

# Rwanda Economic Update

January 2022 | Edition No. 18

## Boosting Regional Integration in the Post-COVID Era

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# **Rwanda Economic Update**

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*Boosting Regional Integration  
in the Post-COVID Era*

*January 2022*

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## ACRONYMS

<b>AfCFTA</b>	African Continental Free Trade Area	<b>MAGERWA</b>	Magasins Généraux du Rwanda
<b>ASEAN</b>	Association of Southeast Asian Nations	<b>MBRP</b>	Manufacture and Build to Recover Programme
<b>AVE</b>	Ad Valorem Equivalent	<b>MFN</b>	Most-Favored-Nation
<b>BITs</b>	Bilateral Investment Treaties	<b>MICE</b>	Meetings, Incentives, Conferences/Conventions, and Events/Exhibitions
<b>CAD</b>	Current Account Deficit	<b>MINICOM</b>	Ministry of Trade and Industry
<b>CEPGL</b>	Communauté Economique des Pays des Grands Lacs	<b>NAEB</b>	National Agricultural Export Development Board
<b>CET</b>	Common External Tariff	<b>NBR</b>	National Bank of Rwanda
<b>CFTA</b>	Continental Free Trade Area	<b>NISR</b>	National Institute of Statistics of Rwanda
<b>CGE</b>	Computable General Equilibrium	<b>NPLs</b>	Non-Performing Loans
<b>COMESA</b>	Common Market for Eastern and Southern Africa	<b>NST</b>	National Strategy for Transformation
<b>COVID</b>	Coronavirus Disease	<b>NTBs</b>	Non-Tariff Barriers
<b>DRC</b>	Democratic Republic of Congo	<b>NTMs</b>	Non-Tariff Measures
<b>EAC</b>	East African Community	<b>OSBPs</b>	One-Stop Border Posts
<b>ECCAS</b>	Economic Community of Central African States	<b>PPP</b>	Purchasing Power Parity
<b>eCTS</b>	Electronic Cargo Tracking Systems	<b>REU</b>	Rwanda Economic Update
<b>ENVISAGE</b>	Environmental Impact and Sustainability Applied General Equilibrium	<b>RSB</b>	Rwanda Standards Board
<b>ERF</b>	Economic Recovery Fund	<b>RTAs</b>	Regional Trading Arrangements
<b>EU</b>	European Union	<b>RVC</b>	Regional Value Chains
<b>FDI</b>	Foreign Direct Investment	<b>Rwf</b>	Rwandan Franc
<b>FTA</b>	Free Trade Area	<b>SAATM</b>	Single African Air Transport Market
<b>FY</b>	Fiscal Year	<b>SADC</b>	Southern African Development Community
<b>GDP</b>	Gross Domestic Product	<b>SDR</b>	Special Drawing Rights
<b>GIDD</b>	Global Income Distribution Dynamics	<b>SGR</b>	Standard Gauge Railway
<b>GoR</b>	Government of Rwanda	<b>SSPs</b>	Socio-Economic Pathways
<b>GTAP</b>	Global Trade Analysis Project	<b>TVET</b>	Technical and Vocational Education and Training
<b>IAM</b>	Integrated Assessment Modeling	<b>UN</b>	United Nations
<b>IBES</b>	Integrated Business Enterprise Survey	<b>UN DESA</b>	United Nations Department of Economic and Social Affairs
<b>ICD</b>	In-Land Container Depot	<b>UNCTAD</b>	United Nations Conference on Trade and Development
<b>IMF</b>	International Monetary Fund	<b>UNESCAP</b>	United Nations Economic and Social Commission for Asia and the Pacific
<b>ITC</b>	International Trade Center	<b>US\$</b>	United States Dollar
<b>KM</b>	Kilometer	<b>WTO</b>	World Trade Organization
<b>LCL</b>	Less than Container Load		
<b>LDC</b>	Least Developed Countries		
<b>LPI</b>	Logistics Performance Index		

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The Rwanda Economic Update (REU) analyzes recent economic developments and prospects, as well as Rwanda's policy priorities. The REU is intended for a wide audience of policymakers, business leaders, other market participants, analysts of Rwanda's economy, and civil society. It draws on data reported by the Government of Rwanda and additional information collected by the World Bank Group in its regular economic monitoring and policy dialogue.

Published twice a year, each issue has a special feature spotlighting a particular topic. The 18<sup>th</sup> edition of REU focuses on Regional Trade Integration in the Post-COVID Era. The current edition, led by Calvin Zebaze Djiofack (Senior Economist) and Peace Aimee Niyibizi (Economist), is a collective endeavor and involved staff from several parts of the World Bank. The team includes Charles Kunaka (Lead Private Sector), Israel Osorio-Rodarte (Economist), Erwin R. Tiongson (Senior Consultant), Dominique Njinkeu (Consultant), Bernard Hoekman (Consultant), Victor Steenberg (Economist), Anna Twum (Economist, Internal Growth Center), Samiha Chowdhury (Consultant), Marco Sanfilippo (Associate Economist), Rohit Ticku (Consultant), Maria Filipa Seara E Pereira (Consultant), Anita Nyajur (Consultant), and Abdoul Akim Wandaogo (Consultant). The team is very grateful to Philip Schuler for invaluable inputs on the structure and messaging of the report.

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## EXECUTIVE SUMMARY

### Recent economic developments and prospects

#### **Global economic growth has picked up in 2021 and has now surpassed its pre-pandemic level.**

Global growth is projected at 5.6 percent in 2021 and 4.3 percent in 2022. However, only 6.6 percent of Africans are fully vaccinated, compared to 50 percent in Europe and the Americas, which makes the continent, and therefore the world, more vulnerable to new variants of the virus and may constrain economic recovery going forward. Limited resources and elevated debt levels make it difficult for countries to maintain financial assistance to vulnerable households and firms at recent levels. The region's economy is set to expand only by 3.5 percent in 2021, with projections of 3.6 percent in 2022 and 3.8 percent in 2023.

#### **Rwanda has achieved a strong economic recovery in 2021.**

Gross domestic product (GDP) increased in the first nine months of the year by 11.1 percent, reflecting a broad-based recovery from the 2020 recession. Industrial production expanded by 16.5 percent, favorable weather led to a 6.8 percent rise in agricultural output, and the easing of mobility restrictions contributed to a 11.1 percent rise in services, with hospitality-related services starting to recover in the second quarter.

#### **Employment remains depressed, despite the strong recovery.**

While GDP is close to the pre-pandemic level, the employment to population ratio (aged 16 and above) is 8 percentage points below and the unemployment rate more than 13 percentage points above levels at the beginning of 2020. One reason for lagging employment recovery is that more rapid growth in part reflects the shift of workers to higher-productivity jobs (manufacturing and construction) rather than across-the-board increases in firm output. Employment conditions have deteriorated strongly for women, with the female unemployment rate now 13.6 percentage

points higher and male unemployment rate 7.7 percentage points higher than in the first quarter 2020. This reflects women's greater participation in the more slowly growing agricultural sector and lesser participation in the more rapidly growing manufacturing and construction sectors, greater participation in seasonal employment, and greater likelihood of having to leave a job to care for a sick relative.

#### **Global recovery has boosted Rwanda's exports.**

Traditional exports (coffee, tea, cassiterite, wolfram, and coltan) increased by about 35 percent in the first nine months of 2021 and tourism also improved compared to the same period a year ago but remained below the pre-crisis level. Imports also recovered with more rapid growth in domestic demand, but at a slower pace than exports did. The current account deficit fell to 11.4 percent of GDP in the first nine months of 2021, 1.5 percentage points lower than in the same period of 2020.

#### **The National Bank of Rwanda (NBR) has maintained an accommodative monetary stance and other measures to support the recovery, taking advantage of low inflation.**

The NBR has maintained its policy rate at 4.5 percent over the past 20 months. Banks' capital adequacy and profitability remain strong, although the ratio of non-performing loans to assets is rising despite the NBR allowing banks to restructure loans of borrowers facing temporary cash flow challenges on an exceptional basis.

#### **The government's continued fiscal expansion is also providing support to the economy.**

COVID-19 related spending equalled 3.6 percent of GDP in FY2020/21, and other spending rose due to accelerated projects in the roads and energy sectors. External grants increased sharply due to the realization of COVID-19 related pledges of external assistance, while reimbursement from the United Nations (UN) for peacekeeping activities and

International Monetary Fund (IMF) debt relief further increased government resources. The recovery also increased tax revenues, and the fiscal deficit narrowed by 0.4 percent of GDP. The deficit was primarily financed by foreign borrowing, although domestic debt financing amounted to 0.9 percent of GDP.

**The fiscal expansion has pushed up public debt, although the government is working to make debt more manageable.** The debt service burden was eased by the issuance of Rwanda's second Eurobond in August 2021, for US\$620 million, at a coupon rate of 5.5 percent. The proceeds were used to repay about 85 percent of Rwanda's existing, US\$400 million Eurobond with a coupon rate of 6.25 percent, and refinance RwandAir's expensive debt of about US\$112 million.

**Growth is expected to moderate over the next two years.** Services growth is expected to accelerate with a recovery in international tourism, while industrial activity should firm up with government support through the "Manufacture and Build to Recover Programme" (MBRP). Inflation is anticipated to rise with increases in global demand, commodity prices and domestic economic activity, but remain within the NBR's target band of  $5 \pm 3$  percent. The current account deficit is expected to remain high due to strong import growth, despite a positive outlook for the price of Rwanda's major export crops, but the



availability of sufficient financing should maintain an adequate level of reserves. Increased expenditures to support the recovery and mitigate the impact of the pandemic on human capital, coupled with tax incentives under the MBRP, will expand the fiscal deficit and increase the level of debt. Risks to this outlook are tilted on the downside, due to the potential for a resurgence of the pandemic, Rwanda's high vulnerability to weather and climate shocks, and the potential for the increasing fiscal deficit to limit the government's ability to continue support at levels essential for recovery.

### Boosting regional trade integration in the post-COVID era

**Regional integration offers significant benefits for Rwanda, including greater potential for scale economies, opportunities for learning to export and produce higher-quality goods, and cooperation to improve trade facilitation.**

Rwanda's exports to the East African Community (EAC) members expanded after joining the Community. However, the EAC agreement had a smaller impact on regional trade than other free trade agreements, largely due to similarity of products exported by partners but also due to inefficiencies of the common external tariff (CET) that affect adversely the competitiveness of local firms: higher tariffs are allowed on many inputs to production compared to the CET rate for primary commodities, and there are many exceptions that permit tariffs of up to 100 percent. Moreover, non-tariff barriers stemming from discriminatory use of technical regulations, non-harmonized sanitary and phytosanitary requirements, and complex rules of origin requirements continue to limit trade. Regional integration also has been constrained by security concerns that led to closure of the border between Rwanda and Uganda in 2019 and the imposition of temporary trade restrictions between Rwanda and Burundi in 2016. Regional integration and cooperation within the EAC have generated more decisive gains in terms of trade facilitation increasing substantially Rwandan firms' ability to access international markets.

**Regional trade will be enhanced by boosting trade with non-EAC members.** Trade with the Central African region will be consolidated with the recent admission of the Democratic Republic of Congo to the EAC as well as the completion of the common market agenda of the Economic Community of Central African States (ECCAS). Integration of the ECCAS trade instruments in Rwanda policy framework is slated for 2022.

**The African Continental Free Trade Area (AfCFTA) could boost growth and trade integration.** A CGE analysis finds that implementation of the AfCFTA could significantly increase real incomes and reduce poverty. Capturing these benefits will require finalizing negotiations of a series of protocols to the AfCFTA Treaty with clear, ambitious, and enforceable rules and disciplines, adoption of legislative changes by participating governments, and building implementation and enforcement capacity.

**Rwanda's own efforts and cooperation with regional partners (mainly EAC) have significantly improved trade facilitation.** Rwanda's ranking on the World Bank's Logistics Performance Index (LPI) improved from 148<sup>th</sup> globally in 2007 to 62<sup>nd</sup> in 2016. The introduction of one-stop border posts (OSBPs), starting clearance before goods arrived, moving final clearance of goods away from the border to points of destination, and the use of electronic cargo tracking systems (eCTS) to keep track of goods and trucks in transit across international boundaries have drastically reduced clearance times and improved the reliability and predictability of supply chains. The total costs of Rwanda's trade within the East African Community and with overseas partners fell sharply, at least prior to the onset of COVID-19. The impact of recent reforms has been greater on the cost of trading with overseas partners than with regional partners, given the focus on the processing and clearance of goods coming through the seaports of Dar es Salaam and Mombasa as well as expedited border clearance of transit traffic.

**Despite these reductions, the cost of trading remains high in Rwanda and East Africa.** Moreover, high volatility of trade costs impairs the predictability and confidence required for the development of regional value chains. Internal trade within Rwanda also remains costly due to the rugged terrain and infrastructure weaknesses. Key improvements that could significantly reduce both external and internal trade costs include:

- (i) Improving the efficiency of trucking firms and capitalizing on the potential for increased handling of transit trade to and from Democratic Republic of Congo (DRC) could improve trucking services and enable firms to provide more advanced services.
- (ii) The government's plan to build railway lines along the Central and Northern trade corridors, could significantly reduce trade costs. A standard gauge railway connecting to the dry port in Isaka (a combined road and rail system) would more than halve the transit time from Kigali to Dar es Salaam compared to the transporting goods by road the entire way. However the fiscal implications of railway investments will have to be carefully assessed as examples of Ethiopia and Kenya show that financing such investments purely on traffic is challenging despite much larger volumes of goods (World Bank, 2019).
- (iii) Continued increases in the use of containers in overseas trade, combined with further investment in inland facilities for their handling, could improve logistics performance.

**The development of Rwanda as a regional logistics hub, serving as an intermediating node between the East and Central Africa regions offers prospects to increase revenues and generate efficiency gains through the concentration of logistics services.** Expanding Rwanda's role as a logistics hub would require significant investment in infrastructure in which the government of Rwanda has already made important progress. These include a major distribution center for transit goods, centers for

consolidating agricultural products for export, distribution centers that supply imported and domestic products to retail outlets, a location near the country's large industrial zones where service providers for these industries could cluster, and an air transport hub linking countries in West Africa with Asia and Europe supported by the modern cargo facilities at the airport being developed at Bugesera.

**The potential market for Rwanda provision of logistic services is substantial but could be affected by the temporary border closures currently in place.** The potential market which includes all goods either transiting or originating in Rwanda, totaled 4.2 million tons in 2018. In the short-term, the most important market for the purpose of building a logistics hub is Eastern DRC (1.17 million tons). However, the closure of the main borders between Uganda and Rwanda for the past two and a half years has diverted some traffic from the Eastern DRC to the Bunagana border between Uganda and DRC, therefore bypassing Rwanda, which could impair Rwanda's ability to establish itself as a regional logistics hub.

**Rwanda has a policy framework suited to develop the logistics sector, but further investments are required so that Rwanda can play the land-bridge function for the DRC, and to maximize synergies with the growing air transport sector.** Addressing the high trade costs at Rwanda's border with DRC and upgrading the logistics services supporting land transport from DRC (e.g., through temporary storage, repackaging and other activities) are key steps in capturing a greater share of the market for transit services. Complementary measures by neighboring economies, for example vehicle specifications, axle load limits and cross border taxes, along with expanding the logistics services offered by Rwandan firms, also are important to play a role as a logistics hub.

**The "White paper" on logistics and distribution services strategy for Rwanda, prepared with the support of the World Bank (World Bank, 2012), laid out a two-phase strategy for the rollout of Rwanda as regional logistic hub.** This involved i) improving the efficiency of Rwanda's role as a land-bridge for re-exports to Goma in DRC and ii) establishing a regional logistics hub in Rwanda linked to a primary multi-modal hub at Kisangani and a secondary multi-modal hub at Kindu.

### Reform priorities to foster regional integration

**There are several steps that would bolster trade.** Priorities to further integration within the EAC include renegotiating the EAC schedule band to reduce the list of exceptions and improve product classification across tariff schedule bands, reducing non-tariff barriers, strengthening the EAC Secretariat based on increased financial contributions by all member states. Given increasing trade opportunities with the DRC, policies should focus on achieving the same level of integration with the DRC and the rest of Economic Community of Central African States (ECCAS) as that with the EAC through aligning the two regions' tariff rates and improving coordination and harmonization of trade procedures. Rwanda should pursue its leadership role in advancing AFCFTA agenda and leverage the AFCFTA preferential market access to secure new opportunities for Rwandan firms. Increasing the scale of logistics providers, through development of Rwanda as regional logistics hub, would improve efficiency and facilitate provision of more diversified transport services. Achieving a regional agreement on a legal framework for multimodal transport could reduce transport costs. Pursuing the EAC open skies arrangement while investing in air transport connectivity would further expand RwandAir's network by reducing restrictions on competition.

# PART ONE

## RECENT ECONOMIC DEVELOPMENTS



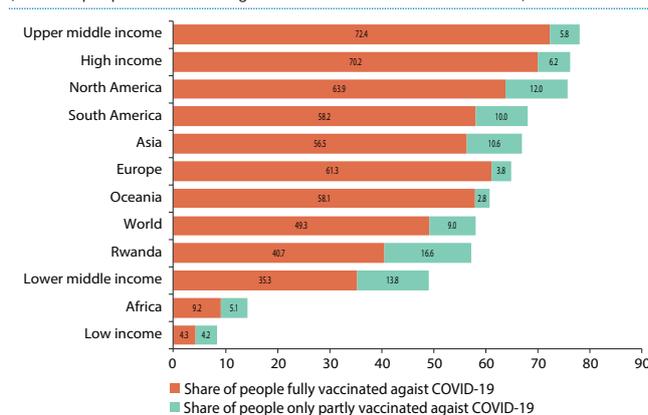
## 1.1. Introduction

**Economic recovery has been strong despite successive waves of COVID-19 infections.** An expansion of assistance to vulnerable households and firms, accommodative monetary policy, a mass vaccination campaign, and targeted lockdowns sharply reduced infections and supported a rise of the gross domestic product (GDP) of 11.1 percent in the first three quarter of 2021. Labor market indicators continued to deteriorate despite the recovery, as the growth acceleration partly reflected a shift in employment to higher-productivity activities. Inflation dropped from the highs of mid-2020. Fiscal policy remained expansionary in the fiscal year (FY) 2020/21, although the deficit narrowed slightly despite a strong increase in expenditures, owing to higher external aid, payments by international organizations, and a recovery of tax revenues due to stronger growth in the first half of this year. Growth is expected to decline to the historical trend over the next two years. However, risks to achieving this rate of growth remain high due to the potential for a resurgence of the pandemic, the likelihood of adverse weather and climate shocks, and the potential for a deteriorating fiscal position to limit support for the recovery.

## 1.2. Global and regional context – from a total lockdown to the great, but uneven, rebound

**Progress in ending the global pandemic has been mixed.** Forty percent of the world population is fully vaccinated, but vaccination rates vary dramatically across countries. More than half of the population in Europe and the Americas are fully vaccinated, compared to only 6.6 percent of Africans and 2.3 percent of the population in low-income countries (Figure 1.1). The large pool of unvaccinated people increases the potential for the emergence of new, and potentially more difficult, variants. The delta variant, a more transmissible and virulent strain of the coronavirus, has driven new surges of infections.

**Figure 1.1: World divergence in COVID-19 vaccination**  
(Share of people vaccinated against COVID-19, December 31, 2021)



Source: Our World in Data. <https://ourworldindata.org/covid-vaccinations>

Note: Alternative definitions of a full vaccination, e.g., having been infected with SARS-CoV-2 and having 1 dose of a 2-dose protocol, are ignored to maximize comparability between countries.

**Economic growth has picked up in 2021 and has now surpassed its pre-pandemic level, but with divergences across economies.** World growth picked sharply in the second quarter of 2021, helped by eased containment measures, vaccination deployment and strong consumer spending on services. It is estimated that global GDP has now surpassed its pre-pandemic level. More rapid growth has supported a sharp increase in commodity prices, and many now exceed their pre-pandemic level. Higher growth and rising commodity prices are contributing to an increase in inflation, leading to some tightening of global financial conditions and increasing the potential for monetary tightening, and possibly financial stress, in developing economies. Global growth is projected at 5.5 percent in 2021 and 4.2 percent in 2022.<sup>1</sup> However, output and employment gaps remain in many countries, particularly in emerging-market and developing economies with low vaccination rates and weak capacity to provide monetary and fiscal support. Output for the advanced economy group is expected to regain its pre-pandemic trend path in 2022 and exceed it thereafter. However, the emerging market and developing economy group (excluding China) is projected to remain well below the pre-pandemic forecast in the medium-term, resulting in a larger setback to improvements in their living standards.

<sup>1</sup> World Bank, 'Global Economic Prospects', January 2022.

**Sub-Saharan Africa is out of the recession, but recovery is still timid and fragile.**<sup>2</sup> The region's economy is set to expand by 3.5 percent in 2021, 0.7 percentage point higher than the forecast in the June 2021 Rwanda Economic Update, with projections for 2022 and 2023 of 3.6 percent and 3.8 percent, respectively. The relaxation of stringent lockdown measures with some abatement in infections helped to boost domestic demand and facilitate increases in production, while the rise in commodity prices and the recovery in global trade has increased African exports. Support for firms and households during the pandemic has been limited (2.8 percent of GDP compared to an average of 17 percent of GDP in advanced countries) amid concerns over fiscal sustainability. Data from the first two quarters of the year indicate that the service and industry sectors led the recovery, while growth was more muted in agriculture. But this recovery remains vulnerable as the low rate of vaccination continues to expose the region to renewed surges of infections. Because of limited resources amid elevated debt levels, most African countries are falling short of resources to maintain levels of financial assistance to vulnerable households and firms.

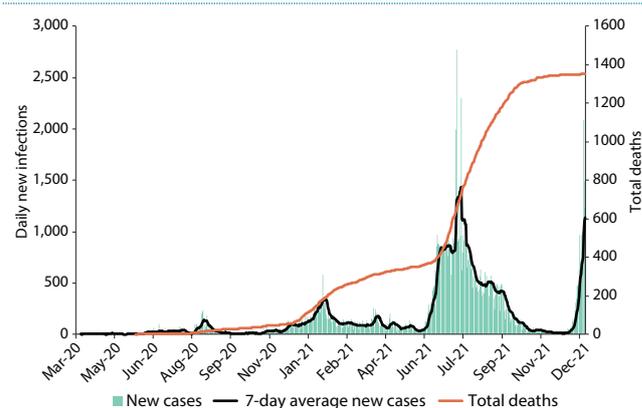
### 1.3. Rwanda eased pandemic restrictions and global recovery drive a strong recovery

*COVID-19—the vaccination campaign gained momentum*

**Targeted measures have been effective at containing the spread of infection and helping economic activity to adapt to the pandemic.** The Government of Rwanda (GoR) continued its focus on managing recurring waves of COVID-19 infections, expanding its social programs to support vulnerable households in lockdown times, maintaining accommodative monetary conditions to support economic activities affected by the pandemic while embarking on a mass vaccination campaign. With the recent rise of infection cases triggered by the delta variant, Rwanda grappled with the third—and more severe—wave in

June–August 2021 (Figure 1.2). The GoR implemented localized lockdowns, which successfully reduced the spread of infections.<sup>3</sup> This was combined with the uptick of the vaccination campaign in July–August 2021, after the abrupt stoppage because of the vaccine shortages and logistical challenges in the second quarter of 2021. By December 31, about 7,705,552 persons (about 60 percent of the total population) had received at least one dose of COVID vaccine, while 5,502,525 persons (42.5 percent of the total population) had received two doses.<sup>4</sup> This high vaccination rates places Rwanda among the top ten countries in Africa. Rwanda started administering a booster dose in December 2021.

