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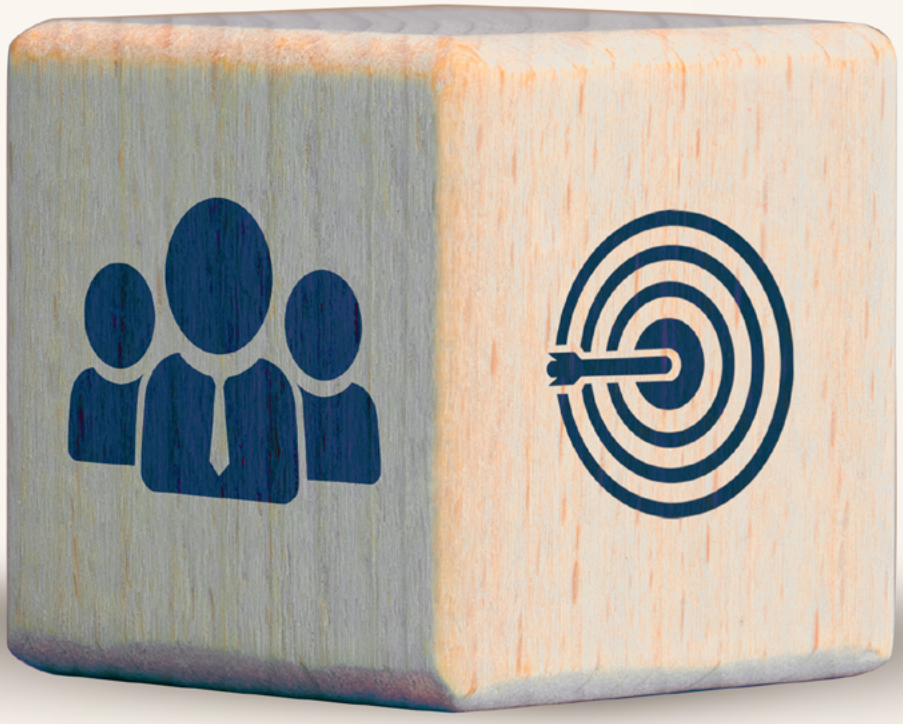
Enhancing Productive Capacities in Rwanda

A Coherent and Operational Strategy



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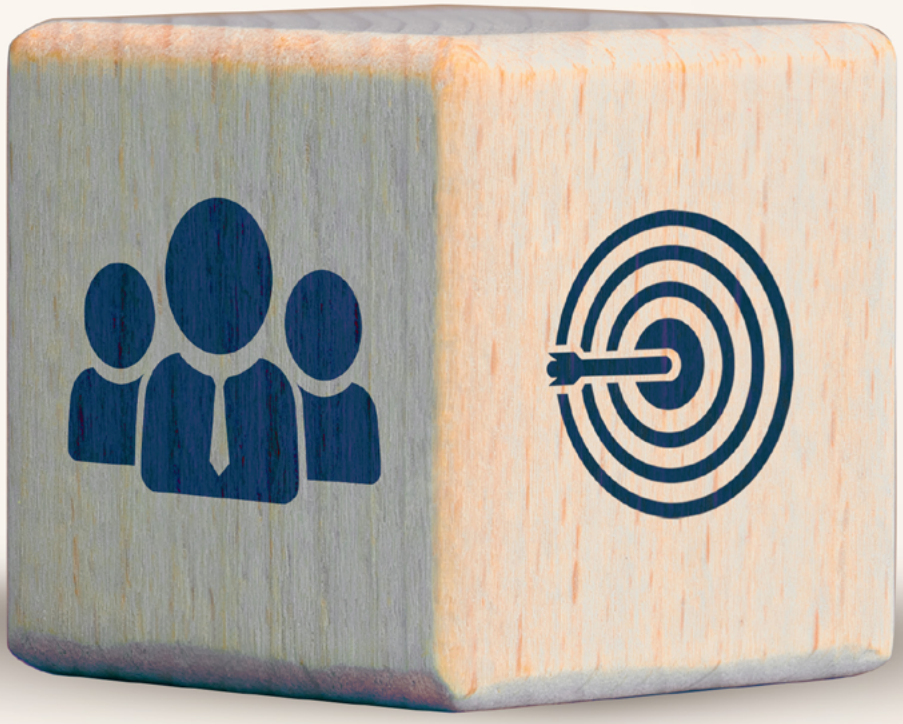

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ACRONYMS

AFR	Access to Finance Rwanda
AfCFTA	The African Continental Free Trade Area
COMESA	Common Market for Eastern and Southern Africa
EAC	East African Community
EDPRS	Economic Development and Poverty Reduction Strategy
EICV	Integrated Households Living Conditions Survey
FDI	Foreign Direct Investment
GDP	Growth Domestic Product
GMO	Gender Monitoring Office of Rwanda
GVC	Global Value Chain
ICT	Information and communication technology
IDEC	Industrial Development and Export Council
ITC	International Trade Centre
ILO	International Labour Organization
IMF	International Monetary Fund
FIRE	Finance, Insurance and Real Estate
LDC	Least Developed Country
LLDC	Landlocked Developing Country
M&E	Monitoring and Evaluation
MFI	Microfinance institutions
MICE	Meetings, Incentives, Conferences and Events
MINAGRI	Ministry of Agriculture and Animal Resources
MINECOFIN	Ministry of Finance and Economic Planning
MINEDUC	Ministry of Education
MIFOTRA	Ministry of Public Service and Labour
MINICOM	Ministry of Trade and Industry
MINICT	Ministry of ICT and Innovation
MININFRA	Ministry of Infrastructure
MSME	Micro, small and medium-sized enterprise
MoSPI	Ministry of Statistics and Programme Implementation
NAEB	National Agriculture Export Development Board
NBR	National Bank of Rwanda
NES	National Export Strategy
NISR	National Institute of Statistics of Rwanda
NST1	National Strategy for Transformation
PCI	Productive Capacities Index
PSTA	Strategic Plan for Agricultural Transformation

R&D	Research and development
RISA	Rwanda Information Society Authority
RBA	Rwanda Bankers' Association
RDB	Rwanda Development Board
RRA	Rwanda Revenue Authority
RURA	Rwanda Utilities Regulatory Authority
RWF	Rwandan Franc
SME	Small and medium-sized enterprise
TVET	Technical and vocational education and training
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNIDO	United Nations Industrial Development Organization
UNRISD	United Nations Research Institute for Social Development
VAT	Value added tax
WEO	World Economic Outlook
WTO	World Trade Organization

Sign $ refers to United States Dollar.

EXECUTIVE SUMMARY

Rwanda's Vision 2050 is a bold development strategy aimed at propelling the country from low to high-income status, fostering sustainable development, and achieving a high quality of life for all Rwandans. The country has made significant economic progress in the past two decades. Output grew consistently during this period, with the service sector making the largest contribution to output value added. Notwithstanding the recent progress, several structural issues remain, such as a declining share of manufacturing in output and merchandise exports heavily concentrated in commodities. To continue growing, Rwanda needs to transform the structure of its economy to respond to current challenges imposed by technological progress and climate change. Furthermore, Rwanda has to overcome the limits of its small domestic market and landlocked position and find its place in global and regional value chains. The COVID-19 pandemic has exacerbated most of these challenges and there is a need for the government to use every tool at its disposal to jumpstart the economy and keep the country on track to achieving its national developmental objectives.

Productive capacity development will play a pivotal role in achieving the economic and social objectives of Rwanda because it can foster structural transformation, diversification, and employment generation. The potential of productive capacities has been already recognized by the government of Rwanda, but it can be allocated a more central and transversal role during the current revision of the national trade and industrial policies. This is necessary because Rwanda exhibits serious gaps in productive capacities. Underutilization of existing capacities is high and widespread, and the development of new ones is hampered by weak infrastructure, particularly information and communication technologies, energy, and transport. To help address these challenges, the present report provides a coherent and operational strategy for enhancing productive capacities in Rwanda. The strategy prioritizes four policy areas – investment and technology, human and physical capital, private sector, and policy coherence and inclusiveness.

The first area concerns investment and technology – two critical components for fostering structural change. Rwanda growth trajectory remains dependent on the ability to attract significant investments. It is, therefore, important to better allocate them, targeting priority production sectors, particularly manufacturing and agro-processing, and to identify additional sources, such as private capital. Technology is one of the weak areas, but rapid digitalization during the COVID-19 pandemic shows that significant improvement is feasible. In this regard, it is necessary to enhance both the availability of technology, for example by developing the e-commerce infrastructure, and its accessibility – by increasing digital literacy and ensuring the provision of technology-related business services. Furthermore, it is important to develop inter-sector linkages and value chains, including through Special Economic Zones (SEZ).

The second policy focus area includes human and physical capital. While Rwanda has made an impressive advance in human development and gender empowerment, several surveys of the private sector identified skills shortages as a major constraint. Consequently, the operational strategy specifies concrete measures for reducing the gap between the supply and demand of skills. Regarding physical capital, the operational strategy identifies several interventions related to the cost of electricity and the provision of infrastructure for SEZs.

The third area concerns the business ecosystem and the services that Rwandan enterprises require to successfully produce and export. To address the constraints of the private sector, it is necessary to improve access to finance, business support services, and extension services for agriculture. The suggested interventions also include stronger linkages between the public and the private sector, and specific measures to increase the utilization of existing capacities.

The fourth area pertains to various interventions aimed at enhancing policy coherence and inclusiveness. The operational strategy suggests interventions for better aligning trade and investment policies to the national development framework, and better defining their scope and interlinkages with other policy areas. Furthermore, the plan includes interventions for strengthening gender provisions in trade and industry related policies, addressing informality in cross-border trade, and better catering for the needs of micro, small and medium-sized enterprises. The report also discusses skills and institutional capabilities necessary to implement the operational strategy, as well as selected implementation issues, such as resource mobilization, and monitoring and evaluation.

1

INTRODUCTION

Rwanda is a small landlocked developing country in east-central Africa, surrounded by Burundi, the Democratic Republic of the Congo, Tanzania and Uganda. Despite its small size, it has several diverse ecosystems, comprising the savanna of Akagera National Park, the lush rainforests of Nyungwe, and the Virunga volcanic massif. In addition to the breath-taking scenery and rich wildlife attracting an ever-growing number of international visitors, the country is blessed with mining resources, such as tin and tungsten. The population is young and rapidly growing, making Rwanda one of the most densely populated countries in the region.[1]

Currently, Rwanda is classified as a low-income country and a least developed country[2] but it is making impressive progress towards becoming a middle-income country. Its progress is steered by a strong vision. The national development program, Vision 2020, was launched by President Kagame in 2000 with the main objectives of reconciliation and reconstruction. It was followed by Vision 2050 which aspires to transform the Rwandan economy and modernize the lives of all Rwandans. In terms of economic growth, the plan is to become an upper-middle income country with a gross domestic product (GDP) per capita over $4,036 by 2035 and a high income country with GDP per capita over $12,476 by 2050 (Republic of Rwanda 2020).

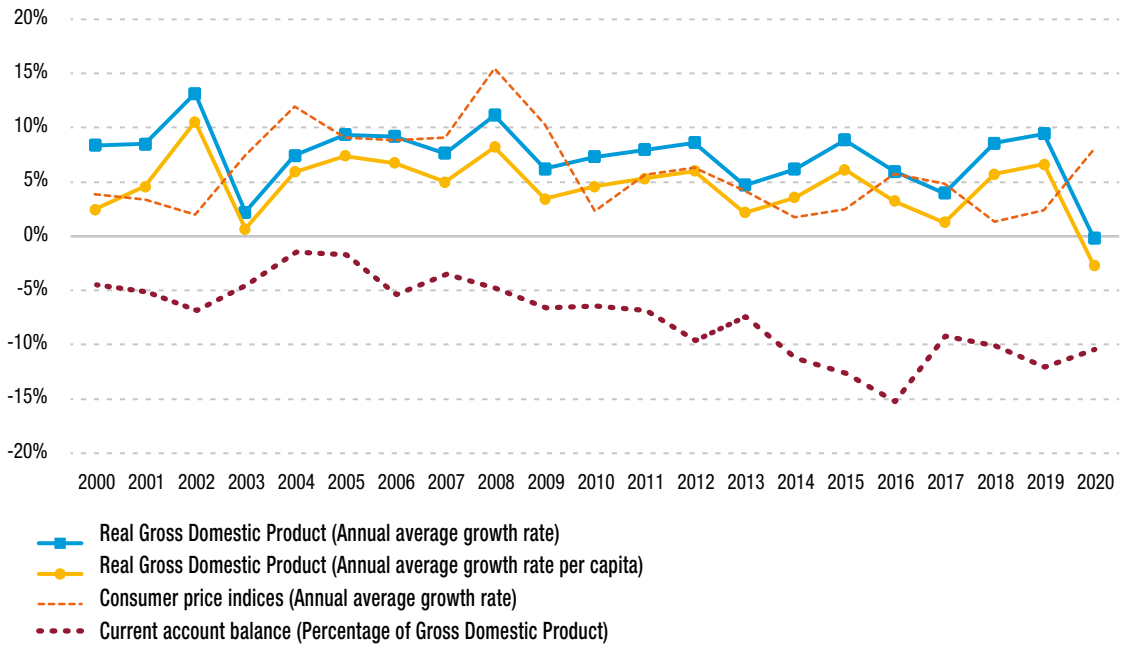
Stewarded by this ambitious transformational agenda, Rwanda has become one of Africa's fastest-growing economies. Prior to the onset of the COVID-19 crisis, its real output growth averaged 7.8 percent in the past 20 years, outperforming most of the other economies on the continent. GDP per capita growth was smaller due to high population growth but still amounted to an impressive average of 5 percent in 2000-2019. This growth was supported by a relatively stable macro-economic situation. Since 2010 the inflation rate did not exceed 8 percent, including in 2020 when the COVID-19 pandemic put inflationary pressure on the Rwandan franc. The current account balance has been systematically negative, falling to -15.3 percent of GDP in 2016 but gradually narrowing since then (Figure 1).

High economic growth, coupled with a deliberate significant investment in public services such as healthcare and education, led to progress in several social dimensions. In the past two decades, life expectancy at birth increased from 48.6 years to 69 years, and the completion rate of primary education became almost universal, increasing from a mere 25.1 percent to 97.4 percent. The decrease in the mortality rate of children under five, widely viewed as a measure of how well the society can protect its most vulnerable, was significant, dropping five-fold – from 178.7 deaths per 1000 live births in 2000 to 34.3 deaths per 1000 live births in 2019. Inequality has reduced, both as measured by the Gini index, which fell from 48.5 to 43.7, and by income shares. The income share held by the highest 10 percent of the population decreased from 40.8 to 35.6 percent, while the lowest 40 percent of the population witnesses their share of income increasing, albeit by only 1.7 percentage points, from 14.1 percent to 15.8 percent (Table 1). It's a welcome trend because during the same period many nations experienced an increase in within-country inequality.

[1] The Rwandan population was approaching the 13 million mark in 2020, while the area spans 26.3 thousand square kilometers. The fertility rate is high but decreasing – from 7.2 births per woman in 1990 to 4.0 births per woman in 2020 (World Bank Development Indicators).

[2] In 2020 Rwanda's per capita gross national income (GNI) was $780 or $2160 in purchasing power parity terms, i.e., taking into account the price level in the country (World Bank Development Indicators).

Figure 1: Real GDP and GDP per capita growth, inflation and current account balance in Rwanda, 2000-2020



Source: UNCTADStat.

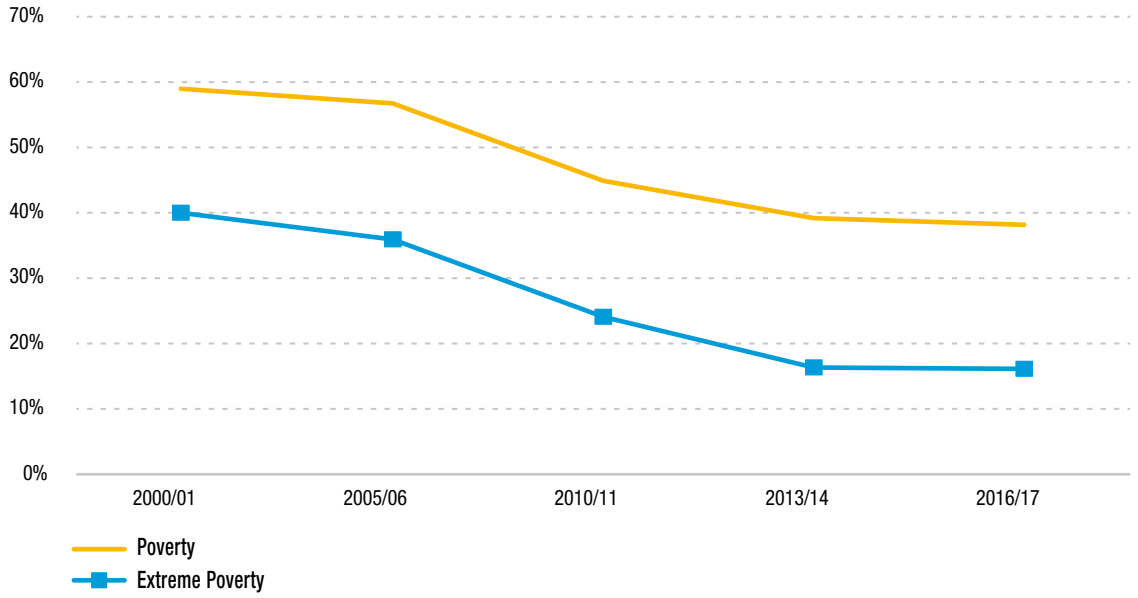
Table 1: Social development, poverty and inequality in Rwanda, 2000-2019

	2000	2010	2016	2019
Life expectancy at birth, total (years)	48.6	63.4	67.9	69.0
Mortality rate, under-5 (per 1000 live births)	178.7	63.7	39.2	34.3
Primary completion rate, total (% of relevant age group)	25.1	71.9	69.1	97.4
Income share held by highest 10 percent	40.8	39.8	35.6	…
Income share held by lowest 40 percent	14.1	14.7	15.8	…
Gini index	48.5	47.2	43.7	…
Poverty headcount ratio at $1.90 a day (2011 PPP) (% of population)	78.0	63.2	56.5	…

Source: World Bank.

Poverty has also reduced, from 78 percent of the population in 2000 to 56.5 percent in 2016, as measured by the international poverty line of $1.90 a day (World Bank, World Development Indicators). Using the national poverty line of FRW 159 375, the poverty rate in Rwanda fell from 59 percent in 2000 to 36.7 percent in 2016 (NISR, Integrated Household Living Conditions Surveys). Regarding poverty reduction, three facts are worrisome. First, a very large share of the population remains below the poverty line – more than a third by the national standard and more than half by the international standard of $1.90 a day. Second, progress in poverty reduction has slowed down – between 2013/14 and 2016/17 the poverty rate decreased by only 1.4 percentage points (Figure 2), which is not commensurate with the GDP per capita growth which during the same four years has increased by more than 16 percent (UNCTADStat). Third, economic and social progress have been put at risk by the COVID-19 pandemic.

Figure 2: Trends in poverty in Rwanda



Note: Poverty is defined as the real consumption equivalent to FRW 159 375 per year per adult, and extreme poverty as FRW 105 064 per year per adult.

Source: NISR, EICV5, 2017.

Rwanda registered its first coronavirus case on March 14, 2020, followed by several waves of infections – in April 2020, January and July 2021, and January 2022. As of 2 February 2022, the total number of cases stood at 128,891 and the total death at 1,440 (WHO). The Rwandan government was highly praised for its COVID-19 response that included swift measures to contain the spread of the virus, intensive testing and tracking, and vaccination. Over 54 percent of the population was fully vaccinated by 2 February 2022, which is significantly higher than the average of 8.1 percent of fully vaccinated in African countries, and higher than the average of 48.1 percent of fully vaccinated in South-East Asia (WHO). Nonetheless, like in the rest of the world, the impact of the pandemic is mostly felt by poor households, particularly in urban areas (United Nations in Rwanda 2020).

Due to the global nature of the COVID-19 crisis and the containment measures imposed by national governments, which inhibited business activities, the pandemic has negatively affected the real economy and productive capacities in Rwanda. In 2020, there were significant declines in industrial output as well as the inflow of investment, import of capital goods, and the provision of education services – jeopardizing output and productivity in 2021 and beyond. But the crisis also brought an opportunity to better gear economic policies towards the goal of productive transformation in the country.

Tackling the challenges of the COVID-19 pandemic, addressing poverty, and building resilience to external shocks require a diversified and performant economy, which is typically achieved through the development of productive capacities and structural transformation. When productive capacities development is accompanied by inclusive social policies, it can also propel broader development agenda – helping to transform the lives of all Rwandans through inclusive and sustainable growth. The development of productive capacities rarely happens spontaneously. On the contrary, it requires governments to play a proactive role. To assist the Government of Rwanda in this process,

UNCTAD is implementing a Development Account project on "Coherent strategies for productive capacity development in selected African least developed countries". As part of the project, this report provides an operational action plan to foster productive capacities development in Rwanda. The proposed action plan specifies concrete interventions in four policy areas. The first area covers the core processes for productive capacities development – investment, technological progress and structural change. The second area comprises interventions for human and physical capital development, the third one specifies measures to lift private sector constraints, and the fourth area identifies measures for enhancing policy coherence and inclusiveness.

The rest of the report is organized as follows. Chapter 2 presents an overview of the evolution of the structure of the Rwandan economy – to understand the long-term economic trends and set the scene for the analysis of the country's productive capacities. Chapter 3 provides a quantitative assessment of the state of Rwanda's productive capacities based on the productive capacities index developed by UNCTAD. The chapter also includes an analysis of capacity utilization rates and the constraints facing the private sector in operating at full capacity. In addition, the chapter examines the impact of the COVID-19 pandemic on productive capacities, and the channels through which this impact is transmitted. Chapter 4 discusses Rwanda's recent initiatives relevant for productive capacities development, including a discussion on the feasibility of leapfrogging manufacturing and focusing on services development. Chapter 5 analyses constraints to developing productive capacities in Rwanda and Chapter 6 offers an action plan for addressing the identified constraints to foster productive transformation. Chapter 7 discusses policy implementation issues, with a focus on resource mobilization and monitoring and evaluation.

2

EVOLUTION OF THE STRUCTURE OF THE ECONOMY

The sectorial composition of output

Over the past decades the production structure of Rwanda's economy has changed significantly, following the pattern experienced by many African countries. Five decades ago, Rwanda was an agrarian country with agriculture accounting for two-thirds of output. The share of agriculture in GDP has steadily declined over the years to 27 percent of GDP in 2011-19 (Table 2).

