	26.7	0.0	0.0	66.0
South Africa	610910	- Of cotton	45.0	0.3	0.2	77.7
South Africa	610990	- Of other textile materials	45.0	0.0	0.0	82.7
South Africa	611020	- Of cotton	45.0	0.0	0.0	85.1
South Africa	611490	- Of other textile materials	40.0	0.0	0.0	68.6
South Africa	620319	-- Of other textile materials	45.0	0.1	0.1	62.4
South Africa	620341	-- Of wool or fine animal hair	45.0	0.0	0.0	128.6
South Africa	620443	-- Of synthetic fibres	45.0	0.4	0.3	76.6
South Africa	620449	-- Of other textile materials	45.0	0.0	0.0	76.6
South Africa	620462	-- Of cotton	45.0	0.0	0.0	80.1
South Africa	620520	- Of cotton	45.0	0.0	0.0	79.1
South Africa	620690	- Of other textile materials	45.0	0.5	0.4	80.4
South Africa	621139	-- Of other textile materials	22.5	0.0	0.0	44.0
South Africa	621149	-- Of other textile materials	35.0	0.0	0.0	58.2
South Africa	621490	- Of other textile materials	30.0	0.0	0.0	55.1
South Africa	630419	-- Other	30.0	0.1	0.0	50.6
South Africa	630790	- Other	20.0	0.0	0.0	33.0
South Africa	640399	-- Other	30.0	0.0	0.0	59.7
South Africa	640420	- Footwear with outer soles of leather	20.0	0.0	0.0	44.8
South Africa	640510	- With uppers of leather	15.0	0.0	0.0	56.0
South Africa	640590	- Other	20.0	0.3	0.3	105.0
South Africa	650500	Hats and other headgear, knitted or	30.0	0.0	0.0	56.3
South Africa	711719	-- Other	20.0	0.1	0.0	33.5
South Africa	732690	- Other	8.3	0.0	0.0	16.5
South Africa	852872	-- Other, colour	12.5	0.1	0.0	25.7
South Africa	853690	- Other apparatus	7.0	0.9	0.1	12.5
South Africa	870830	- Brakes and servo-brakes; parts thereof	14.5	0.1	0.0	31.2
South Africa	940540	- Other electric lamps and lighting	5.7	1.0	0.1	10.8
South Africa	950699	-- Other	6.7	0.0	0.0	13.1

Description of methodology

In the present research, we used partial equilibrium analysis to assess the impact on trade (exports and imports) and tariff revenue. In contrast to general equilibrium, where all markets clear consistently and simultaneously, markets are balanced independently in a partial equilibrium model. This implies that, for example, the impact of a tariff reduction in the market of wheat will be exclusively limited to that market. There will not be any impact on a substitutable product and/or in the market for the factors used in its production (for example, labour).

The advantage of partial equilibrium lies in its simplicity, the level of disaggregation and the accessibility of the data needed. Its simplicity gives a great sense of intuition to its results, which facilitates its interpretation. Moreover, from the operation point of view, a partial equilibrium model requires little and accessible data.

A partial equilibrium model can be run with highly disaggregated data at the tariff line level. As a result, it is possible to differentiate results between varieties of products and avoid making inferences from very general results, about the effects on the products that effectively matter – as would be the case in general equilibrium analysis. This allows results to be obtained that have concrete practical implications for policy-making.

The data required to perform the analysis is simple and readily available. To run a simple import demand partial equilibrium model, it is only necessary to access data on trade by partner, tariffs and elasticities. Such data is widely available to any analyst and, more importantly, the results obtained can be easily related to actual figures.

We used the SMART model (Laird and Yeats, 1986), which is available from the World Bank's World Integrated Trade Solution (WITS). This partial equilibrium model characterises the import behaviour of a country, allowing researchers to simulate the impact of reducing the tariff applied on the product imported from a particular source.

The demand structure of the model uses a nested approach. At the top, consumers demand a composite product comprising a combination of import sources. This composite follows a standard demand function whose sensibility is governed by an import demand elasticity.

The integration of the composite product follows the imperfect substitutability between sources (Armington, 1969) approach. This approach avoids corner solutions and implies that a reduction in tariff from country A will not decrease to zero the imports from other sources, but will reduce them based on the level of substitutability assumed.

As a demand-driven model, supply adjusts based on a predefined elasticity of supply of imports. A highly elastic supply function will tend to generate pure quantity adjustment. On the contrary, in the case of an inelastic function, prices will tend to adjust rather than quantity imported. Finally, exports are derived by simulating the imports of partners.

In this particular exercise, we used Comtrade data, tariffs from the Trade Analysis Information System (TRAINS) (Ghodsi et al., 2016) and import demand elasticities at the tariff line level. The SMART model does not allow researchers to differentiate between different elasticities of substitution and supply elasticities. For this exercise, we adopted a simple approach assuming a slightly higher substitution (e.g., 1.5) and a fully elastic supply function (99).

We assumed that Rwanda reduces all its tariffs across all AfCFTA Member States and left unchanged its MFN tariffs for the rest of its partners (in this case, aggregated into one group). However, baseline tariffs took into consideration existent trade agreements such as EAC or COMESA. Therefore, there was no reduction of tariffs on the imports from Kenya, for example, as these were already zero.

Therefore, a trade and revenue effect was only expected whenever there was positive trade with an AfCFTA partner and the tariff applied was non-zero. Of course, when the MFN tariff was already zero, there was no simulation to make.