**Figure 1.2: Rwanda – COVID-19 cases and deaths**



Source: Rwanda Biomedical Center Situation report on Novel Coronavirus. <https://www.rbc.gov.rw/index.php?id=717>

*Real GDP surprised with a higher growth rate amidst the COVID-19 wave*

**The Rwandan economy navigated surprisingly well successive waves of COVID-19 in 2021 and staged a strong economic rebound.** After contracting by 3.5 percent in 2020, GDP is now forecast to expand by about 10 percent in 2021. This is double the rate anticipated in last July's edition of the Rwanda Economic Update, as GDP unexpectedly

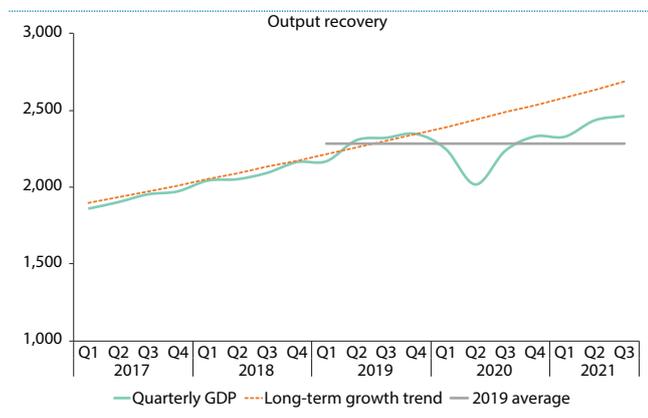
<sup>2</sup> This paragraph is based on the January 2022 Global Economic Prospects draft and the October 2021 Africa's Pulse, both publications of the World Bank.

<sup>3</sup> The cabinet put Kigali City and eight districts with high infections rates (Burera, Gicumbi, Musanze, Rubavu, Rutsiro, Kamonyi, Nyagatare and Rwamagana) under a ten-day lockdown from July 17 to 26, 2021. By August 1, 2021, the lockdown was lifted in these districts and Kigali City, with movements prohibited between 6:00 pm and 4:00am and all businesses to close by 5:00 pm.

<sup>4</sup> The GoR has set the target of fully vaccinating 30 percent by end 2021 and 60 percent by the end of 2022 of the population of above eighteen years (equivalent to about 7,831,000 people). As of December 31, 2021, the vaccination status shows that about 98 percent of the targeted population had received at least one dose and 70.3 percent had received two doses.

increased by 20 percent in the second quarter. The rebound was supported partly by base effects and reflected a recovery in agriculture, industry, and services. Gradually easing mobility restrictions have supported a broad-based rebound in economic activities, especially in the second quarter of 2021. The level of GDP in the third quarter is estimated to have exceeded the pre-pandemic peak (fourth quarter of 2019) but to have remained 8 percent below the 2006-19 growth trend (Figure 1.3).

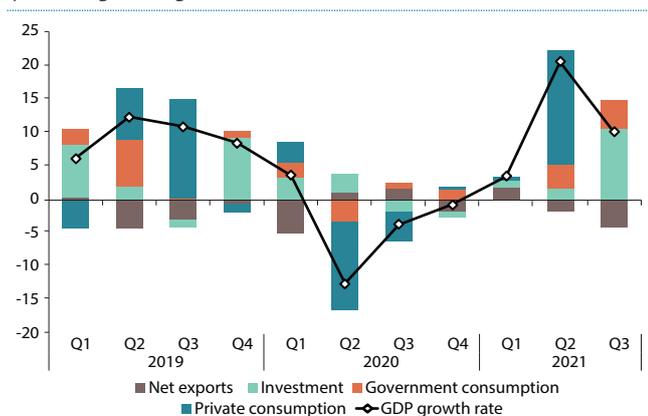
**Figure 1.3: GDP recovered to its pre-pandemic level, but remains below its long-term trend**  
(Rwf billions, constant 2017)



Source: World Bank calculations using NISR data

**Strong growth in 2021 has been powered by domestic demand.** An easing of restrictions on mobility stimulated private consumption, increasing incomes amid the reopening of economic activities, and falling inflation. Government consumption made a significant contribution to growth in the

**Figure 1.4: Expenditure contributions to quarterly GDP growth**  
(percentage changes)

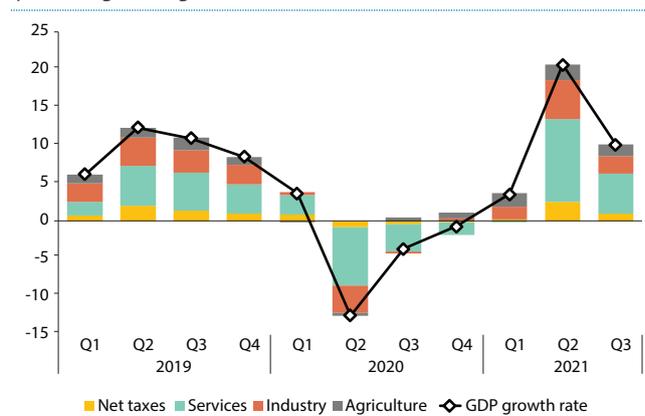


Source: World Bank calculations using NISR data

second quarter of 2021, as fiscal support for firms and households affected by the pandemic continued to roll out. Investment also recovered strongly, in part driven by increased investment in urban roads in City of Kigali and other secondary cities. The growth of imports remained subdued despite strong growth in domestic demand.

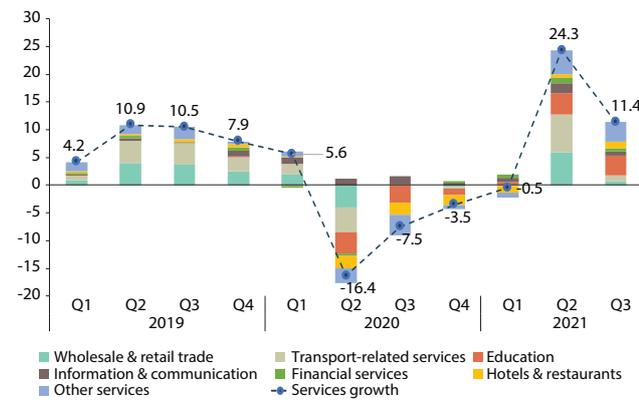
**All major sectors participated in the recovery the first quarter of 2021.** Services recovered strongly since the second quarter of 2021 and made the largest contribution to the three-quarter growth among the three sectors, although the hospitality services sector remained subdued. After shrinking by 5.5 percent in 2020, the services sector expanded by 11.18 percent in the first quarter of 2021. Recovery in services was driven by the rebound in the sectors that were severely affected by COVID-19 in 2020, including the hospitality-related services (Figure 1.6). With a gradual reopening of schools since November 2020, growth in the education sector rebounded strongly to over 72 percent and accounted for more than 22 percent of the services. Most of the services growth was supported by trade and transport-related services, which generated about 33 percent of the sector's growth. Information and communication services, which were the main booster of services in 2020, continued to support it by growing at almost 21 percent, contributing about 10 percent to the 3-quarter growth. After four consecutive quarters

**Figure 1.5: Sectoral contributions to quarterly GDP growth**  
(percentage changes)



Source: World Bank calculations using NISR data

**Figure 1.6: The services sector almost recovered from the pandemic effect**  
(percentage changes, year-on-year)



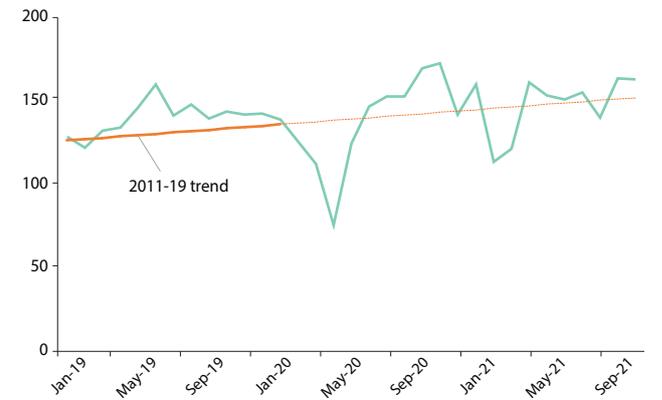
Source: NISR

of contraction, hospitality-related services, i.e., hotel and restaurants, registered growth in the second and third quarters of 2021, thanks to the resumption of conferences and sporting events in Rwanda.<sup>5</sup>

**Industrial production also picked up, with particularly strong growth in manufacturing, construction, and in mining, in part due to the recovery in global minerals prices.** Industrial production exceeded its 2011-19 trend by August 2021 (Figure 1.7), as output expanded by 16.5 percent in the first three quarters of 2021, after declining by 4.3 percent in 2020. Construction production increased by 19.9 percent, y-o-y, after declining by 5.6 percent in 2020. Rebound in construction as well as in education has boosted activities of some related industrial activities, such as the production of construction materials, textiles, and papers. Following eased COVID-19 containment measures, the mining and quarrying activities resumed, with the sector output growing at 35.4 percent, y-o-y, in the first three quarters of 2021, partly supported by the increase of mineral prices on international markets.

<sup>5</sup> The Basketball Africa League (BAL, May 16-30, 2021; <https://rcb.rw/YPO-Annual-Regional-Conference.html>); Tour du Rwanda (May 2-9, 2021); Kigali Peace Marathon (June 20, 2021); Volleyball World Tour 2021 - Star 2 (July 14-18, 2021); AFROBASKET – FIBA (Aug. 13-27, 2021), ETC.

**Figure 1.7: Industrial production index, January 2019 to September 2021**  
(2017=100)



Source: NISR

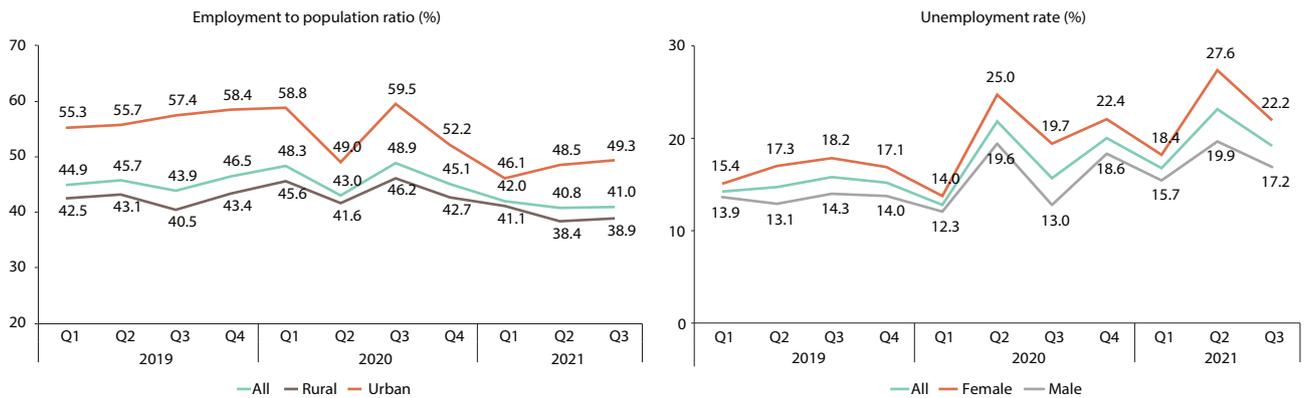
**Favorable weather boosted agricultural production in 2021, although the sector has made a smaller contribution to growth than industry and services.** After growing by less than 1 percent in 2020, agricultural output increased by 6.8 percent in the first three quarters of 2021, primarily due to a strong performance in food production (6.9 percent) and livestock (8.7 percent). Output of Rwanda's export crops remained almost constant relative to their 2020 levels.

#### *Employment remains depressed, despite the recovery*

**The employment to population ratio remains below its 2020 high (Figure 1.8).** After a brief rise to 48.9 percent in the third quarter of 2020 (as many students left school due to school closures and declines in family income)<sup>6</sup>, the employment to population ratio has fallen steadily, in the third quarter of 2021 reaching nearly 8 percentage points below pre-pandemic (first quarter of 2020) levels. In absolute terms, the employed population is about 390,000 below the level in the first quarter of 2020, despite an increase in the working-age population of about 5 percent.

<sup>6</sup> According to the Labor Force Survey Annual Report 2020 (NISR, 2020, p. 3).

**Figure 1.8: Employment to population ratio and unemployment rate**  
(In units as indicated)



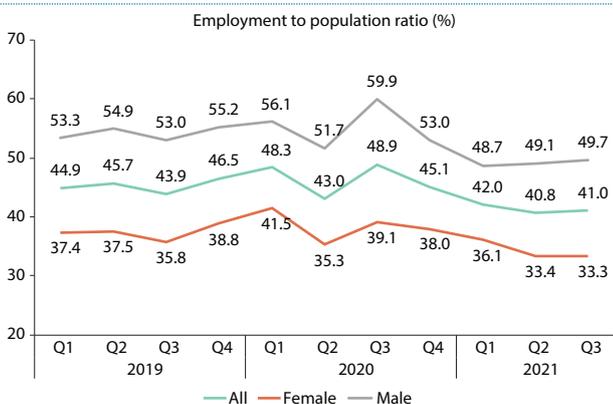
Source: Rwanda Labor Force Survey, various issues, and staff calculations

**A fall in employment despite recovery in output is not unprecedented.** During recoveries the rise in employment often lags the rise in output. It can take time for firms to have sufficient confidence that the recovery is sustainable, so that it is worthwhile to hire and train more permanent employees. Also, if more rapid growth reflects a shift to higher-productivity firms, then productivity and growth may rise without a concomitant increase in employment. There is evidence that this second effect is important in Rwanda, as the employment to population ratio in urban areas, where the bulk of Rwanda’s manufacturing production is located, began to increase in the second quarter 2021 but has continued to decline in rural areas dominated by the lower-productivity agricultural sector (Figure 1.9). The recovery has also seen a reallocation of workers from rural to urban areas within key sectors (Figure 1.10). For example, with substantial government

investment in urban construction through the recovery plan, the share of urban workers in total construction workers rose from a fifth at the beginning of the pandemic to one third, while rural construction employment has fallen in recent quarters relative to its mid-2020 peak. Nonetheless, as can be seen in the chart (Figure 1.10), reversals are possible as urban employment tends to be procyclical with respect to quarterly GDP growth.

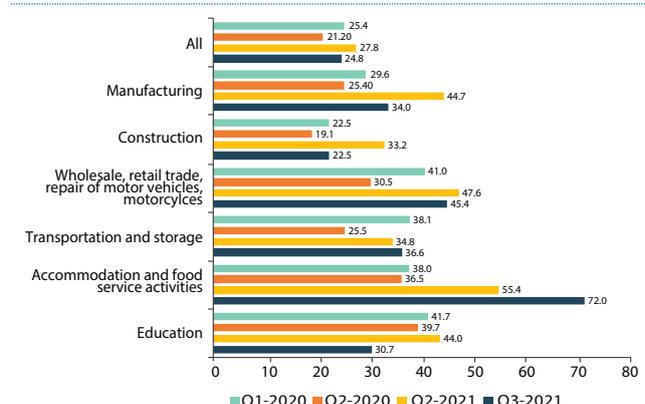
**The fall in employment was reflected in a decline in labor force participation and a significant rise in the unemployment rate.** The labor force participation rate fell from 55.6 percent in the first quarter of 2020 (before the pandemic) to 50.9 percent in the third quarter of 2021 (Figure 1.11). At the same time, the unemployment rate rose from 14.0 percent before the pandemic to 19.4 percent in the third quarter of 2021. Thus, some workers reacted to the pandemic-

**Figure 1.9: Urban vs rural employment**



Source: Rwanda Labor Force Survey and staff calculations

**Figure 1.10: Urban share of employment in key selected sectors**



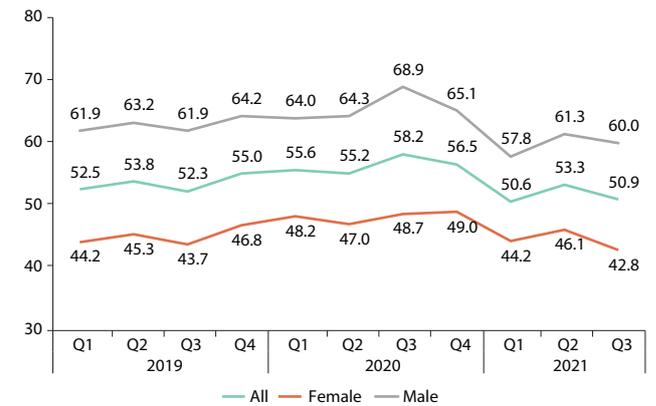
Source: Rwanda Labor Force Survey and staff calculations

driven economic conditions by looking for another job, while others left the labor force entirely. It is possible that some of the latter group could re-enter the labor force as the recovery continues, thus leading to some recovery in employment to population ratios.

*Recovery both in Rwanda and abroad is boosting trade flows*

**The global recovery contributed to an improvement in Rwanda’s current account deficit.** Receipts from exports of traditional goods—coffee, tea, cassiterite, wolfram, and coltan—increased by about 35 percent in the first nine months of 2021 compared to the

**Figure 1.11: Labour force participation rate (percent)**

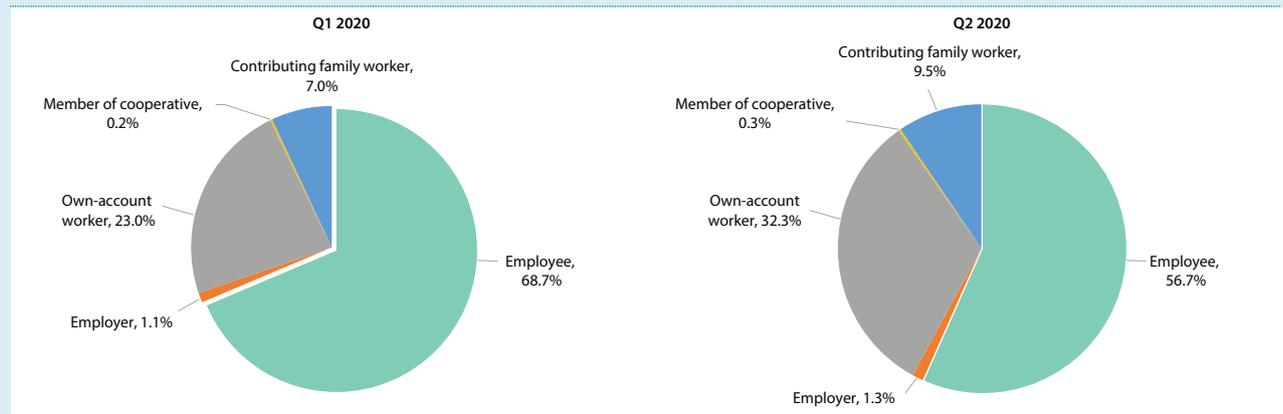


Source: Rwanda Labor Force Survey and staff calculations

**Box 1.1: Women in the labour market**

The pandemic-driven deterioration in labor market indicators has been particularly severe for women. Women had a lower employment to population ratio and higher unemployment rate than men did before the pandemic, and these disparities were exacerbated by the pandemic. From the first quarter of 2020 to the second quarter of 2021, the employment to population ratio for men fell by 7 percentage points (from 56.1 percent to 49.1 percent) and for women by 8.1 percentage points (from 41.5 percent to 33.4 percent—left panel, Figure B1). The relatively worse employment conditions for women can be seen in the quarter-to-quarter developments over the five quarters following onset of the pandemic. Between the first quarter and the second quarter of 2020, the employment to population ratio fell more sharply among women. As employment recovered in the third quarter of 2020, the male employment to population ratio exceeded its own pre-COVID level by about 3.8 percentage points—as young men found jobs in the construction sector—while the female employment to population ratio, though also increasing, was still about 2.4 percentage points below where it was prior to the pandemic. More recently, the employment to population ratio increased slightly in the second quarter of 2021, while the ratio for women fell by nearly 3 percentage points. And the unemployment rate for female workers rose from just under 15 percent (compared to 12.3 percent for male workers) in the first quarter of 2021 to 27.6 percent (compared to 19.9 percent for male workers) in the second quarter of 2021 (right panel, Figure B1).

**Figure B1.1: Female employment status**



Source: Rwanda Labor Force Survey, various issues, and staff calculations

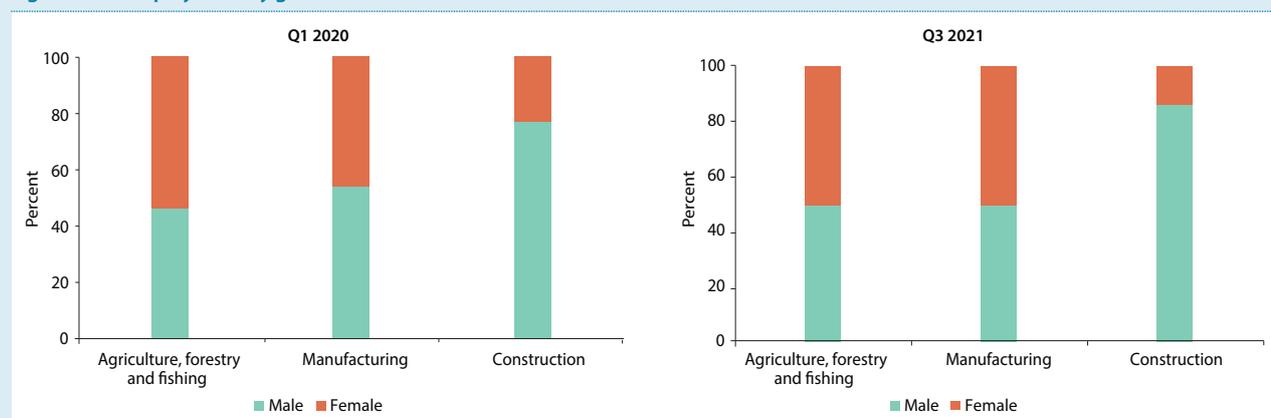
### Box 1.1: Women in the labour market (contd.)

The pandemic may also have increased informality among women. As employment fell in the second quarter of 2020, the status of the women who remained employed shifted considerably, as a larger proportion became “own account workers” and “contributing family workers”. Although there is no official indicator of informal employment, this is a possible proxy, indicating rising informality or at least what is known in the labor economics literature as “disguised unemployment.”\* In contrast, the shift in status among men was not as pronounced.

These differences reflect enduring gender differences in the structure of employment. Prior to the lockdown (Q1 2020), construction workers were predominantly male (77 percent) and even more so in the latest quarter (86 percent), while agriculture workers were slightly more likely to be female (54 percent in the first quarter of 2020 and 51 percent in the third quarter of 2021). Gender differences in labor market performance thus reflect in part divergent employment trends of these sectors. In addition, as we reported in the January 2021 REU, a special section of the second quarter of 2020 survey asked respondents the reasons for their unemployment; the responses suggest that women were more likely to be engaged in seasonal work (44 vs 31 percent) and were more likely to be caring for a sick relative (4 percent vs 1 percent).