Table 2: Evolution of Gross Domestic Product of Rwanda, by component and sector

	1970-80	1981-90	1991-00	2001-10	2011-19
Contribution of sectors to total value added (average annual %)					
Agriculture, hunting, forestry, fishing	66.9	48.7	40.7	32.2	27.0
Industry	13.8	19.4	19.2	17.4	19.4
out of which manufacturing	7.5	8.1	11.1	9.6	8.2
Services	19.2	32.0	40.1	50.4	53.6
Component share in Gross Domestic Product (average annual %)					
Final consumption expenditure	94.5	94.7	111.6	97.3	91.8
Gross capital formation	10.5	13.7	10.7	16.3	23.9
Exports of goods and services	9.4	7.9	6.2	9.9	15.9
Imports of goods and services	13.8	15.4	27.5	23.6	31.6

Source: UNCTADstat.

Nonetheless, a large share of the population still derives its livelihood from agriculture, with the sector's performance being an important factor in employment creation and poverty alleviation. For 69.8 percent of Rwandans the sector is the main provider of jobs (National Institute of Statistics of Rwanda 2018). Furthermore, agriculture supplies the main export products – coffee and tea. Therefore, the modernization and increased productivity of the agricultural sector remains important for economic development.

The main shift in Rwandan output has been from agriculture to the services sector that has grown dynamically from 19.2 percent annual average in 1970-80 to over 53 percent in the last decade. Looking at the output-labour ratio, services sector productivity is higher than that in industry and agriculture, but the aggregate numbers mask the fact that many services sub-sectors are unproductive. The majority of service firms are in wholesale and retail trade which suffers from labour productivity that is only marginally higher than in agriculture (Republic of Rwanda 2017) and have low capacity utilization. The Government of Rwanda places strong emphasis on the development of high value-added international services, particularly Meetings, Incentives, Conferences and Events (MICE), and Finance, Insurance and Real Estate (FIRE), but they represent only a small share of value added and a very small share of employment in the aggregated services sector.

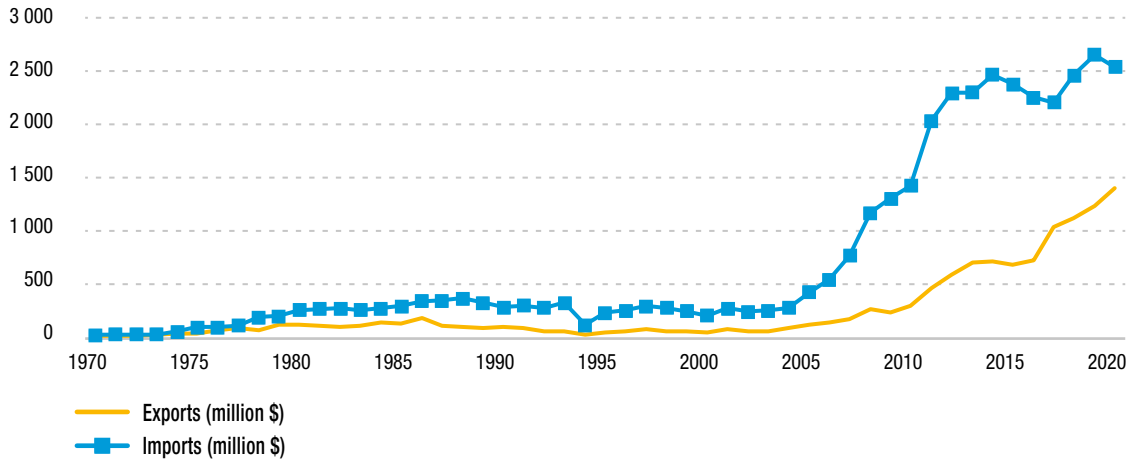
The share of industry has grown slightly in the past decades, from 13.8 percent in the seventies to the current 19.4 percent. However, this growth was driven by mining and construction, while manufacturing output stagnated at around nine percent of GDP. The Rwandan industry provides the smallest share of employment (18.6 percent of the labour force in 2019 according to ILO) when compared to services and agriculture. However, it is the main contributor to new job creation.

Manufacturing accounted for about 21 percent of new jobs, and construction for 25 percent, according to the labour force survey for 2017-18. This makes manufacturing an important target for productive capacities development.

International trade in goods and services

The output of an economy is linked with its trade composition and performance – global and regional markets offer opportunities for economies of scale while strong productive capacities increase the likelihood of export success. The positive correlation between trade and industrial performance is even stronger for smaller countries. Due to this interrelation, the analysis of trade statistics allows us to indirectly assess the strengths and drawbacks in domestic productive capacities. In Rwanda, international trade has grown in both relative and absolute terms. The share of exports of goods and services as a percentage of GDP increased from 9.4 to 15.9 percent over the past five decades, while imports share rose from 13.8 percent to 31.6 percent of GDP over the same period (Table 2). In absolute terms, merchandise exports reached $1.4 billion in 2020, while imports peaked at $2.5 billion (Figure 3).

Figure 3: Growth of international merchandise trade in Rwanda



Source: UNCTADstat.

While the growth of total merchandise trade value is impressive, the analysis by product and partner countries suggests several weaknesses that can hinder productive capacities development. The merchandise trade deficit is rising, as evident by the growing gap between the two lines in Figure 3. Even after some contraction of imports in 2020, the deficit amounts to $1.1 billion, more than 80 percent of merchandise trade exports. Trade deficit adds downward pressure on the Rwandan franc. Undervalued currency can make export easier, but domestic inputs for manufacturing will be more expensive, particularly because Rwanda heavily relies on imported capital goods. Difficulties with importing capital goods can constrain physical capital accumulation and linkages necessary for developing industrial capacities.

Furthermore, merchandise exports are very concentrated which increases vulnerability to external shocks. Two top markets – the Democratic Republic of Congo and the United Arab Emirates – accounted for over 61 percent of all Rwandan exports in 2019 (ITC 2021). Products are also highly concentrated: food items represent a quarter of all exports, followed by ores and metals (18.8 percent) and manufactured goods (7.6 percent). This distribution has remained relatively

constant in the past 5 years. The share of manufactured goods in Rwanda's exports is low, even in comparison to other countries at a similar level of development. For example, manufacturing goods account for more than 23 percent of the export basket of African countries on average (Table 3). This suggests that Rwanda has unrealized potential for product diversification through the development of manufacturing production and export.

Table 3: Structure of merchandise exports in Rwanda and Africa

		Value (million $)			Share (%)		
		2016	2019	2020	2016	2019	2020
Rwanda							
Exports	Total: all products	731	943	1 004	100	100	100
	All food items	240	277	249	32.8	29.4	24.8
	Ores and metals	140	191	189	19.1	20.3	18.8
	Fuels	84	94	69	11.5	9.9	6.9
	Manufactured goods	54	64	77	7.4	6.7	7.6
Imports	Total: all products	2 254	2 212	2 464	100.0	100.0	100.0
	All food items	349	438	455	15.5	19.8	18.5
	Ores and metals	23	28	29	1.0	1.3	1.2
	Fuels	280	395	353	12.4	17.8	14.3
	Manufactured goods	1 524	1 268	1 596	67.6	57.3	64.7
Africa							
Exports	Total: all products	358 846	437 777	514 763	100	100	100
	All food items	52 854	58 715	60 339	14.7	13.4	11.7
	Ores and metals	38 506	52 241	62 827	10.7	11.9	12.2
	Fuels	123 381	169 804	219 832	34.4	38.8	42.7
	Manufactured goods	94 186	103 820	119 121	26.2	23.7	23.1
Imports	Total: all products	483 878	509 785	563 898	100	100	100
	All food items	74 353	82 482	83 943	15.4	16.2	14.9
	Ores and metals	10 915	13 625	17 097	2.3	2.7	3.0
	Fuels	56 562	65 411	82 990	11.7	12.8	14.7
	Manufactured goods	321 726	326 366	356 735	66.5	64.0	63.3

Note: Estimates for selected categories of products: All food items (SITC 0 + 1 + 22 + 4), Ores and metals (SITC 27 + 28 + 68), Fuels (SITC 3), Manufactured goods (SITC 5 to 8 less 667 and 68).

Source: UNCTADstat.

Regarding the tertiary sector, services trade rapidly expanded in the past 10 years, exceeding $1 billion in exports and $1 billion in imports in 2019, with a very small trade deficit ($17 million or 1.6 percent of the value of services exports). The export of services is dominated by transport and travel, accounting in 2019 for 21 percent and 45.1 percent respectively. This explains the rapid contraction of services exports in 2020 when the COVID-19 pandemic hit. The estimates suggest that Rwandan services exports almost halved between 2019 and 2020, dropping to $560 million (Table 4). Services exports are more volatile than merchandise exports suggesting that production and export of manufacturing goods can play a stabilizing role.

Table 4: International trade in services in Rwanda

	2010	2015	2019	2020 (estimated)
Total trade in services (million $)				
Services exports	405	767	1 015	560
Services imports	560	1 020	1 032	597
Services trade balance	-154	-253	-17	-37
Services exports by the main category (as % of total services)				
Transport	7.3	13.5	21.0	22.2
Travel	49.7	44.1	45.1	21.9
Other services	43	42.4	33.9	55.9

Source: UNCTADstat.

Rwanda's trade structure is affected by its landlocked position which poses two significant challenges – greater trade costs and dependence on neighbours for transit (the time and cost to cross borders, the state of infrastructures in the neighbouring countries and prevailing political relations – making it difficult to escape dependence on primary commodities (Rwirahira 2020). To overcome these challenges Rwanda is pursuing a development strategy emphasising regional integration, trade liberalization and private sector-led growth. Currently, Rwanda is part of three Regional Economic Communities – the East African Community, the Common Market for Eastern and Southern Africa, and the Economic Community of Central African States. It is also a signatory to the COMESA-SADC-EAC Tripartite Free Trade Area, and a state party to the African Continental Free Trade Area (AfCFTA). While regional integration is undeniably important, the government needs to continually assess initiatives under the agreements to ensure that they do not limit domestic policy space to the extent that it impacts the ability of the government to enact policies for stimulating productive capacities and structural transformation necessary for achieving national development objectives (Osakwe and Laudares 2021).

Investment

Investment is a critical ingredient for sustained economic growth and productive capacities development. Strategically targeted investments can foster structural transformation by bringing the necessary capital to the priority sectors. Furthermore, there is a positive reinforcing cycle between productive investment, trade and technology. Through productive capacities development investment increases trade capabilities, leading to greater export competitiveness and stronger integration into global value chains (GVCs). Export success allows for economies of scale and higher profit margins which in turn attracts further investment. Investments in digital and IT infrastructure fosters technological progress in the country while Foreign Direct Investment (FDIs) can contribute to not only financial inflows but also acquiring foreign know-how and linkages with large companies. This positive reinforcing cycle is particularly important for countries with small domestic markets and weak manufacturing sectors.

In Rwanda, gross capital formation is at 23.9 percent of GDP (2011-19), increasing from 10.5 percent five decades ago (Table 2). Foreign direct investment (FDI) is an important source of capital in the country, accounting for 12.7 percent of gross fixed capital formation and 3.4 percent of GDP in 2019. In absolute terms, the inward flow in 2019 amounted to $354 million, up from just $8 million at the turn

of the millennium. The current stock is at $2.6 billion. The pandemic halted the investment causing the inward flow to collapse to $135 million in 2020 (Table 5). The outward flow is negligible. Amidst the coronavirus pandemic, foreign and domestic resource mobilization becomes a priority to return on the growth path and ensure that productive capacities are not destroyed during the crisis.

Table 5: Evolution of Inward Foreign Direct Investment in Rwanda

Inward Foreign Direct Investment	1990	2000	2010	2019	2020
Flow (million $)	8	8	251	354	135
Stock (million $)	33	55	422	2 547	2 636
Flow as % of Gross Domestic Product	0.3	0.4	4.1	3.4	1.3
Flow as % of Gross Fixed Capital Formation	3.0	3.2	20.6	12.7	..

Source: UNCTADstat.

Looking at the source of FDI, African countries play an important role, with about 51 percent of the inflows coming from Mauritius and 7 percent from Kenya. The Netherlands supplied 17 percent and the United States 6 percent (NBR 2019). In terms of sectors, industry is a leading destination with 56 percent of all inflows on average in 2013-2017, followed by services (41 percent) and agriculture (3 percent) (Rwirahira 2020). Within industry, most of the investment went to construction (33 percent of total inflows in 2017), followed by mining and utilities (15 percent and 11 percent respectively). Manufacturing received only 7 percent of total FDI inflows in 2017 (Table 6), which is not sufficient for stimulating diversification and the enhancement of productive capacities. These numbers call for diversification of the sources of investment and better targeting priority sectors, particularly manufacturing.

Table 6: Sector composition of registered Foreign Direct Investment in Rwanda

	2013	2014	2015	2016	2017	Average (2013-17)
Share of sectors in FDI inflows (%)						
Agriculture	1	2	2	4	4	3
Industry	46	92	21	55	69	56
Mining	2	12	2	6	15	7
Manufacturing	4	9	8	20	7	10
Agro-processing	3	2	10	2	3	4
Construction	8	12	1	6	33	12
Utilities	28	58	1	21	11	24
Services	53	6	77	41	27	41

Source: RDB.

To summarize, Rwanda made progress in terms of a shift from agriculture to services, but structural challenges remain. The first challenge is the high sectoral concentration of output and exports in the economy. Output is driven by services, particularly MICE and FIRE, and export is concentrated on few commodity products. The second challenge is the low contribution of manufacturing to output and trade. The share of manufacturing is on a downward trend, partially due to the limited investment into this subsector. The final challenge is low overall productivity of the economy, including in the agricultural sector. The development of productive capacities and cross-sectoral linkages can help address these challenges by contributing to increased productivity and diversification of the Rwandan economy.

3

ASSESSMENT OF PRODUCTIVE CAPACITIES

Evolution of productive capacities

Productive capacities play a key role in poverty reduction, job creation, and structural transformation. The development of productive capacities is particularly important for LDCs that need to upgrade their economic structures, bridge development gaps, and increase their resilience to external shocks. Yet, until recently, there were no tools to measure a country's performance in terms of productive capacities, identify and address gaps, and monitor progress. In response, UNCTAD has developed a Productive Capacities Index (PCI) – a practical tool for understanding the status of a country's productive capacities and how it can be improved.

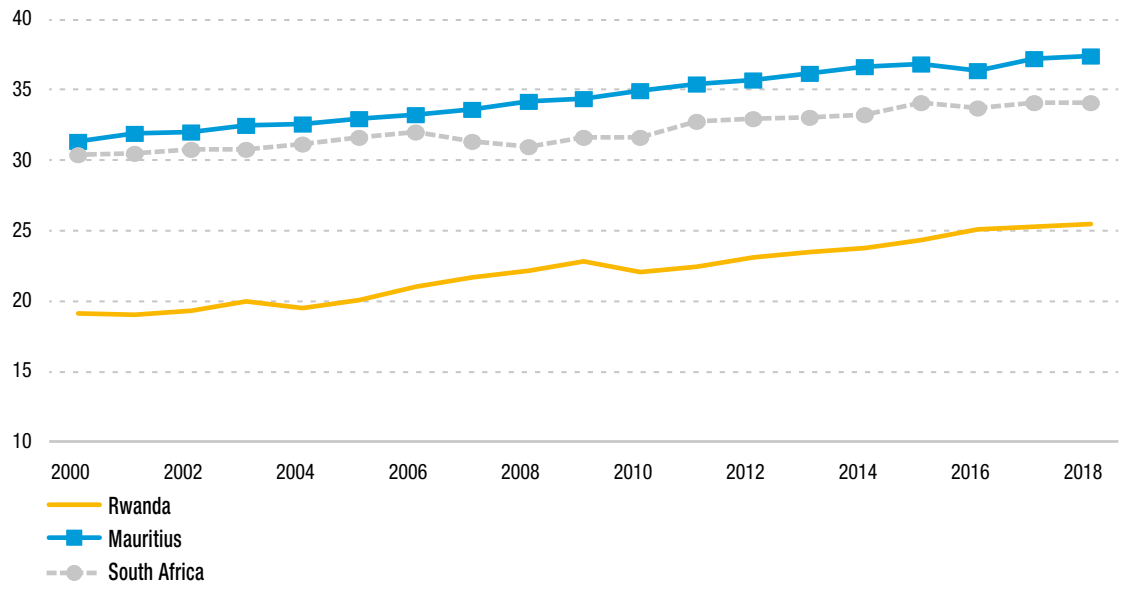
The PCI defines productive capacities as the productive resources, entrepreneurial capabilities and production linkages that together determine a country's ability to produce goods and services that will help it grow and develop. To measure productive capacities, the PCI brings together 46 indicators, grouped into eight components, namely energy, human capital, natural capital, ICTs, structural change, transport, institutions, and the private sector. The PCI covers 193 economies for the period 2000-2018, allowing to trace performance over time and benchmark it across countries. The index scores a country's performance in each component of productive capacities on a scale of 0 to 100 (100 being the best outcome), assessing the effectiveness of policies and strategies as well as existing gaps and limitations. It can help governments formulate and implement their policies better and benchmark their achievements.

Rwanda made steady progress in developing productive capacities, manifested in its overall PCI score increasing from 19.1 at the turn of the millennium to 25.4 in 2018. Rwanda's score is comparable with the scores of similar countries: it is slightly lower than the average for the LLDCs (26.1) but above that of the LDC group (24.0). It is higher than its East African neighbours, except Kenya. Mauritius and South Africa, both currently classified as upper-middle income countries[3], provide a useful comparison given Rwanda's aspiration to become a middle-income country by 2035. Both Mauritius and South Africa have significantly higher overall PCI – 34.1 for South Africa and 37.4 for Mauritius (Figure 4). This comparison suggests that the productive capacities of Rwanda need to grow at a much higher pace than the pace experienced in the past 18 years for Rwanda to be on track for achieving its Vision 2050.

Rwanda's improvement in the overall score between 2000 and 2018 is driven by the components measuring institutions, human capital, and the private sector. On these dimensions, it is close to the African middle-income economies (Table 7). Yet, the score for the natural capital and transport deteriorated, while energy and structural change remained stagnant, calling for specific attention to these areas through dedicated policies and measures. A particularly striking situation is with Information and Communication Technology (ICT) which was at an especially low level (score of 6 out of 100 in 2018). In response to the COVID-19 pandemic, the ICT in Rwanda grew multi-fold – raising hopes that this rapid development can be sustained throughout and after the pandemic crisis.

[3] Mauritius attained the high income status for the first time in 2019 but a decrease in GDP in 2020 led to its reclassification as upper middle income country (World Bank 2021).

Figure 4: Evolution of productive capacities in Rwanda and comparator economies



Source: UNCTADstat.

Table 7: Components of the productive capacities index in Rwanda and comparator economies

	Rwanda			Mauritius	South Africa
	2000	2018	Change 2000-18	2018	2018
Overall index: Productive capacities index	19	25	6	37	34
Human capital	26	42	16	51	50
Natural capital	62	61	-1	51	64
Energy	15	15	0	31	29
Transport	15	13	-2	20	15
Information and Communication Technology (ICT)	3	6	3	17	11
Institutions	30	57	27	74	60
Private sector	56	71	15	87	82
Structural change	11	14	4	21	24

Source: UNCTADstat.

Analysis of domestic capacity utilization

Productive capacities define a country's ability to produce goods and services. It is an aggregate of the decisions of economic agents – productive capacities grow when enterprises produce more, either by creating new products or by increasingly utilizing their existing capacities. From this perspective, it is important to examine the behaviour of Rwandan firms with regard to capacity utilization and the constraints they face. The World Bank surveyed manufacturing and services firms in Rwanda three times, in 2006, 2011 and 2019. The 2019 survey comprises 360 enterprises, including 306 small and medium-sized enterprises (SMEs) and 54 large firms.

The sample covered 120 enterprises in manufacturing, 76 enterprises in retail and 164 enterprises in other services, but it does not include agricultural establishments. According to the World Bank Enterprise Survey, in 2019 Rwandan firms utilized, on average, 81 percent of their full capacity. This number is lower in comparison with South Africa where firms managed to utilize 90 percent of their capacity even in 2020, the year disrupted by the pandemic. Firms in Mauritius were at 69 percent of their capacity in 2009, the latest year for which the World Bank Enterprise Surveys are available for this country.

An earlier survey undertaken by NISR provides capacity utilization data by specific activity. Mining firms used 63 percent of their installed capacity in 2016, manufacturing – 65 percent, construction – 78 percent. The performance of services sub-sector is very heterogenous. The lowest capacity utilization, 53 percent is reported for wholesale and retail trade, repair of motor vehicles and motorcycles, while administrative and support service activities are among top performance, recording 96 percent capacity utilization on average (Table 8). Larger firms in Rwanda have higher capacity utilization (75 percent), while medium-sized firms use 67 percent of their productive resources, followed by 65 and 63 percent capacity utilization respectively by small and micro firms (Table 8). This is likely to stem from two factors – large firms can more easily cover fixed costs and have a stronger influence on their business environment. For example, large firms in areas with weak energy supply can install economic generators or use alternative energy sources, while such investments are prohibitively high for SMEs.

Table 8: Capacity utilization in Rwanda, by size and economic activity

	Average utilization, %	No of surveyed companies
Activity		
Mining and quarrying	63	30
Manufacturing	65	546
Electricity, gas, steam and air conditioning supply	78	2
Water supply; sewerage, waste management and remediation activities	75	2
Construction	78	2
Wholesale and retail trade; repair of motor vehicles and motorcycles	53	21
Administrative and support service activities	96	15
Human health and social work activities	100	1
Arts, entertainment and recreation	75	3
Other service activities	80	11
Enterprise size		
Micro (1-3 employees)	63.3	91
Small (4-30 employees)	65.2	431
Medium (31-100 employees)	67.4	60
Big (100 + employees)	75.3	51
Total	**66.0**	**632**

Source: NISR-IBES 2016.

The average utilization rate in the NISR-IBES survey is 66 percent, which is lower than the results provided by the World Bank Enterprise Surveys. The divergence in numbers can be explained by the difference in the timing of the survey and in the sample. NISR-IBES has a larger sample comprising 632 companies, including manufacturing (546 companies), mining and services, but excluding agriculture. Despite the differences in reported numbers, the message is clear – Rwanda has infrastructure, human and physical capital and technologies that sit idle. Next to the question on the rate of capacity utilization, each participating company was asked to specify reasons for capacity underutilization, and 28.5 percent of the respondents did. Most frequently selected reasons were low demand, unreliable supply of inputs and lack of working capital (reported by 76, 44 and 34 percent of companies respectively). Lack of necessary technology, machinery and spare parts and old equipment come as 4th and 5th constraints, followed by lack of skilled workers and unreliable power supply (Table 9).