In addition, female workers earn less than male workers. On average, women’s monthly earnings are about 68 percent of men’s monthly earnings, according to the third quarter of 2020 Labor Force Survey Report and the gap rises with age (or experience) and rises and then falls with educational attainment. No detailed *monthly earnings data* are presented in other recent rounds of the report, but summary data suggest that the ratio of female median monthly earnings to male median monthly earnings has been generally about 80 percent from the first quarter of 2020 to the third quarter of 2021, though plummeting to 51 percent in the third quarter of 2020. These are raw or unconditional averages and do not account for differences in the characteristics of men and women including their occupations and sectors of employment.\*\*

Figure B1.2: Employment by gender: Selected sectors



Source: Rwanda Labor Force Survey, various issues, and staff calculations

#### Notes:

\* The only indicator reported by all the Labor Force Survey Reports is the median monthly earnings. The summary data suggest that ratio of female median monthly earnings to male median monthly earnings has been generally about 80 percent from the first quarter of 2020 to the second quarter of 2021, though plummeting to 51 percent in the third quarter of 2020.

\*\* In fact, a 2020 report based on 2019 suggests that controlling for known covariates of wages, there is no gender wage gap: “The absence of gender wage gap implies that the observed differences in average employment income for females and males result from the differences in their characteristics or in the differences in the characteristics of the jobs they are involved in.” (NISR, 2020, Thematic Report on Gender, p. 25).

same period in 2020 and exceeded the pre-crisis level of 2019. Coffee and cassiterite were the main drivers of the increase following improvements in international prices, although traditional exports also enjoyed a substantial increase in volumes. Services trade improved in the first nine months of 2021, compared to the same period a year ago, but remained well below the pre-crisis level. While services export value represented more than 9 percent of GDP in 2019, it remains around 5 percent of GDP in the first half of 2021. This is mainly due to tourism receipts which declined from 4.6 percent of GDP on average in the first nine months of 2019 to 1.2 percent as an average of the first nine months of 2021 (Table 1.1). Goods imports also increased,

spurred by increased demand for consumption and investment goods in the first half of 2021 and an easing of bottlenecks on global supply chains. Public transfers and remittances increased by 0.2 and 0.9 percentage points of GDP, respectively. These trends contributed to the current account deficit narrowing to 11.4 percent of GDP in the first nine months of 2021, 1.5 percentage points lower than in the same period of 2020. The Rwandan franc (Rwf) was quite stable against the US dollar in the first six months of the year. With the recent issuance of the second 10-year Eurobond and SDR allocations, the level of foreign reserves increased in August 2021 and exceeded their recent high of December 2020 (Figure 1.12).

**Table 1.1: Balance of payments, 2019–2021**  
(percent of GDP, otherwise indicated)

	2019				2020				2021		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
<b>Current account balance</b>	<b>-10.9</b>	<b>-13.8</b>	<b>-12.6</b>	<b>-10.3</b>	<b>-15.6</b>	<b>-11.7</b>	<b>-11.1</b>	<b>-10.0</b>	<b>-9.4</b>	<b>-12.0</b>	<b>-12.1</b>
<i>Trade balance (goods and services)</i>	-13.6	-14.7	-14.9	-14.1	-18.3	-15.2	-16.9	-14.3	-13.9	-17.3	-16.2
Exports	20.0	19.3	24.3	23.5	18.7	14.6	23.8	18.3	16.1	18.6	19.7
<i>o/w gold</i>	0.6	0.3	4.6	5.1	4.1	5.2	11.4	4.7	1.9	3.4	3.7
<i>o/w coffee and tea</i>	1.3	1.2	1.8	2.2	1.3	1.2	1.5	1.6	1.4	1.1	1.4
<i>o/w tourism</i>	4.1	4.3	5.3	4.0	3.2	0.1	0.3	1.0	0.9	1.1	1.6
Imports	36.7	38.8	38.7	35.9	26.7	45.3	33.5	29.9	36.8	36.5	0.0
<i>o/w gold</i>	0.0	0.0	4.3	4.8	4.0	5.1	11.0	4.5	2.3	3.5	3.6
<i>o/w oil</i>	3.6	3.8	4.1	6.7	6.3	4.3	3.2	3.8	2.5	3.1	3.5
<i>Primary income</i>	-3.7	-3.2	-3.2	-2.7	-3.1	-2.8	-0.3	-1.9	-2.3	-2.0	-2.3
<i>Secondary income</i>	6.3	4.2	5.5	6.5	5.9	6.3	6.1	6.2	6.8	7.3	6.3
<i>o/w external grants to government</i>	3.3	1.6	2.9	3.6	3.0	3.4	3.1	2.7	3.8	3.9	3.0
<i>o/w remittances inflows</i>	2.6	2.4	2.3	2.5	2.4	2.3	2.7	3.2	3.0	3.5	3.4
<b>Capital account balance</b>	<b>2.5</b>	<b>2.3</b>	<b>2.7</b>	<b>2.6</b>	<b>2.7</b>	<b>3.5</b>	<b>2.8</b>	<b>3.3</b>	<b>3.0</b>	<b>3.7</b>	<b>3.2</b>
<b>Financial account balance</b>	<b>6.9</b>	<b>10.9</b>	<b>4.0</b>	<b>13.7</b>	<b>8.0</b>	<b>21.6</b>	<b>8.6</b>	<b>5.3</b>	<b>3.7</b>	<b>3.0</b>	<b>12.3</b>
Direct investment	2.3	2.5	2.6	2.6	2.5	1.9	-1.1	0.7	1.3	2.1	2.3
Portfolio investment	0.0	0.0	-0.6	-0.5	1.3	0.0	0.0	-0.3	0.0	0.0	7.4
Loans and flows	4.6	8.5	1.9	11.7	4.1	19.7	9.6	4.9	2.3	1.0	2.5
<b>Net errors and omissions</b>	<b>-1.2</b>	<b>0.2</b>	<b>2.8</b>	<b>4.0</b>	<b>2.9</b>	<b>-1.6</b>	<b>4.3</b>	<b>1.0</b>	<b>-1.5</b>	<b>1.6</b>	<b>-1.5</b>
<b>Change in reserves</b>	<b>-2.7</b>	<b>-0.4</b>	<b>-3.1</b>	<b>10.0</b>	<b>-2.0</b>	<b>11.8</b>	<b>4.5</b>	<b>-0.4</b>	<b>-4.3</b>	<b>-3.7</b>	<b>9.7</b>
Memo											
Increase in government net liabilities	3.1	5.6	3.7	11.5	4.8	18.2	10.4	5.1	5.6	2.5	10.8

Source: World Bank calculations from NBR and NISR data

**Figure 1.12: Official gross reserves**  
(million, US\$)



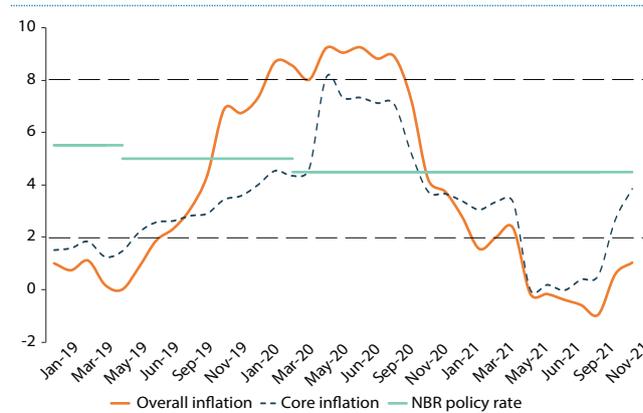
Source: NBR Monetary Statistics

### *Monetary policy remains accommodative amidst benign inflationary pressures*

**Inflation breached the lower bound of the National Bank of Rwanda (NBR) target range over May–September 2021 (Figure 1.13).** Driven by reductions in food and transport prices, domestic prices were the main drivers of low inflation (Figure 1.13). Import prices increased modestly, reflecting trends in international prices as well as the depreciation of the franc against the US dollar. Both year-to-year headline and core inflation breached the NBR’s lower bound of 2 percent over May–September 2021. Prices fell by 0.9 percent in September 2021, a level not seen in more than ten years, before slightly rising by 0.6 percent in October 2021.

**With subdued inflation, the NBR maintained its accommodative monetary policy, which supported credit expansion amid rising domestic demand.** In their Monetary Policy Committee meeting held on November 11, 2021, the NBR kept its policy rate at 4.5 percent, which has been the rate for over 20 consecutive months. This was to support the economic recovery as core inflation remains subdued and inflationary expectations appears to be within the target range over the medium term. Various liquidity measures taken in 2020 were effective in supporting credit to the private sector. In the first six months of 2021, new bank loans grew at 26 percent as domestic demand rose, against a decline of 8.2 percent in 2020. While personal and public works

**Figure 1.13: Headline inflation breached the lower bound of the NBR target range**  
(percent)



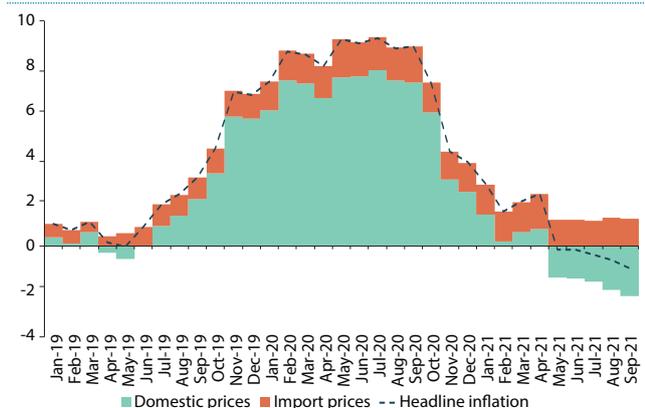
Source: NISR

and building loans drove the recovery, loans to hospitality-related sectors also rose thanks to NBR policy measures to cushion businesses affected by the COVID-19 pandemic. By end-June 2021, total outstanding loans to the private sector stood at 23.3 percent of GDP, with a year-on-year growth of 19.1 percent.

**Banks’ key performance indicators remained largely stable, but vulnerabilities are rising (Figure 1.15).** As of June 2021, the system-wide capital adequacy ratio significantly exceeded NBR’s regulatory threshold, and banking sector profitability remained strong, with a reduction in total cost to total income and a decline in the ratio of operating expenses to net income. However, asset quality has been impaired, as the ratio of non-performing loans (NPLs) to assets has risen gradually despite the COVID-19 mitigation measures granted by NBR at the outset of the pandemic. These measures had allowed banks to restructure outstanding loans of borrowers facing temporary cash flow challenges on an exceptional basis, with about 37 percent of the total credit outstanding being restructured by end-June 2021.<sup>7</sup> In expectation of higher future losses, the banking sector increased its provision coverage ratio—provisions as a percentage of gross NPL—to 99 percent as of June 2021.

<sup>7</sup> NBR. 2021. Annual Report 2020–2021. <https://www.bnr.rw/news-publications/publications/annual-reports/>

**Figure 1.14: Headline inflation drivers**  
(percent)



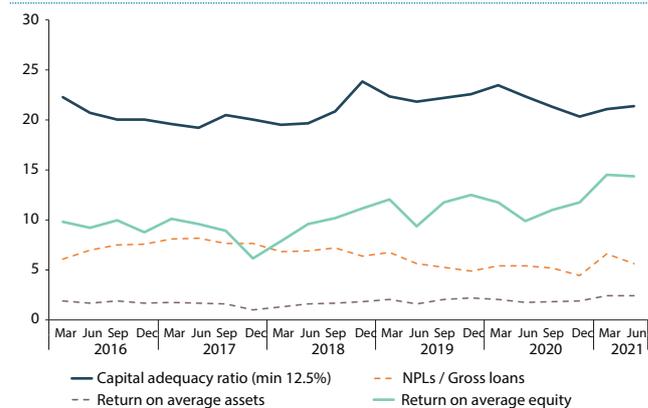
Source: NISR

### *The government continued to provide fiscal stimulus to support the recovery*

The Economic Recovery Plan has been the cornerstone of the government's fiscal response to the pandemic.<sup>8</sup> COVID-related spending accounted for more than 11 percent of total spending in FY2020/21 (equivalent to 3.6 percent of GDP). This included measures in health and social safety sectors to contain the pandemic, support for businesses most affected by COVID-19, and various measures in the education sector to reduce overcrowding in classrooms, enable social distancing, and improve hygiene. Non-COVID related spending also continued to grow in FY2020/21, as the government accelerated projects in the roads and energy sectors, in line with the National Strategy for Transformation (NST1) priorities. This led to an about 14 percent nominal increase in overall government spending in FY2020/21, which is slightly higher than increases recorded in the previous fiscal year (Table 1.2). The recovery, particularly the uptick in private consumption in the first half of 2021, increased tax revenues by 9.9 percent in nominal terms. External grants to Rwanda increased by more than 30 percent in FY2020/21 and reached 5.5 percent of GDP—a level last seen in FY2015/16—reflecting mainly the grants received to address COVID-19. The receipt of delayed reimbursements for peace-

<sup>8</sup> See World Bank, "Rwanda Economic Update: Protect and Promote Human Capital in a Post-COVID-19 World," (January 2021) for a description of the Economic Recovery Plan.

**Figure 1.15: Banks' key credit risk and performance indicators**  
(percent)



Source: NBR

keeping operations in the previous years increased government revenue by 0.7 percent of GDP. Total revenue and grants increased by 17.1 percent in nominal terms, reaching 25.0 percent of GDP in FY2020/21, compared to 23.3 percent in FY2019/20.

**The fiscal deficit narrowed slightly in FY2020/21 but remained large.** The increase in spending was to some extent outpaced by higher revenue growth, and the fiscal deficit declined in line with GDP. Foreign borrowing, much of its concessional financing from development partners, amounted to 6.4 percent of GDP in FY2020/21, lower than the level of fiscal deficit. As a result, net domestic financing was positive, implying an accumulation of domestic debt.

**In the FY2021/22 budget, the government continues to deal with the scars from the COVID-19 pandemic.** Fiscal policies in FY2021/22 are based on optimistic macroeconomic assumptions, including: (i) an economic recovery in 2021 and a pickup in 2022; (ii) strong demand for capital and intermediate goods imports amid slow recovery of exports receipts from travel and tourism; (iii) improvement in tax collections supported by tax policy and administration measures as well as the economic recovery; and (iv) a supportive monetary policy. On the expenditure side, the policies are guided by (i) spending needs under the Economic Recovery Plan and Economic Recovery Fund; (ii) increases in the total net wage bill in line with new recruitments of teachers and health workers, and the restructuring

**Table 1.2: Rwanda's public finances, 2018/19 to 2020/21**  
(percent of GDP)

	FY2018/19	FY2019/20	FY2020/21 Prel.	FY2021/22 proj.
<b>Total revenue and grants</b>	<b>23.7</b>	<b>23.3</b>	<b>25.0</b>	<b>24.6</b>
<b>Revenue</b>	<b>19.2</b>	<b>18.8</b>	<b>19.5</b>	<b>19.1</b>
Tax revenue	15.8	15.7	15.8	15.4
<i>Taxes on income, profits &amp; capital gains</i>	6.8	6.8	6.8	6.9
<i>Taxes on goods &amp; services</i>	7.8	7.6	7.5	7.2
<i>Taxes on international trade &amp; transactions</i>	1.3	1.2	1.2	1.1
Other revenues	3.3	3.1	3.8	3.7
<b>Grants</b>	<b>4.5</b>	<b>4.6</b>	<b>5.5</b>	<b>5.4</b>
<b>Expenditure</b>	<b>29.6</b>	<b>31.2</b>	<b>32.5</b>	<b>32.6</b>
<b>Expenses</b>	<b>19.1</b>	<b>20.2</b>	<b>20.3</b>	<b>20.6</b>
Compensation of employees	2.8	2.8	2.9	2.7
Use of goods & services	5.5	6.1	6.1	5.5
Interest payments	1.2	1.5	1.8	2.2
Domestic	0.5	0.6	0.7	0.7
Foreign interest	0.6	0.8	1.1	1.4
Subsidies	2.0	2.7	2.5	3.2
Transfers	5.4	5.3	5.3	5.6
Other	2.3	1.8	1.7	1.5
<b>Capital spending</b>	<b>10.5</b>	<b>11.0</b>	<b>12.2</b>	<b>12.0</b>
Domestic	5.4	5.2	5.5	6.3
Foreign	5.1	5.8	6.6	5.7
Overall balance	-5.9	-7.9	-7.5	-8.1
Primary balance	-4.7	-6.4	-5.8	-5.9
<b>Financing (net)</b>	<b>5.9</b>	<b>7.9</b>	<b>7.5</b>	<b>8.1</b>
Foreign financing	7.8	11.5	6.4	8.8
Domestic financing	-1.8	-3.7	0.9	-0.7
<b>Memorandum item:</b>				
COVID-9-related spending	--	1.2	3.6	

Source: MINECOFIN & NISR

Note: The fiscal year runs from July through June. Data were compiled based on government publication in GFSM2014.

of the civil service to improve central government service delivery; (iii) spending for the rollout of the vaccination campaign program; and (iv) continuation of capital spending to reach NST investment goals. Total spending is projected at almost the same level, 32.6 percent of GDP, as in FY2020/21. The fiscal deficit is projected at 8.1 percent of GDP.

**Fiscal expansion to address the pandemic has contributed to debt accumulation.** Steadily rising since 2013, public debt amounted to 56.5 percent of GDP at end 2019, before reaching 71.3 percent at end 2020. By increasing financing needs, the COVID-19 crisis has exacerbated Rwanda's debt vulnerabilities. The June 2020 World Bank/IMF Debt

Sustainability Analysis downgraded Rwanda's risk of external debt distress from low to moderate. The most prominent risk was linked to the rollover risk of the 10-year Eurobond in 2023. Rwanda issued its second Eurobond in August 2021, as one of the debt management measures. Taking advantage of favorable conditions, Rwanda has, for the second time, tapped into international markets by issuing a 10-year Eurobond of US\$620 million in August 2021 at a coupon rate of 5.5 percent. The financing raised was used to repaying approximately 85 percent of the existing US\$400 million Eurobond issued at a coupon rate of 6.25 percent and refinancing an expensive RwandAir debt of about US\$112 million. Together with a strong economic recovery, this bond issuance is expected to bring a moderate improvement in external and public debt dynamics, by reducing debt service burden in 2023.

#### 1.4. Rwanda's outlook

*The Rwandan economy is projected to continue to recover*

**After surging in 2021, Rwanda's economic growth is expected to decelerate to its historical rate in 2022 and 2023.** The near-term growth is expected to continue to be higher than previously projected. A more widespread rollout of vaccination and an easing of mobility restrictions will facilitate further increases in economic activity. Firming global activity will continue to raise the volume and prices of Rwanda's traditional exports. Government support to the private sector under the MBRP, a new window under the Economic Recovery Fund (ERF), aims to fast-track private sector investments in manufacturing and construction, and boost economic recovery efforts with specific incentives and key performance indicators.<sup>9</sup> The NBR is assumed to maintain an accommodative monetary stance to continue supporting the recovery, as inflation remains moderate. After surging to an estimated 10 percent in 2021, Rwanda's economy is expected to grow at an average of 7.5 percent in 2022-2023—

the historical growth trend—partly reflecting the lingering adverse effects of COVID-19.

#### **The near-term outlook includes a pick-up in the services sector and firming industrial activity.**

Activity in the services sector will benefit from a gradual recovery in international tourism on the back of widespread vaccination. A recovery in tourism activities will affect Rwanda's services sub-sectors of transport, accommodation, and food services. Industrial activity is expected to firm up, benefiting from government support of the manufacturing and construction sectors. On the demand side, the near-term outlook envisions domestic demand to strengthen as more widespread vaccination supports private consumption and improvements in employment and income conditions. Investment is expected to accelerate as the government delivers on infrastructure development and the MBRP. Elevated commodity prices are expected to support Rwanda's mining activity, and thereby exports.

**Continued recovery is expected to maintain a large current account in the near-term.** Whereas the price outlook for Rwanda's major crop exports, such as coffee and tea, looks positive over the next two years, this would not be sufficient to offset the projected acceleration in imports due to expanding domestic demand and rising international oil prices.<sup>10</sup> Tourism and travel services are expected to recover over 2022-2023 but remain below pre-pandemic levels. With growing economic activity, greater macroeconomic stability would incentivize higher inflows of foreign private capital. The CAD is, however, expected to remain in double digits over the medium term and will be financed by the resumption in FDI and continued government external borrowing, partly through concessional borrowing from multilaterals. International reserves are projected to remain adequate, at above 4.5 months of goods and service imports.

<sup>9</sup> Details on the MBRP are available at <https://osc.rdb.rw/en/> or <https://www.rwandarecovery.gov.rw/mbrp>

<sup>10</sup> World Bank Group. 2021. Commodity Markets Outlook: Urbanization and Commodity Demand, October 2021. World Bank, Washington, DC. License: Creative Commons Attribution CC BY 3.0 IGO.

**Table 1.3: Rwanda—selected indicators**

	2019	2020	2021f	2022f	2023f
Real GDP growth (percent)	9.5	-3.4	10.2	7.2	7.9
Agriculture	5.5	0.9	6.6	5.8	2.3
Industry	16.6	-4.2	16.6	10.8	12.8
Services	8.3	-5.5	9.8	6.0	7.1
Inflation (CPI, percent period average)	2.4	7.7	0.7	5.7	6.8
Current account balance (% of GDP)	-11.9	-12.2	-11.0	-12.1	-11.8
Overall fiscal balance (FY basis % of GDP) <sup>a/</sup>	-5.9	-7.9	-7.5	-8.0	-6.2
PPG debt (% of GDP)	56.8	71.3	74.6	77.2	77.9
External	46.4	55.6	58.6	62.4	63.9
Domestic	10.4	15.7	16.1	14.8	14.0

Sources: Rwandan authorities and IMF staff estimates  
 Note: a/Fiscal year runs from July to June.

**The NBR is likely to continue supporting economic recovery.** The recent downtrend in inflation is expected to be temporary, with inflation increasing in the near-term. Headline inflation is projected to pick up, but remain within its  $5\pm 3$  target band, driven by the increases in global demand, international food and oil prices and domestic activity. Pressures on core inflation are expected to come from domestic costs driven by increasing domestic economic activity, and imported costs as global demand picks up.

**Fiscal policy is expected to remain expansionary over the medium-term, which is likely to push up debt levels.** The budget framework projects spending to grow by 11.4 percent, on average, over three fiscal years, including FY2021/22. This increase will be driven by the cost of vaccine rollout, education and health outlays to mitigate pandemic scars on human capital, and support to the private sector under the ERF-2 and to distressed state owned enterprises. On the revenue side, tax incentives—under the MBRP—are expected to dampen revenue mobilization, contributing to continued high fiscal deficits.

#### *Risks to the outlook are tilted to the downside*

**A resurgence of COVID-19 could hurt the growth outlook.** Despite the surge in growth in 2021, the outlook is subject to risks from renewed outbreaks,

perhaps driven by the emergence of more transmissible or vaccine-resistant variants of the virus.

**Rwanda continues to be among the most vulnerable countries to weather and climate shocks, which are a key risk to the continuation of economic recovery.** The increasing frequency of weather and climate shocks (e.g., drought and floods) could lower agricultural output and thereby impact many farms and households in Rwanda. Decreased production could also lead to higher food prices to the detriment of the poor households.

**Rising fiscal imbalances are increasing risks to growth.** The increasing fiscal deficit could reduce the ability of the government to finance the recovery or to boost spending for long-term development, as rising public debt and debt service reduce fiscal space for development. At this point, the greater risk is that of weak execution, poor targeting, or an earlier-than-anticipated removal of fiscal support, which would result in a slower economic recovery. Effective implementation of the fiscal stimulus and relief measures approved to date is therefore a priority. At the same time, fiscal consolidation will be needed, once the economic recovery takes hold, to rebuild fiscal buffers and ensure sufficient fiscal space to fund critical spending needs.

PART TWO

# BOOSTING REGIONAL TRADE INTEGRATION IN THE POST-COVID ERA

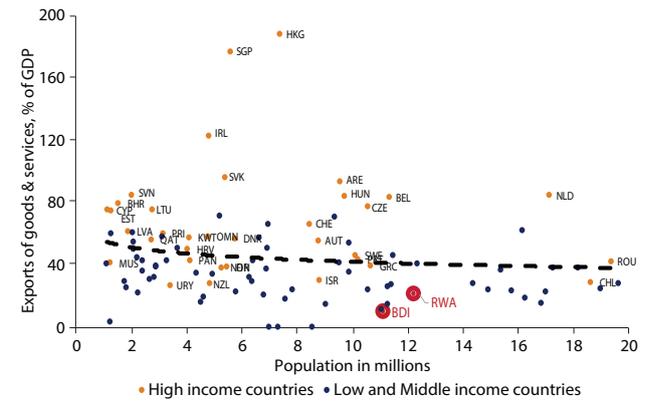


## 2.1. Introduction

Rwanda’s strong recovery and prospects for sustained growth can be consolidated in the post-COVID era through deepening trade and regional integration. Continuing to pursue regional integration offers substantial opportunities for increasing trade. However, the East African Community (EAC) has had limited impact of the EAC on regional trade, largely due to similarity of products exported by partners but also due to high tariffs on intermediaries and the numerous exceptions in the common External Tariff (CET), the prevalence of non-tariff barriers, and constraints on trade owing to security concerns. Rwanda and the region have made impressive progress in reducing trade costs through the introduction of one-stop border posts (OSBP), improved clearance procedures, the use of electronic cargo tracking systems, and investments in infrastructure. Still, the costs involved in both external and internal trade remain high. Key improvements that could reduce trade costs include boosting the efficiency of trucking firms, building standard gauge railway lines along the Central and Northern Corridors, and continued increases in the use of containers. It also is critical to tackle significant supply-side challenges that affect trade, for example in services productivity and reliability, investment in tradables, human capital, and agricultural modernization.

**Sustained growth in trade will be a key driver for achieving the government’s goal of becoming an upper middle-income country by 2035.** While exports have increased significantly over the past two decades, Rwanda remains a less open country than the middle-income countries the government aspires to match. Exports of goods and services are equal to 21.1 percent of GDP, compared to 22.4 percent for low-income small countries (with a population of less than 20 million), and well below the average for middle-income small countries of 34.7 percent (Figure 2.1). Initial priorities will be to foster regional integration. Regional integration not only provides the needed economies of scale for Rwandan firms to improve their productivity

Figure 2.1: Exports as percent of GDP in small countries



Source: World Development Indicators, data for 2018

and competitiveness, but it can also serve as a vital training ground for learning to export and produce higher-quality goods.

**Deepening trade and regional integration will follow a two-track approach consisting in efficiently connecting to regional and international markets and securing market access.** The main channels for connecting to markets is through improved cooperation on trade facilitation along East Africa’s two trade corridors: the North Corridor (Mombasa) and the Central Corridor (Dar es Salaam), which are vital for Rwanda’s trade with the rest of the world (see Annex VI). Trade facilitation will also be further enhanced through multimodal trade and investments in rail and air transport. To consolidate of regional markets, it will be necessary to prioritize the implementation of various trade agreements at the regional and sub-regional level. The most prominent is the EAC, with a combined population of 170 million (about 15 times that of Rwanda), and a combined gross domestic product (GDP) in 2016 of US\$163 billion (about 18 times larger than Rwanda’s GDP).<sup>11</sup> The Democratic Republic of Congo (DRC), with a population of more than 90 million, has recently joined this regional community. Furthermore, Rwanda is member of the Economic Community of Central African States (ECCAS) composed of 12 Central African countries

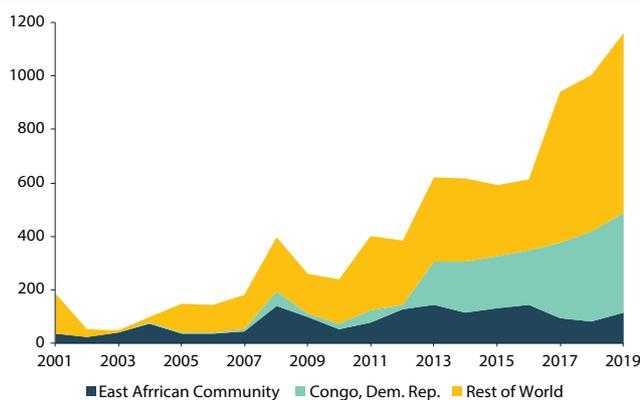
<sup>11</sup> The EAC is an ambitious platform for economic, political, social, technological, and security cooperation for six Great Lakes countries: Burundi, Kenya, Rwanda, South Sudan, Tanzania, and Uganda.

including Rwanda’s most populous neighbor, the DRC.<sup>12</sup> ECCAS has recently finalized a 5-band CET and is expected to be applied in the medium term. Rwanda is also a member of the Common Market for Eastern and Southern Africa (COMESA), which has 40 times Rwanda’s population and 80 times its GDP and has ratified the African Continental Free Trade Area (AfCFTA) with a potential combined population of more than 1.2 billion and GDP of more than US\$2 trillion (UNCTAD 2018; see Annex VII). There is a need to examine the performance of trade and regional integration in order to determine the potential for regional trade and the challenges Rwanda faces in achieving its development ambitions through trade.

## 2.2. Rwanda regional trade performance

**Rwanda regional trade performance has been mixed in recent years.** Rwanda joined the EAC customs union in 2009, and exports of goods to EAC partners more than doubled in the following three years (Figure 2.2), increasing to 23 percent of the country’s total goods exports on the back of the reduction in the average tariff from 16.5 percent to 11 percent. However, since 2012 Rwanda’s exports to the EAC have almost stagnated, while Rwanda’s total exports increased substantially on average 17 percent per year from 2010-19 (WTO, 2021). As a result, the share of exports of goods to EAC

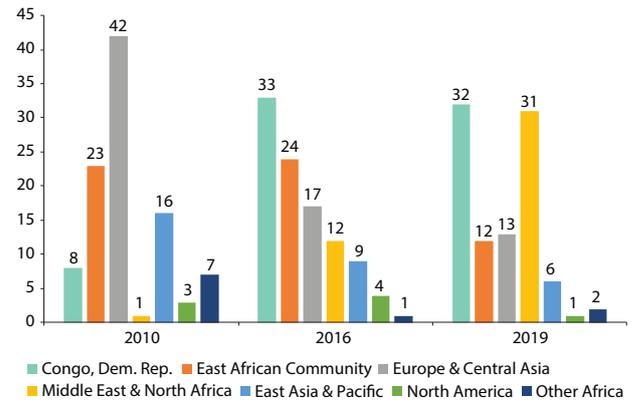
**Figure 2.2: Evolution of Rwanda exports, by destination**  
(millions of US\$, 2001-2019)



Source: Calculation based on WITS data

<sup>12</sup> The member States of ECCAS are: Angola, Burundi, Cameroon, Central African Republic, Chad, Congo, Democratic Republic of the Congo, Equatorial Guinea, Gabon, Rwanda and Sao Tome and Principe, and Rwanda.

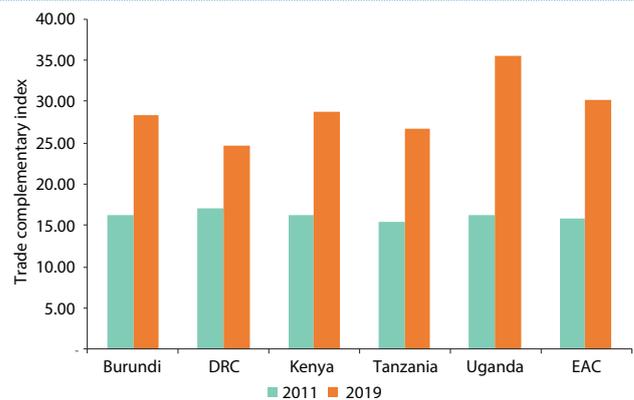
**Figure 2.3: Exports of Rwanda, by destination**  
(percent, 2010, 2016, 2019)



Source: Calculation based on WITS data

members dropped to 12 percent in 2019 (Figure 2.3). This outcome indicates the country has not been able to benefit from regional integration beyond price reduction conferred by tariff reduction. This is explained at least in part by similarities of export products among EAC partners who have comparative advantage to export almost the same set of products (Figure 2.4). Nevertheless, exports to EAC partners constitutes a unique opportunity for Rwanda to learn to export relatively sophisticated products to bigger markets. In 2019, Rwanda exported 41 percent of its total manufacturing products sold abroad to EAC partners, 66 percent of leather goods, and 56 percent of horticulture products (World Bank, 2020).

**Figure 2.4: Trade complementarity index**



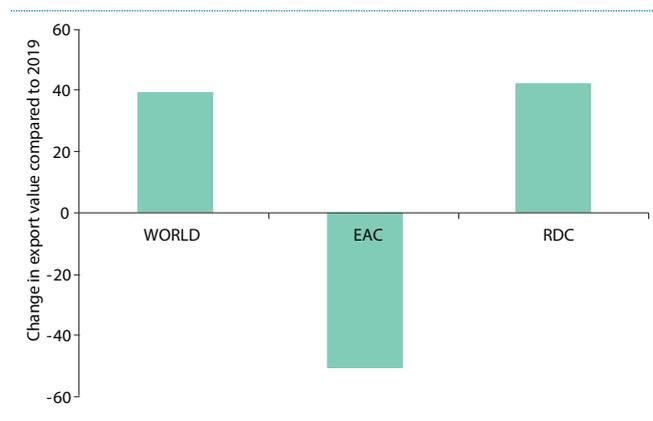
Source: Calculation based on WITS data

**Non-EAC neighboring markets have proved to be more dynamic in recent years.** Although conflict in the DRC limited trade prior to 2007, exports have grown considerably in the last decade. By 2019, Rwanda exported more goods to the DRC than to the EAC.<sup>13</sup> The main exports to the DRC include livestock and crops, but cross-border trade in services, such as finance, transportation, and wholesale trading, are also important (Lalui 2016). However, Rwanda’s trade with other sub-Saharan African countries (beyond EAC and DRC) has been disappointing, declining from 7 percent of Rwanda’s exports in 2010 to just 2 percent in 2019. This underscores the importance of the opportunity that AfCFTA represent for Rwanda.

**Regional trade has been impacted more than exports to global partners during the crisis.** The pandemic severely depressed Rwanda’s trade in 2020. Total exports of goods and services fell by 14.4 percent by value in 2020, despite the 130 percent increase in gold exports following the establishment in Rwanda of Aldango Ltd, an Emirati gold refinery company. International travel restrictions and internal lockdowns sharply reduced tourist arrivals and dampened prospects for the newly established meetings, incentives, conferences/conventions, and events/exhibitions (MICE) tourist offerings. Tourism revenue fell by 73.6 percent and transport exports by 49.8 percent (World Bank, 2021). Rwanda regional trade of goods was less resilient in 2020 compared to its trade with global partners. While Rwanda’s merchandise exports to the world increased by 40 percent in 2020 compared to 2019 (thanks to the unprecedented increase in gold exports), exports with EAC partners actually declined by 41 percent (Figure 2.5).

**Informal trade has also been severely affected by the COVID-19 pandemic (see Annex V).** Data collected by the National Bank of Rwanda at the

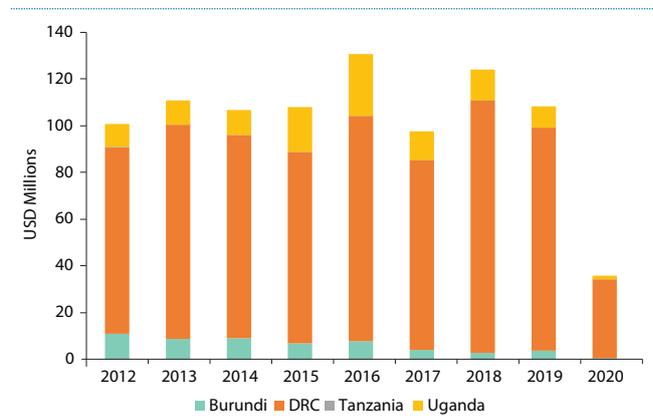
Figure 2.5: Impact of COVID-19 on merchandise exports



Source: Staff calculation based on COMTRADE data

border crossings indicate that informal cross-border trade in 2020 was 67 percent lower than in 2019 (Figure 2.6) Informal trade in 2019 represented 3.1% percent of total trade (exports plus imports). Nevertheless, informal cross-border trade is a significant share of exports with countries that share a border with Rwanda (Burundi, DRC, Tanzania, and Uganda--Table 2.1) in 2019 informal exports share was 9.7% of total exports of goods and provides a main source of revenue for a large number of small traders, many of which are women, and has offered an important way to reduce poverty in border towns. The DRC accounted for 82 percent of total Rwandan informal exports to the four countries from 2012-2020, followed by Uganda (12.2 percent), Burundi (6.1 percent) and Tanzania (0.1 percent). Informal cross-border trade is dominated by agricultural commodities, particularly livestock, beef meat, flour, fresh or dried fish, sugar, and dried beans (Annex 5).

Figure 2.6: Rwanda’s cross-border informal exports to neighbouring countries



Source: Staff calculation based on NBR data

<sup>13</sup> These conclusions are derived from official trade statistics. Preliminary evidence suggests that the importance of the Democratic Republic of Congo as trading partner is even more prominent considering the large size of small-scale cross border trade with Rwanda.

**Table 2.1: Informal cross-border trade as a share of formal bilateral trade, 2019**

Burundi		DRC		Tanzania		Uganda	
Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
10%	247%	26%	15%	1%	0.4%	29%	12%

Source: Staff calculation based on NBR data

### 2.3. Policy reform to deepen regional integration<sup>14</sup>

*Mixed performance in exporting to regional partners has reflected some progress in improving trade policy, although considerable challenges remain.*

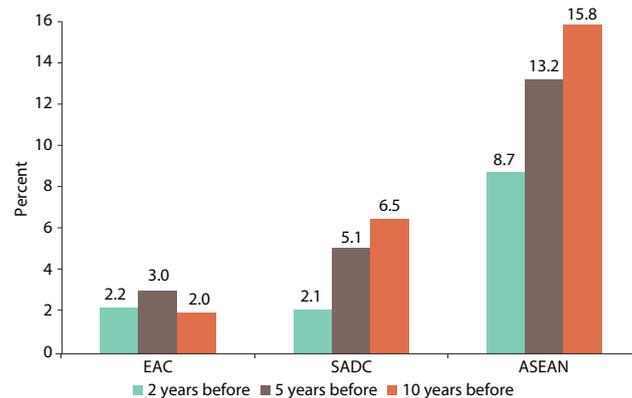
#### 2.3.1 Trade policy: Tariff and non-tariff barriers

##### A. Tariff regime

##### i. Common External Tariff and Regional Integration

**Rwanda has progressively improved its policy framework governing regional integration, but the impact on regional trade and participation in regional value chains has been limited.** Since 2000, the government has adopted a wide range of reforms to stimulate export growth. These reforms include joining the EAC, COMESA, ECCAS, and AfCFTA (see above), making significant improvements to the investment climate, and establishing an integrated set of strategies to address both general and sector-specific challenges. Under COMESA, Rwanda had free trade with Burundi and Kenya. The accession into the EAC’s CET in 2009 reduced average tariff rates from 16.5 to 11 percent, which strongly benefitted intraregional trade, especially with Tanzania and Uganda. However, compared to other free trade agreements (FTAs), the EAC agreement had a limited impact on regional trade integration (Figure 2.7). The EAC’s regional imports over GDP (2 percent) remains almost the same ten years after the agreement, while for Southern African Development Community (SADC) it increased by 4 percentage points of regional GDP, and for Association of Southeast Asian Nations (ASEAN) by 7 percentage points (World Bank, 2020). The participation in regional value chains (RVC) has been very low within EAC, one of the lowest

**Figure 2.7: Intra-bloc goods imports as a share of GDP before and after joining the bloc**



Source: Extracted from World Bank (2020)

among comparable Regional Trading Arrangements (RTAs). Melo and Twum (2021) estimate that only 1.7 percent of the EAC’s total exports are related to regional (EAC) value chains, which is far lower than comparable statistics for MERCOSUR (4.6 percent) and ASEAN (17.2 percent).<sup>15</sup>

**Improving CET design and implementation in both EAC and ECCAS will boost regional and international trade by increasing Rwandan firms’ competitiveness.** The EAC three bands CET schedule (0 rate for raw materials, 10 percent for semi-finished goods, and 25 percent for finished goods) allows for high tariffs on many inputs used by firms. The CET arrangement allows country members to have a sensitive items list on which tariffs can range from 30 to 100 percent. Rwandan firms are particularly penalized by this system, as most of these products are imported inputs (Argent 2014). Rwanda has tried to shield itself from the damaging impact of the sensitive items list, by making extensive use of “stays

<sup>14</sup> This section discusses trade performance and policies in the context of regional integration. Rwanda faces several challenges that constrain trade performance, beyond the trade policies focused on here. A brief discussion of key supply side challenges related to policy is reflected in Annex 8.

<sup>15</sup> The trade report under development will examine measures to promote a competitive market environment, promote productivity growth, and invest in skills development. This will nurture smooth integration into regional and global value chain by (1) increasing the value-added content of current exports, (2) upgrading into high-skill tasks, and (3) creating comparative advantages in knowledge-intensive industries.

of application” (deviations from the EAC-agreed tariffs), notably for key consumption products such as sugar, and rice. Moreover, EAC countries have been increasingly deviating unilaterally from the CET beyond the exemptions list. Rauschendorfer and Twum (2021) estimate that for the fiscal year (2019/2020) 11 percent of imported tariff lines, accounting for about 7 percent of total EAC import value, entered the customs union under more than one tariff rate. While Kenya, Tanzania, and Uganda use unilateral deviations to increase external protection, Rwanda uses it to reduce tariffs and facilitate access to inputs and correct for misclassifications in the EAC-CET (World Bank, 2020). Nevertheless, a renegotiation of the CET within the EAC to revise the exception list and update the reclassification of the band in harmonized ways would go a long way to strengthen regional integration.<sup>16</sup>

**A coherent trade regime will require alignment with the recently finalized a 5-band CET by the ECCAS that is expected to be applied in the medium term.**<sup>17</sup> A proper coordination between the EAC Secretariat and the ECCAS commission in the implementation of ECCAS CET will be critical to enhance regional markets access for Rwanda’s firms. The 5-band tariff schedule of ECCAS is structured

as follows and could be the reference for the above renegotiation of the EAC CET. The first category fully exonerated comprises agricultural inputs, drugs and devices medical, educational materials, primary material not produced in the community, and industrial equipment; the second category at 10 percent comprises intermediate products, semi-finished products, other equipment; the third category at 20 percent comprises consumer goods, and other finished products. Luxury goods and industrial goods requiring increased protection are taxed at 30 percent and sensible products to be finalized will be taxed at a rate above 30 percent.<sup>18</sup>

## ii. The African Continental Free Trade Area (AfCFTA)

**Rwanda has ratified the African Continental Free Trade Area (AfCFTA) with a potential combined population of more than 1.2 billion and GDP of more than US\$2 trillion (UNCTAD 2018; see Annex VII).** The Continental Free Trade Area (CFTA) opens market in regional blocs to which Rwanda does not belong such as Economic Community of West African States (ECOWAS), SADC and the Maghreb regions. It also secures markets for member countries that have not yet ratified the COMESA FTA (e.g. Ethiopia and DRC).

**Rwanda participation to the AfCFTA represents an important opportunity to boost its regional trade and attract greater foreign investment flows, both from within and outside the African continent.** The pact holds the promise of unleashing faster growth, greater diversification and global integration triggered by a surge in international trade, integration in regional and global value chains, and foreign direct investment (FDI). Beyond trade policy, the agreement promises to foster greater integration in investment policy, competition policy, intellectual property rights, and e-commerce – which will further accelerate the growth in trade and investment.

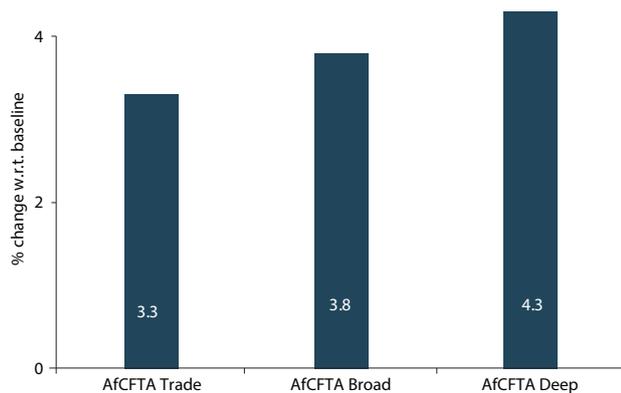


<sup>16</sup> There is an ongoing negotiation of a new CET with a 4<sup>th</sup> band that is expected to be implemented by July 2022.

<sup>17</sup> See “Comité Technique Spécialisé Marche Commun, Affaires Economiques, monétaires et Financières: Sous-Comité des Questions douanières et Commerciales » Expert meeting report for the technical validation of draft texts of the ECCAS customs Union. Meeting held in Brazzaville November 23, December 1, 2021.

<sup>18</sup> The trade policy challenge Rwanda faces with the proposed ECCAS CET is Rwanda belonging to two CET/customs union which is impractical. At the same time, negotiations between RECs (EAC/ECCAS) on a harmonized CET may take considerable time to conclude. Proposed options are to include ECCAS to the Tripartite FTA with SADC and COMESA, or else negotiate an expedited reduction in tariffs under the AfCFTA between the EAC/ECCAS. These options would have benefit of expanded market access faster and more efficiently.