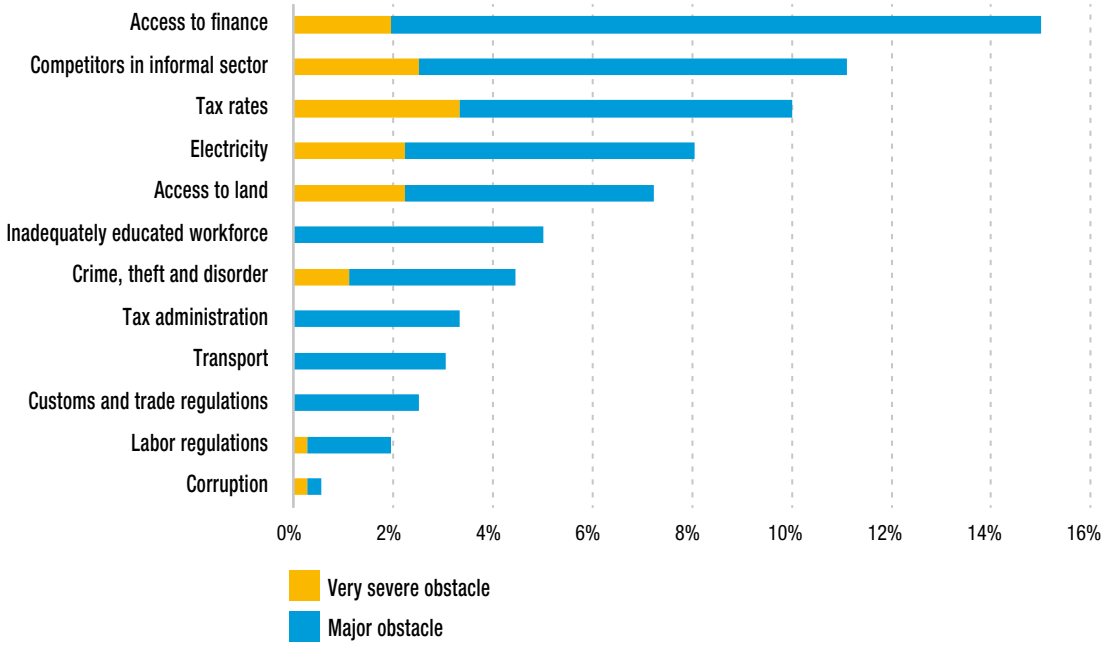
Table 9: Reasons for capacity underutilization

Reasons for capacity underutilization	Share of companies selecting a particular reason, %
Low demand	75.9
Unreliable supply of inputs	44.4
Lack of working capital	34.6
Lack of necessary specialized technology, machinery and spare parts	29.4
Old equipment	24.0
Lack of skilled workers	21.0
Unreliable supply of power	15.4
Labour market regulations	13.9
Bottleneck in the production line	9.2
Other	17.3

Source: NISR IBES 2016.

The survey by the World Bank has a more open question on the constraints experienced by the company in general and not necessarily related to capacity underutilization. The results corroborate the results of IBES, highlighting access to finance as a constraint, which corresponds to the IBES category lack of working capital. Constraints with electricity and skilled workers are in the middle of the ranking. More precisely, the most frequently reported constraints (those identified by surveyed firms as either very severe or major obstacles) are access to finance (15 percent of surveyed firms), competitors in the informal sector (11 percent), tax rates (10 percent), electricity (8 percent), and access to land (7 percent). The surveyed companies' assessment of electricity corroborates the results of the PCI analysis where the category Energy has a low score that remained stagnant in the past 18 years. A small number of firms have also reported obstacles that had very severe impact on their operations. These severe obstacles include the five constraints listed above, as well as crime, theft and disorder, labour regulations, and corruption (Figure 5). The constraints identified by the surveyed firms can provide important guidance for policies and measures aimed at a rapid increase in manufacturing production because increasing the utilization of installed capacities requires fewer resources than the creation of new production lines.

Figure 5: Percentage of firms in Rwanda choosing each constraint as an obstacle



Source: World Bank Enterprise Surveys, 2019.

The constraints also have a gender dimension. Most notably, access to financial services is significantly harder for women. FinScope survey in 2016 looking at ICT financial services in Rwanda, showed that even if access to mobile phones was almost equal, with 88 percent of males and 84 percent of females using mobile phones, men had significantly higher uptake of mobile money services (44 percent vs 33 percent for female), mobile phone financial transactions (44 percent vs 35 percent), and mobile money accounts (46 percent vs 33 percent for female). The rural population was further disadvantaged, with only 23.9 percent of holders of ATM debit cards being women, in comparison with 47.2 percent for women in urban areas (Table 10).

Table 10: Access to financial services in Rwanda, by gender

ICT Financial Services		Male (%)	Female (%)
Access to mobile phones		88.0	84.0
Uptake of mobile money services		44.0	33.0
Mobile phones financial transactions		44.0	35.0
Mobile money account holders		46.0	33.0
Access to ATM debit cards	Urban	52.8	47.2
	Rural	76.1	23.9
	Total	60.0	40.0

Source: FinScope, 2016.

Impact of COVID-19

Government response and the impact by sector

In early 2022 the COVID-19 pandemic continued to disrupt global economic and social activities through new variants and vaccine shortages, loss of lives, the strain on public health, broken supply chains, travel bans, closures of businesses and loss of livelihoods. The government of Rwanda is hailed for its effective response to the pandemic (United Nations in Rwanda 2020). Indeed, it managed to contain the spread of the disease[4] while minimizing the impact on the economy to the extent possible. Rwanda's GDP contracted by 3 percent in 2020 (National Institute of Statistics of Rwanda), but this contraction is smaller than the one experienced in other countries. For example, the GDP of low-income countries fell by 4.8 percent and global GDP decreased by 6.7 percent (Statista 2021).

The economic contraction in Rwanda was driven to a large extent by the services sector which accounts for over half of Rwanda's GDP. Export oriented services suffered a strong hit due to disruption in international trade and travel. The overall output of services reduced by 6 percent between 2019 and 2020, and total industrial output fell by 4 percent. The agricultural output increased by 1 percent because agriculture was more insulated from the restrictions to ensure the supply of food and other essential goods. The economic effect of the pandemic was heterogenous across sub-sectors, with some activities expanding, propelled by the structural changes in demand (Rwirahira 2021a). ICT, human health and social work, and processed food grew by 29 percent, 16 percent and 7 percent respectively between 2019 and 2020 (Table 11).

Table 11: GDP by selected activity in Rwanda in 2019-2020

	Billions FRW at constant 2017 prices		% Change
	2019	2020	
Gross Domestic Products	9 145	8 838	-3
Agriculture, Forestry and Fishery	2 259	2 278	1
Industry	1 686	1 614	-4
Manufacturing	746	762	2
off which Food (processed)	248	265	7
Services	4 377	4 136	-6
Other services	3 038	2 938	-3
Information and communication	167	216	29
Human health and social work activities	165	192	16

Source: National Institute of Statistics of Rwanda.

[4] Rwanda lost 1,440 lives to COVID-19, and 128 thousand of people were infected during the course of the pandemic. By February 2022, 54 percent of Rwandan population was fully vaccinated, a figure well above the African average (World Health Organization, as of February, 2 2022).

As part of the pandemic response, the government swiftly put into place measures to contain the spread of the virus. By March 21, 2020 a full lockdown had been implemented, followed by the second lockdown in early 2021. In addition to the lockdowns, the containment measures included closing of schools, prohibition of public gatherings, and closure of non-essential business and economic activities (Rwirahira 2021b). Although these measures were necessary to manage the health crisis and helped Rwanda halt the rapid spread of the disease, they had social and economic consequences, including a negative impact on business activity.

The transactions data from the daily Electronic and Billing machines (EBM) automatically reported to the Rwanda Revenue Authority (RRA) provides a real-time indication of the impact on business activity. During the lockdowns, the total number of transactions of Rwandan businesses fell by 59 percent. The value of services transactions fell by 34 percent with hotels and restaurants hardest hit (66 percent decrease). The value of business transactions in the industrial sector fell by 39 percent, including a 36 percent decline in manufacturing (Table 12). The number of transactions in manufacturing fell by 60 percent while the value decreased by 36 percent (Rwirahira 2021b) suggesting that firms privileged keeping larger transactions during the lockdowns.

Table 12: Impact of lockdowns on businesses in Rwanda, by sector

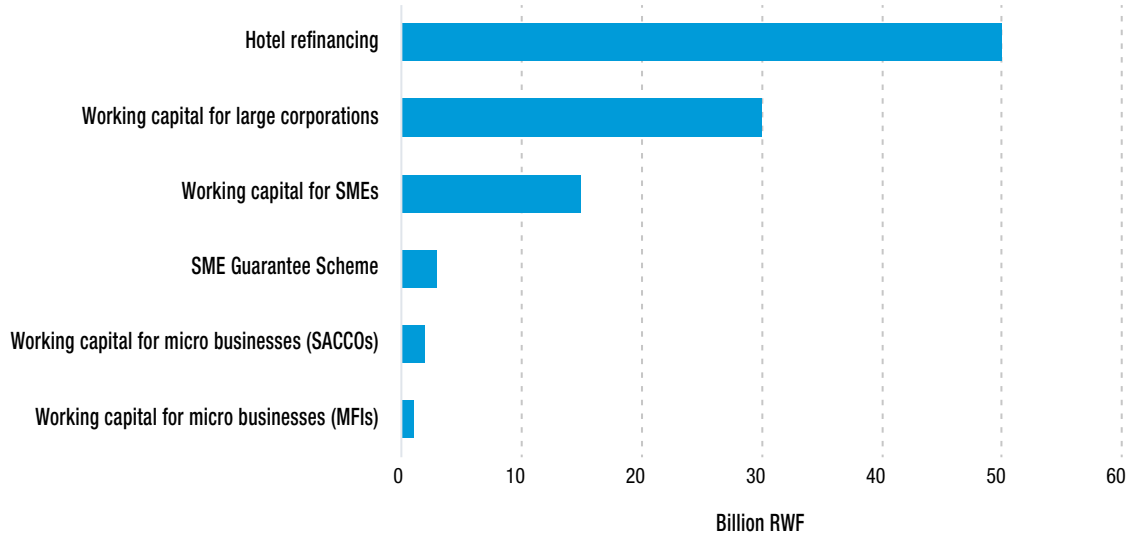
		Percentage change		
		1st Lockdown (Mar-Apr 2020)	2nd Lockdown (Jan-Feb 2021)	Average
Total turnovers	Transactions	-64	-54	-59
Industry	Transactions	-41	-22	-32
	EBM sales value	-55	-23	-39
Manufacturing	Transactions	-57	-62	-60
	EBM sales value	-45	-27	-36
Construction	Transactions	-84	-54	-69
	EBM sales value	-34	8	-13
Services	Transactions	-66	-60	-63
	EBM sales value	-43	-25	-34
Trade	Transactions	-61	-61	-61
	EBM sales value	-44	-30	-37
Transport	Transactions	-72	-66	-69
	EBM sales value	-23	-29	-26
Hotels and restaurants	Transactions	-92	-85	-89
	EBM sales value	-75	-57	-66
Finance and insurance	Transactions	-57	-53	-55
	EBM sales value	-44	-23	-34

Source: RRA data and MINECOFIN Analysis, 2021.

The speed of recovery of the enterprises depended on many factors, including the duration and magnitude of national lockdowns, the extent of reduced demand for goods and services, and the speed at which fiscal and monetary policy support comes into effect. Recognizing this the government of Rwanda put in place several initiatives, including a stronger emphasis on digitalization, prioritization of export-oriented sectors, provision of tax incentives, and fostering sectoral linkages. The government has also tried to limit the negative impact of the crisis by easing the monetary policy and establishing a dedicated Economic Recovery Fund (ERF) to provide firms with more liquidity (Rwirahira 2021b). The target areas of the ERF are tourism and hospitality, manufacturing, agro-processing, education, and transport and logistics. It is open to businesses with the demonstrated negative impact of the pandemic on their operations proven by at least 30 percent year-on-year loss. Given the results of the Rwanda Business Pulse Survey 2021 (Table 17), many businesses are eligible to receive the ERF funding. The ERF also supports micro and small enterprises and the informal sector. This is laudable, as COVID-19 fiscal and monetary responses don't necessarily reach the informal economy while the strain on incomes resulting from the lockdown and decline in activities and consumption devastates informal workers and their families.

To provide specific numbers, the half of FRW100 billion initially available through the ERF was allocated for hotel refinancing, FRW30 billion for working capital of large corporations, FRW15 billion for working capital of SMEs. The remaining FRW5 billion financed SME guarantee schemes and working capital of micro-businesses through MFIs and savings and credit cooperatives (Figure 6). To evaluate the impact of the ERF and better guide further allocations it is important that surveys and other statistical exercises on firm behaviour and economic outcomes capture information on whether firms have received the government assistance to cope with the COVID-19 crisis, the type of assistance and the amount of support.

Figure 6: The allocation of the Economic Recovery Fund of Rwanda as of May 2020



Source: National Bank of Rwanda, 2021.

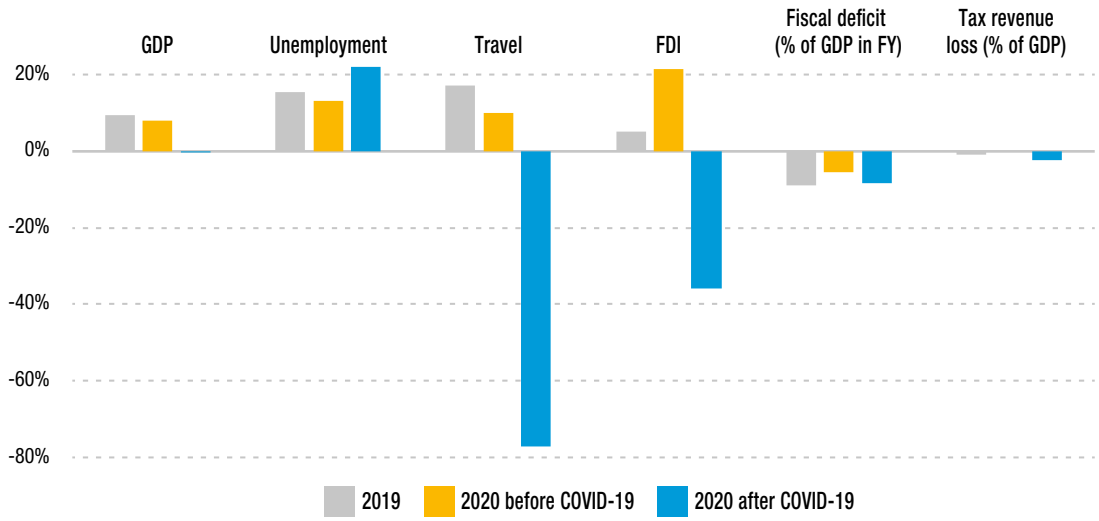
Furthermore, the government fast-tracked new transformative investment projects across construction, manufacturing, IT services, healthcare, and agriculture. Priority was given to projects that significantly contribute to exports, offer significant employment opportunities, or strengthen Rwanda's medical sector. Regarding the fiscal stimulus, the key measures included suspension of tax audit, extension of financial statements certification, extension of deadlines for filing and paying Corporate Income Tax for 2019, suspension of the 25 percent down payment admissible for amicable settlement, expansion of the use of online services, and fast-tracking private sector payments, including VAT refunds. Business Advisory Services were expanded through the provision of Business clinics to SMEs. These clinics help SMEs to better understand the change of the needs of their customers in the post-crisis period while remodelling their business plans through market linkages and innovation, for example for producing personal protective equipment (Rwirahira 2021b).

Impact on the core processes for productive capacities development

This section of the chapter evaluates the likely impact of the pandemic by analysing available data (macro-economic indicators for 2020 (Figure 7) and firm-level surveys undertaken in 2020 and 2021) and also by examining the consequences of the pandemic on investment, technological progress, structural change and human capital[5].

The profound impact of the pandemic is manifested through many macro-economic indicators. The flow of capital across borders was reduced in 2020 due to high uncertainty and expectations of weak recovery in 2021. Globally FDI flows fell by 49 percent in the first half of 2020 compared to 2019, the number of announced cross-border project finance deals declined by 25 percent, greenfield project by 37 percent and cross-border mergers and acquisitions by 15 percent. In Rwanda, the total registered investment amount decreased from $2.46 billion in 2019 to $1.3 billion in 2020, while the number of expected jobs to be generated by pledged investments reduced from 37 715 in 2019 to 24 703 in 2020, mainly resulting from the 36 percent decline in FDI (Rwirahira 2021b). Through reduced investment the pandemic slowed down capital accumulation.

Figure 7: Impact of COVID-19 on key macroeconomic Indicators

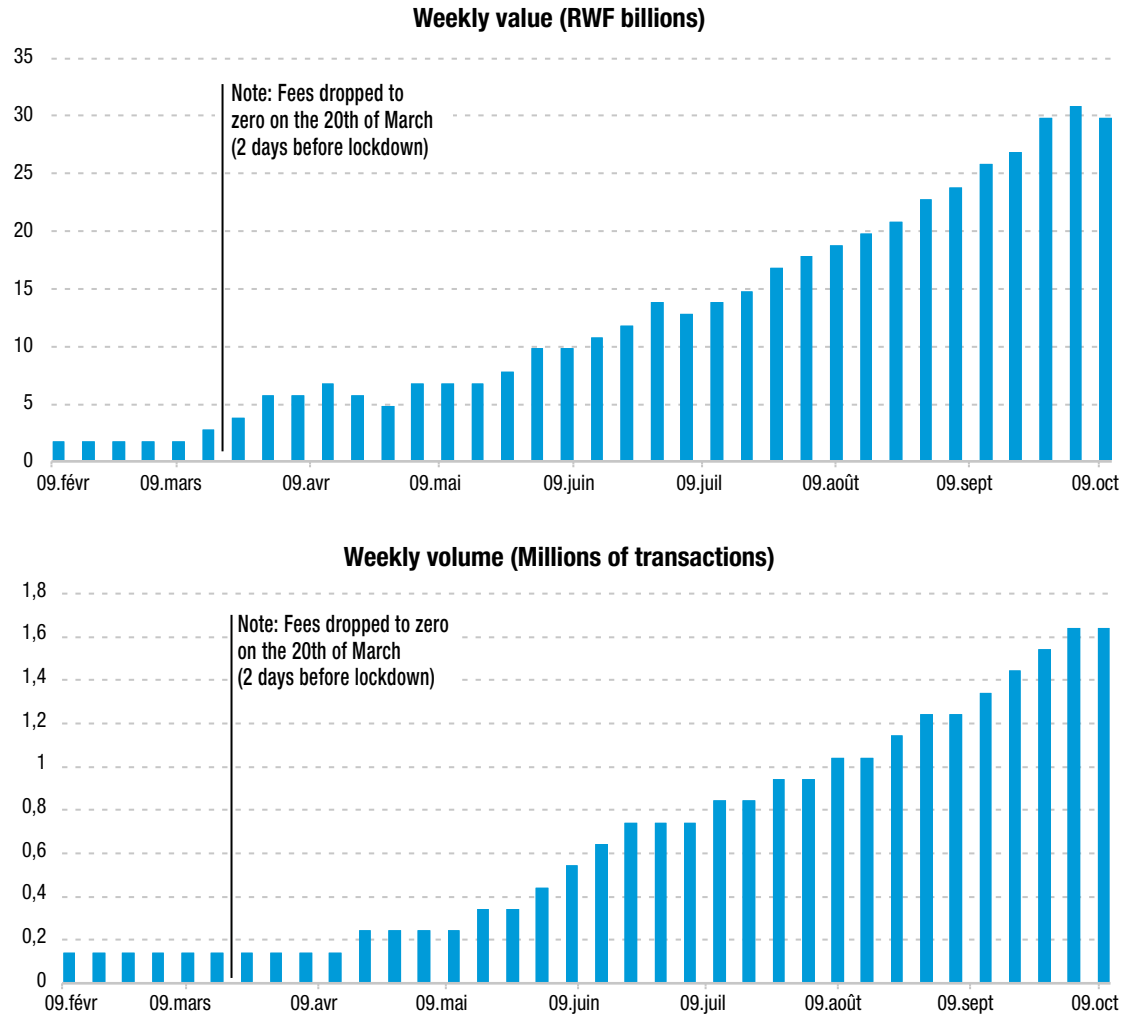


Source: MINECOFIN Macro department, 2021.

[5] The analysis follows the approach developed by Osakwe (2021)

Unlike the unambiguously negative effect on capital accumulation, the COVID-19 pandemic affected the technological progress in Rwanda in both negative and positive ways. For example, social distancing requirements hastened the adoption of new technologies, particularly ICT enabled finance and e-commerce. The information and communication sub-sector activities increased their value from FRW167 billion in 2019 to FRW216 billion in 2020, showing an increase of 29 percent. This growth can be credited to the government decision to wave the fees for transactions. Between 19th March and 21st June 2020, all fees associated with payment transactions including mobile money (MoMo Pay), person-to-person (P2P) transfers, and bank push and pull transaction were removed to encourage the use of cashless methods of payment as one of the strategies for containing the spread of the virus. The removal of fees led to a significant increase in mobile money usage (Figure 8). On the 22nd of June 2020, some transaction fees were reintroduced, but MoMo Pay merchant payments are still conducted free of charge. The reintroduction of P2P and bank push and pull fees led to a drop in mobile money usage, although levels remain significantly higher than before the pandemic (Rwirahira 2021a).

Figure 8: Mobile money transactions from February to October 2020



Source: RURA, 2021.

Furthermore, digital technologies offered an alternative channel for maintaining business activities, social interactions, and consumption in times of strict preventive measures such as lockdowns. Enterprises have shifted from their traditional way of interacting with their customers to online interactions such as cashless payment, e-commerce, and e-marketing. In Rwanda, several small companies quickly took the opportunity and established or expanded their digital platforms, allowing suppliers and customers to interact online (Rwirahira 2021a). So far, 62 e-commerce platforms are operational, of which 53 were established during lockdown periods (MINICOM 2021).[6]

COVID-19 related restrictions have also opened an opportunity for e-Learning, and many schools and universities, especially in Kigali and other large towns have adopted online teaching as a new teaching approach. Other professionals such as lawyers, architects, and marketers have also commenced the delivery of their services online, using basic video conferencing and virtual reality and automation (Rwirahira 2021a). There is, therefore, both demand and supply push for ICT development in Rwanda, with potential that the response to the pandemic and containment measures will increase technological progress and innovation in the country, but it will strongly depend on the availability and the affordability of internet in all corners of Rwanda.

The pandemic has also induced changes in the economic structure of Rwanda. In 2020 the relative importance of agriculture and agro-processing increased while those of services and industrial output declined. Services contribution to GDP fell by 6 percent in 2020 (Table 11). This is corroborated by the data on the export of services that went down by 45 percent between 2019 and 2020 and by the Rwanda Business Pulse Survey 2021 that reported a lower turnover for all services except for ICT and finance (Table 17). Tourism revenues declined significantly from $498 million in 2019 to $121 million in 2020 (RDB Annual report, 2020) mainly due to a sharp decline in visits for conferences due to COVID-19. The recovery of the services sector is likely to be sluggish because it is dominated by tourism and travel that are highly impacted by the ongoing crisis and the consequent reduction of the global demand for tourism and travel.

Industry contribution to GDP declined by 4 percent in 2020 (Table 11). Although manufacturing grew by 2 percent driven by food processing, the manufacturing capacity utilization in 2020 is likely to have remained at the same level as in 2019, as corroborated by the data on merchandise exports showing a moderate 1 percent decrease (Table 13). The situation is likely to continue in the medium term. Rwandan agriculture was designated as an essential industry and experienced a 1 percent increase in value between 2019 and 2020 (Table 11). The Rwanda Business Pulse Survey 2021 data for agriculture do not corroborate the growth story, suggesting a 40 percent decline in the turnover of an average agricultural firm (Table 17). This inconsistency may be related to the timing of the survey or the relatively small size of the sample (149 agricultural firms surveyed) or suggests that the government actions in support of agriculture have been successful. In the medium term, agriculture is expected to grow moderately or remain at its current level. Together these three predictions – services declining, manufacturing remaining at the same level, agriculture moderately growing – suggest that capacity utilization and employment of resources during the pandemic is

[6] There are several E-commerce initiatives under development, for example, i-Huzo and E-commerce in Agriculture Value Chains Strategy. I-Huzo is a project initiated by Access to Finance Rwanda (AFR) under the funding from Mastercard Foundation, to be implemented in partnership with the ICT Chamber of the Private Sector Federation. The project aims at accelerating the growth of micro and small enterprises through expanding e-commerce and is worth $1.5 billion. E-commerce in Agriculture Value Chains is the strategy initiated by the Rwanda Development Board in partnership with the Food and Agriculture Organization of the United Nations. The objective of the E-commerce in Agriculture Value Chains strategy is to empower farming cooperatives, agribusiness operators and consumers to effectively use e-commerce as a tool to strengthen online trading services and products for Rwanda's agriculture transformation (Rwirahira 2021a).

higher in agriculture. This shift slows down, and potentially reverts some of the progress achieved on structural change, because agriculture is the least productive sector.

Regarding international trade, total exports declined between 2019 and 2020, following the same sectorial pattern as the change in business turnover (see e.g., Table 17), while imports grew. Merchandise exports are estimated to have droped by one percent between 2020 and 2019, with the exports of ores, slag and ash particularly hit (-28 percent). The traditional exports, coffee and tea, dropped by 5 percent (Table 13). At the same time, non-traditional exports grew. For example, export of pearls and precious metals and stones soared by over 5000 precent, while preparations of cereals, flour, starch or milk experienced an increase of 111 percent, live trees and other plants of 29 percent, and articles of apparel and clothing accessories of 71 percent. This increase suggests that Rwanda has potential to intensify its export of agri-food and manufactured goods and by doing so diversify its export products. Imports grew by 8 percent between 2019 and 2020. Rwanda imported 8 percent more goods in 2020 than in the previous year. The increase concerned articles of iron and steel, and products necessary to address the pandemic such as pharmaceuticals, chemicals, articles of plastics and medical instruments. In the same period Rwanda imported fewer capital goods such as machinery and vehicles (Table 13). The drop in the import of capital goods is worrisome because it implies a reduction of physical capital necessary for productive capacities.

Table 13: Merchandise exports and imports in Rwanda in 2019-20, by top products

		Value in 2020 (million $)	Annual growth 2016-20 (%, p.a.)	Annual growth 2019-20 (%, p.a.)
Export	**All products**	377	3	-1
	Coffee, tea, rec and spices	128	5	-5
	Ores, slag and ash	114	-7	-28
	Natural or cultured pearls, precious or semi-precious stones, precious metals	55	152	5004
	Edible vegetables and certain roots and tubers	8	44	-2
	Preparations of cereals, flour, starch or milk; pastrycooks' products	7	156	111
	Live trees and other plants; bulbs, roots and the like; cut flowers and ornamental foliage	6	119	29
	Lead and articles thereof	5	60	46
	Articles of apparel and clothing accessories, not knitted or crocheted	4	153	71
	Lac; gums, resins and other vegetable saps and extracts	4	21	-15
Import	**All products**	1491	2	8
	Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television ...	206	7	17
	Machinery, mechanical appliances, nuclear reactors, boilers; parts thereof	104	4	-22
	Articles of iron or steel	103	33	108
	Pharmaceutical products	101	-1	29
	Vehicles other than railway or tramway rolling stock, and parts and accessories thereof	75	6	-12
	Cereals	61	8	35
	Optical, photographic, cinematographic, measuring, checking, precision, medical or surgical instruments and apparatus; parts and accessories thereof	55	11	42
	Plastics and articles thereof	54	12	30
	Salt; sulphur; earths and stone; plastering materials, lime and cement	47	6	24
	Miscellaneous chemical products	41	14	59

Source: ITC, mirror data.

Export of services, Rwanda's economic engine, contracted by 45 percent between 2019 and 2020, with travel, construction and transport experiencing the highest decline. Imports of services decreased as well, dropping by 42 percent (Table 14). Comparison between merchandise exports and services exports in Rwanda shows that merchandise exports were more resilient to the COVID-19 shock. This is also true at the global level. World trade in goods in 2021 is projected to have surpassed its pre-pandemic level by 15 percent, but trade in services continues to experience sluggish growth (UNCTAD 2021). The fact that manufacturing exports were more stable than services exports suggests that Rwanda could increase its export resilience if policymakers put more emphasis on the development of manufacturing.

Table 14: Services exports and imports in Rwanda in 2019-2020, by top services categories

		Value in 2019 (million $)	Estimated value in 2020 (million $)	Change (%)
Export	**All services**	1 015	560	-45
	Transport	213	124	-42
	Travel	458	123	-73
	Construction	39	13	-66
	Financial services	14	11	-20
	Telecommunications, computer, and information services	20	20	0
	Government goods and services n.i.e.	268	265	-1
	Memo item: Commercial services	747	295	-61
Import	**All services**	1 032	597	-42
	Maintenance and repair services n.i.e.	41	23	-44
	Transport	451	323	-28
	Travel	336	109	-68
	Construction	9	5	-46
	Insurance and pension services	11	9	-18
	Financial services	4	5	25
	Telecommunications, computer, and information services	16	17	3
	Personal, cultural, and recreational services	39	43	9
	Government goods and services n.i.e.	123	54	-56
	Memo item: Commercial services	910	543	-40

Source: UNCTADStat.

Turning to informal trade, COVID-19 restrictions have affected cross-border trade more than international trade. According to the Ministry of Trade and Industry, informal cross-border export value has dropped from $110 million in 2019 to $31.7 million in 2020. At the same time, informal cross-border import value has decreased from $11.2 million in 2019 to only $2.4 million in 2020. According to the National Bank of Rwanda report published in May 2020, a total of 259,131 traders participated in informal cross-border trade with neighbouring countries in the first quarter of 2020. Compared to the first quarter of 2019, the number of participants in informal cross-border trade had dropped by around 28 percent (Rwirahira 2021b). This contraction has likely led to a decrease in the livelihoods of Rwandans residing in the border regions, with a stronger effect on women because they account for the majority of informal traders (64.5 percent).

Regarding human capital, the channels through which pandemics can affect human capital are public health deterioration, poverty, and unemployment. In Rwanda, the coronavirus pandemic, and the ensuing economic recession, first in 15 years, lead to higher inflation and an increase in the poverty rate by about 1.8 percentage points. The aggregate employment is back to its pre-pandemic level, but the situation differs by sector. In response the government of Rwanda increased investment in health and social work activities from FRW165 billion in 2019 to FRW191 billion in 2020 and put in place measures to contain the spread of COVID-19. The measures include early detection and isolation of cases through procurement of testing kits, reducing morbidity and mortality through provision of high-quality care, and vaccination programme aimed at attaining the 60 percent COVID-19 vaccine coverage. Another point of concern is the education sector with schools being closed for several months, with an impact on students (somewhat mitigated by e-learning) and on school revenues. In response, the government established a specific refinancing window for the education sector and loan restructuring under the ERF conditions (Rwirahira 2021a).

Impact on the private sector and the utilization of existing capacities

Regarding existing capacity utilization, the pre-pandemic level in Rwanda was 66 percent (Table 8). It's possible to evaluate the direction in which COVID-19 pandemic is affecting capacity utilization in each sector by combining information from several surveys undertaken with Rwandan enterprises during the pandemic.

The channels through which the pandemic affects businesses are multi-fold. First, the lockdowns, social distancing and quarantine measures imposed to curb the spread of the virus resulted in partial and, in some cases, full closure of factories. Second, due to supply chain disruptions, firms had difficulties in procuring parts and other intermediate inputs required for production. Third, the pandemic affected capacity utilization by reducing labour supply in firms as some workers had to stay at home due to quarantine or childcare responsibilities during school closure. In addition to these supply-side factors, the pandemic also affected capacity utilization through the demand side. Weaker demand resulted in lower sales and revenues for firms thereby weakening their liquidity position. This is confirmed by a study conducted among 3,800 businesses by the ARF that found that COVID-19 mostly affected enterprises through business closure or disruption (experienced by 96 percent of respondents), followed by a drop in customer base, challenges with resources, and reduced access to financing (30 percent, 19 percent, and 6 percent respectively). Delving into the details, the survey results show the factors that impact business negatively and positively (Table 15). In the category access to markets and trade the effect is mostly negative with the main issues related to the loss of revenue and customer base. In the category production and supply chain, the major issues are supply disruption and employment. There is a positive impact on the storage for stock, but it may be related to the inability to ship out produced goods. Regarding liquidity and access to finance, the major issues during the COVID-19 are the fixed costs and salaries. Access to finance, the top issue before the pandemic, is now in third place.

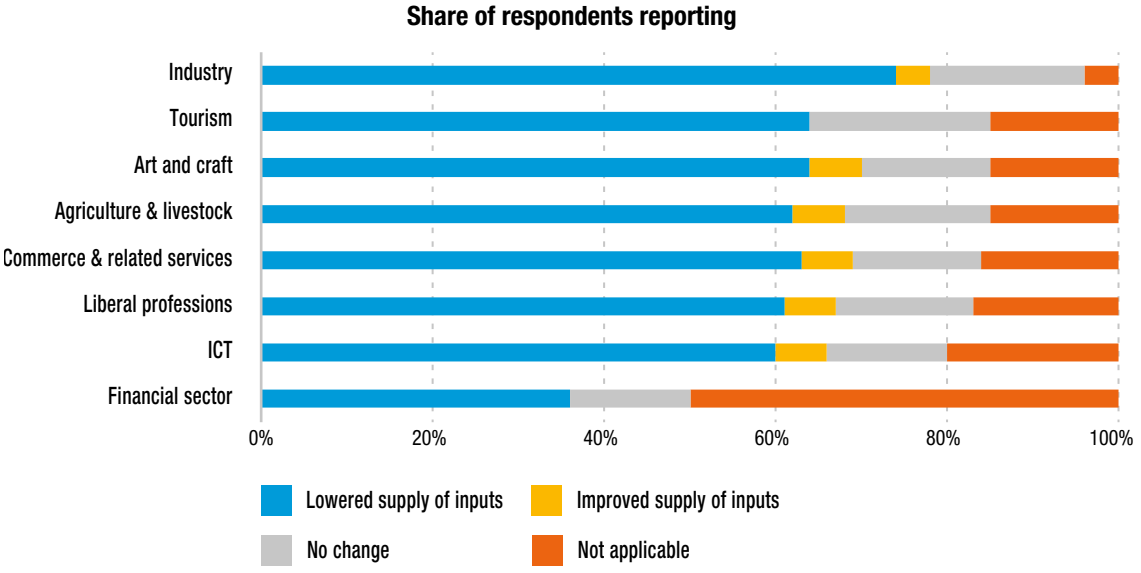
Table 15: Proportion of respondents expressing the impact of COVID-19 factors on businesses

FACTOR		IMPACT					
		Much lower	Lower	No impact	Higher	Much higher	Not applicable
Access to markets and trade	Revenue / turnover	80	13	2	2	3	-
	Customer base	71	17	5	2	4	1
	Import	17	4	3	1	1	74
	Exports	5	1	3	-	1	90
Production and supply-chain	Supply disruption	42	21	15	3	3	16
	Employee count	37	23	33	2	2	3
	Production output	26	8	2	1	2	61
	Storage for stock	13	8	9	16	18	36
Liquidity and access to finance	Ability to pay fixed costs	59	26	9	3	3	-
	Ability to pay salaries	49	24	18	1	2	6
	Ability to access finance	38	17	20	1	2	23
	Ability to service debt	35	11	10	1	2	41

Source: AFR, Rwanda Business Pulse Survey 2021.

Turning to production and supply chains, 63 percent of all surveyed businesses reported to have had some form of supply-chain disruption, with industry being the most affected (Figure 9). The proportion of affected enterprises rises with the size of the enterprise – 22 percent for micro, 24 percent for small, 26 precent for medium-sized and 35 percent for large enterprises.

Figure 9: Access to input supplies during COVID-19



Source: AFR, Rwanda Business Pulse Survey 2021.

Similarly to coping mechanisms observed globally, Rwandan businesses have applied various measures to ensure their businesses survive or even thrive in the current economic environment. Cost reduction or cost saving mechanisms were the most common measures taken by businesses (9 in 10 businesses) together with exploring new markets to expand their revenues (4 in 5 businesses) which included new product lines and exploring new geographies and e-commerce platforms (Table 16). There is a significant proportion of businesses that have sought or considered cutting costs through laying off workers (51 percent) and stopping salary payment altogether (30 percent) (Rwirahira 2021b). In the absence of social safety nets, the reduced employment and income are likely to increase poverty and reduce human capital. It should be also highlighted that several of these strategies, for example deferring or cancelling planned investments, stopping paying the suppliers and closing business, can have a long-term negative effect on the competitiveness of firms and their productive capacities. Finally, it is worrisome that only 6 percent of the respondents received funding from the ERF and most of them were large firms (Table 16).

Table 16: Actions implemented or considered to cope with crisis

Actions implemented or considered to cope with crisis (% of respondents)	Total	Micro	Small	Medium	Large
Reduce costs and overheads long term	89	87	89	89	91
New customer or channel strategy	86	85	87	89	83
New agreements/ways of working with customers/suppliers	68	63	68	76	70
Implementing cost savings measures	61	59	63	60	62
Applying for government support/Solidarity fund support	58	50	62	64	58
New ventures/business partnerships	58	52	60	64	63
Borrow money for cash-flow issues	57	55	58	58	61
New business strategy: diversification of geographies, products/services)	57	54	59	59	61
Increased your e-commerce focus/capabilities	55	51	57	55	57
New skills/people capability	52	43	56	57	60
Laying off or reduce staff numbers	51	46	55	49	51
New ways of working for teams (e.g., agile, flexibility, digitalization)	49	45	51	49	52
Deferring or cancelling planned investments	43	44	42	46	42
Renegotiate loan repayments with the financial institution	34	32	34	34	43
Stop paying workers	30	33	31	25	21
Increased number of staff	24	19	26	28	32
Reduced hours of operation to cut costs	23	23	24	19	18
New organizational structure	23	19	25	24	27
Stop running the business	21	26	21	15	12
Stop paying suppliers	19	20	20	17	18
Received funding from the Economic Recovery Fund (ERF)	3	3	3	4	6

Source: AFR, Rwanda Business Pulse Survey 2021.

Although restrictive measures to contain the spread of the COVID-19 pandemic were gradually relaxed since May 2020, economic activities have not recovered fully to pre-pandemic levels. The yearly turnover went down for most sectors, despite the undertaken coping measures and government support. The Rwanda Business Pulse Survey 2021 covering over 2200 enterprises shows that in agriculture the average annual turnover decreased from RWF41 million in 2019 to RWF24.6 million in 2020, and in the industry from RWF180 million to RWF137 million. Services performance varies greatly depending on the sub-sector, with the annual average turnover of tourism firms declining from RWF91.1 million to RWF72 million, while ICT skyrocketed from RWF12.3 million to RWF70.1 million, and the financial sector showed 2 percent growth – from RWF158 million to RWF161 million (Table 17). As expected, the reduction in turnover is negatively related to the size of the firm – the smaller the firm the higher the contraction in turnover during the period. Micro firms in the sample of the Rwanda Business Pulse Survey 2021 lost their turnover almost entirely (from RWF731 million to RWF33 million, or 97 percent), the turnover of small firms decreased by 78 percent, medium-sized ones lost 58 percent, while large firms managed to maintain their balance with turnover reducing by just 3 percent.

Table 17: Annual turnover of businesses in Rwanda in 2019-2020, by sector and size

	Observed sample (n)	Share of total MSME in sample (%)	Average annual turnover 2019 (million RWF)	Average annual turnover 2020 (million RWF)	Percentage change 2019-2020
Sector					
Commerce & services	1 748	78.6	54.7	43.6	-20
Agriculture/ Livestock	149	6.7	41.0	24.6	-40
Industry	112	5.0	180.0	137.0	-24
Liberal professions	98	4.4	16.2	8.8	-46
Art and craft	53	2.4	11.7	3.07	-74
ICT	35	1.6	12.3	70.05	470
Financial sector	14	0.6	158.0	161.0	2
Tourism	14	0.6	91.1	72.0	-21
Size					
Micro enterprises	731	33	17.0	0.5	-97
Small enterprises	996	45	18.1	4.0	-78
Medium enterprises	280	13	49.2	20.9	-58
Large enterprises	216	9	338.0	328.0	-3

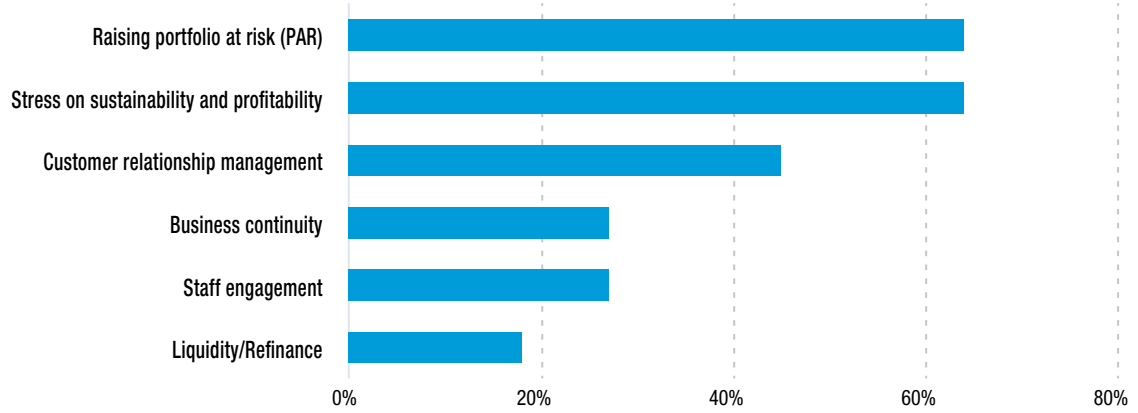
Source: AFR, Rwanda Business Pulse Survey 2021.

An alternative way to proxy the impact of the pandemic is through VAT returns. A recent study by Mascagni and Lees (2021) shows an overall decline in economic activity in Rwanda translated into a 5.1 percent loss in Value Added Taxes (VAT) revenue for the government. The same study reveals that almost half of the firms filing VAT taxes are in the wholesale and retail sectors. Judging from VAT, the wholesale and retail sectors declined by 4.5 percent in the first quarter, and by 28.7 percent in the second quarter, followed by a 10.2 percent rebound in the third quarter of 2020.

Firms do not operate in isolation. They derive resources they need from their business ecosystem, consisting of other firms and institutions. The business ecosystem has also been affected by the COVID-19 crisis. The main constraint is the domestic supply side of finance through the effect of the pandemic on the financial sector in Rwanda. A study conducted by the ARF on the effects

of COVID-19 on commercial banks in May 2020 revealed that the majority of bankers in Rwanda predicted that more than half of all borrowers would approach them in the next three months for moratorium and loan restructuring, requesting grace period and extension of loan maturities (ARF 2020a). The other major challenges include raising portfolio at risk (PAR) i.e., the percentage of the gross loan portfolio for all open loans that is overdue by more than 30 days, stress on sustainability and profitability, customer relationship management and business continuity (Figure 10). Overall, 45 percent of commercial banks in Rwanda expressed the need for refinancing up to FRW 65 billion over the 3-4 months following the first lockdown (Rwirahira 2021b).

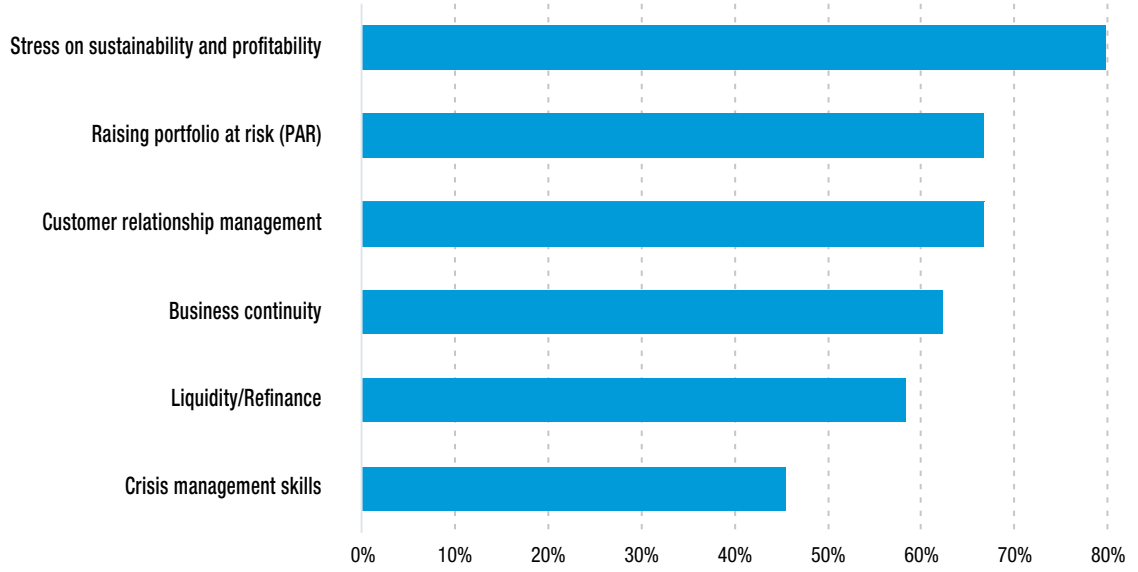
Figure 10: Challenges faced by commercial banks in Rwanda after the first lockdown



Source: Access to finance Rwanda, 2020a.