**Figure 2.8: Real income**  
(% change w.r.t. baseline by 2035)

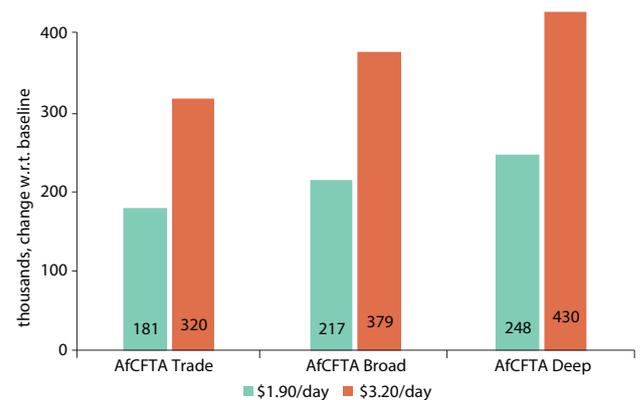


Source: Author's estimates using ENVISAGE-GIDD model

**CGE analysis supports the view that the AfCFTA could reduce poverty in Rwanda and other African countries significantly (Figure 2.8 and Figure 2.9).** World Bank (2020) develops three scenarios (see Annex II). AfCFTA Trade assumes reductions in tariffs and non-tariff barriers, as well as the implementation of trade facilitation measures that reduce transport costs across the continent. AfCFTA Broad incorporates the impact of increased FDI from the AfCFTA agreement, representing shallow but broad integration. Gravity analysis is used to yield estimates of potential impacts of FDI flows in and out of the continent, including among the AfCFTA members themselves. Lastly, AfCFTA Deep simulates the impact of provisions in additional policy areas to be covered by the AfCFTA, notably investment policy, competition policy, and intellectual property rights. In a similar analysis, gravity analysis is done to obtain the additional expected trade cost reductions driven by deeper preferential commitments.

**AfCFTA has the potential to lift 430,000 Rwandans from moderate poverty, by 2035 (Figure 2.9).** Under the AfCFTA Trade scenario, Rwanda's real income increases by 3.3 percent by 2035, with respect to a baseline that does not contemplate the implementation of the AfCFTA. Under AfCFTA Trade assumptions, 180 and 320 thousand people would be lifted from poverty using the PPP\$1.90 and PPP\$3.20 a day poverty lines, respectively. Under AfCFTA Broad and AfCFTA Deep, income gains could

**Figure 2.9: People lifted from poverty**  
(thousands, change by 2035)



Source: Author's estimates using ENVISAGE-GIDD model

potentially reach 3.8 percent and 4.3 percent above baseline. This could lead to up to 430 thousand people lifted from moderate poverty (PPP\$3.20/day), which is equivalent to a decline in the poverty headcount ratio of 2.45 percent.

**A comprehensive policy reform agenda will help unlock the potential gains from the AfCFTA.** First, the country should actively participate in finalizing negotiations of a series of protocols to the AfCFTA Treaty. The areas to cover include trade in services, investment, competition policy, e-commerce and trade-related intellectual property rights incorporating clear, ambitious, and enforceable rules and disciplines. On a second tract the country should adopt the relevant legislative changes by the different AfCFTA parties. Third, the country should build the capacity of relevant government officials and non-state actors to ensure the full implementation of AfCFTA commitments on the ground. Learning from historical experience in Africa and other parts of the world, the AfCFTA treaty should include norms and disciplines aiming to enable, and not hamper, the insertion of African countries into global and regional value chains.<sup>19</sup>

<sup>19</sup> The background work for this Economic Update explores the main elements for such a comprehensive report composed on three components. The first component focuses on the policy reform to enable firms boost their competitiveness and integrate into commodity value chains; the second is to develop competitive services hubs to unlock trade potential for Rwanda and its neighbors; the third is to foster inclusivity and increasing awareness to position Rwanda as the center of excellence to attract investment and to connect Africa to the world and the world to Africa.

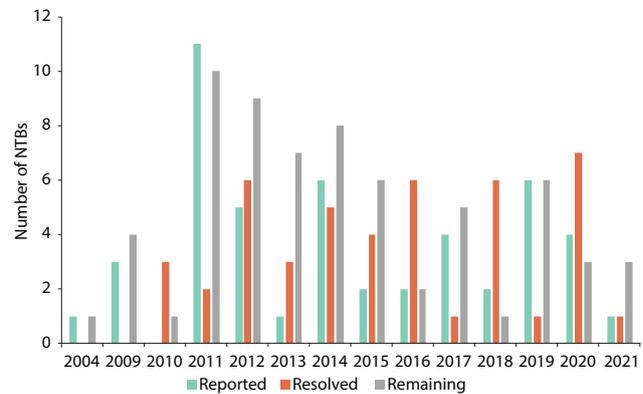
## B. Non-Tariff Barriers (NTBs)

**Rwanda has made substantial progress reducing NTBs in recent years, but there is still a big margin for improvement.** The decline in external tariffs with regional integration agreements has highlighted the importance of non-tariff barriers, which are now a larger barrier to trade in East Africa than tariffs and other direct costs (Balistreri, Tarr and Yonezawa, 2016). NTBs affecting intra-EAC trade include technical regulations, non-harmonized sanitary and phytosanitary requirements, and complex rules of origin requirements. The EAC has adopted more than 1,500 product standards, with plans for 5000 more. Some EAC regional standards go far beyond international standards in setting very demanding requirements that have little or no connection with actual food risks or buyer needs, resulting in additional trade costs. NTBs and poor enforcement of health and safety standards are likely affecting firms' participation to regional value chains, including the space of agriculture / agro-processing which probably has the biggest real potential for regional value chains. For example, Africa Improved Foods that makes fortified baby foods in Rwanda and wanted to use regional maize products, could not because they did not trust the quality. At worst, NTBs can disconnect poor farmers from poor consumers in regional and domestic markets.

**Strengthening the EAC secretariat to enforce minimum regional assessment procedures would strongly benefit Rwanda.** The Rwanda Standards Board (RSB) also should use its policy and regulatory environment to build an export capacity in standards applications. Markets in East Africa remain fragmented because of legacy and new barriers to trade. However, a consolidated platform for reporting NTBs across EAC, COMESA and SADCs shows a significant decline in NTBs concerning Rwanda (Figure 2.10). A similar platform should be fostered in the ECCAS region<sup>20</sup> only 12 NTBs have been reported against Rwanda, while Rwanda has reported 36 against other countries. However, these data on NTBs are likely substantially understated. They are based

on self-reporting by stakeholders, some of whom may be reluctant to file a complaint, may be unable to use the text messaging system that is the basis for reporting, or may lack sufficient understanding of trade rules. In 2012, the International Trade Centre did a survey exclusively on non-tariff measures (NTMs) affecting companies in Rwanda. Out of 138 exporting companies surveyed, 98 faced NTMs; and among 319 importing companies surveyed, 264 faced NTMs (ITC, 2012). These numbers greatly exceed the number of complaints filed. While all non-tariff measures are not necessarily NTBs, the data indicate that the self-reported complaints are the tip of the iceberg. Also, the survey reported that many Rwandan firms faced non-tariff measures from EU, Japan, South Africa, Switzerland, and United States, while the data in Figure 2.10 include only members of the three regional communities.

**Figure 2.10: Status of NTBs complains on regional trade**



Source: NTB inventory from MINICOM

### 2.3.2 Security concerns and temporary border closures challenge

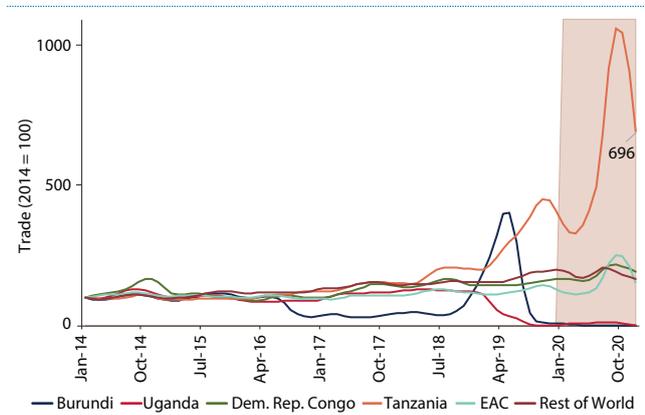
*The progress noted above in trade agreements with regional partners has been accompanied, in some cases, with trade interruptions due to concerns over security.*

**Security concerns led to disruption of trade with Burundi and Uganda.** Owing to a political stalemate between the countries, Rwanda closed its borders to Uganda on March 6, 2019. The effects of the closure have impacted access to services trade; for example, local taxi conductors have been unable to ferry passengers across the border.

<sup>20</sup> Website: <https://www.tradebarriers.org/>

Cargo porters, currency traders and day laborers remain unemployed. Access to food is also curtailed. Border posts typically host huge market days, and these events have been effectively curtailed. Trucks taking goods to Rwanda, Burundi and the DRC have been delayed or diverted to the longer Mirama Hills crossing. Political disagreements also resulted in the imposition of temporary trade restrictions between Rwanda and Burundi in 2016, although trade boomed again in 2019. However, the decline in trade flows with Burundi represented less than one-tenth of the decline in trade flows with Uganda. The composition of the trade is also different. From Uganda, Rwanda received mostly imports while Burundi served primarily as a destination for exports. There is evidence that Rwanda has partially redirected these trade flows through Tanzania and DRC (Figure 2.11).

Figure 2.11: Rwanda's exports to neighbouring countries



Source: Staff construction using WITS database

### 2.3.3 Trade facilitation and infrastructure challenges

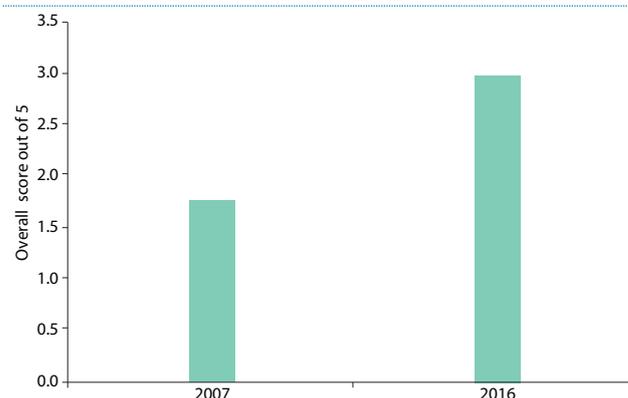
*Regional integration through trade policy agreements has been supported by improvements in trade facilitation that have strengthened trade ties with neighbors.*

**This section will focus on how efforts to strengthen trade facilitation and logistics have reduced Rwanda's costs of trade across the two trade corridors (see Annex VI) and consider selected areas for improvements that could further reduce trade costs and improve regional integration.**

### A. Policy improvements and trade cost reductions

**Rwanda has made significant progress over the past two decades in improving trade facilitation and logistics.** Rwanda's score on the World Bank's Logistics Performance Index (LPI) improved from 1.77 out of 5 (ranked 148<sup>th</sup> globally) in 2007 to 2.99 (ranked 62<sup>nd</sup>) in 2016 (Figure 2.12). Cost to export in term of border crossing time and documents is one of the lowest in region, particularly in comparison to Tanzania and the DRC (Figure 2.12).<sup>21</sup> Rwanda has benefitted immensely from regional cooperation to reduce delays at the border, including the introduction of OSBPs and procedures implemented beginning in 2012-13 to start clearance before goods arrived and to move final clearance of goods away from the border to points of final destination.<sup>22</sup> Electronic cargo tracking systems (eCTS) that were interoperable across borders have been used to keep track of goods and trucks in transit across international boundaries.

Figure 2.12: Rwanda: LPI Score, 2007 and 2016

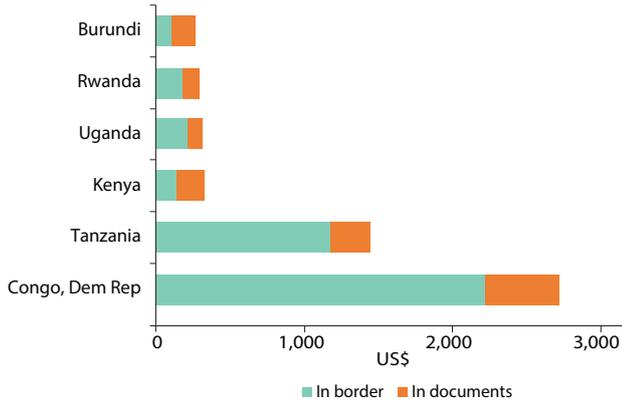


Source: Staff estimates based on LPI reports

<sup>21</sup> Cost to export/import, border compliance (US\$): Border compliance captures the time and cost associated with compliance with the economy's customs regulations and with regulations relating to other inspections that are mandatory in order for the shipment to cross the economy's border, as well as the time and cost for handling that takes place at its port or border. The time and cost for this segment include time and cost for customs clearance and inspection procedures conducted by other government agencies.

<sup>22</sup> Important elements of that approach were the introduction of advance lodgment of goods declarations and coordination between agencies within and between countries, the mandatory use of pre-arrival lodgment of declarations, and adoption of traffic management systems and parking rules to decongest the customs control zones at border crossing points.

Figure 2.13: Cost to export US\$

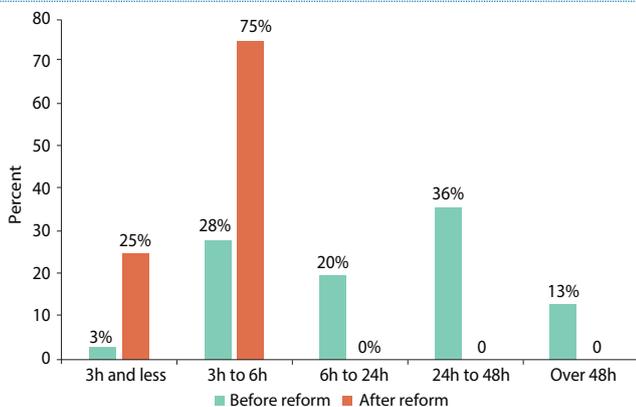


Source: World Development Indicators

As a result of the above measures, there has been a drastic reduction in clearance times of goods in East Africa and at the same time an improvement in reliability and predictability of supply chains (Figure 2.15). For instance, at the Malaba border post between Kenya and Uganda, one of the main transit points for Rwanda traffic, clearance times fell from 24 hours to 6 hours within a period of one month between December 2012 to January 2013. The improved reliability of border clearance times was sustained at least through 2016, when the vast majority of trucks at the Gatuna border post between Rwanda and Uganda were cleared in less than 6 hours (Figure 2.16).

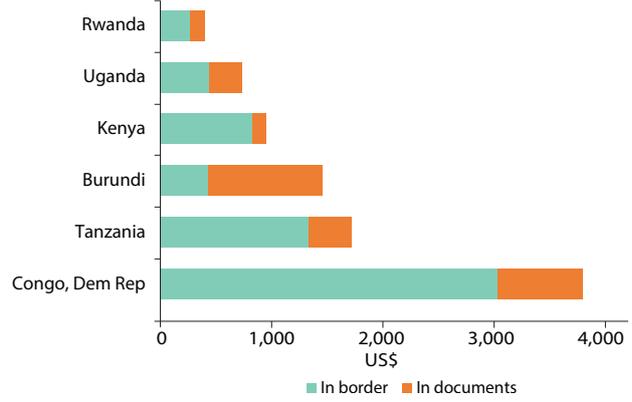
These improvements resulted in a fall in transport costs in East Africa, at least prior to the onset of COVID-19. The cost of transporting a container from Dar es Salaam port to Kigali fell from \$2.81

Figure 2.15: Distribution of border clearance time at Malaba, 2012/13



Source: Kunaka, Raballand and Fitzmaurice, 2018

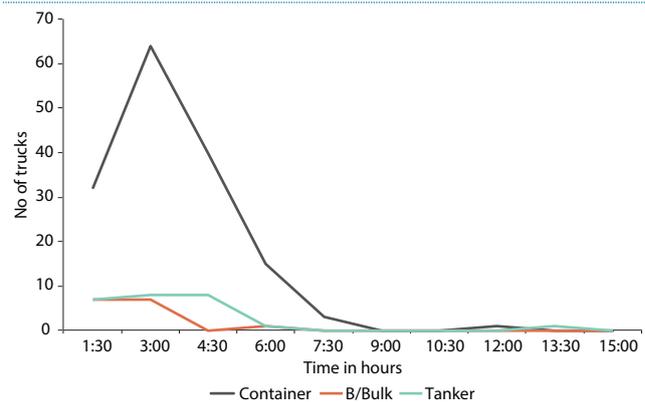
Figure 2.14: Cost to import US\$



Source: World Development Indicators

per container per kilometer in 2013 to \$1.87 per container per kilometer in 2020 (Figure 2.16). Kunaka et al. estimate that the decline in costs for Rwanda translates to annual transport savings of over US\$35 million, or 3–4 per cent of total import costs. The latest estimates (released in July 2021) of total trade costs from the Trade Costs Database (World Bank and UNESCAP, 2021) suggest that the cost of trading with neighbors in the EAC fell significantly in the first decade of the new millennium but have been fluctuating between 100 and 150 percent ad valorem since then (Figure 2.17).<sup>23</sup> Cost reductions in trade with overseas partners came later. The impact of recent reforms was greater for overseas trade than for trade with immediate neighbors (Figure 2.18),

Figure 2.16: Distribution of border clearance time at Gatuna border post, 2016



Source: Staff estimates based on truck GPS data

<sup>23</sup> The costs measured include international transport costs, tariffs and other trade costs such as direct and indirect costs associated with differences in languages, currencies as well as frictions due to complexity of import or export procedures. The database was initiated by UNESCAP and subsequently developed by UNESCAP together with the World Bank.

Figure 2.17: Evolution of transport prices, Dar es Salaam to Kigali



Source: Staff estimates based on Trade Costs Database

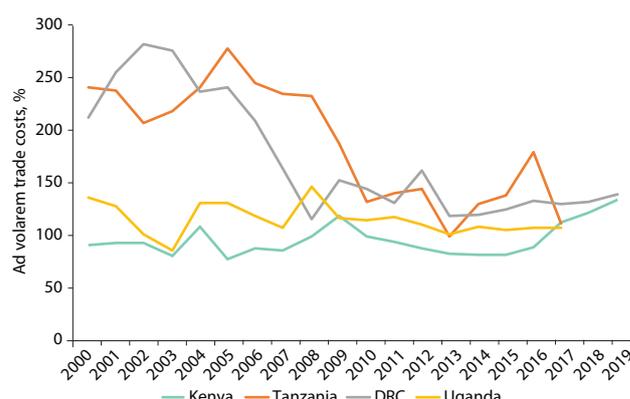
given the focus on the processing and clearance of goods coming through the seaports of Dar es Salaam and Mombasa as well as expedited clearance through the borders of transit traffic.

**B. Improvements needed to further reduce costs and expand services**

**Despite these reductions, costs remain high in some respects.** In particular, the cost of transporting a container between Dar es Salaam and the DRC hardly declined over the past decade, reflecting the impact of policy and infrastructure impediments on the corridors to DRC. Moreover, the year-to-year volatility of trade costs remains high, which impairs the predictability and confidence required for the development of regional value chains. Firms mitigate risks of unreliable supply chains by maintaining high levels of inventory, which then increases their costs and reduces their competitiveness in domestic, regional, and international markets.

**Internal trade costs remain a big challenge for Rwanda trade because of rugged terrain geography, infrastructure gaps, and corresponding logistical challenges (poor roads, the absence of rail transportation, etc.).** Argent (2014) shows that, accounting for Rwanda’s inland transport costs of US\$3,000 per container, a kilo of rice imported faces an ad valorem equivalent (AVE) rate of natural protection of 53 percent, whereas cement faces an AVE rate of natural protection from outside of the

Figure 2.18: Rwanda trade costs with neighbours



Source: Trade Costs Database

EAC of 136 percent. Similarly, a more recent study showed that because of their higher weight-to-value ratio, natural protection is significantly higher on raw and intermediate inputs (AVE estimated at 37 percent on average) than on consumption goods (22 percent) or capital goods (2 percent) (Argent 2014), contributing significantly to firms’ costs. Internal trade costs are equally challenging for the commercialization of local products. Internal trade costs for locally produced goods are approximately ten times higher than in the U.S., three times higher than in Ethiopia (another landlocked country), and twice as high as comparable costs in Nigeria. More specifically, an intermediary who trades goods 10 miles away from the farm gate, pays an additional trade cost of 25 cents in Rwanda, compared to 9 cents in Ethiopia, 13 cents in Nigeria, and only 2.5 cents in the United States. Intermediaries have

Figure 2.19: Rwanda: trade costs with China and India



Source: Trade Costs Database

also been found to be charging higher markups in locations where there is less competition (measured by the number of traders in a market). But the level of competition is highly correlated to access to feeder roads, meaning that better connectivity would not only reduce the transportation cost but also the markup charged by intermediaries. A strengthening of selected services could significantly improve Rwanda's trade prospects. This section considers the issues surrounding improving trucking services, investing in standard gauge railways, and increasing containerization.

#### i. Trucking services

**Rwanda's trucking services face difficulties in competing with other firms operating on the regional corridors, which limits the potential to provide diversified services.** The country relies to a great extent on trucking services providers in neighboring countries. Kunaka et al. find that at Gatuna border post (Rwanda–Uganda border), Rwanda registered trucks account for only 20 per cent of the flows; though the proportion is higher on the Central Corridor where the Rwanda registered fleet accounts for more than 40% of lifting capacity. World Bank and Government of Rwanda (2020) estimate that the value of transport services from Kenya to Rwanda to be approximately US\$50 million per annum. This compares with the total value of trade between the two countries in 2019 of US\$290 million.



**Rwanda's reliance on trucking services of neighboring countries in part reflects lower efficiency of trucking firms.** Almost four fifths of trucking enterprises in Rwanda operate only one truck and most of the rest less than ten trucks. In addition, many of the trucks are purchased as used vehicles, meaning that they have higher operating costs and lower economic lives. The average truck that is registered in Rwanda is 12.6 years old. The situation is very different in Kenya, where cross border operations are dominated by firms that own fleets of hundreds of trucks. The average age of trucks registered in Kenya is 7.5 years, or 40 percent lower than the average for Rwanda. However, recent investments in newer vehicles by Rwanda operators, through collective investments companies, is narrowing the gap.

**The dominance of foreign trucking services also reflects the imbalance of trade and is similar to other landlocked countries in Africa.** The higher volume of imports compared to exports places fleets registered in neighboring countries at an advantage as they are able to carry goods on the outward journey and are able to charge for potentially an empty return. As such, some of the solutions to the problem will require a regional approach, one that allows more freedom for operators registered in all EAC countries. That said, the market shares also point to the potential for Rwanda to leverage its location to carry more of the cargo that is moving in and out of Eastern DRC. The much larger volume of export traffic from DRC would provide a larger demand for outbound traffic passing through Rwanda, and therefore attain similar relative strength as the fleets of the coastal countries.