A similar survey conducted by the ARF (2020b) among microfinance institutions show that after the first lockdown more than 65 percent of Rwanda's microfinance institutions were already facing challenges related to stress on sustainability and profitability, raising PAR, and customer relationship management (Figure 11).

Figure 11: Challenges faced by microfinance institutions in Rwanda



Source: Access to finance Rwanda, 2020b.

The COVID-19 shock is long-lasting, and it affects both the supply and the demand side of the economy. The pandemic has impacted real variables, such as output and employment and reduced the productive capacity in most sectors. These effects are likely to persist. Therefore, active government involvement and assistance are indispensable. In this process, it is important to make sure that the support policies incorporate productive capacities in their design, and that measures mitigating the spread of the pandemic does not undermine the development of productive capacities. Whenever containment measures negatively impact productive capacities, it is important to put in place protective measures safeguarding enterprises and employment.

4

NATIONAL STRATEGIC INITIATIVES FOR FOSTERING INDUSTRIAL DEVELOPMENT

Vision 2020 and related policies

In East Asia, a key characteristic of the 'developmental states' was a strategic focus on manufacturing. The developmentally oriented regimes in low-income countries today face more complex decisions about whether to prioritize manufacturing or attempt to leapfrog straight to services (Behuria and Goodfellow 2019). The idea of skipping manufacturing can be particularly appealing to landlocked countries that inevitably face high import and export costs making them less competitive than existing low-wage manufacturing economies. Rwandan developmental framework suggests that the initial orientation was towards services-led growth, but it is changing to a dual approach in which manufacturing plays an increasing role.

In 2000, the Government of Rwanda adopted Vision 2020 as its long-term development framework aimed broadly at transforming the country from a low-income to a middle-income country. The specific objectives were to foster macroeconomic stability and wealth creation, reduce aid dependency, induce structural economic transformation, create a productive middle class and foster entrepreneurship.

This long-term vision was operationalized through the following medium-term strategies: the Poverty Reduction Strategy Papers 2002-2006, the Economic Development and Poverty Reduction Strategy (EDPRS I) for the period 2007-2012, EDPRS II for the period 2013-2018, and the National Strategy for Transformation (NST) covering the period 2018-2024. The NST, which is the current medium-term strategy, has three core priorities: economic transformation, social transformation, and transformational governance. It is operationalized through sector strategic plans in agriculture, education, energy, health, ICT, finance, water and sanitation, social protection, transport, among others (Osakwe and Laudares 2021).

The NST1 is considered a bridge between Vision 2020 and Vision 2050, which is the new long-term plan for the country. Already under Vision 2020 trade and industrial development was recognized among instruments for structural transformation and inclusive growth. Consequently, the National Trade Policy was adopted in 2010 aiming at "growing sustainable and diversified quality products and services for trading locally, regionally and internationally, to create jobs, increase incomes and improve the living standards of Rwandans". The National Trade Policy has been complemented with the Competition and Consumer Protection Policy 2012, the Cross-border Trade Strategy 2012, the Trade Logistics and Distribution Strategy 2012, the National Export strategy 2015 and the Intellectual Property Rights Policy 2018.

Concerning industrial development, Rwanda's first industrial policy was formulated in 2011 with a focus on increasing domestic production for local consumption, enhancing export competitiveness, and creating an enabling environment for industrialization. In addition to the industrial policy, there are other complementary initiatives geared towards promoting industrial development such as the SME Development Policy 2011, Special Economic Zone Policy 2017, and the Made in Rwanda Policy 2018.

In terms of institutional framework, the Ministry of Trade and Industry (MINICOM) of Rwanda is responsible for the formulation of trade and industrial policies. It also coordinates the implementation of these policies in the country. In performing its lead role in design and implementation of trade and industrial policies MINICOM works in collaboration with the following ministries and establishments: the Ministry of Agriculture and Animal Resources (MINAGRI), the Ministry of Finance and Economic

Planning (MINECOFIN), the Ministry of Foreign Affairs, Cooperation and East African Community, the National Bank of Rwanda (NBR), the National Agricultural Export Development Board (NAEB), the Rwanda Standards Board, the Rwanda Development Board (RDB), and the Rwanda Revenue Authority (RRA). In addition to the roles played by relevant line ministries and establishments, there is also a process for consultation of the private sector and other local stakeholders in the formulation and implementation of trade and industrial policies. The National Trade Facilitation Committee, which replaced the National Development and Trade Policy Forum in 2015 is the current official platform for involvement of the private sector and other stakeholders in the trade policymaking process (Osakwe and Laudares 2021).

The gender equality and empowerment of women is enshrined in the Constitution and its role in the development process is reflected in Vision 2020 and Vision 2050. It is promoted through dedicated gender-related policies (Box 1). It is also mentioned in trade and industrial policies and strategies but without specific targets.

Box 1: Gender in legal and policy framework in Rwanda

Gender equality and empowerment is helped by a conducive legal and policy environment, including:

- The Constitution of the Republic of Rwanda of 2003 revised in 2015: Enshrines the principles of gender equality and women's rights and provides for the minimum 30 percent quota for women in all decision-making organs.
- Rwanda Vision 2020: Considers gender equality as a cross-cutting issue and commits to establish a gender friendly legal and policy framework. This further informed the cross cutting nature of gender equality and family promotion in EDPRS II and Seven-year Government Programme (2010-2017) and the current National Strategy for Transformation (2017- 2024).
- National Gender Policy 2010: The policy envisages to set the Rwandan society free from all forms of gender based discrimination and create an environment where both men and women equally contribute to and benefit from the national development goals.
- Sector Gender Mainstreaming Strategies: In line with the aspirations of the National Gender Policy, different sectors including but not limited to Private Sector, Infrastructure, Agriculture, and Employment have developed gender mainstreaming strategies to guide their strategic interventions on the promotion of gender equality and empowerment of women.
- Girls' Education Policy 2008: The overall objective of the Girls' Education Policy is to guide and promote sustainable actions aimed at the progressive elimination of gender disparities in education and training as well as in management structures.
- National Policy against Gender Based Violence 2011: The overall objective of the policy is to progressively eliminate gender-based violence through the development of a preventive, protective, supportive and transformative environment.

Source: The Gender Monitoring Office (2019)

Rwanda's Vision 2020 and related strategies have led to impressive results. Rwanda is recognised as one of Africa's fastest-growing economies. Social progress – reducing poverty, increasing incomes, improving living standards – followed steadily but not at a rate commensurate with the GDP per capita growth. Poverty and extreme poverty decreased from 58.9 percent and 40 percent respectively in 2001 to 38.2 percent and 16 percent in 2017 but remained almost at the same level as of 2013 (NISR, EICV5, 2017). The overall measure of human development, summarized by the Human Development Index rose from 0.341 at the turn of the millennium to 0.543 in 2019 (UNDP, 2021) but Rwanda remains in the category of countries classified as having low human development.

Behuria and Goodfellow (2019) argue that, unlike the Asian developmental states, Rwanda did not experience an integrated process of transformation that ties human development together with economic growth. In its place, Rwanda follows two parallel trajectories: growth linked to investment in 'modern' services (such as finance, tourism, and real estate), and a human development linked to backbone services such as health and education, with limited linkages between the two.

The potential explanation for the slow speed of poverty reduction is the low spread of the benefits from tourism, finance, and real estate to the rest of the economy due to limited cross-sectoral linkages, technology acquisition and skills transfer. The international services sectors have increasingly globalized standards and processes leaving little scope for Rwandans to acquire on time the skills necessary for quality employment in those sectors. Indeed, accommodation and food services activities employed just 2.9 percent of the labour force in 2019 in Rwanda, the financial and insurance activities and real estate activities accounted for 1.2 percent of the labour force, while the bulk of the employment was generated by low productivity services such as wholesale and retail trade, repair of motor vehicles and motorcycles employing 14.8 percent and transportation and storage with 5.2 percent of the labour force (ILOStat). The problem of missing skilled professionals is likely to be faced by any economy seeking to develop modern international services from a position of low human development and Rwanda is not an exception (Behuria and Goodfellow 2019).

An analysis by occupation reveals the same features. Professional occupations grew between 2013/14 and 2016/17 but still account for only 3.2 percent of the labour force in 2016/17, as shown by the Integrated Household Living Conditions Surveys. Managers, technical and associate professionals, clerical support workers, plant and machine operators and assemblers cumulatively accounted for only 2.4 percent of all occupations. The bulk of the labour force are skilled agricultural, forestry, and fishery workers. Their share of labour force decreased from 60.3 percent in 2013/14 to 53.6 percent in 2016/17, but those workers have likely moved to elementary occupations that saw its share rising from 21.5 to 27.8 percent during the same period (Table 18).

Table 18: Employment by sex and economic activity in Rwanda in 2019

Occupation	2013/14	2016/17
Managers	0.7	0.3
Professionals	2.6	3.2
Technical and associate professionals	0.6	0.6
Clerical support workers	0.4	0.3
Services and sales workers	9.2	10.3
Skilled agricultural, forestry, and fishery workers	60.3	53.6
Craft and related trades workers	3.4	2.7
Plant and machine operators, and assemblers	1.3	1.2
Elementary occupations	21.5	27.8
Total	100	100
Count (1000s)	5545	5825

Source: National Institute of Statistics of Rwanda (2018).

Developing manufacturing should be prioritized because manufacturing has the potential to create both low-skilled and high-skilled jobs, making it possible for people with different skill sets to be integrated into the development process. Furthermore, the manufacturing sector has a greater scope for increasing returns, learning by doing and technological spillovers than other sectors. With the rapid progress of digitization and servicification, driven by modern technologies, some services sectors are also characterized by positive spillovers, scale economies and innovation. This, however, does not overrun the argument for developing a sound industrial base. The industrial base is particularly relevant for LDCs as their structural characteristics – notably low levels of industrialization and human capital – remain far from those of knowledge-based economies, making leapfrogging hardly feasible. Manufacturing, on the contrary, presents more opportunities for an incremental process of economic diversification, through step-by-step transitions from existing products to products that have similar requirements (in terms of underlying knowledge and productive capacities) but higher levels of sophistication.

Furthermore, the importance of a good manufacturing base and productive capacities became more evident in the reaction to the pandemic. The capacity to adjust is directly related to productive capacities as new product development depends on pre-existing capabilities (UNCTAD 2020c). Firms with strong capabilities were also the firms that were able to identify opportunities and adjust to the shock. For example, at the onset of the crisis most productive textile firms started producing personal protective equipment, and productive alcoholic beverages manufacturers were able to rapidly switch to producing sanitizing products.

Vision 2050 and related policies

The Rwandan government realizes a need for a stronger focus on the manufacturing sector. This is evident in the policy documents that progressively put more emphasis on the development of manufacturing, starting from National Trade Policy and National Industrial Policy in 2011, to Domestic Market Recapturing Strategy in 2015, the Made in Rwanda Policy in 2017, and the National Strategy for Transformation 2017-2024. Ultimately, the Vision 2050 states among its objective a competitive manufacturing and a diversified economy built upon future industries.

Vision 2050 is the critical planning and policy blueprint to guide the efforts of all players in Rwanda's development and provide an overarching framework for policies and strategies. The aspiration is to transform economy and modernize the lives of all Rwandans and achieve an upper-middle income country by 2035 and a high-income country by 2050. The pillars of the vision are (1) Human Development, (2) Competitiveness and Integration (3) Agriculture for Wealth Creation, (4) Urbanization and Agglomeration, and (5) Accountable and Capable State Institutions. Under the second pillar, developing a competitive manufacturing anchored to a regional logistics hub became an explicit priority, while the third pillar calls for a modern market-oriented and climate-resilient agriculture with maximized productivity and integration within global value chains for higher-value products. These references is an acknowledgement of the importance of enhancing manufacturing and increasing agricultural productivity in the achievement of the new vision of Rwanda.

Based on the new vision and considering the impact of the COVID-19 pandemic, the Government of Rwanda is currently reviewing its trade and industrial policy. The overall vision of the new industrial policy is: "Promoting a green industry led by an innovation-driven local business sector producing globally competitive high-value goods and services that will contribute towards the transformation of Rwanda into an upper middle-income country by 2035 and a high-income country by 2050"

(Republic of Rwanda. Ministry of Trade and Industry 2020a). The focus of the New Industrial Policy can be summarized by citing the four core interventions. The first one is the diversification of the industrial sector that brings together the following priority areas: removal of investment distortions, operationalizing subsectors identified by comparative advantage, integrating private sector knowledge and experience into policymaking, and facilitating the transfer of unskilled labour into higher productivity industrial use. The second intervention concerns increasing industrial competitiveness with the following priority areas: liberalization of the industrial sector, simplification of the policy environment, improving the functioning of labour markets, and supporting enterprise and entrepreneurship. The third intervention aims at connecting the Rwandan industry to GVCs. The fourth intervention concerns industrial technology with the emphasis on promoting partnerships between local firms and international firms in providing technological solutions and in supporting the development of e-commerce.

Industrialization is seen as one of the main drivers for establishing a strong and sustainable macroeconomic foundation to support the implementation of Vision 2050. The government intends to establish a dedicated and highly specialized Industrial Development Corporation. It is anticipated that the funds could be raised by issuing special industrial development bonds – given Rwanda's reputation on the international market as a stable and reliable government (Rwirahira 2020). Furthermore, recent strategies have emphasized the domestic market recapturing interventions geared towards boosting domestic production for local consumption. This is reflected in the Made in Rwanda Policy aimed at tackling the trade deficit by boosting production through sector-specific action plans, mindset change, quality improvements, reduction in cost of production and creation of backward linkages.

The mid-term review of NST1 as well as the review of national trade and industrial policies are taking place amidst several challenges such as Rwanda's recent suspension from the African Growth and Opportunity Act, competition from regional firms, and overreliance on single firms (Behuria 2019). The Rwandan economy is expected to recover in 2021-22 from the 2020 slump in GDP, in line with the revival of the global economy and international trade. Nonetheless, the COVID-19 pandemic will continue to affect productive capacities, through different channels, and this calls for pro-active measures to mitigate the negative effects. The first channel through which the crisis affects the development of productive capacities is investment. According to the country forecast by (The Economist Intelligence Unit 2021), Rwanda will remain highly dependent on FDI, more than its East African neighbours. If the necessary level of FDIs is not achieved or if they are not sufficiently channelled into manufacturing, productive capacities in this sector will decrease as their development is highly contingent on inflows of adequate FDI. The second channel is domestic investment. This depends on national savings, that are forecasted to decrease in 2021 to 6.4 percent of GDP before rebounding in 2022. The third channel is the exchange rate. The Rwandan franc is expected to weaken against the US dollar throughout 2021-22 as the twin fiscal and current-account deficits maintain pressure on the currency. A weaker currency can make exported goods cheaper for foreign buyers. Yet it increases the costs of inputs and capital goods which will have a negative impact on productive capacities, particularly given that Rwanda heavily relies on imported capital goods, such as machinery. Finally, government revenue and government expenditure (as a share of GDP) will remain stable for the period 2019-2021 while government gross debt will grow from 50.2 percent of GDP in 2019 to 60.1 percent in 2020 and 74.8 percent in 2021 (Table 19). This is not surprising as the government increased spending to halt the pandemic and support businesses and consumers throughout the crisis. The increase in debt is, however, worrisome because it limits the ability of the government to mobilize additional resources to support developmental priorities.

Table 19: Economic outlook for Rwanda, selected macro-indicators

		Actual		Estimates		
		2018	2019	2020	2021	2022
Gross domestic product, current prices	Billion $	9.6	10.4	10.3	10.4	11.0
Gross domestic product per capita, current prices	$	797	835	816	802	833
Total investment	% of GDP	21.2	23.2	24.5	24.1	26.8
Gross national savings	% of GDP	7.1	8.7	9.5	6.4	10.3
Inflation, average consumer prices	% change	1.4	2.4	7.7	2.4	4.9
General government revenue	% of GDP	23.8	23.1	23.6	25.5	24.6
General government total expenditure	% of GDP	26.4	28.2	29.8	29.4	28.2
General government gross debt	% of GDP	44.9	50.2	60.1	74.8	78.2
Current account balance	% of GDP	-10.1	-12.1	-12.2	-13.4	-12.2

Source: IMF WEO, October 2021.

Important lessons have been learned from the pandemic so far, particularly in relation to food security and digitalization. Rwanda had enough food to sustain the population throughout the pandemic and lockdowns. The national strategic reserves were used to support urban households in most need, while the rural population had enough food. It is now imperative to increase agriculture production and food processing capacity. It is also important to secure supply of essential products and reduce high dependency on foreign markets for procuring them. Digital technologies have become a critical enabler, connecting people, and ensuring continuity of business and social activities. There is a need to scale up investment in ICT, both in hard and soft infrastructure and accelerate ICT literacy among the Rwandan population. Furthermore, Rwandans need to adopt a culture of saving and be better prepared for unpredictable shocks such as COVID-19. Good governance, strong institutions, and holistic and coherent policy making help to weather the shocks. Finally, COVID-19 is a reminder for African countries at large to accelerate regional and continental integration and cooperation to promote intra-regional trade and investments (Rwirahira 2021b).

The experience of Rwanda in the past two decades and the lessons learned from the COVID-19 pandemic underscores the need for developing productive capacities and diversifying the economy, with particular attention to manufacturing and agricultural value chains. Structural transformation can be driven by transfer of resources from agriculture to industry and services, but also by the improvement of productivity in all sectors, particularly in agriculture.

5

CONSTRAINTS TO DEVELOPING PRODUCTIVE CAPACITIES

Core processes for productive capacities development

Despite considerable progress registered during the implementation of Vision 2020, challenges remain in fostering economy-wide productive capacities and structural transformation. The share of manufacturing in Rwandan GDP remains at 6.3 percent, nearly half of the average for LDCs and for LLDCs, which currently stand at 11.5 percent and 12.5 percent respectively. Furthermore, Rwanda's exports remain dominated by primary products, increasing the country's vulnerability to commodity price shocks. In addition, the narrow industrial base of the economy does not yet provide the sound foundation needed for faster, inclusive, and sustainable growth and development. These challenges have been further exacerbated by the COVID-19 pandemic.

This chapter summarizes challenges in strengthening productive capacities, starting with constraints related to investment, technological change, and structural transformation, followed by gaps identified in the development of human and physical capital, and a discussion of the obstacles faced by the public sector and policy-making institutions.

Investment is a key driver of economic growth and structural change. In Rwanda, the main constraints are the gap between actual investment and the investment required to achieve growth aspirations, as well as high dependence on public sector investment to drive growth. The 2015 Investment Code and 2016 Public-Private Partnership law were enacted to stimulate private sector investment and participation in economic activities. The government estimates that to reach the goal of becoming a middle-income country by 2035 and a high-income country by 2050 private investment will need to increase from 14.4 percent of GDP in 2017 to 21.2 percent by 2024 (Government of Rwanda 2019). The investment gap, already existing pre-pandemic, has been widened by the COVID-19 crisis. In 2020, domestic investment decreased by 11.8 percent and FDI inflows by 36.6 percent.

Furthermore, there are challenges in allocating funds into priority production sectors of the economy, particularly in agro-processing and manufacturing. Agriculture, albeit not a priority sector, also requires investment, particularly in agricultural technology (such as mechanized farming, adoption of irrigation schemes and intensive greenhouse cultivation) to increase productivity and resilience to climate change shocks.

The key role technology and innovation plays in the transformation of the economy and society is widely acknowledged by the government as manifested by the current strategies and investment projects. For example, the EDP's 6th pillar puts technology and infrastructure as the backbone of a well-functioning economy and a key enabler of sustainable entrepreneurship. Rwanda established the Kigali Innovation City (KIC) – a mixed-use, master-planned, innovation centre that seeks to facilitate the development of pan-African talent and act as a technology innovation hub. It plans to house international universities, technology companies and biotech firms. KIC aims to attract technology companies worldwide in Rwanda to create an innovation ecosystem and further a knowledge-based economy.

Yet, ICT remains the most lagging pillar in Rwanda's productive capacities as measured by UNCTAD's PCI. The promotion of technology acquisition, adaptation, and use needs to be further enhanced if the country is to make significant progress in achieving its diversification and industrial development objectives. Technology must be available, affordable, accessible, and relevant. The country needs to enhance its hard infrastructure, making ICT more available, and invest in the skills required to use technologies, making technologies more accessible. The relevance of ICT has become even more evident during the COVID-19 pandemic. The country managed to upscale the use of technologies

in businesses and everyday life. This development needs to be sustained and further promoted because the use of technology in agriculture and industry is low.

The low level of technology utilization is evident in the composition of the Rwandan merchandise exports. The country's exports do not embed technology and mostly consist of the primary products (23.3 percent of all exports) and resource-based manufactures (25.1 percent). Non-resource-based manufactures represent a negligible share of exports – 2.6 percent, 1.5 percent, and 1 percent respectively for low, medium, and high technology manufactures (Table 20). On the positive side, these numbers, albeit small, show that Rwandan companies are able to produce more complex manufacturing goods and so the question facing policymakers is how to scale up these higher value-added goods and reduce commodity dependency.

Table 20: Rwanda's merchandise export structure by technological categories

Lall classification of products	2016	2020
Primary products	29.0	23.3
Resource-based manufactures: agro-based	6.6	8.0
Resource-based manufactures: other	31.3	17.1
Low technology manufactures: textile, garment and footwear	1.2	1.2
Low technology manufactures: other products	1.3	1.4
Medium technology manufactures: automotive	0.8	0.7
Medium technology manufactures: process	0.9	0.8
Medium technology manufactures: engineering	0.9	0.6
High technology manufactures: electronic and electrical	0.8	0.8
High technology manufactures: other	0.4	0.2

Source: UNCTADstat.

Structural change concerns the improvement of productivity through a better allocation of resources (moving them from least productive sectors to more productive ones), but also through an increase in productivity within sectors and fostering stronger productive linkages across sectors to pull up lagging sectors and increase domestic value added. Value chain development strategies need to be holistic, bringing together different sectors. The Made in Rwanda Policy can be an instrument for this, but gaps in productive linkages across sectors need to be addressed. First, the policy attention on productive linkages is not at its highest level. A Supplier Development Unit was created in the Rwanda Development Board with the aim of establishing and strengthening market linkages. Yet, this unit has limited capacity to define and promote supply chains and linkages, to raise awareness about its role and provided services, and to scale up its coverage and activities.

Second, there are gaps in the flow of information. Several forums have been established to bring together different stakeholders, and share information, including information related to strengthening productive linkages, but their operationalization both at central and decentralization levels is lagging. For example, the Public-Private Partnership dialogue on strengthening productive linkages have not yet achieved the expected results. Going forward, it is important to ensure that the private sector is duly included in relevant forums and dialogues, for example, through private sector chambers and associations (Rwirahira 2021c).

Third, the capacity of businesses to develop or join value chains, as well as the entrepreneurial mindset and the appetite for change remain limited. For example, the entrepreneurial capacity in agriculture is low, hampering the development of agro-processing value chains. Agriculture is expected to provide raw materials for agro-processing, which is one of the priority sectors that MINICOM promotes under the Made in Rwanda Policy. MINICOM, in collaboration with MINAGRI, initiated a contract farming program between local producers of raw materials and processors to assure the availability of raw materials to processors. This also facilitates access to market for local agricultural producers. But there remains a large scope for further scaling up contract farming and stimulating domestic value addition through the development of agribusiness (Rwirahira 2021c).

Another example of missing linkages is from mining to manufacturing. MINICOM, as a custodian of export promotion strategy coordinated under IDEC, works closely with the Rwanda Mines and Petroleum Board in the promotion of value-addition in the mining sector to increase the value of exports from natural resources. This work needs to be intensified for Rwanda to successfully diversify its production and exports and shift away from the dominance on raw materials in its export basket.

Human and physical capital

Productive labour is a key factor affecting the competitiveness of products and services made in Rwanda. The policy support and initiatives for increasing human capital are abundant in Rwanda. The government invests in backbone services such as education and healthcare. MINICOM works together with the education and health sector to promote skilled and healthy workers that would contribute to higher productivity. The education sector and RDB Chief Skills Office jointly work for the development of a competitive workforce through several specific initiatives. For example, Rapid Response Training is for workers to develop skills required by industries, while the Kigali Innovation City aims at developing and attracting high-end skills through partners such as Carnegie Mellon University, African Institute of Mathematics, and African Leadership University. Furthermore, the National Industrial Research and Development Agency supports R&D and access to modern equipment through the Open Call program providing facilitation to enable a generation of industrial innovators to become competitive through technology monitoring, acquisition, development and transfer, as well as applied research.

Despite these initiatives, significant gaps remain, as manifested by the obstacles reported by enterprises and by the presence of foreign labour concentrated in high-skill jobs in the country. The shortage of workers needs to be addressed to foster sustained development of productive capacities and diversification of the economy. The gaps are at two levels. First, is the overall availability and quality of the labour force which requires time to develop. Unlike physical capital that can be enhanced in the short-term through massive investment, bringing up skills requires years and the success hinges on the quality of the education system. This is particularly important in the context of the ambitious development agenda of Rwanda, with NST1 aiming to develop the knowledge economy.

The second issue is the mismatch in the supply of skills and the demand for skills required by industries (Rwirahira 2021c). This is not about the level of skills but the match between workers and available jobs. For example, MICE currently require more qualified managers, professionals, technicians and artisans. There is a need for nurses and doctors in the health sector, a need for agro-processing skills in agriculture, and a call for more technical and vocational education and

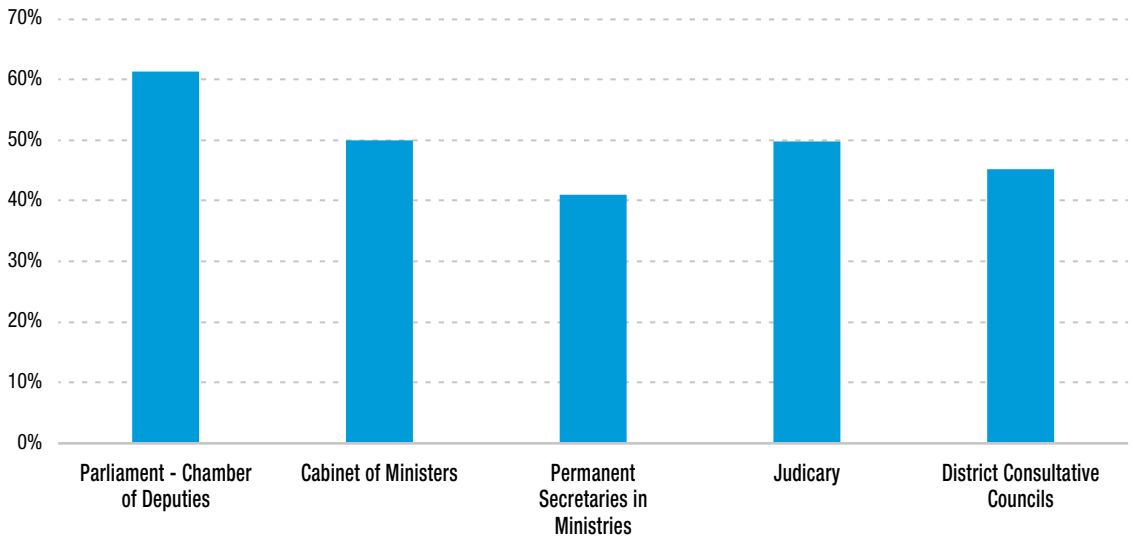
training for mining. Human capital development should, therefore, be geared towards addressing the needs of domestic enterprises. This will require aligning the skill demands of industry with the output of schools, universities and vocational training institutions and revisiting the enrolment intake for degrees and qualifications that have poor employment results. To achieve this, a stronger interaction is required between the Ministry of Education, the Ministry of Trade and Industry, Universities, and private sector representatives. This coordination needs to be continuous and forward looking because the demand for skills will continue to change, particularly in the context of a rapid transformation agenda envisaged by Vision 2050.

Human capital is directly related to the position of women in the economy and society. Gender equality is not only a human rights issue but an important vehicle of economic development. Women's economic empowerment includes women's ability to participate equally in existing markets, their access to and control over productive resources, access to decent work, control over their own time, lives and bodies, and increased voice, agency and meaningful participation in economic decision-making at all levels from the household to international institutions. Women empowerment and labour force participation increase human capital, thus directly impacting the country's productive capacities.

Rwanda made significant progress on several gender dimensions. Gender equality and economic empowerment are enshrined in the Constitution of the Republic of Rwanda, conferring at least 30 percent of positions to women in all decision-making organs. Following this constitutional right, the number of women in decision making organs has significantly increased (Figure 12). For instance, the current Rwanda's Parliament has 61.3 percent women members, and on this dimension is one of the top countries in the world (Rwirahira 2020).

Figure 12: Proportion of women in selected decision-making organs in Rwanda

Source: Gender Monitoring Office data, 2018.



On the other hand, the private sector currently employs 94 percent of the labour force in Rwanda, and the majority are men. The number of women is still low, especially in technical fields such as mining, transport and construction, which generally pay higher wages. Women's participation is also lower in the sectors which grew most dynamically. Men account for 97 percent of labour employed in transportation and storage, 85.4 percent of labour in the construction sector, and 74.5 percent in information and communication occupations (Table 21). Furthermore, women's role is limited in the decision-making positions of the private sector (32 percent), and only 33 percent of business enterprises are owned by women, and this ownership is mostly concentrated on micro and small business enterprises (Republic of Rwanda. Gender Monitoring Office 2020).

Table 21: Employed men and women by economic activity in Rwanda

Main occupation	Male (%)	Female (%)
Agriculture, forestry, and fishing	45.4	54.6
Mining and quarrying	94.2	5.8
Manufacturing	55.7	44.3
Construction	85.4	14.6
Wholesale, retail trade, repair of motor vehicles, motorcycles	58.3	41.7
Transportation and storage	97.0	3.0
Accommodation and food service activities	53.0	47.0
Information and communication	74.5	25.5
Financial and insurance activities	50.1	49.9
Professional, scientific, and technical activities	68.9	31.1
Public administration and defence	74.2	25.8
Education	54.3	45.7
Human health and social work	46.1	53.9

Source: NISR, Labour Force Survey 2018.

The current gender composition of employment in each sector has its roots in the education system (among other factors, such as culture and tradition). Rwanda has achieved stable gender parity in primary and secondary education with current girls' enrolment at 49.7 percent and 53.2 percent respectively in 2018. Despite this positive trend, female's representation in ICT Education (41.8 percent in 2018), tertiary education (38 percent), TVET program (43.8 percent) and the number of girls enrolled in Science, Technology, Engineering and Math (45.6 percent) remain relatively low compared to their male counterparts as measured in 2018 (Rwirahira 2020).

Finally, women participation is very low in public procurement, through which more than 60 percent of the national budget is disbursed. Women won only 13 percent of tenders that represented five percent in value (New Faces, New Voices and UN WOMEN 2019). The comparison between the value of tenders and the number of tenders shows that women on average won smaller tenders. This

constitutes a missed opportunity for women economic empowerment and a significant limitation for women-owned businesses to fully participate and contribute to the national economic development. Against this background, there is the need for the design and implementation of productive capacity development policies with specific gender objectives.

Turning to physical capital, industrial and market infrastructure have been among key priority projects under EDPRS1 and EDPRS2. Rwanda earmarked industrial lands and developed the Kigali Special Economic Zones (SEZ) phase I and II, as well as Rwamagana zone that is so far partially developed. Furthermore, the development of District Industrial Parks to accelerate urbanization and create growth hubs beyond the city of Kigali has also been prioritized. Currently, the Kigali SEZ has a total of 78 manufacturing firms, half of which are Rwandan owned. In collaboration with the development partners, the government has built market infrastructure at some borders points with Burundi (Akanyaru Haut/Nyaruguru), Democratic Republic of Congo (Rusizi I, Rubavu and Karongi) and Uganda (Cyanika) (Rwirahira 2020).

With regard to SEZ, the need remains to develop further zones and their infrastructure, as manifested by the unsatisfied demand for industrial land (Rwirahira 2021c). MINICOM works collaboratively with the Ministry in charge of land management – the Ministry of Environment – which earmarked land for industrial use. Several additional SEZ have been demarcated. Since the cost of land and rent enter the cost of production, and thus influence the competitiveness of Made in Rwanda products the government has been facilitating access to industrial service land in two SEZ (Rwamagana and Bugesera) while the development of additional seven industrial parks is in the pipeline (Rwirahira 2020).

Turning to energy, the government has made significant progress in enhancing access to electricity in the country over the past decade. For example, as of March 2021 access to electricity for productive use areas was as high as 86 percent and the target is to increase it to 100 percent. Some of the challenges to achieving this target include revenue losses due to the impact of COVID-19, high costs of connecting remote productive use areas, and the closure of some productive use areas. Still, the cost of electricity is considered high, with enterprises reporting it among major obstacles. The government has subsidized electricity tariffs for firms with the aim of reducing the cost of industrial production and increasing the competitiveness of Rwanda's private sector. What's puzzling is that the infrastructure sector indicates that power generation capacity is sufficient to satisfy the current demand. There is, therefore, a need to address the missing link between power generation and power consumption as well as its affordability (Rwirahira 2021c).

Finally, Rwanda continues to face challenges of the high cost of transport, exacerbated by its landlocked position. This calls for improvement and development of transport infrastructure and services which are crucial aspects in overcoming trade barriers and lowering Rwanda's costs of doing business and trading across-borders.

Private sector and business ecosystem

The government recognizes the role of the private sector in national transformation. The guiding principles of MINICOM centre on the private sector, including safeguarding competition, promoting competitiveness, and ensuring meaningful public-private partnership where the government addresses the constraints and needs of the private sector while leveraging private investments, knowledge, and skills (Rwirahira 2021c). Yet, the private sector experiences constraints as evident

in the underutilization of existing productive capacities. The following are some of the most striking challenges that partly explain Rwanda's underperformance in productive capacities development – access to and high cost of finance, access to affordable energy, lack of skilled workers, shortage of raw materials, low adoption of ICT, and lack of access to business services.

Among business support services, financial inclusion is crucial for establishment of a conducive business environment. MINICOM's interest in financial capital is mainly related to the need for accessibility and affordability of financial products to support industrialization, export finance and entrepreneurship development. The government established two main financial vehicles to support business projects aiming at promoting Made in Rwanda, namely the Export Growth Facility with a subsidized interest rate of 10 percent for direct lending and 14 percent through commercial banks as opposed to the normal market rate of 18 percent and above. The second vehicle is the Business Development Fund that provides a 75 percent guarantee for youth and women, 50 percent for men as well as business advisory services for all. It also provides leasing products for Integrated Craft Production Centres and toolkit financial products for TVET graduates. Specific projects for entrepreneurs and micro, small and medium-sized enterprises (MSMEs) include the provision of business development advisory services and support to access financial services through employment promotion centres commonly known as Kora Wigire Centers (Government of Rwanda, 2014). Rwanda has also initiated programs for coaching MSMEs to not only instil a culture of entrepreneurship but also enhance financial literacy skills through the Business Development Fund (BDF) and Business Development Advisors with 832 advisors available across the country (Rwirahira 2020).

Yet, there is still a scope for improvement in the provision of these services so critical for the success of enterprises and unleashing the full productive potential of the private sector. There is a need for sector-specific business services aimed at developing value chains. Incubation centres, as well as existing business advisory services (such as Inkomoko and BPN), need to be strengthened, scaled up and linked to business operators, particularly entrepreneurs and SMEs, including those in rural areas. With regard to limited financial services, there is a need for strengthening the alternative sources of financing, including the establishment of long-term financial products to support business development in Rwanda. Integration of ICT in businesses needs to be prioritized, focusing on both infrastructure and skills. There is high potential for e-commerce development, particularly since the start of the pandemic, and efforts should be made to better exploit it for developing productive capacities (Rwirahira 2021c).

Business advisory services are key for private sector development, particularly for entrepreneurs and MSMEs that do not have internal capacity for such services. Finally, the private sector should be consulted and empowered as an actor of change. The Entrepreneurship Development Policy was developed and championed by the Ministry of Trade and Industry. However, this policy does not have an established coordination umbrella. A coordination mechanism would improve the readiness of the private actors to implement the policy and provide guidance on the required capacity to implement it.

Enhancing policy coordination and coherence

The Government of Rwanda is currently conducting a review of its National Trade Policy and the National Industrial Policy, both of which are crucial in fostering productive capacities. To provide inputs to this review process, this report contains an assessment of the National Trade Policy and the Rwanda Industrial Policy and three related strategies – National Export Strategy III, National Cross-border Trade Strategy, and the National Strategy for Trade in Services. Proposed revisions

of policies are strategies are assessed in terms of policy alignment, policy complementarity and delivery system and coordination.[7]

An assessment of the current version of the National Industrial Policy points at a number of gaps that need be addressed in the revised version of the policy. First, there is a need to boost domestic value chains. Despite the emphasis on the opportunities offered through connecting Rwanda to global value chains, the new industrial policy does not clearly define what components of the value chain Rwanda needs to focus on in order to penetrate global value chains. In addition, the new industrial policy does not refer to the priority value chains established by NST1. More specifically, it does not provide clear guidance on how to boost agro-processing, construction materials, light manufacturing, meat and dairy, leather, textiles and garments, horticulture, tourism, including MICE tourism, knowledge-based services, logistics and transport as prioritized in Vision 2050 and NST1. Furthermore, the industrial policy does not include objectives related to technologies specified by Vision 2050, such as nanotechnology, biotechnology, block chain technology or artificial intelligence. This should be done as the industrial policy is meant to instrumentalize the priorities specified in Vision 2050. Second, the industrial policy should include interventions for maximizing existing production capacity. The assessment of the current firm production capacity of most Rwanda's key firms shows that many of them produce far below their installed capacities. For instance, the cement sub-sector uses only 59 percent of its installed capacity, wood and furniture 51 percent, paints and varnishes 48 percent, steel and Iron 43 percent, ceramics and granite tiles 40 percent, textiles, apparels and leather 30 percent, plastics tubes and pipes 23 percent, pesticides percent, and soaps and detergents 18 percent (Rwirahira 2020). The new industrial policy does not specify how to maximize the use of installed capacities and how to improve efficiency and economies of scale.

Turning to the revised version of the National Trade Policy, the assessment points to a lack of clear alignment with the trade related priorities set in Vision 2050 and in NST1, including export promotion, strengthening tourism with focus to MICE and hospitality industry, promoting mining and agricultural exports while reducing the cost of doing business. The trade policy should instrumentalize Vision 2050 and NST1 by integrating priorities specified in these overarching documents and developing specific interventions for their achievement. Furthermore, the reviewed version of the National Trade Policy mainly focuses on improving Rwanda's business environment. It will be beneficial to add other core interventions related to trade such as promoting value addition, increasing the volume of traditional exports, and diversifying export products and markets. These priorities and core interventions should be the focus of the policies, while the objectives with no direct link to trade, such as for example promoting and maintaining health of citizens and residents should be kept out of scope. Finally, the National Trade Policy is the umbrella for the National Export Strategy, the National Cross-border Trade Strategy and the National Strategy for Trade in Services. It is, therefore, expected that the revised National Trade Policy provides high level strategic guidance to the three strategies and ensure that their proposed strategic priorities are not only aligned to its core policy interventions but also aligned to the national development framework. This seems not to be the case at this stage.

With regard to the National Export Strategy, it is expected to contain specific interventions at the operational level showing how the national development objectives and the objectives of the National Trade Policy can be achieved. Yet, NESIII gives very little attention to the export related priorities in Vision 2050 and NST1 such as services export, increasing export of fully washed coffee, increasing tea

[7] This entire subchapter is based on the information gathered and analysed in Rwirahira (2020).

processing plants, promotion of agro-processing industry, export of high-value agricultural products such as horticultural products, and export of vale added mining product. Furthermore, the NST1 envisages promotion of high-value goods and services with the aim of growing exports by 17 percent annually. However, the NESIII does not show how this will be achieved and how different sectors and products will generate this intended growth. In addition, there is need for the new NES to ensure that the pathways towards the achievement of this national objective are clearly defined. This implies setting targets and milestones of how the intended annual export growth will be achieved. A detailed logical framework defining the intended outcomes, outputs, indicators and targets is required.

The draft of the revised National Cross-border Trade Strategy does not contain interventions aimed at formalizing the cross-border trade. This is surprising given that the majority of traders in cross-border trade are informal traders without any form of registration. The new cross-border trade needs to include interventions for formalization of traders, increasing their supply capabilities, innovation and value addition.

The analysis of the proposed interventions in the new National Strategy for Trade in Services show that there are still issues of alignment with the national development framework. The strategy does not reflect export-oriented services such as high value technologies (fin-tech, edu-tech, energy-tech, agri-tech and big-data management) and does not link the higher learning institutions, technology and professional services. It does not refer to the high-level niche services such as software, research and development. With regard to tourism, the new Trade in Services Strategy highlights the needs for diversifying tourism opportunities as well as increasing tourism revenues by attracting more visitors in Rwanda. However, the strategy does not specify how Rwanda should position itself as a low-volume, high-end tourism destination. It also does not specifically prioritize MICE. Furthermore, there is the need to identify the missing link in the tourism sector value chain and propose services that would help bridge the identified gaps. The strategy stresses the importance of access to finance in boosting sectors such as transport and ICT. It does not, however, provide practical guidance on how to establish and position Rwanda as an international financial services centre as intended in Vision 2050. The strategy does not instrumentalize the national objective of establishing Rwanda as a knowledge intensive economy and does not position knowledge as one of the key drivers of Rwanda's growth, wealth creation and employment. For instance, the strategy falls short in defining how to foster excellence in research and development, establish Rwanda as a destination for current and future innovations and promote a data-driven economy.

There are issues inherent to all reviewed policies and strategies. First, they fall short on links with other policy documents. To clearly delimit the scope and avoid duplication, the revised versions should refer, whenever necessary, to other policies and strategies, such as the National Agricultural Policy, the Strategic Plan for Agricultural Transformation, Made in Rwanda Policy, Special Economic Zone Policy, National ICT Policy, National Education policy, National Capacity Development Policy, Mining Policy, National Cooperative Policy, Entrepreneurship Development Policy, Youth Sector Strategic Plan, Infrastructure Policy, Gender Policy and the NAEB Strategic Plan (2020-2024). Outward oriented policies should also make reference to regional and international agreements, such as EAC common market protocol, Economic Community of Central African States, Economic Community of the Great Lakes Countries, and COMESA. Second, all reviewed documents could benefit from a critical situational analysis that can provide evidence supporting the proposed policy interventions, for example through impact assessment of preceding versions allowing identification of strategic issues and opportunities and binding constraints that need to be addressed in the new iteration of policies. The revised drafts of strategies do not provide recommendations that

are sufficiently specific. National Trade in Service strategy, for example, does not clearly identify specific priority sub sectors under each sector that should be commercially promoted. The strategy should not only identify such sub-sectors but also detail why and how they will be promoted. For example, the strategy ought to highlight areas of import substitutions in services sector by proposing sectors that demonstrate market recapturing potential and recommend specific strategic actions to commercially promote them. The National Cross-border Trade Strategy should include specific target markets and products based on export potential and market analysis. Overall, there is a considerable scope for improvement in the design of the revised policies and strategies and their potential impact can be enhanced by addressing the identified gaps.

Turning to policy implementation, MINICOM leverages several coordinating mechanisms aligned with the mandate of different institutions to implement cross-cutting interventions. These forums are mainly in the economic cluster and include Industrial Development and Export Council (IDEC), the National Employment Program Steering Committee, National Trade Facilitation Committee, Economic Recovery Fund Steering Committee, Agro-processing Steering Committee, and the Manufacturing Acceleration Steering Committee (Rwirahira 2021c). Linkages between these forums and MINICOM's role in promoting productive capacities are highlighted in Table 22.

Table 22: Coordination mechanisms related to productive capacities development

Name of the forum	Links to productive capacities	MINICOM role
Economic Cluster	Links to all PC components (productive resources, entrepreneurial capacity, and productive linkages)	Co-chair
Industrial Development and Export Council	Links to natural resources, Flow of information and exchange of experience, Backward and forward linkages, Technological capacities, Global value chains, Links between FDI and domestic entrepreneurs, Links between large firms and SMEs	Chair of the Ministerial and Technical Meetings
National Employment Program Steering Committee	Promotes: • Entrepreneurial capacity • Links between large firms and SMEs • Links between FDI and domestic entrepreneurs	Member leading on Business Development and Entrepreneurship Pillar
National Trade Facilitation Committee	Supports the promotion of: • Backward and forward linkages • Global value chains	Chair
AfCFTA implementation Committee	Promotes: • Backward and forward linkages • Global value chains	Chair
Economic Recovery Fund Steering Committee	Promotes: • Productive resources (financial and human) • Flow of information and exchange of experience	Member
Agro-processing Steering Committee	Promotes: • Productive resources (natural capital) • Flow of information and exchange of experience	Co-chair with MINAGRI
Manufacturing Acceleration Steering Committee	Promotes: • Flow of information and exchange of experience • Entrepreneurial capacity • Links between large firms and SMEs • Links between FDI and domestic entrepreneurs • Backward and forward linkages, Global value chains	Member

Source: Based on MINICOM.

The link with the private sector is realized through the Private Sector Development and Youth Employment Sector Working group, a policy consultation group created by the government to facilitate policy dialogues, information sharing, strategic planning, and implementation of agreed-upon interventions. The working group also facilitates resource mobilization between public institutions, development partners and private sector organizations working in the same economic sector (Rwirahira 2021c). Despite a large number of coordination mechanisms, there is a need for a joint planning and monitoring framework.