#### ii. Railways

**The World Bank and Government of Rwanda (2020) argue that one way for Rwanda to reduce trade costs is to make use of railway transport along the two main corridors.** The proposal is consistent with a broader interest in railway transport in the East Africa region. Of direct relevance to Rwanda, the Government of Tanzania is implementing a

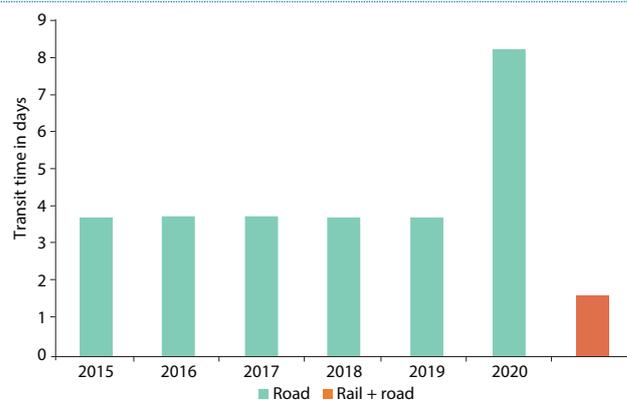
major railway development program through the rehabilitation of the existing meter gauge system and construction of a new standard gauge line that runs from Dar es Salaam to Mwanza via Isaka, for a total of 1,219km. The old and the new lines run almost in parallel to each other.

**The economic case for the investments in standard gauge systems is in question, but given that investments are being made anyway, the railway line along the Central Corridor in Tanzania holds the most promise for Rwanda.** This is due to the faster speed and therefore shorter transport time that has been promised once the line is operational. The line offers the possibility for Rwanda traffic to be transferred between road and rail transport at the dry port of Isaka. Isaka is one of the first generation of dry ports that was developed in Africa to facilitate the transfer of cargo between road and rail transport, and mainly to exploit the economies of scale available through use of rail transport for long distances. In most instances the dry ports were part and parcel of the railway network, so their fates were tied to the performance of the railway systems. That was the case of Isaka, which fell into disuse when the Tanzania meter gauge railway system deteriorated and handled very little traffic. The expectation is that as the railways are revived, then the dry port could again become an important facility for traffic to be moved by rail and road between the Port of Dar es Salaam and centers in landlocked Rwanda, Burundi, DRC, and Uganda.

**The Government of Rwanda has expressed interest in building a railway system that connects to the Tanzanian network at Isaka.** The railway would improve the country’s access to the Indian Ocean and the international markets. It would have different performance parameters than the current road-based system. For Rwanda, the Standard Gauge Railway (SGR) system in particular could have important operational impacts. The effects are tied to the design parameters of the system, which is expected to have axle loads of 35 tons and a design speed of 120km/h for freight trains. At such a speed,

the combined rail and road transport option through Isaka would more than halve the transit time between Kigali and Dar compared to the all-road option<sup>24</sup> (Figure 2.19). This is despite the fact that the railway and road distance of 1,547km would be higher than that of the all-road distance of 1,495km. It should however be noted that the construction of a railway will take time and could represent an important fiscal risk for the country. Standard gauge is generally very expensive to be financially viable for the level of freight volumes experienced in most African countries. The examples of Ethiopia and Kenya, despite much larger freight volumes, show that financing such investments purely on traffic is challenging (World Bank, 2019).

**Figure 2.20: Rwanda: transit time between Dar es Salaam and Kigali**



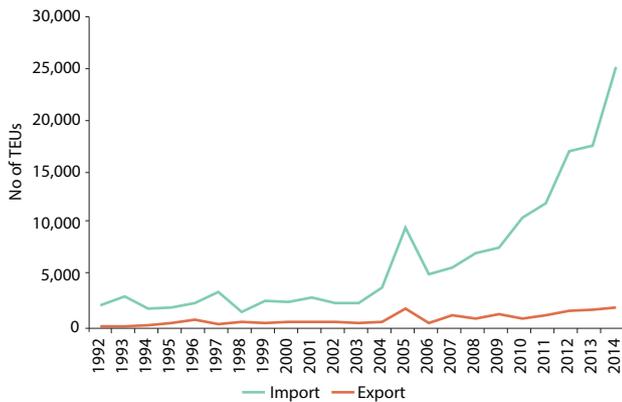
Source: Staff estimates based on data from CCFTA

### iii. Containerization

**The growing containerization of cargo in Rwanda rather than at the ports will enhance logistics performance.** Rwanda started containerizing at a fast pace around 2005/6 (Figure 2.21) when most of the cargo handled at Dar es Salaam port, for instance, was packed in containers. The benefits of containerization inland can be substantial as it opens new possibilities to enhance logistics efficiency. Containers support the development of inland logistics facilities for their handling, including logistics facilities such as Kigali Logistics Platform and MAGERWA. Globally, containerization has over

<sup>24</sup> The more than doubling of transit time in from 2019 to 2020 is due to the effect of measures taken at the border to control the spread of the COVID-19 pandemic. Testing regimes, a change of drivers at the border resulted in longer transit times.

**Figure 2.21: Rwanda: volume of containers handled at Dar es Salaam**



Source: Staff estimates based on data from CCFTA

the past five decades fundamentally transformed logistics, as containers:

- are standardized and can therefore be deployed anywhere in the world (most vehicles, vessels and railways wagons are designed to accommodate containers);
- are versatile in that they can be adapted to carry dry cargo, bulk commodities (e.g., coal, grain), cars, and frozen products;
- can also be reused, though ownership largely remains with the shipping lines or specialized leasing firms;
- can be used to simplify transport management in that charges are often in number of units moved rather than the number of loads or consignments;
- can be used to secure cargo in transit movement so that clearances can be done inland rather than at seaports; and
- have lower costs compared to bulk handling of cargo.

#### 2.3.4 Rwanda: the logistics hub to unlock regional trade

*Trade agreements with neighbors coupled with improvements in trade facilitation offer the potential for Rwanda to expand the benefits from trade by operating as a trade hub.*

**Given its landlocked location and relatively small volumes of traffic, one of the concepts that offers prospects to reduce trade costs for Rwanda**

**is to develop as a logistics hub, serving as an intermediating node between the East and Central Africa regions.** Essentially, the goal would be to provide logistics services in the transit of goods from other landlocked countries to the region and the seaports for shipping overseas. In addition to increasing revenues, this can generate efficiency gains through the concentration of logistics services. Logistics clustering increasingly is a proven, effective tool for modern supply chain organization and management.

**The benefits of clustering and agglomeration can be striking.** In the United States, four states (California, Texas, Ohio, and Illinois) in 2002 generated more than one quarter of all freight flows and one third of shipments by value in the whole country, while China has built close to 800 logistics clusters. While clustering of logistics services is relevant in nearly all economies, it is particularly appealing in countries and regions with thin trade volumes like Rwanda, where a concentration of activities can bring about productivity, efficiency, or innovation gains. Logistics clusters can play an important role in economic development (see Annex IV).

##### A. The potential for a Rwanda logistic hub

**In terms of infrastructure, the development of a logistics hub requires 5 categories of infrastructures on which the government of Rwanda has already made important progress (see Table 2.2).** These include: i) a major distribution center for imported consumer goods, machinery and parts, and other goods requiring short delivery times to importers in neighboring countries, most prominently the DRC; ii) a group of one or more centers for consolidating agricultural products for export by land and air; iii) one or more distribution centers that supply imported and domestic products to retail outlets throughout the country; iv) a location near the country's large industrial zones where the service providers for these industries cluster; and v) an air transport hub for both passengers and freight linking countries in West Africa with Asia and Europe.

**Table 2.2: Elements of logistic hub infrastructure in Rwanda**

Categories of infrastructure needed	Categories of infrastructure needed
1. Distribution center for imported consumer goods and distribution centers that supply imported and domestic products to retail outlets	<p>DP World (Kigali Logistics Platform - Phase-1) has facilities such as the in-land container depot (ICD), container yard to handle 50,000 TEU annually, fully equipped with modern cargo handling equipment, Container weighing, Bonded &amp; Non-Bonded warehousing with facility of 30,000 m<sup>2</sup> of warehouse space; Racking planned to handle Less than Load Container (LCL), palletized and bagged cargo, Latest warehouse inventory management systems, Parking Services where 200 trucks can be parked in the parking area; Transport logistics and Distribution center, cold room, among other services.</p> <p>Magerwa owns six warehouses with distribution facilities located at Gikondo, 4 warehouses at Kigali International Airport, including one for export goods. MAGERWA also has a cold room and refrigerated containers to cater for goods that require cold storage. They also own One warehouse at Rwabuye, (Southern province), 2 warehouses at Kamembe International Airport &amp; Mutara, (Western province) and 2 warehouses at Poid lourds and la Corniche. (Northern province).</p> <p>Bollore has bonded warehousing and distribution facilities operational centers in Kigali Prime Economic Zone, as well as Kigali International Airport.</p>
2. For consolidating agricultural products	<p>National Agriculture and Export Board in Rwanda has two coffee warehouse which includes the sorting and packing services. The two coffee warehouses are 6300sqm in area.</p> <p>Also, a horticulture packing house and three cold rooms, a sorting and packing facility for fresh fruits and vegetables. Packing house area is 950sqm.</p>
3. Location near the country's large industrial zones where the service providers for these industries cluster	<p>Bollore logistics has operational centers in Kigali Prime Economic Zone. Building of bonded warehouses in Rubavu and Rusizi is being planned both of which districts have industrial parks.</p>
4. Air transport hub for both passengers and freight linking countries in West Africa with Asia and Europe	<p>Rwanda has two international airports (Kigali and Kamembe) and a new one is under development at Bugesera with modern cargo facilities.</p>

Source: MINICOM

**The air transport sector of Rwanda is often cited as an example of the potential to expand regional and global connectivity.** Rwanda has two international airports and a new one is under development. The operational airports are Kigali and Kamembe while a new airport is being developed at Bugesera in partnership with Qatar Airways.<sup>25</sup> The new airport in particular is being developed with modern cargo facilities. These facilities will include a cargo village with a packaging area, cold chain facilities, and ground-handling facilities. It will be connected to a special economic zone that is expected to generate air freight demand.

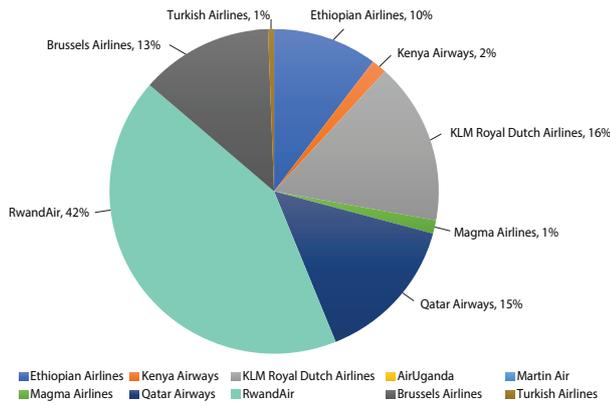
**The development of infrastructure has been accompanied with a regional push towards Single African Air Transport Market (SAATM) open skies and improvements in air connectivity to reduce the costs of air cargo.** The national airline, RwandAir, has

emerged as a regional carrier of growing importance. The total air cargo traffic carried by RwandAir in 2019 was around 5000 tons, more than 20 times higher than in 2010. Rwandair's market share of air cargo in Rwanda rose during the same period from around 5 percent in 2010 to 42 percent in 2019 (Figure 2.21). The government has leveraged the expanding network of the airline to grow horticulture exports in particular (Table 2.3). The fresh produce exports by air are dominated by vegetables.

**A challenge that remains is the financial viability of RwandAir as the market for cargo remains small (Bofinger, 2018).** In previous years, air cargo was heavily subsidized, and in 2018 it was not deemed to be competitive without such subsidies. A substantial share of government resources is allocated to RwandAir, and the situation is not likely to change in short term given the adverse effect of the COVID-19 pandemic on the tourism. However, strategic partnerships with other airlines and land

<sup>25</sup> Qatar Airways that took a 60 percent stake in the new International Airport in 2019.

**Figure 2.22: Total air cargo traffic (Tons) in Rwanda in 2019 according to airlines**



Source: Staff estimates based on Rwanda Airport Company (RAC) data

connections with DRC can contribute to expanding the size of the market and create opportunities for exports of new products. Rwanda has recently signed air service agreement with several West African governments (including Ghana and Nigeria), and engaged in a joint venture with Benin.

**The Single African Air Transport Market (SAATM) open skies discussions represent a huge opportunity for Rwanda.** Discussing open skies for the EAC started through a Northern Corridors Initiative, first introduced by the heads of state in October 2013. By December 2014, negotiations were finalized for bilateral air service agreements along two routes: Entebbe to Juba and Entebbe to Nairobi. RwandAir has proactively targeted new routes for which bilateral air service agreements have been granted. The total direct benefit to the airline industry on the two routes is estimated at US\$40 million. Other flights within Northern Corridor airspace have also grown steadily, in anticipation of new EAC open skies agreements. Between 2013 and 2016, the annual number of passengers on RwandAir routes in this airspace grew by 65 percent, while ticket prices on those routes fell 14 percent. Further improvement beyond the EAC should be furthered in the ECCAS regional integration program.

**Understanding Rwanda’s potential to serve as a regional logistics hub requires a concrete understanding of the size of the markets that could be served.** The basis of the logistics hub would be

**Table 2.3: Rwanda: Volume of ten largest fresh produce exports, 2019**

Commodity	2019
Flowers	732,485
Pyrethrum	31,746
Pepper	712,352
French beans	2,986,032
Cassava	2,735,156
Macadamia	377,653
Avocado	471,677
Passion fruits	195,647
Pineapple	18,375

Source: Staff estimates based on data from NAEB

to provide services to goods in land transit through Rwanda to and from Eastern DRC, both intra-regional exports and seaborne trade to and from ports on the coast. A sizeable portion of Rwanda’s approximately half a million tons in exports to Eastern DRC are re-exports, which indicates that the country is already performing some functions of a regional logistics hub.

**The potential market is large.** In 2018, the latest year for which consistent trade data is available across the region, the size of the market for potential capture by Rwandan transport and logistics operators, which includes all goods either transiting or originating in Rwanda, totaled 4.216 million tons, including: (i) 1.788 million tons in trade between Rwanda and regional partners; (ii) 1.846 million tons of seaborne trade either from or transiting through Rwanda; and (iii) 0.582 million tons transiting Rwanda between regional partners (Table 2.4 provides a country breakdown of the market).

**The most important target market around which to build a regional logistics hub in Rwanda is Eastern DRC.** The market involved is about 1.17 million tons. The benefits would be particularly significant if the capacity and capability of such a hub can be integrated over time with multi-modal hubs at Kisangani and Kindu in the deep interior of DRC (see Maps in Annex II). Transit traffic is likely to be dominated by fleets from the country of origin. However, as the Eastern DRC market becomes more

**Table 2.4: Trade volumes to / from / via Rwanda in East Africa, 2018 by regional state**

Intra-regional trade		Seaborne trade	
<b>Rwanda to / from EAC &amp; E-DRC</b>	<b>000's Tons</b>	<b>Northern — to / from / via Rwanda</b>	<b>000's tones</b>
Uganda	710		
East DRC	493	Rwanda	231
Tanzania	357	East DRC (via Rwanda)	236
Kenya	198	Burundi (via Rwanda)	22
Burundi	30	<b>Sub-Total</b>	<b>489</b>
S-Sudan	0		
<b>Sub-Total</b>	<b>1 788</b>	<b>Central — to / from / via Rwanda</b>	<b>000's tons</b>
<b>Kenya to / from Burundi &amp; E-DRC</b>	<b>000's tones</b>	Rwanda	912
Burundi	81	East DRC (via Rwanda)	445
East DRC	78	<b>Sub-Total</b>	<b>1 357</b>
<b>Sub-Total</b>	<b>159</b>		
<b>Uganda to / from Burundi &amp; E-DRC</b>	<b>000's tons</b>	<b>World to / from / via Rwanda</b>	<b>000's tones</b>
Burundi	55	Rwanda	1 143
East DRC	187	East DRC (via Rwanda)	681
<b>Sub-Total</b>	<b>242</b>	Burundi (via Rwanda)	22
<b>Tanzania to / from E-DRC</b>	<b>000's tons</b>	<b>Total</b>	<b>1 846</b>
East DRC	181		
<b>Sub-Total</b>	<b>181</b>	<b>All trade to / from / via Rwanda</b>	<b>000'S tones</b>
<b>To / from / via Rwanda</b>	<b>000's tons</b>	East DRC	1 619
East DRC	938	Rwanda	1 143
Uganda	710	Uganda	710
Tanzania	358	Tanzania	358
Kenya	198	Kenya	198
Burundi	166	Burundi	188
S-Sudan	0	S-Sudan	0
<b>Total</b>	<b>2 370</b>	<b>Grand Total</b>	<b>4 216</b>

Source: ITC Trademap and NCTTFA/CCTTFA (2020)

accessible through infrastructure improvements and trade facilitation reform, a segment of the transit market may be attracted to a regional logistics hub in Rwanda because the distances from Uganda, Tanzania and Kenya to Eastern DRC, and the associated cost of these trips, may prove increasingly burdensome.

**However, the closure of the main borders between Uganda and Rwanda for the past two and a half years (see above) has diverted some traffic from Eastern DRC to the Bunagana border between Uganda and DRC, therefore bypassing Rwanda,**

which could impair Rwanda's ability to establish itself as a regional logistics hub.

**This analysis, although based on secondary data, clearly highlights that Rwanda is currently acting as a significant land-bridge to Eastern DRC.** Even though a large proportion of the so-called regional trade with Eastern DRC is in the form of re-exports, the size of these movements, estimated as 500,000 tons per annum, is significant by regional standards. Data available from a recently completed study for Afrieximbank on the SADC region provides a useful benchmark in this respect. Regional exports

from any of the landlocked countries (i.e. Botswana, Malawi, Zambia, Zimbabwe, and DRC Copperbelt—as a landlocked region within DRC), to any other SADC state only surpasses 0.5 million tons in three cases. These are exports from Zimbabwe to South Africa (0.67 million tons), Zambian exports to the DRC (1.38 million tons), DRC exports to Zambia (0.7 million tons) and Botswana exports to South Africa (0.63 million tons). If South Africa, as a coastal state with a relatively large and diversified economy, is removed from this analysis, it is only the exports to/from the DRC Copperbelt and Zambia that rival the 0.5 million tons of regional exports from Rwanda to Eastern DRC. Furthermore, is it noteworthy that the nature of the exports to/from the DRC and Zambia (and vice versa) is largely driven by the demands of a minerals-based economy, particularly with respect to Zambian exports to the DRC Copperbelt. Exports from the DRC Copperbelt to Zambia are primarily in the form of copper concentrate that is smelted in Zambia and re-exported from there, because of inadequate power supply to process copper concentrate in the DRC Copperbelt. Hence, it can be reasonably concluded that the size of the current trade, estimated as 0.5 million tons, is significant by any objective measure in the eastern and southern African context.

## B. What form of logistic hub for Rwanda?

**Once the objective of a hub has been defined, there is also needed to determine the form and function of the hub.** Logistics clusters can exhibit different types of connectivity effects related to efficiency gains or network effects. This includes specialized firms clustering around each other, firms locating near transport junctions for improved efficiency of operations and clusters expanding the horizon of port services for increased efficiency, etc. Table 2.5 below looks at a combination of cluster typologies corresponding to various connectivity effects.

**Rwanda already has a policy framework that is suited to developing the logistics sector.** Hoekman (2018) concludes that the National Logistics and Distribution Services Strategy for Rwanda provides a framework for an efficient logistics system, aligns logistics and distribution, and can enable Rwanda to export logistics services. Already the strategy has been the basis for investments in logistics facilities, especially for the horticultural sector. However, these efforts need to be extended so that Rwanda can play the land-bridge function for the DRC, and to maximize synergies with the growing air transport sector. Complementary measures by neighboring economies are also critical, especially concerning vehicle specifications, axle load limits and cross border taxes, in particular into the DRC.

**Table 2.5: Forms of logistic hub**

Type of cluster	Network position			
	Connectivity for time sensitive logistics	Locating near major transport junctions (trucking and rail hub) to serve internal/external markets	Integration into the common network of regional logistics centers	Economic efficiency due to specialized labor
Logistics center/ Freight Village		Keppel Distripark (Singapore) Denmark Transport Centre (Denmark) Euroterminal in Slawkow (Poland)	Vilnius (Lithuania)	
Network Junction		ProLogis Japan Memphis, Tennessee		
Port Terminal	Memphis, Tennessee			Dalian, China
Inland Port/Dry Port		Plaza Logistics Park, Zaragoza (Spain)	Klaip da and Šiauliai (Lithuania)	
Combi Terminal			Klaip da and Šiauliai (Lithuania)	

Source: Staff estimates

**Success as a logistics hub will require the ability to supply a range of transport services.** Kunaka et al. (2018) established that due to improvements in the performance of the regional corridors, and especially the Northern and Central corridors, as well as other reforms such as the introduction of a single customs territory, some transport services firms in East Africa have developed their range of services to include clearing and forwarding, and storage, in addition to transportation. The evolution into value adding services has been observed in other countries. For Rwanda, the emergence of third- and fourth-party logistics services is an important pointer to how improvements in logistics services can support export competitiveness and diversification.

**The “White paper” of National Logistics and Distribution Services Strategy for Rwanda prepared with the support of the World Bank laid out a strategy for Rwanda as regional logistic hub.**

This envisaged roll-out of a regional logistics hub is likely to occur in two phases, namely: (i) 1<sup>st</sup> phase is to act as a land-bridge for re-exports to Goma, the primary entrepot to the Eastern DRC, which is what is happening at the moment, but could be structured more efficiently; and (ii) 2<sup>nd</sup> phase is to establish a regional logistics hub in Rwanda linked to a primary multi-modal hub at Kisangani and a secondary multi-modal hub at Kindu (see Maps in Appendix 3).

Rwanda should decide on the kinds of clusters to build to achieve the country’s promise as a logistics hub. The main types of clusters that could be considered are the following:

- *Logistics center/freight village:* A center/village could be planned and built to manage all the activities involved in freight movement. Activities for such a cluster would include local consolidation, intermodal transportation, and regional economic activity. The key functions include intermediating goods flows in and out

of Eastern DRC; cross docking where inbound loads are sorted and transloaded to their final destinations; and warehousing, where the cluster acts as a buffer location for national and regional supply chains, allowing for the consolidation and deconsolidation of traded goods. Through a densification of traffic, logistics clustering can lead to the development of superior transportation infrastructure in a region due to the cluster’s influence on government investment decisions, which in turn further promotes economic development (Jing and Cai, 2010).

- *Network junction/transport hub:* With the proposed future extension of the standard gauge railway networks from Kenya and Tanzania, Rwanda could leverage its location as a network junction to intermediate goods flows on the regional network. Such a function would enable goods to be transferred from road to rail or rail to road. A hub of such a nature can enhance efficiencies in the movement of high volumes of freight from one inland location to another. For Rwanda, the development of Bugesera airport adds possibilities for a multi-modal junction.
- *Inland Port:* Rwanda could serve as an inland extension of the two seaports on which goods for Rwanda, Eastern DRC and Burundi are mostly handled. Such a function would enable the country to provide all the services of a port except for the loading of cargo to and from seagoing ships. In comparison to container depots, it could have capacity to accommodate all types of cargo, not just containers.
- *Air cargo services:* The air transport sector of Rwanda is often cited as an example of the potential to expand regional and global connectivity. The development of infrastructure has been accompanied with a regional push in the EAC open skies within the community and improvements to air connectivity to reduce the costs of air cargo (see above).

## 2.4. Conclusions and recommendations

This section presents measures in three areas to strengthen regional integration and nurture Rwanda as a regional logistic hub: i) trade policy and industrialization; ii) new generation of trade facilitation and logistic measures; and iv) special measures to support Rwanda's logistic hub ambitions.

### 2.4.1 *Develop a coherent regional trade policy to foster industrialization and harness regional and continental opportunities*

The EAC-CET schedule band should be renegotiated to reduce the list of exceptions for which countries can apply tariffs rates above the CET maximum of 25 percent. Rwanda could enhance participation and the position of firms in regional and global value chains to improve their productivity. Policy should focus on enhancing the competitive access to imported intermediates. The reform of EAC-CET schedule to reduce the "exceptions list" and remove from its intermediary goods used as inputs by local firms will boost their competitiveness. Moreover, some key intermediate goods that are now wrongly classified as final products, and therefore are affected by relatively high tariffs level under EAC-CET, should be classified as intermediates. The proposal to add a fourth, higher-rate CET band of finished products from countries outside the EAC region would likely be detrimental for Rwanda's industrial sector and consumers.



Given increasing trade opportunities with the DRC, a key priority should be to achieve the same level of integration with the DRC and the rest of ECCAS as that with the EAC. This would entail the following: i) Aligning the renegotiated EAC tariff schedule with the ECCAS 5-band CET that is expected to be applied beginning in 2022; ii) Improving coordination between the two regions to nurture a secure and expanded market for Rwanda; iii) Harmonizing border crossing procedures as well as transport and transit measures between the two regions; iv) Improving collaboration between the Rwanda Standards Board (RSB) and the ECCAS Commission to align Rwanda's policy and regulatory environment and extend the EAC NTB program to Central Africa; v) Promoting open skies and effective air connectivity to position RwandAir as the carrier of choice in the ECCAS region in line with the ECCAS 2021-2025 road map for the improvement of air connectivity in Central Africa as approved by the Conference of Ministers on May 22, 2021.<sup>26</sup>

**Reducing regional non-tariff barriers will require improving information systems.** Reporting NTBs is done either electronically (text messages or online portal) or in person at MINICOM in Kigali. Increasing the number of sites for in-person reporting would enable enterprises that lack the ability to access the internet or report comprehensively via text message, but are located distant from Kigali, to participate. Instructing private firms about their market access rights under trade agreements could result in more effective challenges to unfair trading practices. Adding questions on NTBs to the annual Integrated Business Enterprise Survey would help identify NTBs that affect firms and thus improve the focus of policies to achieve reductions in NTBs. In addition to informational improvements, requiring that the private sector verify that an NTB is resolved, which at present is just a bureaucratic procedure, would improve the effectiveness

<sup>26</sup> Réunion des ministres en charge de l'Aviation Civile des Etats Membres de la CEEAC sur la Connectivité par voie Aérienne en Afrique Centrale, 22 Mai 2021.

of NTB elimination processes. In addition to improving collaboration between RSB and ECCAS commission, as underlined above, the emphasis shall be on domesticating the relevant operational instruments of the AfCFTA. Priority instruments include the Non-tariff Barriers (NTB) monitoring mechanism and the African Trade Observatory.

**The capacities and resources of the EAC Secretariat, the ECCAS and African Union Commission's should be enhanced.** Priorities should be to empower the relevant institution for effective and timely implementation of decisions. These should in particular be in the position to anticipate and resolve conflicts between members and reduce unilateral restrictive trade actions. As a smaller member country, Rwanda will greatly benefit from a rule driven institution without the dominance of an individual country. Strong regional economic community institutions could help anticipate and address some cross-border conflicts before they become major trade restrictions.

**Rwanda should pursue its leadership role in advancing AfCFTA agenda.** Rwanda should leverage the AfCFTA to secure new opportunities offered to Rwandan firms and consumers by AfCFTA preferential access into African countries. Rwanda should also lobby to host some of the key institutions in Kigali to support country ambitions as regional hub.

#### *2.4.2 Implement a new generation of trade facilitation and logistic reforms to further reduce trade costs*

**Strategic engagement in the standard gauge railway dialogue with regional trade partners, along with a legal framework for multi-modal transport, are critical.** The government's plan to build railways to connect to ongoing construction of new railway systems in Kenya, Uganda and Tanzania could significantly reduce the cost of reaching the Indian Ocean and thus international markets. However, investing in new railways system will take time and could be financially challenging for

the level of freight volumes experienced in most African countries. In the medium term, Rwanda could connect to the new systems through dry ports in neighboring countries, especially Isaka in Tanzania. Using a combination of road and railway transport will require specific investments in infrastructure and a regional legal framework covering the carriage of goods through international multi-modal transport contracts and the liability of multi-modal transport operators.

**Balancing competition and redundancy in corridor connectivity are critical factors in enhancing competitiveness.** Lower costs and other factors have resulted in Rwanda's trade being dominated by the Central Corridor. However, it is important for Rwanda to maintain a diverse set of trade routes in case of traffic disruptions. That would mean continuing to participate in and investing in systems to reduce costs on the Northern Corridor. Moreover, an efficient Northern Corridor is important for Rwanda's logistic hub agenda, as some of the DRC traffic transiting Rwanda is on the Northern Corridor.

**A multimodal policy reforms should complement the corridor connectivity with the air transport sector develop to expand regional and global connectivity.** Emphasis will be on enhancing the competitiveness Rwanda's airport facilities and competitive connection special economic zones such as to generate air freight demand. The operational framework shall be a regional program at EAC and ECCAS on the realization of the ambitions of the Single African Air Transport Market (SAATM) open skies; this in turn will foster improvements in air connectivity to reduce the costs of air cargo.

#### *2.4.3 Develop an effective logistics hub to unlock regional opportunities*

**Rwanda should capitalize on its recent achievements and its strategic membership in the Tripartite and the ECCAS to serve as a hub for realizing the African ambition of Agenda 2063 and the AfCFTA, with reforms in four areas:**

## A. Investments in physical trade infrastructure

**Rwanda should continue its efforts to develop,** improve efficiency in and strengthen coordination across the trade logistic infrastructure required for a regional logistic hub, including:

- (a) A major distribution center for imported consumer goods, machinery and parts, and other goods requiring short delivery times to importers in neighboring countries, most prominently the DRC.
- (b) A group of one or more centers for consolidating agricultural products for export by land and air.
- (c) One or more distribution centers specializing in the supply of imported and domestic products to retail outlets throughout the country.
- (d) A location near the country's large industrial zones where the service providers for these industries cluster.
- (e) An air transport hub for both passengers and freight linking countries in West Africa with Asia and Europe.

## B. Effective government policy to enhance efficiency and competitiveness of the hub

**Further improvements in logistics can be achieved by increasing scale:**

- (a) **Rwanda should pursue its efforts to promote the Open Skies arrangements in air transport.** Rwanda should build on recent infrastructure investments in air transport by negotiating an Open Skies arrangement that would further expand RwandAir's network. By allowing non-domestic airlines to land and take passengers to a third country, the Open Skies arrangements could significantly reduce air fares and increase passenger traffic.
- (b) **Two areas show substantial promise in enabling Rwanda to increase the scale of land transport by enabling Rwanda to perform the functions of a regional logistics hub:**
  - First, improving transport and border infrastructure efficiency, and modernizing digital procedures for the movement of

goods, people, and vehicles, at the DRC border would enable Rwanda to handle more goods and traffic from the two large population concentrations close to Rwanda's western boundary, at Bukavu and Goma.

- Second, improvements in infrastructure and services would enable Rwandan operators to capture services provided for goods passing through the country, a market now dominated by operators registered in DRC, Kenya, or Tanzania. Rwanda has an opportunity to add value to such traffic through temporary storage, repackaging and other activities. An upgrading of logistics capabilities requires a clear strategy, where the Government sets clear objectives and provides an environment for different types of logistics services providers to invest.

## C. Develop skills for managing the hub and associated services

**Logistics is an area requiring specialized skills, especially at the managerial level.** Degree granting and practical curricula should be introduced in transport and logistics management training programs. Partnership can also be established with existing programs such as the UNCTAD Port Management and Logistics Training Programs; another possibility is the Dubai Port World Institute.<sup>27</sup>

## D. Effective planning and implementation

**The White Paper was developed a decade ago and should be revised to account for recent developments and new needs for Rwanda to become a multi-modal hub for continental integration.** The hub would be composed of an intricate web of international trade routes and supply chain networks, relying on the efficiency of organizations and services that enable competitive connectivity to regional and international markets.

<sup>27</sup> <https://dpworldacademy.com/>

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# ANNEXES

## ANNEX I: DATA AND MODEL UNDERLYING CGE RESULTS PROVIDED IN THE TEXT

### Data

The core data is sourced from the GTAP database (Aguiar et al. 2019). It provides a snapshot of the global economy in 2014—including domestic inter-industry flows and bilateral trade flows. The full database has 141 regions, of which 121 are individual countries, and 65 sectors. For the purposes of this study, the 141 regions are aggregated into 37 regions including all 32 regions in Africa that are part of the database, of which 24 are individual countries with the remaining countries aggregated into 5 regional components. The 65 sectors are aggregated into 21.

The core data is supplemented with additional information. GTAP's tariff rates are replaced with the most recent estimates, as measured by the World Bank. In addition, the study incorporates estimates of non-tariff measures (NTBs). The NTBs for goods are sourced from World Bank's WITS database and documented in (Kee, Nicita, and Olarreaga 2009). These are aggregated to the model's regional and sector aggregation using trade weights. Estimates for the missing countries/regions are given by the simple average of the available estimates. The NTBs for services are sourced from (Jafari and Tarr 2017). These are provided for 11 services that are mapped to an aggregation of GTAP services. These three sources of data are incorporated into the 2014 reference year using a procedure that aims to preserve as much as possible the original structure of the aggregated GTAP database.

Detailed labor statistics by gender and skill are needed to assess the economic impact of trade-related policies beyond its macroeconomic aggregates, deepening the CGE model capacities to account for and draw conclusions about employment and its remunerations for specific segments of the population (i.e., women or the youth). Additional labor market information was incorporated for each country and activity in the GTAP version 10 database. The initial levels of employment as of 2014 with

average remunerations (in US\$) for four different types of workers that were differentiated based on their gender (male and female) and educational attainment (skill and unskilled). These statistics were constructed using harmonized nationally representative household surveys available in the World Bank and the Luxembourg Income Study. Due to the natural inconsistency between macro and micro-based statistics, adjustments were performed so that total volumes and wages added-up to national accounts. This procedure is explained in detailed in (World Bank 2020)<sup>28</sup>.

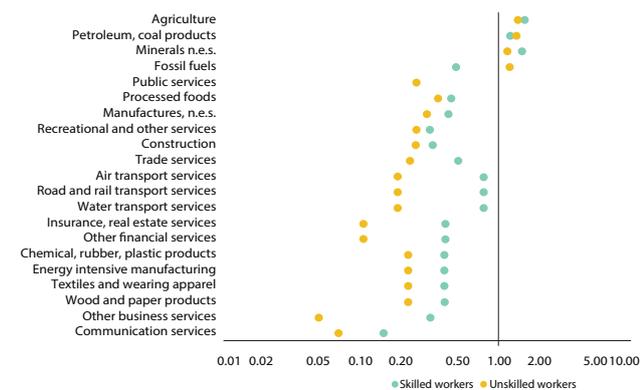
Figure A1.1 below summarizes, the initial distribution of female employment by economic activity in Rwanda. On the horizontal axis, a value in female labor intensity greater than 1 indicates that an economic activity employs a greater proportion of women than the rest of the economy. In Rwanda, agriculture is the economic activities that tend to employ more women, followed by minerals and public services. This effect results from the prominent export-orientation of coffee and minerals (tin)<sup>29</sup>. In contrast, women tend to be employed the least in communication and other business services. While this is true in general, experience from African countries show that in the continent, women also tend to be employed more frequently in services (recreational and other, insurance, real estate, trade, and financial) and the textiles and wearing apparel sector.

The second set of data that complement the CGE model relate to the expected formation of skills in each country. Projections for the working age population by gender, 5-year age groups, and educational attainment were incorporated into the

<sup>28</sup> See Appendix A: Data Preparation on Disaggregated Labor Volumes and Wages.

<sup>29</sup> Despite mining being a male-dominated industry, women can be found working in a wide variety of roles. Jobs include labor-intensive mineral processing work such as carrying ore, sluicing, panning, drying, and grinding, as well as more technically skilled work in upper levels of the supply chain.

Figure A1.1: Female labour intensity in Rwanda



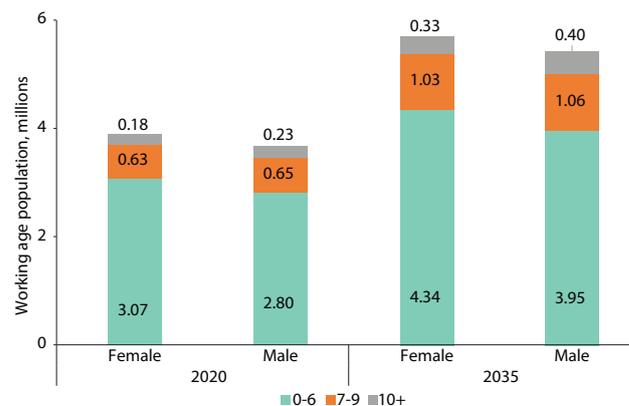
Source: World Bank's Gender Disaggregated Labor Database

CGE model. These series are in line with the initial labor volumes, with population totals from the UN World Population Prospects (UN DESA 2019), assuming constant enrollment ratios for educational progress. The demographic and skill formation implications for Rwanda is summarized in Annex Figure A1.2 below, which shows the formation of skills in Rwanda from 2020 until the simulation target year by 2035. In Sub-Saharan Africa's working age population is expected to grow from 7.65 million to close to 11.11 million, at an annual increase of 2.60%. In absolute terms, the number of persons in the working-age population with 10+ years of schooling would grow in 318 thousand, at an annual rate of growth of 3.87 percent – 0.65 percentage points faster than the African continent's rate.

### Model

The quantitative macroeconomic estimates rely on the Environmental Impact and Sustainability Applied General Equilibrium (ENVISAGE) computable general equilibrium model. It is a recursive dynamic model, calibrated to the GTAP database and has been widely used at the World Bank for a number of studies. The baseline, or reference simulation, runs from 2014 through 2035. The simulation is

Figure A1.2: Working age population in Rwanda, by years of schooling



Source: World Bank's Gender Disaggregated Labor Database

calibrated to the U.N. population projection (2015 Revision), combined with a long-term socio-economic scenario developed by the Integrated Assessment Modeling (IAM) community—the so-called socio-economic pathways (SSPs). There are 5 such pathways describing different possible storylines of the evolution of global GDP. SSP2 was selected for this study, the so-called 'Middle of the Road Scenario'.

The poverty and distributional impacts depend on the changes in relative prices across and within countries. To capture the full – between and within countries – distributional change, one needs a framework that captures both effects at the macro level (country averages) and the evolution of factor markets at the micro level (dispersion). To account for both effects, this paper uses the Global Income Distribution Dynamics (GIDD) microsimulation framework in combination with the ENVISAGE global computable general equilibrium (CGE) model. Both tools have been developed at the World Bank and are described in detail by (Bourguignon and Bussolo 2013; Maliszewska, Osorio-Rodarte, and Gupta 2020).

## ANNEX II: COMPARING THE EFFICIENCY OF INVESTMENT ACROSS COUNTRIES

This section includes 3 scenarios: AfCFTA Trade, AfCFTA Broad, and AfCFTA Deep.

**AfCFTA Trade**, contemplates reduction in tariffs and non-tariff barriers, as well as the implementation of trade facilitation measures that reduce transport costs across the continent – (World Bank 2020). AfCFTA Trade considers only the static gains from trade and does not capture fully the potential dynamic gains from trade. AfCFTA trade is built considering the following assumptions:

- Tariffs on intra-continental trade are progressively reduced in line with AfCFTA modalities. Starting in 2020, tariffs on 90 percent of tariff lines are gradually eliminated (over a five-year period for non-LDCs and ten years for LDCs). Starting in 2025, tariffs on an additional 7 percent of tariff lines are gradually eliminated (over a five-year period for non-LDCs and eight years for LDCs). Up to 3 percent of tariff lines, which account for no more than 10 percent of intra-African imports, can be excluded from liberalization by the end of 2030 for non-LDCs and until 2033 for LDCs.
- Non-Tariff Barriers (NTBs) on both goods and services are reduced on a most favored nation (MFN) basis. It is assumed that 50 percent of the NTBs can be addressed with policy changes within the context of the AfCFTA—with a cap of 50 percentage points. It is also assumed that there will be additional reductions on NTBs on exports.

- The AfCFTA will also be accompanied by measures to facilitate trade with commitments closely aligned with the Trade Facilitation Agreement (TFA). We borrow estimates of the size of these trade barriers from the existing literature (de Melo and Sorgho 2019). The resulting reductions in trade cost from the adoption of trade facilitation measures range between 2 and 10 percent over 2020-2035.

Building on AfCFTA Trade, we consider two additional scenarios: AfCFTA Broad and AfCFTA Deep. These two scenarios are built on comprehensive estimates of impacts of deep preferential trade agreements on FDI based on the database on deep trade agreements (Hofmann, Osnago, and Ruta 2018) and structural gravity approach. AfCFTA Broad incorporates the impacts of FDI from a preferential trade agreement among all countries on the continent. AfCFTA Deep simulates the impact of provisions in additional policy areas to be covered by the AfCFTA, notably in investment policy, competition policy, and intellectual property rights. Gravity analysis is used to estimate the impact of each scenario. Finally, the economic impacts under the three scenarios are translated into their effects on poverty and income distribution using the Global Income Distribution Dynamics (GIDD) microsimulation framework.

**AfCFTA Trade**

- Reduction in tariffs follow the negotiated schedule under AfCFTA.
- NTBs on both goods and services are reduced on a most-favored-nation (MFN) basis. It is assumed that 50 percent of NTBs are actionable within the context of AfCFTA—with a cap of 50 percentage points.
- Trade facilitation measures will halve trade costs, although this reduction is capped at 10 percentage points.

Macro results (percentage deviations from baseline, 2035)			Poverty (millions of people)	
Poverty (millions of people)	Exports	Imports	Extreme	Moderate
3.3	Total: 8.8 Intra-Africa: 39.3	Total: 7.5 Intra-Africa: 35.2		

**AfCFTA Broad**

- AfCFTA trade +
- AfCFTA FDI Broad shock on FDI

Real Income variation	Exports	Imports	Extreme	Moderate
3.8	Total: 8.9 Intra-Africa: 40.2	Total: 8.3 Intra-Africa: 36.3		

**AfCFTA Deep**

- AfCFTA trade +
- AfCFTA FDI Deep shock\*
- Additional trade costs reduction brought about by deeper PTA commitments

Real income variation	Exports	Imports	Extreme	Moderate
4.3	Total: 9.5 Intra-Africa: 43.1	Total: 8.9 Intra-Africa: 42.6		

### ANNEX III: MAPS

Figure A3.1: Geographic position of Rwanda with Northern and Central corridor routes

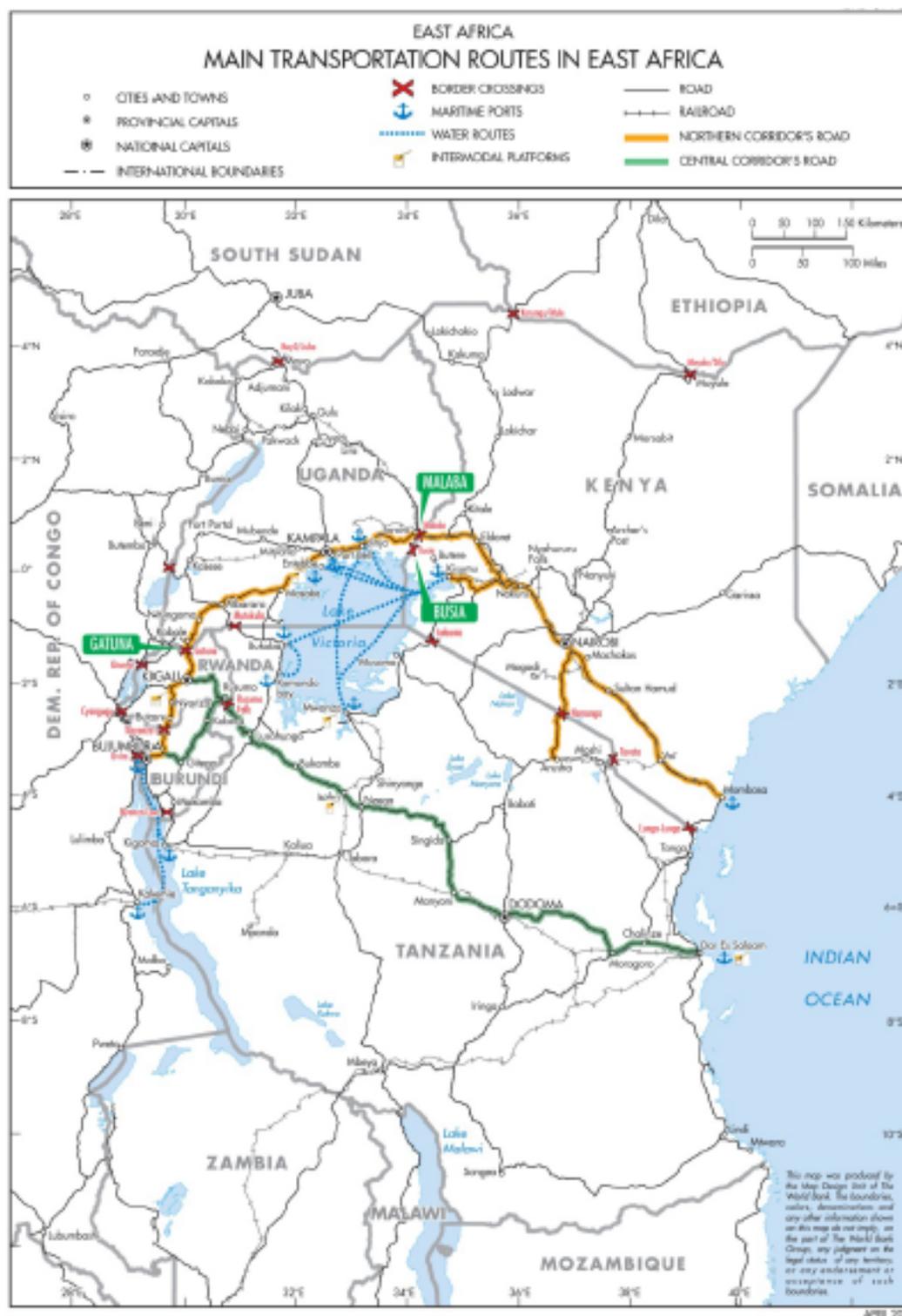
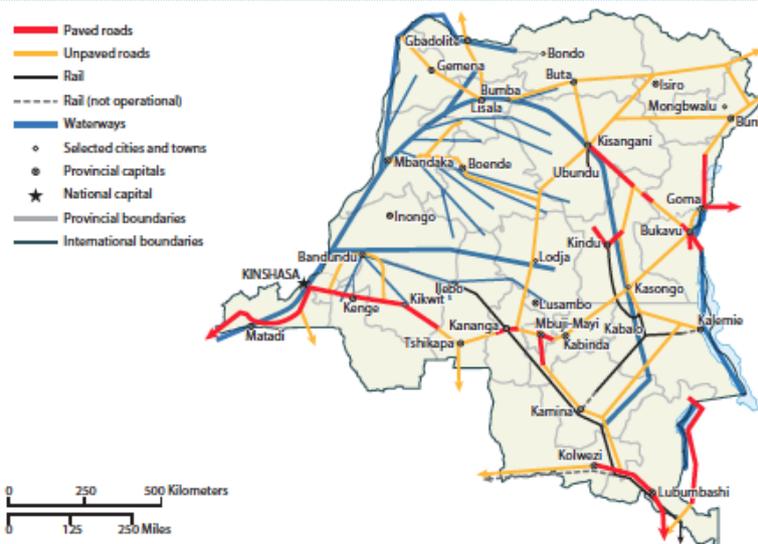


Figure A3.2: Geographic position of Rwanda with Eastern DRC



Source: NCTTFA, 2020

Figure A3.3: Transport infrastructure in the DRC



Source: World Bank, 2018

## ANNEX IV: LOGISTICS CLUSTERS AND DEVELOPMENT

The concept of clustering is well established in literature, going back to David Ricardo's theory of comparative advantage. Krugman and Venables (1990) show how it can help a region benefit from improvements in infrastructure and easier access to factors of production and markets. In addition, Romer (1990) shows how a concentration of knowledge sustains innovation, giving rise to endogenous growth. While these factors apply to all clusters, logistics clusters are specific applications of the concept as they reflect a concentration of specialized activities that enable firms to offer integrated logistics solutions while benefitting also from co-location. This is particularly important for logistics-intensive sectors and for firms that require a pooling of volumes in order to drive down unit costs of shipments in supply chains. Development of a logistics hub can thus help to promote industrial development, regional growth, or economic diversification, among other goals.