Finally, coherent and holistic approach to policies requires special attention to groups on which policies can have a differentiated impact. The impact of policies on women, youth and informal workers can be different than the impact on average and this needs to be considered during policy design and implementation. According to the EICV5, 98 percent of establishments in Rwanda are SMEs and 93 percent of SMEs are categorized as informal (NISR 2018). The specific needs of small companies, particularly with regard to formalization, should be taken into account in trade and industrial policies. Women also face specific challenges. Their participation rate in manufacturing is lower than that of men. In agriculture, although there are more women than men, they receive less support. Women have less access to credit, less access to ICT and other knowledge for productive capacities. These challenges and the ways of addressing them should be reflected in trade and industrial policies.

Gender issues are particularly important in cross-border trade. As elsewhere in Africa, women cross-border traders in Rwanda face gender-specific challenges that translate into significant competitive disadvantages. In terms of basic skills, they are often illiterate or have little knowledge about cross-border trade regulations and procedures, which may lead to abuse. Women may be exposed to gender-based violence at border crossings. Finally, female traders face significant competitive disadvantages relative to men in terms of access to productive resources and logistics. As a result, female cross-border traders tend to operate in the least-profitable segments because of structural and gender-based constraints. It is critical to redress these gender-specific imbalances through the adoption of trade facilitation measures that are gender-sensitive and gender-redistributive, to ensure that women's benefits are not diminished as a result of policy measures (UNCTAD 2014).

Learning from experience, producing coherent and holistic strategies and successfully implementing them requires a broad range of complex skills among policy makers. This report argues that the renewed focus on industrial development and productive capacities requires an enhanced awareness and capabilities among policy makers, especially in MINICOM. A higher institutional capacity for research and development can generate learning, knowledge and evidence to support implementation of trade and industrial policies and permit better adaptation to a dynamically changing global environment.

6

ACTION PLAN TO FOSTER PRODUCTIVE CAPACITIES IN RWANDA

Promoting core processes and inter-linkages for productive capacities development

The COVID-19 crisis has negatively affected productive capacities development in Rwanda. It is important that the trajectory taken by the government to steer the country out of the crisis fosters structural transformation, creates stronger linkages across sectors, and triggers higher spill overs from economic growth to social progress and development. To achieve Rwanda's Vision 2050 the post-crisis growth trajectory needs to be higher than the pre-crisis one. This cannot be achieved without the development of productive capacities.

This chapter suggests policy actions aimed at addressing the identified constraints in the development of productive capacities. It can serve as an input to the ongoing review of the trade and industrial strategies as well as national policy measures to address the economic consequences of the coronavirus pandemic. The first part is dedicated to the core processes of productive capacities development – investment, structural change, and technological innovation. The second part is centred on human and physical capital for productive capacities development, suggesting interventions for addressing constraints related to skills and infrastructure. The third part contains interventions aimed at enabling business ecosystem for the private sector. The final part is about the quality and capacity of institutions in Rwanda: it suggests interventions related to policy coherence, inclusiveness, and skills related to productive capacity development.

Regarding investment, the key message is the need to ensure that capital is not only available but also serves to support industrialization and enable the development of domestic production capabilities through strengthening input-output linkages between sectors. In Rwanda, as in many other LDCs, the most profitable areas for investment are non-tradable services such as retail which does not contribute to productive capacities development and may further encourage importing and resale activities. Thus, it is important to incentivize investment in productive activities such as manufacturing that exhibit increasing returns to scale and have high potential for sustained growth and job creation. It is, therefore, recommended that MINICOM and RDB create specific incentives for investment into priority production sectors, particularly manufacturing and agro-processing. One of the examples of such incentives are preferential loans or matching grants for investment in plant or machinery upgrading in manufacturing and agro-processing. Beyond targeting at the sector level, Governments should seek to identify clear opportunities for investment by developing specific bankable projects with well-defined business plans (UNCTAD 2020a). FDI is an important means for industrialization because investors from abroad can bring in not only capital, but also technologies, organization know-how, and access to international markets. Yet, domestic private capital is important as well because it reduces dependence on foreign capital inflows and tend to create more domestic jobs than FDI. Therefore, measures that stimulate domestic savings and investment, such as facilitated access to e-banking, are also important (Table 23).

Table 23: Addressing constraints in investment

Constraint	Policy action	Main stakeholders	Time frame
Insufficient investment in the sectors that foster structural change	Identify and implement specific incentives for investment into priority production sectors, particularly manufacturing and agro-processing	MINICOM, RDB, NAEB	Medium term
Insufficient investment in the sectors that foster structural change	Preferential loans or matching grants for investment in plant or machinery upgrading	MINICOM, RDB	Short to medium term
Insufficient investment in the sectors that foster structural change	Developing specific bankable projects with well-defined business plans	MINICOM, RDB	Short to medium term
Low level of private capital	Facilitate access to e-banking to foster domestic savings and private investment	MINICOM, RBA, MFIs	Short to medium term

FDI will enable productive capacities development only in the presence of policies that incentivize foreign investors to transfer technology, use local inputs and help developing capacities of domestic suppliers, contributing to developing domestic value chains, value addition and technological upgrading. To stimulate such transfers and spillovers and to increase linkages between foreign investors and local firms, RDB can establish and maintain supplier databases and actively seek to close information gaps and broker deals between foreign and domestic firms. Furthermore, RDB in collaboration with RRA can provide incentives for foreign investors to procure inputs locally, and to facilitate the upgrading of domestic suppliers (Table 24).

Stronger interlinkages contribute to productive capacities development by promoting the production of local intermediate manufacturing inputs. Particularly important for Rwanda are agro-processing value chains – as a mean to both foster structural transformation and to increase food security. To facilitate linkages between local suppliers of raw materials with potential and existing anchor firms, it is necessary to strengthen the Supplier Development Unit within RDB. This unit can be charged with designing and implementing support programs for specific value chain businesses in different sectors (Rwirahira 2021c). Furthermore, SEZ can be used to promote clustering of domestic firms supplying FDI projects to reduce costs through shared facilities and network effects (Table 24).

Table 24: Developing inter-sector linkages and value chains

Constraint	Policy action	Main stakeholders	Time frame
Insufficient inter-sector linkages and value chain development	Establish and maintain supplier database and actively seek to close information gaps and broker deals between foreign and domestic firms	RDB	Short to medium term
Limited capacity of local suppliers	Provide supplier development incentives for foreign investors who actively facilitate the upgrading of their domestic suppliers	RDB, RRA	Short to medium term
Insufficient inter-sector linkages and value chain development	Incentivize foreign investors to procure inputs locally	RDB, RRA	Short to medium term
Limited prioritization of sector-specific value chains	Strengthen the Supplier Development Unit within RDB to facilitate backward linkages between local suppliers of raw materials with potential anchor firms	MINICOM, RDB, PSF, specific sectors	Short to medium term
Limited prioritization of sector-specific value chains	Establish support programs for specific value chain businesses in different sectors	MINICOM, RDB, PSF, MIFOTRA, specific sectors	Short to medium term
Limited capacity of local suppliers	Promote clustering of domestic firms supplying FDI projects to reduce costs through shared facilities and network effects, for example through SEZ	MINICOM, RDB, PSF	Medium to long term

Technology and innovation are vital for productive transformation and development and are key cross-cutting issues in Rwanda's Vision 2050. Despite the commitment of the government to fostering technology and innovation, the impact on productive transformation has been limited. This is evidenced in the absence of technology-based manufactures in Rwanda's export basket and in a very low score of the ICT component of the PCI (6 out of 100 in 2018). At the same time, the significant growth of the ICT sector during the coronavirus pandemic shows that the rapid adaptation of technologies is possible in Rwanda.

The government can play a decisive role in encouraging economic transformation through technology and innovation. Specific interventions can focus on making available digital solution, skills development for digital literacy, the provision of incentives for digitization of businesses, including the adoption of specific tools such as e-commerce. Furthermore, the government can explore possibilities for developing services industries that would develop ICT enabled services. Finally, data generated by the digital economy should be harnessed for better policy making (Rwirahira 2021a).

More specifically, MINICOM needs to explore opportunities in new service industries and digital solutions and provide incentives to develop such services. The Rwanda private sector will benefit through availability of ICT enabled services in their domestic business ecosystem. In addition, the government needs to encourage economic transformation through R&D in innovative market-oriented products and processes by providing networks to support individuals and R&D centres to commercialize their products. With regard to the capacities and incentives of ICT users, MINICOM in collaboration with MIINICT and PSF can provide incentives, capacity building and infrastructure for strengthening the adoption and use of e-commerce by the private sector (Rwirahira 2021c). The government in collaboration with telecom companies needs to identify and strategically put

in place incentives that would sustainably drive digitization amidst and post COVID-19 pandemic. The Ministry of ICT and Innovation, the Information Society Agency, and the Ministry of Education need to invest in skills development for digital literacy, including digital financial solutions, because the successful use of technologies depends not only on their supply (availability, affordability, relevance) but also on the demand for technologies (capacity to utilize them). Better skills can increase the usage of already existing ICT hard infrastructure. Finally, MINICOM in collaboration RURA, BNR and private companies owning online platforms and marketplaces should establish mechanisms to ensure that e-commerce related data are available and analysed to inform policy decisions (Rwirahira 2021a) (Table 25).

Table 25: Addressing constraints in technology and innovation

Constraint	Policy action	Main stakeholders	Time frame
Low level of technology-related business services	Explore opportunities in new service industries and digital solutions and provide incentives to develop such services	MINICOM	Short to medium term
Weak adoption and use of E-commerce	Provide incentives, capacity building and infrastructure for strengthening the adoption and use of e-commerce by the private sector	MINICOM, MINICT, PSF	Medium term
Low digitization	Identify and provide incentives that would sustainably drive digitization during and post COVID-19 pandemic	MINICOM, MINICT, telecom companies	Short term
Low digital literacy	Prioritize skills development for digital literacy, including digital financial solutions	MINICT, RISA, MINEDUC	Short to medium term
Data paucity on online consumer behaviour	Establish a mechanism to ensure that e-commerce related data are available and analysed to inform policy decisions	MINICOM in collaboration with RURA, BNR, private companies owners of online platforms and marketplaces	Short term

Fostering human and physical capital development

By 2050, the share of the working age population is expected to grow from around 61 percent of the population in 2017 to 65.7 percent in 2050 (NISR), with youth entering the labour force. Vision 2050 envisaged reaping economic benefits from this demographic shift through an integrated approach that ensures that decline in fertility is backed up by essential investments in human capital development and economic reforms so that the country has a healthy, well educated, and highly skilled labour force that is gainfully employed. This objective of Vision 2050 is in line with a large body of research showing that today's LDCs can no longer simply rely on natural resource abundance or low-cost unskilled labour if they want to increase productivity in the traditional agricultural sector and catch-up in manufacturing industries (UNCTAD 2020a). Countries become able to process natural resources and to diversify into higher value agricultural and industrial products only by increasing their industrial skills and productive capacities. Industrial skills perform two important roles in this process. First, the expansion of a firm's productive capacity requires up-skilling and multi-skilling processes. Second, capital investment in strategic physical infrastructure, such as roads, electricity and ICT requires a skilled workforce able to plan, build, operate and maintain such infrastructure (UNCTAD 2020a).

The government has a fundamental role to play in skills development through increasing investment in the educational and vocational school system, and strategic focus on the skills necessary for current and future industries. While Rwanda has made significant progress in developing human capital and promoting overall literacy, firms still report challenges in obtaining skilled labour needed for production activities (World Bank Enterprise Surveys, 2019). In line with the National Industrial Policy, spending on education at all levels should be prioritized so as to produce a skilled workforce capable of supporting the economic transformation of the country. Furthermore, the government can undertake specific interventions, outlined in Table 26. First, MINEDUC, in collaboration with MINICOM, RDB and PSF, need to design a strategy for addressing the existing skill gaps and strengthening the supply of skills sought by the priority sectors. To ensure that this strategy has a strong focus on productive capacities, indicators related to building skills relevant for productive transformation should be added among key performance indicators in the education sector (Rwirahira 2021c). The degrees and qualifications that have poor employment results need to be analysed and intake reduced.

The selection of the relevant skills must be forward-looking because skills development requires significant time, and because Rwanda envisages a diversified economy built upon future industries. It is, therefore, necessary to create an institutional structure and mechanism for forecasting the future needs of the economy and aligning the output of the education system with the evolving needs of domestic industry. These interventions are impossible without an active involvement from the private sector. Rwanda could benefit from fostering effective linkages between industry and universities and research institutes, with the continuous feedback loop among stakeholders (Table 26). The education system, from primary up to tertiary education as well as technical and vocational schools, is the main supplier of skills. Technical and vocational training is essential to meet the specific needs of industry, and an institutional arrangement should be found providing for close cooperation between private sector organizations and training providers. Various other forms of learning, for example on-site learning, should not be neglected. Learning and re-skilling at work, particularly in manufacturing industries, provide valuable experience-based technical skills and transform skills acquired through the formal education into production capabilities.

Table 26: Addressing constraints in human capital

Constraint	Policy action	Main stakeholders	Time frame
Lack of skilled labour	Design a strategy to address the existing skill gaps and strengthen the supply of skills sought by the priority sectors. As part of the strategy, establish indicators related to building skills for productive capacities and include them among key performance indicators in the education sector.	MINICOM, MINEDUC, RDB (Skills department), Universities, PSF	Short to medium term
Mismatch of supply and demand of skills	Create an institutional structure and mechanism for forecasting the future needs of the economy and aligning the output of educational and vocational institutions with the needs of domestic industry.	MINEDUC, RDB (Skills department), Universities, PSF	Medium term
Mismatch of supply and demand of skills	Foster effective linkages and continuous feedback between industry and educational entities, such as universities, research institutes and training providers, and establish arrangements facilitating on-site learning.	MINEDUC, RDB (Skills department), Universities, PSF	Short to medium term

In terms of physical capital, productive transformation in Rwanda cannot take place without an adequate, reliable, and affordable physical infrastructure, in particular energy supply. The government of Rwanda has made progress in enhancing access to electricity and making it more affordable through subsidies. The infrastructure sector indicates that there is a high-power generation capacity that meets current demand, yet six percent of Rwandan enterprises surveyed by the World Bank in 2019 indicated access to electricity as a major obstacle, while two percent declared it a severe constraint. The divergence in evaluating access to electricity can stem from the high cost of electricity despite subsidies, and a patchy access in more remote areas. Government needs to address the missing link between power generation and power consumption. More specifically, MINICOM can initiate a dialogue among the key stakeholder in the public and private sector to understand the constraints experienced by the private sector and identify their causes. Furthermore, government can put in place measures to further reduce the costs of electricity and increase its availability (Rwirahira 2021c). This would require boosting private sector investment in off-grid electrification, offering soft loans or grant to off-grid developers and gradually ending user subsidy schemes (Table 27).

One way to ensure that strategic sectors have access to all types of infrastructure is through creation and upgrading of SEZ. Rwanda is active in establishing SEZ, but their quality and infrastructure vary. It's important to progressively equip all special economic zones with adequate infrastructure, including provision of land, electricity and water at preferential rates (Table 27). It's also important to address the shortages of industrial land. In addition to providing critical infrastructure and lowering transaction costs, well-functioning SEZs facilitate access to technology, skills and business support services, and foster investment, linkages and knowledge spillovers – spurring productive development of firms and thus industrial transformation and competitiveness.

Table 27: Addressing constraints in infrastructure

Constraint	Policy action	Main stakeholders	Time frame
High cost of electricity	Initiate policy dialogue among actors on the availability and accessibility of electricity	MINICOM, RDB, MININFRA, PSF	Short term
High cost of electricity	Put in place measures for reducing the cost of electricity	MINICOM, RDB, MININFRA, PSF	Medium term
High cost of electricity	Boost private sector investment in off-grid electrification, gradually end user subsidy schemes, and offer soft loans or grants to off-grid developers	MINICOM, RDB, MININFRA, PSF	Medium to long term
Insufficient infrastructure in special economic zones	Progressively equip special economic zones with adequate infrastructure, including provision of land, electricity and water at preferential rates	MINICOM, RDB, MININFRA, PSF	Medium to long term

Addressing private sector constraints

An effective development of productive capacities requires an active participation of the private sector as a change maker and an important actor in the national transformation agenda. To promote a better use of the existing capacities and the development of new ones the government needs to address the constraints faced by the private sector, including enterprises themselves and their ecosystem. Business ecosystem comprises enterprises and institutions providing essential services that companies cannot produce internally. The business ecosystem is particularly crucial

for SMEs and small and medium-sized farms. In Rwanda, the business ecosystem requires further development, particularly with regard to extension services to agriculture, business support services, and financial services.

It is recommended that MINICOM, Ministry of Agriculture and PSF establish and improve intermediate institutions providing agricultural and industrial research and extension services to farms and businesses in agriculture (Table 28). Such institutions are instrumental in raising productivity in agriculture, through the identification and transfer of appropriate technologies, and development of agro-processing value chains. Public interventions are critical because the necessary technological innovations are too costly and difficult to master by individual farmers. Institutions charged with the extension services can identify, adapt or develop agro-technologies, test, diffuse and transfer these technologies, and nurture technological linkages and value chains across sectors, especially with manufacturing (UNCTAD 2020a).

Other public goods are also necessary for promoting entrepreneurship and manufacturing. MINICOM, RDB and PSF can assess the effectiveness of existing incubation centres and establish measures for improving and scaling their reach. To stimulate the development of entrepreneurship, the government can promote linkages between entrepreneurs and business advisory services aimed at bringing business ideas to production and scaling it up. Furthermore, there is an overarching need for better information flow across the public and private sectors. To this end, MINICOM can put in place measures for operationalizing existing forums, and ensure that these forums involve businesses, for example through private sector chambers and associations (Rwirahira 2021c) (Table 28).

Regarding financial services, the World Bank Enterprise Surveys undertaken in 2019 identified access to finance as the most frequent obstacle experienced by the private sector in Rwanda. An effective solution to this financing challenge requires action on both the demand and supply sides of the credit market. On the demand side, enterprises have very varied and changing needs requiring different financial instruments. This implies that policies looking to alleviate these demand-side constraints must involve close interaction between financing institutions and SMEs. It is, therefore, recommended for the government to initiate public-private dialogue on the establishment of affordable financial products and services for SMEs, bringing lenders, investors and policymakers together. On the supply side, there is potential for better mobilizing private finance. Government has a role to play in this process by creating legal frameworks and providing incentives for private lenders and investors. It is, therefore, recommended that government establish equity financing and venture capital frameworks to mobilize private finance, particularly for manufacturing (Rwirahira 2021c) (Table 28). The government can also consider ways to reduce the cost of lending faced by financial institutions that have further increased during COVID-19.

Addressing private sector constraints should also help increase utilization of existing capacities. Yet, it remains critical to add this as a specific objective in the revised draft of the National Industrial Policy because underutilization is high and widespread. The average underutilization of existing capacities in Rwanda in 2016 was 34 percent (NISR IBES 2016). This underutilization did not stem from few laggard firms that drive the average statistics down. It is a widespread phenomenon with majority of companies in most sectors reporting capacity underutilization. More specifically, 72 percent of companies underutilized their resources, and the underutilization was reported in nine out of ten surveyed economic activity sectors (NISR IBES 2016).

Table 28: Building supportive business ecosystem

Constraint	Policy action	Main stakeholders	Time frame
A limited supply of extension services for agriculture	Establish and improve intermediate institutions providing agricultural and industrial research and extension services to farms and businesses in agriculture	MINICOM, MINAGRI, NAEB, PSF	Short to medium term
A limited supply of business support services	Assess the effectiveness of existing incubation centres and establish measures for improving and scaling up their reach	MINICOM, RDB, PSF	Short to medium term
A limited supply of business support services	Establish linkages between entrepreneurs and business advisory services aimed at scaling up productive activities	MINICOM, RDB, PSF, MINEDUC	Medium term
Gaps in the flow of information	Engage with all actors and put in place measures for operationalizing existing forums, while ensuring that these forums involve businesses, for example through private sector chambers and associations.	MINICOM, RDB, PSF, Specific sectors	Short term
Limited financial services	Initiate public-private dialogue on the establishment of affordable financial products and services for SMEs, bringing lenders, investors and policymakers together	MINICOM, RDB, PSF	Medium term
Limited financial services	Establish equity financing and venture capital frameworks to mobilize private finance, particularly for manufacturing	MINICOM, MINECOFIN, PSF, RBS	Medium term
Underutilization of existing capacities	Incorporate improved utilization of existing productive capacities as an objective in the revised National Industrial Policy, including specific targets and interventions	MINICOM	Short term

Regional financial institutions, such as the African Development Bank, already contribute to financing productive capacities development in Rwanda. Nevertheless, to foster and facilitate trade and industrialisation in Rwanda, the government can seek further support in several areas, for example in developing professional business advisory services, financial literacy, access to finance, including related skills building and technological upgrading.

Enhancing policy coherence and inclusiveness

The success of structural transformation of an economy depends on the quality of domestic institutions and the availability of capable policy makers to design and implement coherent policies. Policies for developing and continually improving a country's productive capacities span multiple domains, such as infrastructure, institutions, and skills, and involve several ministries and institutions: for example, those responsible for trade, industry, agriculture, employment and private sector development. This multi-stakeholder setting calls for strong coordination – to ensure coherence across policies and collaboration among key institutions and stakeholders. The discussion in this part of the report focuses on policy coherence in two areas critical for productive capacities development – National Trade Policy and National Industrial Policy – as well as three related strategies, namely the National Export Strategy III, the National Cross-border Trade Strategy, and the National Strategy for Trade in Services. These policies and strategies are currently under review and it is expected that the analysis provided here can contribute to making the revised frameworks more holistic and coherent.

A holistic approach ensures that all policies contribute to the overarching national priorities and aspirations of Rwandan people as expressed in the national development framework documents such as Vision 2050 and NST1. The national development agenda is transformational and ambitious, and its achievement requires concerted actions by all stakeholders. Policy coherence, defined as a systematic promotion of mutually reinforcing policy actions across government units creating synergies towards achieving the agreed objectives, is critical for the effective development of productive capacities because different stakeholders and interests are involved. Coherence fosters synergies across sectors, reconciles national and international goals, and permits effective use of resources.

While the government has established a well-functioning institutional and policy framework for trade and industrial development and made lots of progress in developing individual strategies, several gaps remain in ensuring a holistic and coherent approach. The first one is a weak alignment of the policies and strategic interventions to the national development framework. The second is limited impact analysis, leading to missing links between the policy objectives and specific interventions. The third is a lack of clarity on the scope, which can lead to duplication of effort. Finally, there is limited coordination across ministries and with the private sector (Rwirahira 2020).

The identified gaps can be addressed through a better alignment of trade and industrial policies with the national development framework, an improved coordination with other sectors, an integration of lessons from the past policies, a clearer scope, and more specific interventions. With regard to the national development framework, the five strategies analysed in this report are not aligned with the mid and long-term overarching goals for a diversified economy built upon future industries, as well as strengthened export competitiveness and trade connectivity. The assessed policies and strategies make few references to the national priorities identified in Vision 2050 and in NST1 and do not clearly define how the proposed interventions will contribute to the overall national goals for trade and industrial development. It is, therefore, recommended that the assessed policies and strategies treat the national development program as the starting point in policy design and identify clear mechanisms and roadmaps showing how the policies will contribute to the realization of the national objectives in the mid- and long-term. Furthermore, it is critical to create synergies with other sectors by building upon the existing policies that are linked to trade, industry and productive capacities development (Rwirahira 2020). An overarching framework or stronger links are necessary in relation to the National Agricultural Policy, the Strategic Plan for Agricultural Transformation (PSTA), Made in Rwanda Policy, Special Economic Zone Policy, National ICT Policy, National Education policy, National Capacity Development Policy, National Education Policy and Strategy, Infrastructure related policies and strategies, Gender Policy, and Financial Development Strategy (Table 29).

Another element that needs to be considered in the review of trade and industrial policies are lessons learned from the implementation of the preceding ones. Currently the evaluation is limited to a descriptive situational analysis. What's necessary is a more critical and thorough analysis of the past policies and strategies, potentially including impact evaluations. Such analysis should identify the driving factors behind the observed performance and the challenges encountered throughout the implementation of the previous trade and industrial policies, with specific attention to the issues that need to be taken into account in the next generation of

policies and strategies (Rwirahira 2020). Therefore, there is the need for improving the analysis for each of the assessed policies and strategies to ensure that the proposed interventions are supported by evidence and include mechanisms for addressing the identified gaps and challenges (Table 29).

Turning to the scope, the reviewed policies and strategies contain areas that fail to clearly distinguish themselves from existing polices and strategies in other sectors, giving room for a potential duplication of efforts and interventions. The assessed policies and strategies are in some cases proposing interventions that already exist in the sector-specific policies and strategies. More specifically, there is need to refocus the revised National Industrial Policy on manufacturing. In addition, the Trade in Services Strategy needs to focus on commercialization and export of services and leave issues such as quality of education and increase tourism revenues under the responsibilities of the respective ministries. Furthermore, the National Cross-border Trade Strategy and the National Strategy for Trade in Services did not undertake a comprehensive export potential and market analysis aimed at identifying different markets, their current and anticipated needs. Therefore, it remains unclear what products, new and existing, are fit for which markets (Rwirahira 2020). This needs to be taken into consideration while refining trade and industrial policy documents which will become more useful if they include guidance on specific target markets and products (Table 29).

There is a need to ensure that for cross-sectoral trade and industrial related interventions, a coordination mechanism is established to ensure proper complementarity and coherence and to eliminate potential duplication. In this regard, the first measure is to undertake a mapping of key stakeholders in the areas of productive capacities development. The second intervention is establishment of the annual joint planning and monitoring framework. The third intervention concerns a coordination mechanism for the implementation of the Entrepreneurship Development Policy – to help speed up its implementation and to address coordination gaps for supporting entrepreneurship and private sector development (Rwirahira 2021c) (Table 29).

Table 29: Ensuring policy coherence

Constraint	Policy action	Main stakeholders	Timeframe
Policies and strategic interventions are not aligned with the national development framework	Align the national trade and industrial development policies and related strategies to the national development framework and its mid-term and long-term overarching goals	MINICOM	Short term
Lack of critical analysis of the impact of past policies	Undertake the review of the impact of the past trade and industrial development policies, including the driving factors underpinning the performance of the policies and the challenges encountered throughout their implementation	MINICOM	Short term
Some policies have a scope that is too broad and overlapping with other policies	Better define the scope and boundaries of policies and strategies to avoid duplication with existing policy documents; establish cross-references to other relevant policy documents with regard to joint areas or objectives	MINICOM, in consultation with MINAGRI, MININFRA, RURA, MINICT, MINECOFIN, RDB, PSF, NAEB	Short term

Constraint	Policy action	Main stakeholders	Timeframe
Strategies aiming at diversification do not refer to specific markets and products	Undertake comprehensive export potential and market analysis and include reference to the specific markets and products in strategies aiming at economic diversification	MINICOM	Short to medium term
Coordination gap between the private and the public sector and among agencies	Conduct a mapping of key stakeholders to foster coherence in developing productive capacities	MINICOM	Short term
Limited cross-sectoral coordination	Improve coordination of trade and industry related interventions across sectors and stakeholders to ensure complementarity and coherence and to avoid duplication by establishing a joint planning and monitoring framework that meets annually	MINICOM	Medium term
Coordination gap for supporting entrepreneurship and private sector development	Establish coordination mechanisms for the implementation of the Entrepreneurship Development Policy	MINICOM, RDB, PSF	Short to medium term

The current revision of trade and industrial policies and strategies is an opportunity to make them more inclusive. It is, therefore, important to address gender issues, informality, and special needs of MSMEs. Government can mainstream gender equality and women empowerment in trade and industry related strategies. In this process it is important to include and monitor gender disaggregated target indicators. Furthermore, given the disproportionate impact of external shocks on women and girls, it is recommended to undertake a study to understand the impact of COVID-19 on women and girls, including on their participation in productive activities, and identify measures to cushion this potential impact (Table 30).

With regard to cross-border trade, it is recommended that the updated National Cross-border Trade Strategy includes interventions geared towards formalization of traders as well as increasing their capabilities in supply, innovation and value addition (Rwirahira 2020). Cross-border trade is a major component of business in Rwanda and a particularly important avenue for employment creation and poverty alleviation with a strong gender impact. Supporting and formalizing cross-border trade and increasing the value of traders' businesses could significantly contribute to the country's overall growth and development. The interventions aimed at formalizing largely informal cross-border trade should be carefully designed and implemented to ensure the inclusion of women. The concern is that with greater formalization of cross-border trade, the advantage of informal trade and the involvement of women would diminish.

Finally, it is important to take "think small first" approach when designing and revising policies. This approach requires evaluating the impact of policies and potential costs of compliance on MSMEs. Whenever the impact on MSMEs is positive it is likely to be positive for all companies, but the opposite is not true. Whenever MSMEs are disproportionately affected by a policy change, the government needs to specify interventions that would help MSMEs to comply with the new regulations, such as for example, provision of technical assistance or longer adjustment periods (Table 30).

Table 30: Promoting inclusiveness through trade and industry development policies

Constraint	Policy action	Main stakeholders	Timeframe
Lack of gender provisions in trade and industry related policies	Mainstream gender in trade and industry related policies and strategies; include and monitor gender disaggregated target indicators	MINICOM, MoSPI, GMO	Short term
The disproportionate impact of external shock on women and girls	Undertake a study to understand the impact of COVID-19 on women and girls, including on their participation in productive activities, and identify measures to address this impact	MINICOM, GMO	Short to medium term
High level of informality in cross-border trade	Identify interventions aimed at formalizing informal cross-border trader and include these interventions in the updated National Cross-border Trade Strategy, with specific attention to female traders	MINICOM, RRA, GMO	Short term
Need for specific support for MSME development	Analyse the impact of revised polices and strategies on MSMEs and implement interventions specifically aimed at supporting MSMEs	MINICOM, RDB, PSF	Short term

The ambitious action plan outlined above requires awareness and skills of the policy makers for analysing, regulating, and monitoring productive capacities. More broadly, these skills and awareness can ensure that productive capacities development and structural transformation find their rightful place at the centre of Rwandan trade and industrial policies and strategies, thus contributing to inclusive economic growth, sustainable development, and building of resilience to external shocks. Publications and workshops can help in raising awareness about productive capacities across ministries and sectors, while an institutional capacity building program can provide skills and tools to enhance the capability of policy makers to integrate productive capacities development in the national and sector-specific policies, strategies and annual plans. To ensure that these skills are durable and sustainable, MINICOM can establish a policy and research function to support action-oriented research initiatives aimed at generating learning, knowledge, and evidence to strengthen productive capacities development (Rwirahira 2020) (Table 31).

Table 31: Increasing knowledge of productive capacities development

Constraint	Policy action	Main stakeholders	Timeframe
Limited awareness about the concept of productive capacities and its role in structural transformation	Raise awareness on the importance of the productive capacities development for the achievement of the national objectives through publications and workshops	MINICOM, MINECOFIN, MINEDUC, MIFOTRA, RDB, NISR	Short to medium term
Limited institutional capability to integrate productive capacities development in the national and sector-specific policies, strategies, and annual plans	Initiate and implement institutional capacity building program as a cross-cutting intervention to enhance the capability of policy makers to integrate productive capacities development in the national and sector-specific policies, strategies and annual plans	MINICOM, MINECOFIN, MINEDUC, MIFOTRA, RDB, NISR	Short to medium term
Lack of action research initiatives to inform adaptive policy implementation	Establishing a policy and research function to support action-research initiatives aimed at generating learning, knowledge, and evidence to strengthen productive capacities development	MINICOM	Medium to long term

The government should seek to put productive capacities at the centre of all cross-sector development policies and strategies, identify indicators to measure and monitor progress in productive transformation, and ensure that Rwandan institutions and policy makers have the required tools and capacities for effective policy formulation and implementation. Placing productive capacities at the centre of the economic and development framework can accelerate the structural transformation and diversification of the economy, helping the post-pandemic recovery, increasing the country's resilience to external shock, and contributing to inclusive growth and broader developmental objectives in line with its Vision 2050.

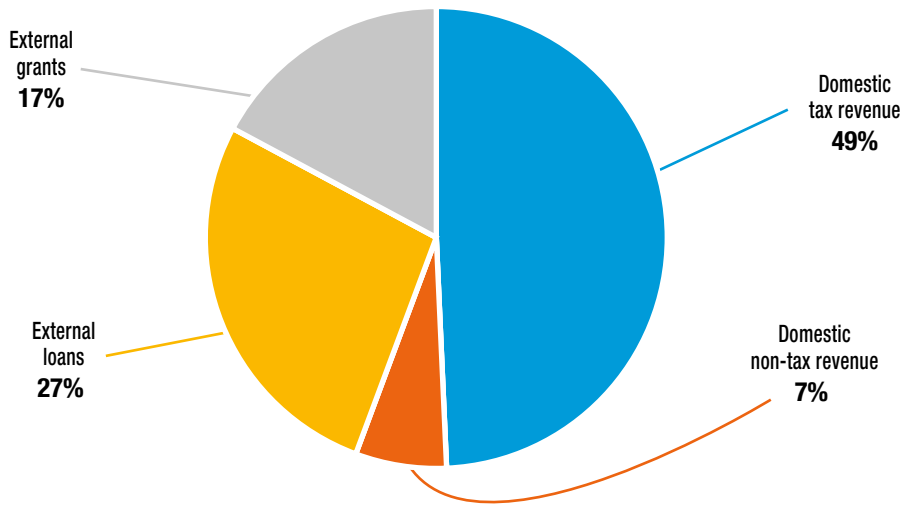
7

POLICY IMPLEMENTATION ISSUES

Resource mobilization

The success of the action plan outlined above ultimately depends on the ability of stakeholders to mobilize resources and implement the recommended activities. The availability of resources in Rwanda has been negatively impacted by the emergency spending on health and social assistance to mitigate the consequences of COVID-19 on businesses and individuals. Rwandan GDP fell by 3 percent in 2020 (National Institute of Statistics of Rwanda, 2021), but is expected to bounce back to the pre-pandemic level in 2022. On the revenue side, in the fiscal year 2020/21 the proposed total resources amount to FRW3,245 billion, comprised of FRW1,605 billion of domestic tax and non-tax revenue, external grants of FRW492 billion, and external loans of FRW783 billion (Figure 13). Total tax revenue collection is projected to fall to FRW1,421 billion as a result of the economic effects of the COVID-19 pandemic. Non-tax revenue collection is estimated at FRW184 billion which is also lower than in the preceding year. On the expenditure side, total spending is projected at FRW3,245 billion which is FRW228 billion higher than in the preceding period (Government of Rwanda. Ministry of Trade and Industry 2020).

Figure 13: Planned budget for fiscal year 2020-21: Resource envelope



Source: Government of Rwanda. Ministry of Trade and Industry 2020.

In the context of rising spending and reduced revenues, both domestic resources mobilization and external grants and loans will be important to help the economy and the people overcome the pandemic and finance the development agenda. Yet, domestic resource mobilization is important not only because of an insufficient and volatile amounts of official development assistance (ODA), but also because it holds its own broader promise for transformative change. Domestic resource mobilization can generate substantial benefits for state-citizen relations, economic stability and growth, and redistribution (UNRISD 2016).

Domestic tax revenue is the largest income source in Rwanda, accounting for almost half of all receipts (Figure 13). Domestic tax revenue can be raised by increasing the tax base, improving the general tax administration, and fostering country's engagement in regional and international tax cooperation. In terms of the tax base, tackling illicit financial flows holds the biggest promise.

In Africa, the largest channels for illicit financial flows are trade mis-invoicing and capital flight. Africa loses between $30 billion and $52 billion per year due to trade mis-invoicing, particularly under-invoicing in the extractive sector (UNCTAD 2020b), which is also a problem in Rwanda. Annual capital flight from Africa of $88.6 billion outstrips inflows of ODA and FDI ($48 billion and FDI $54 billion respectively). Rwanda is among countries where capital flight is estimated to exceed 5 percent of GDP (UNCTAD 2020b). Given the large amounts at stake, the Government of Rwanda may consider intensifying the fight against illicit financial outflows, for example by investing in data infrastructure, actively searching for illicit flows, and better protecting civil society organizations, whistle-blowers and investigative journalists. Rwandan authorities are already considering tax reforms in this direction. One of the examples are ring-fencing of mining income and expenses. A mining company that exploits more than one concession area will be required to declare and pay taxes separately on each concession. Losses incurred with respect to one mining concession cannot be used by another concession belonging to the same company (PwC 2019).

Turning to taxation of individuals, Rwanda has made progress in increasing the tax base and improving tax compliance. For example on the 3rd of March 2020, the Commissioner General for the Rwanda Revenue Authority issued an announcement granting tax amnesty on applicable interest and administrative penalties due on outstanding principal tax liabilities valid until the 30th of June 2020 (EYGM Limited 2020). This is likely to increase revenue and widen the tax base by bringing in previously unregistered taxpayers. Other potential initiatives worth considering include more actively taxing the income and assets of rich citizens, taxing more heavily the ownership and occupation of urban real estate, and increasing excise taxes on alcohol and tobacco (Moore and Prichard 2017).

Effective taxation of corporations and individuals rests on efficient and transparent tax administration. Here a considerable potential for improvement lies in the use of ICT facilities to manage core business processes more effectively. For example, technology can help to account for tax revenue receipts in more integrated, centralised and transparent ways. This suggestion goes in line with the aspiration to digitalize the Rwandan society and economy outlined in national policies. For example, leveraging ICT tools is one of the guiding principles of NST1. Furthermore, the distancing requirements imposed by COVID-19 is another reason for increasing the role of ICT in tax administration, more specifically in ensuring that both declaration and payments can be made online.

Finally, a stronger regional and international cooperation on tax matters can increase tax receipts, particularly given the openness and outward orientation of the economy of Rwanda. In this respect it is critical to enhance regional cooperation, particularly through the implementation of AfCFTA, which, among other provisions, specifies measures aimed at ensuring the equitable and effective imposition and collection of direct taxes.

Monitoring and evaluation

Monitoring and evaluation (M&E) plays a critical role in the effective design and implementation of policies, particularly in a changing economic and social environment, complex multi-stakeholder settings, and situations where the government faces budget shortages or pressures to deliver more and better with less resources. M&E should be used throughout the entire policy cycle – design, delivery and review – to achieve key long-term objectives, such as building productive capacities. Strategic use of M&E through the policy cycle can improve the links between policy interventions and their outcomes, provide legitimacy and enhanced accountability for the use of public funds and resources, and enhance policies' efficiency and effectiveness through continuous learning.

The quality and capacities of institutions are crucial for policymaking including monitoring and evaluation. Developing countries have generally achieved substantial progress in the formulation of industrial policies, while mixed results prevail in terms of implementation of policies, where serious and independent evaluation is often absent (UNIDO 2020). Rwanda does well in terms of designing appropriate policies (i.e., the formulation stage), where it is on par with Uganda and South Africa in terms of coordination, and ahead of all comparators in terms of adaptability. Turning to the implementation stage, Rwanda has an average score, same as Kenya and Uganda, but lower than South Africa. Policy evaluation capacities are difficult to measure but they can be proxied by statistical capacity because adequate statistical data is a prerequisite for an effective monitoring and evaluation. Rwanda's statistical capacity is on par with most East African Community (EAC) countries, but considerably lower than that of South Africa. Similarly, Rwanda's policy learning score is the same as in Kenya and Uganda but lower than in South Africa (Table 32).

Table 32: Rwanda's policymaking capacity

	Policy design: Coordination (score: 1-10)	Policy design: Adaptability & future orientation (score: 1-7)	Implementation of policies (score: 1-10)	Statistical capacity, proxy for monitoring (score: 1-100)	Policy learning (score: 1-10)
Rwanda	7.0	5.6	5.0	65.6	5.0
Kenya	4.0	4.4	5.0	57.8	5.0
Uganda	7.0	4.1	5.0	67.8	5.0
South Africa	7.0	3.3	6.0	75.6	6.0

Note: Policy design – coordination and policy, implementation of policies, policy learning: values refer to 2020. Policy design adaptability & future orientation; statistical capacity: values refer to 2019. Higher values/scores indicate better performance.
Source: (UNIDO 2020) based on Bertelsmann Transformation Index, World Economic Forum Global Competitiveness Index Database, World Bank Statistical Capacity Indicators.

The Government of Rwanda outlined implementation plans in its trade and industrial policies and strategies. These monitoring plans follow a logical framework approach and specify overarching objectives (desired impact), priority areas, activities, outputs of activities, lead implementing agency responsible for the results, collaborating agencies, time frame, the required budget and its source. The implementation of the action plan outlined in this report can build on this approach and enhance it by adding two more elements.

First, it is critical to convert strategic objectives suggested in the action plan into metrics that can be measured, monitored and communicated. More specifically, each activity should have at least one progress indicator, including their baseline and target values, and means of verification. For example, the success of the action "Boost private sector investment in off-grid electrification" can be measured by the amount of investment in off-grid electrification each year. The means of verification for this indicator are investment statistics. The action to address the mismatch between the existing skills and the needs of industry can be measured by the number of employed graduates or through a survey of enterprises, by measuring the share of respondents satisfied with the skills of the graduates entering the labour market. The means of verification are, respectively, the employment statistics or the survey results. Other examples of good target indicators can be found in the M&E framework of PSDYES 2018-2024. Indicator values should be realistic and credible, for example

they should take into account the baseline value (the situation before the start of the activities) and specify the target value that is higher than the value that is likely to be achieved without the policy. This would help to attribute the increase in the indicator to the implemented policy. These indicators and targets should be set during the design stage in consultation with all stakeholders, and used through the project cycle to monitor progress, learn and adapt where necessary.

Second, it is highly desirable to base the implementation framework, including M&E, on modern communication technologies. ICT based implementation solution can greatly facilitate M&E particularly given the ongoing COVID-19 related restrictions. More specifically, a digital solution is more suited to continuously track progress, measure results, and identify gaps and duplications. It also helps to build a transparent and efficient governance structure that brings together all stakeholders, ensuring a holistic approach and an effective information flow and coordination.

Finally, whether the system is digital or not, it should have mechanisms to promote collaboration and strategic learning (European Commission 2020). Regarding collaboration, a participatory approach that involves all relevant stakeholders at all stages of the M&E process is key to ensure ownership and embeddedness in the overall policy settings. This is particularly relevant for the activities where MINICOM requires support from other public and private entities. For example, for activities related to private sector development a committed engagement of PSF is critical, targets involving skills can only be achieved in working together with MINEDUC, and every intervention related to digitization needs an active involvement of the Ministry of ICT and Innovation. Finally, M&E encourages learning by providing strategic insights showing progress of activities and their contribution to productive capacities development in Rwanda. Enhanced productive capacities in turn can foster structural transformation and contribute to wider developmental objectives such as Vision 2050 and the attainment of the Sustainable Development Goals.

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Access to Finance Rwanda (AFR)	Rwanda Business Pulse Survey 2021	https://afr.rw
Access to Finance Rwanda (AFR)	The Impact of COVID-19 on the Rwanda Banking Sector 2020	https://afr.rw/survey-the-impact-of-covid-19-on-the-rwanda-banking-sector
Access to Finance Rwanda (AFR)	The Impact of COVID-19 to the Microfinance Sector in Rwanda 2020	https://afr.rw/downloads/the-impact-of-covid-19-to-the-microfinance-sector-in-rwanda
Gender Monitoring Office of Rwanda (GMO)	Gender statistics	http://www.gmo.gov.rw
International Labour Organization (ILO)	ILOSTAT	https://ilostat.ilo.org
International Monetary Fund (IMF)	World Economic Outlook (WEO)	https://www.imf.org/en/Data
International Trade Centre (ITC)	Trade Map	https://www.trademap.org
National Bank of Rwanda	Financial inclusion survey (FinScope)	https://www.bnr.rw/financial-inclusion/financial-inclusion-surveys/
National Institute of Statistics of Rwanda (NISR)	Integrated Households Living Conditions Survey (EICV) 2016/17	https://www.statistics.gov.rw/datasource/integrated-household-living-conditions-survey-5-eicv-5
National Institute of Statistics of Rwanda (NISR)	Integrated Business Enterprise Survey (IBES) 2016	https://www.statistics.gov.rw/datasource/integrated-business-enterprise-survey
National Institute of Statistics of Rwanda (NISR)	Labour Force Survey 2018	https://www.statistics.gov.rw/datasource/labour-force-survey-2018
Rwanda Development Board (RDB)	Foreign Private Capital in Rwanda	https://rdb.rw/wp-content/uploads/2019/12/FOREIGN-PRIVATE-CAPITAL-IN-RWANDA-2019_compressed.pdf
Rwanda Revenue Authority (RRA)	Electronic and Billing Machines transactions	https://rra.gov.rw/
Statista	Statista	https://www.statista.com
United Nations Conference on Trade and Development (UNCTAD)	UNCTADstat	https://unctadstat.unctad.org
United Nations Conference on Trade and Development (UNCTAD)	Productive Capacities Index (PCI)	https://unctad.org/topic/least-developed-countries/productive-capacities-index
United Nations Development Programme (UNDP)	Human Development Index (HDI)	http://hdr.undp.org/en/data
World Bank	Enterprise Surveys	https://www.enterprisesurveys.org
World Bank	Country and lending groups	https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups
World Bank	World Development Indicators: Poverty and Equity	https://databank.worldbank.org/
World Health Organization	Coronavirus Dashboard	https://covid19.who.int/

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