Logistics can play a role as industrial infrastructure, where logistics clusters spur industrial development and the formation of industrial clusters. There are numerous examples from across the world where

firms choose to locate in specific places because of the presence of specific logistics capabilities and requirements. Thus, logistics clusters can be key in promoting industrial development.

Some logistics clusters serve the purpose of promoting economic diversification to reduce reliance on particular economic activities. For example, the logistics park in Zaragoza, PLAZA (Platforma Logistica de Zaragoza) was conceived by the Government of Aragón in the early 2000s in response to the need to diversify the region's economic base away from its reliance on the big Opel plant in the area. Leading companies, including the likes of Inditex, Imaginarium, Porcelanosa, Decathlon, TDN, DHL Express, Acciona Infraestructuras, Memory Set, Calader and many others, have moved into the park and established logistics-intensive operations there. Some logistics clusters are developed for handling regional distribution needs, such as the Greater Richmond Logistics cluster in Virginia, serving the East Coast distribution needs of its tenants. Table A4.1 below provides a combination of several successful logistics clusters along with their overarching objectives.

**Table A4.1: Typology of logistics clusters and corresponding objectives**

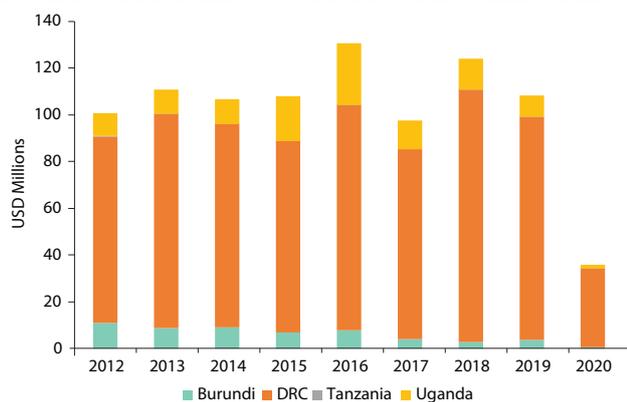
Type of cluster	Industrial development	Regional development	Logistics efficiency	Economic diversification/export-import
Logistics Center/ Freight Village	Interporto Bologna (Italy) Distriparks Rotterdam (Netherlands) Keppel (Singapore) Paisir Panjang (Singapore)	GVZ Bremen (Germany)	Maasvlkte, and Botlek, Rotterdam (Netherlands)	
Network Junction		Berlin-Brandenburg Region (Germany)	Dallas Intermodal Terminal (USA) Western Busan (Korea) Prologis Park (Japan) Centerport Intermodal centers (USA) CUIRA (China)	
Port Terminal	Jurong Port (Singapore) Dalian, China		Dallas Intermodal Terminal (USA) Western Busan (Korea) Prologis Park (Japan) Centerport Intermodal centers (USA), CUIRA (China)	
Inland Port				

## ANNEX V: INFORMAL CROSS-BORDER TRADE

Informal cross-border trade in Rwanda refers to transactions that take place across the borders informally but not illegally. Informality in this case manifests in the status of the trader who is an unregistered micro-enterprise not subject to any periodic declaration of revenue to Rwanda Revenue Authority. Despite being informal, the traders require a travel clearance and must pass through an official border crossing. To reduce border traffic, many of the traders have been grouped into cooperatives by the Rwanda Cooperative Agency.

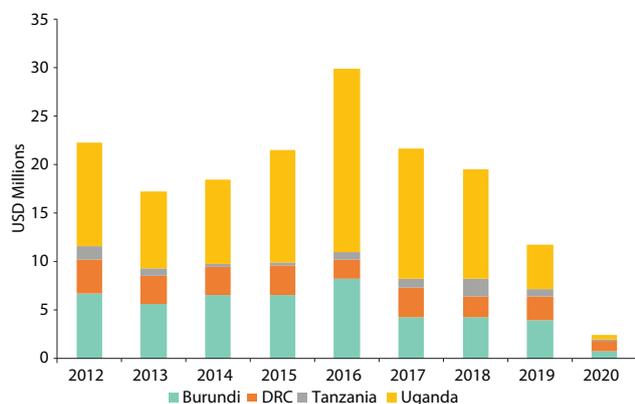
The bulk of Rwanda's cross-border informal exports goes to Democratic Republic of Congo (Annex Figure A5.1), while Uganda accounts for the largest share of Rwanda's cross-border informal imports (Figure A5.2).

**Figure A5.1: Rwanda's cross-border informal exports to neighbouring countries**



Source: Staff' calculation using NBR data

**Figure A5.2: Rwanda's cross-border informal imports from neighbouring countries**



Source: Staff' calculation using NBR data

The choice of informality over formality is dictated by a multitude of factors, including among others: lack of formal employment opportunities; price differentials on different sides of the border; non-tariff barriers; low start-up capital; and prohibitive tax rates and high compliance costs.

In the Great Lakes Region, 74% of the informal cross-border traders are poor and marginalized women. Around 90% of traders on both sides of the DRC-Rwanda border earn less than USD 50 per week. Female informal cross-border traders trade products with relatively lower market value than males (Titeca and Kimanuka, 2012). A greater percentage of males' trade livestock (31.1% versus 17% of females) and industrial commodities (20% versus 17.8%) than females do, while a greater percentage of females trade agricultural commodities (49.5% versus 20%) and fishery products (15% versus 11%) than males do (TMEA, 2015).

The common challenges faced by informal cross-border traders are: harassment by officials and communities; high informal taxation; corruption and confiscation of goods; complicated administration; and lack of appropriate infrastructure. The policy improvements so far to support informal cross-border trade have included bi-lateral and multi-lateral initiatives (e.g., CEPGL<sup>30</sup>, COMESA Small Trader Simplified Regime<sup>31</sup>, efforts to reduce non-tariff barriers, trade information desks etc.); provision of credit; infrastructure improvement at the borders; and awareness activities to improve relations between traders and border officials (EU, 2019).

<sup>30</sup> CEPGL - Communauté Economique des Pays des Grands Lacs allows residents of DRC, Burundi, and Rwanda to travel to these countries without the need for a passport or visa.

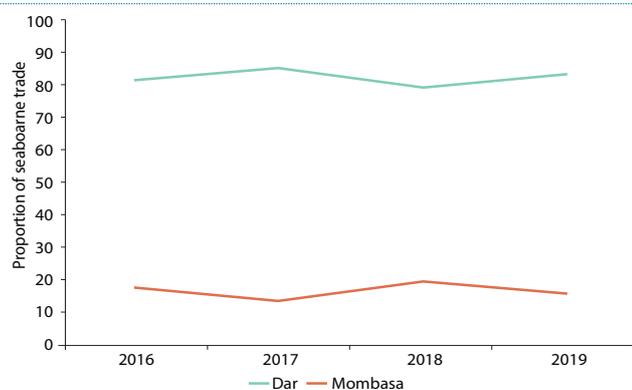
<sup>31</sup> COMESA Simplified Trade Regime aims to simplify administrative procedures for informal cross-border traders in the COMESA community.

## ANNEX VI: RWANDA'S TRADE CORRIDORS

Rwanda, like other landlocked countries in the East Africa region, has access to the sea through two main corridors, the Central Corridor connecting to the Port of Dar es Salaam in Tanzania and the Northern Corridor connecting to the Port of Mombasa in Kenya. The seaports are the major concentrations of organized demand for transport services and therefore have a significant influence on overall trucking efficiency in East Africa. The Central Corridor carries about 80% of the country's overseas trade traffic (Figure A6.1).

Logistics performance, shipping service and policies are all significant factors in corridor choice. The traffic assignment across the two corridors reflects the sensitivity to price of the market. The port of Dar es Salaam is 187 kilometres closer to Kigali than Mombasa, and transport of goods in 2020 by road took 90 hours between Dar es Salaam and Kigali and more than 180 hours between Mombasa and Kigali. Based on prevailing prices, this translates to almost a US\$500 difference in the costs of shipping a container between the two ports and Kigali. While these times reflect in part the impact of COVID-19 pandemic measures at the border, they are indicative of the elasticity of demand to time and cost on each corridor. The unit price of transport is about 7 percent higher in the route to Mombasa than to Dar es Salaam (Figure A6.2).

**Figure A6.1: Rwanda; Distribution of Seaborne trade traffic between Dar es Salaam and Mombasa**



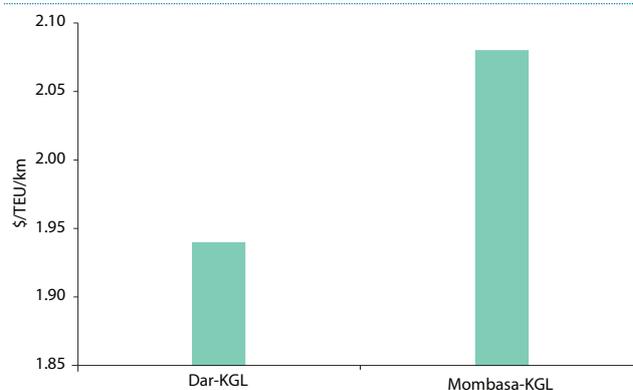
Source: Staff' construction based on MINICOM data

However, while Dar es Salaam dominates on import flows, more of Rwanda's exports flow through Mombasa. Empirical evidence from across the world suggests corridor choice for exports is more influenced by policy variables than is corridor choice for imports, which is more closely aligned with corridor cost, time, and reliability. In the case of Rwanda, Kenya's more sophisticated logistics services sector, Mombasa's greater global connectivity and superior performance seem to tilt the proportion of traffic in favour of the Northern Corridor, though the export traffic volumes are quite small.

There is an important trade-off between risk versus efficiency gains from concentrating traffic on one corridor. Larger scale transport operations offer lower unit prices than small scale ones do<sup>32</sup>. Besides greater utilization of assets, a focus on one major trade route allows firms to invest in appropriate infrastructure and relationships with other services providers. Consequently, the benefits go beyond direct costs but can be reflected also in ease of organizing and managing supply chains.

On the other hand, World Bank (2010) cautions that dependency on a single trade route can be particularly costly if there are disruptions to the route. Disruptions on trade routes are common. They can happen due to natural disasters, civil conflict, war

**Figure A6.2: Rwanda: Transport unit prices on Central and Northern Corridors**



Source: Staff' construction based on data from CCFTA

<sup>32</sup> For example, Xu, Windle, Grimm and Corsi (1994) show that economies of scale existed in the United States trucking industry.

between nations and other reasons. In 2008 post-election violence in Kenya brought the Northern Corridor to a temporary halt, affecting all parts of Rwanda's economy, albeit for a relatively short period. In Uganda, which was similarly affected, fuel prices increased by over 20%, and there was a temporary shortfall in fiscal revenue as imports slowed down. Experience from other countries that have faced disruptions in the past, such as Ethiopia in 1998, Armenia also in 1998 and Malawi in 1993, suggests that the impact of disruptions on one

route will be higher, the larger the performance differentials between the preferred and alternative corridors. Over time, it may be possible to re-orient trade composition and patterns, competitively or otherwise due to circumstances, to achieve a better balance that uses several trade routes. However, in the short term, there may be severe shocks for which strategic interventions would be necessary to minimize the impact. Although it could be costly, it often is prudent to maintain alternative trade routes so traffic can easily shift if the need arises.

## ANNEX VII: AFRICA CONTINENTAL FREE TRADE AGREEMENT (AfCFTA)

The Agreement establishing the African Continental Free Trade Agreement (AfCFTA) entered into force in May 2019 for the 22 countries that by then had deposited their instruments of ratification. In July 2019, the Heads of State adopted the Niamey Declaration which launched the Operational Phase of the AfCFTA. To date 38 countries have ratified the agreement. Once completed, the AfCFTA will be the largest free trade area in the world in terms of membership and will potentially cover a market of 1.3 billion people with a gross domestic product (GDP) of 3.4 trillion dollars.

At present the AfCFTA Treaty contains only the legal framework for trade in goods and services, and the institutional set up and the provisions for State-to-State dispute settlement. The specific terms of trade liberalization in both goods and services are still being negotiated in the form of annexes to the protocols of the Treaty. Official trading under the AfCFTA tariffs started on January 1<sup>st</sup>, 2021. However, negotiations on trade in goods, including the rules of origin, were expected to be finalized by end June 2021. Additional protocols on investment, competition policy, intellectual property rights, and e-commerce were expected to be negotiated in the second phase of negotiations, scheduled to conclude by December 2021. The dates were indicative in nature – it is common in negotiating this type of complex plurilateral agreement that there will be delays in the conclusion of the negotiations. Analysts expect delays due to COVID-19 and security issues.

Substantial aspects of the AfCFTA therefore remain to be negotiated, notably those envisaged in Phase II of the negotiations. Harmonization in the investment, competition, and intellectual property

rights policy areas is an important complement to trade liberalization efforts, providing for consistent protections that can support entrepreneurship and cross-border investment, and ensure markets function fairly and efficiently. As with trade arrangements, the rules on investment, competition, and intellectual property rights vary across Africa with a range of overlapping national, bilateral, and regional initiatives. For example, African countries are party to as many as 515 bilateral investment treaties (BITs), of which 173 are intra-African treaties. There is therefore considerable scope for Phase II negotiations to improve harmonization, with the potential to significantly bolster the overall effects of AfCFTA on intra-African trade and investment integration.

Under the trade components of AfCFTA agreed in Phase I, countries have agreed to progressively eliminate tariffs on at least 90 percent of goods, as well as addressing non-tariff barriers (NTBs) and restrictions on trade in services. Tariff reductions are scheduled over five and 15 years, depending on a country's level of development. The agreement allows trade in sensitive goods to be liberalized over longer time frames (up to 7 percent of tariff lines) or exempted altogether from the liberalization (up to 3 percent of tariff lines). In addition, annexes to the Agreement require countries to cooperate on simplifying and harmonizing trade and transit procedures, and to establish institutional structures and processes for monitoring the elimination of NTBs. Member countries have also agreed to make detailed commitments on liberalizing service sectors, including logistics and transport, financial services, tourism, professional services, energy services, construction, and communications.

## ANNEX VIII: SUPPLY SIDE CHALLENGES

Rwanda faces substantial supply-side challenges that limit productivity and competitiveness, and thus trade potential. The most critical issues concern the enabling environment, investment in tradable sectors, human capital, services productivity, agricultural modernization, and governance. This section summarizes some of the main challenges discussed in *Future Drivers of Growth in Rwanda*, a joint publication by the Government of Rwanda and the World Bank.<sup>33</sup>

The enabling environment for both private firms and state-owned enterprises (SOEs) faces significant challenges. Costs faced by firms are high in Rwanda, particularly in energy, transport, and finance (the average nominal lending rate was about 17 percent in 2017, or 12 percent in real terms), compared to costs in other economies at similar stages of development. Access to finance, broadband internet, and affordable and reliable electricity (31.5 percent of firms participating in the Integrated Business Enterprise Survey (IBES) reported access to reliable electricity as a major challenge) remains a substantial barrier to firm growth. Assistance for industrial development fails to achieve its potential due to the emphasis on general support rather than targeting successful enterprises, the lack of performance-based incentives, poor coordination of incentives across government agencies, and the lack of a credible performance monitoring system. Shortfalls in the coordination, monitoring, and evaluation of funding for programs supporting innovation (for example, only 0.7 percent of public expenditures on agriculture were allocated to research and innovation in fiscal 2014/15–2015/16) impairs the effectiveness of the national innovation system.

Private investment in tradable sectors is low. While private credit nearly tripled from 10 percent of GDP in 2000 to 28 percent of GDP in 2016, most of this finance went into non-tradable sectors, such as construction and real estate, or to households. In 2015 only 12 percent of the stock of private finance was in manufacturing and 18 percent was in tourism. More needs to be done to attract FDI and domestic investment into tradable sectors.

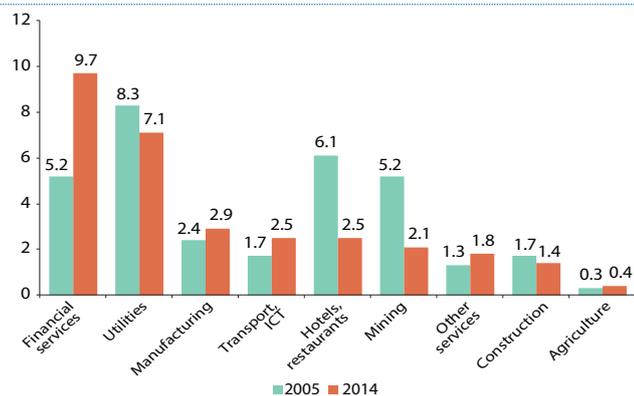
The low level of human capital constrains productivity and trade growth. An inadequately educated workforce is cited by employers as the second most binding constraint (after lack of access to finance) to firms' operations in Rwanda. While enrollment in technical and vocational education and training (TVET) is high compared to most African countries, training is not necessarily focused on the priority subfields. Enrollment in tertiary education is low, although it is rising rapidly. However, relatively few graduates are specializing in key job-creation fields, such as science and engineering. Rwanda has a higher level of stunting, and a lower completion rate for primary and secondary education, than the average for low-income countries. There also are concerns over the quality of basic education, as despite substantial improvement over the past decade only 43 percent of teachers were assessed at the "intermediate level" in English.

Productivity in services is low and falling. The rapid expansion of the services sector has been at the core of the structural transformation in Rwanda in the past two decades. The high rate of growth the share of services in employment implies Rwanda is converging rapidly to what is observed in a cross-

<sup>33</sup> References and supporting material for the points made here can be found in that document.

section of thirteen African economies.<sup>34</sup> However, productivity declined from 2005-14 in service sectors such as hotels and restaurants (70 percent decline in output per worker), construction (18 percent decline), and utilities (14 percent decline, Annex Figure A8.1). While productivity in transport and ICT improved, the levels remained low compared with the region. Low productivity in services constrains overall productivity, and in particular that of the higher-quality exporting firms, given firms' reliance on logistics, finance and telecommunications. Hoekman and Shepherd (2015) found that low productivity is driven in part by a policy environment that restricts trade in services. If the EAC were to lower the restrictions on trade in services to the level in Ghana (the African country with the lowest trade barriers for services, with an index of 18), exports of EAC countries could increase substantially: by 13 percent for Rwanda and some 20 percent for Kenya, Tanzania, and Uganda (Hoekman and Shepherd 2015).

Figure A8.1: Labour productivity in Rwanda, 2005 and 2014



Source: Extracted from World Bank (2020)

Further modernization and policy reforms are necessary to increase the agriculture sector's responsiveness to market signals. Rwanda's rapid growth in agricultural production has been based on the expansion of land devoted to agriculture

<sup>34</sup> Benin, Botswana, Egypt, Ghana, Malawi, Mali, Mauritius, Morocco, Mozambique, Rwanda, South Africa, Tanzania and Zambia. This sample group comprises countries for which at least 2 waves of census data is available on employment at the subnational level broken down across sectors. These data are analyzed in a recent IGC study that assesses the link between services and development in these thirteen African economies (Baccini, et al. 2021). See <https://www.theigc.org/wp-content/uploads/2021/09/Baccini-et-al-August-2021-Working-paper.pdf>.

or increased use of inputs. Since the scope for further land expansion and the productivity gains from applying increased inputs are limited, future agricultural growth will have to rely on productivity-increasing innovations and improved technical and allocative efficiency in resource use. Low investment in irrigation constrains production. Rice yields are insufficient to cover the cost of irrigation investment, underlining the importance of improving rice productivity and shifting towards high-value crops (e.g., horticulture) in irrigated areas. Cooperatives, organized along commodity lines, have been important to state-led collective action. However, less than 20 percent of farmers belonged to cooperatives in 2016, perhaps because some commodities are more suited to cooperative development, or because government resource constraints limit the availability of subsidized seeds and fertilizer inputs distributed through cooperatives. Also, a recent survey indicated dissatisfaction among cooperative members with the level of accountability and transparency in the system.<sup>35</sup> Smallholder farmers often lack access to the benefits of the big data revolution, including the use of sensors to judge the optimal level of inputs and blockchain technology that can lower the cost of small financial transactions and enable secure record keeping. Finally, land degradation remains a critical problem, despite the considerable progress in constructing wide terraces; increasing variability in rainfall patterns particularly impairs the livelihoods of small-scale, rainfed farmers; and accelerated efforts to adapt to climate change are urgent.

Despite Rwanda's remarkable improvements in governance, some rules and institutions continue to hamper country competitiveness. Rwanda has made good progress in improving regulations that support competition and is ranked 34<sup>th</sup> in the world on the extent of market dominance and 26<sup>th</sup> on

<sup>35</sup> MINICOM (Ministry of Trade and Industry) Rwanda. 2018. "National Policy on Cooperatives in Rwanda: Toward Private Cooperative Enterprises and Business Entities for Socio-Economic Transformation." MINICOM, Kigali, January.

the effectiveness of antimonopoly policy (World Economic Forum, 2016). However, the country is ranked 77<sup>th</sup> on the intensity of local competition by the *Global Competitiveness Report 2016–2017*. Barriers to entry are high in some sectors. Slow court procedures, limited training and specialization of justice sector employees, and issues with case

management techniques impair the effectiveness of the judiciary. Property rights can be threatened due to issues concerning the enforcement of expropriation procedures and protection of intellectual property, coupled with difficulties facing the land management system.



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