Policy Brief

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# Promoting industrialisation in Rwanda

## Five ideas and twelve policy actions

**In brief:**

- To attain middle-income status by 2035, Rwanda will have to accelerate the growth of its industrial sector – and maintain double digit annual growth in exports for coming decades. An active industrial policy can help.
- Industrial policy spans policy domains well beyond the normal purview of a normal commerce and trade ministry. Policy instruments include public investment, tax incentives, technology policy, and investment and export promotion, among others. Coordinating these instruments to produce synergies is the challenge.
- This note points to five ideas that are central to realising this objective:
    - Promoting industry requires promoting exports.
    - Incentives to investment need to be targeted to be efficient.
    - Industrialisation requires diversification, value addition and quality up grading.
    - Efficient services are critical for industrialisation
    - Industrial policy requires cabinet- level involvement.
- The government is already working on many of these ideas, so in each of these areas this note suggests specific options for action that may merit discussion.

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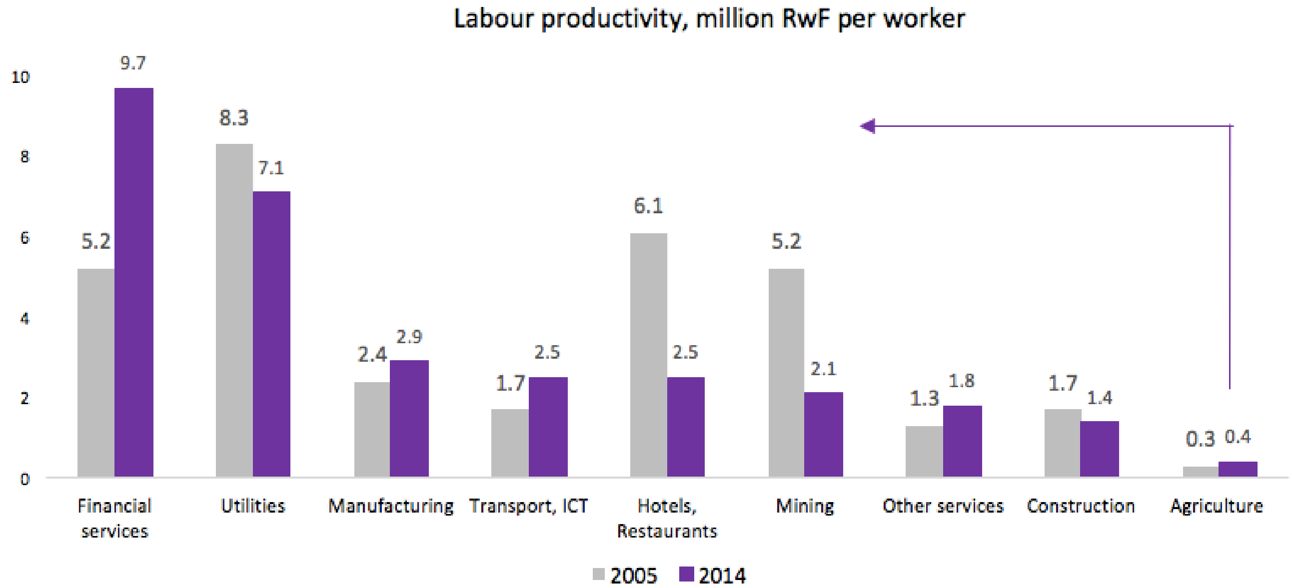
## Introduction

In its aspiration to achieve upper middle-income status by 2035, the Rwandan Government has laid out ambitious economic goals under the National Strategy for Transformation (NST1). Several pertain to industrial policy, including for example: creating over 200,000 jobs annually to promote development (Priority 1); establishing Rwanda as a globally competitive knowledge- based economy (Priority 3); promoting industrialisation and shifting export base to high value goods and services (Priority 4); and focusing on high potential areas: agro-processing, construction, meat and dairy, leather, textiles, horticulture, tourism, knowledge-based services, mining, creative arts, aviation, and transportation. These goals require an equally bold strategy to boost inclusive growth that further generates jobs and improves welfare for the Rwandan people.

The sheer breadth of these objectives indicates the multi-ministerial domains that is industrial policy. The instruments of industrial policy span export and investment promotion, technology policy, special economic zones, tax incentives, tariff policy, regional agreements, services exports, and public investment. Industrial policy, though orchestrated by the Ministry of Trade and Industry (MINICOM), requires the full participation of other ministries and agencies.

Continued structural transformation has to play a role. For the past decade, Rwanda has achieved impressive economic gains through structural transformation – the movement of workers from low productivity sectors to higher productivity sectors – to propel growth (Figure 1). This has taken the form of moving workers out of agriculture into other sectors. However, services – especially construction, finance, and commerce – rather than manufacturing leads the way.

**Figure 1: Moving workers to higher-productivity sectors and increasing productivity within sectors is a challenge**




Source: Steenbergen, 2018. Adjusted from World Bank, 2017

Productivity within each sector has improved more slowly, and in fact, it has fallen across a broad swath of activities between 2005 -2014. Moreover, manufacturing has lagged in growth performance, if with some gains in productivity (Ggombe and Newfarmer, 2018).

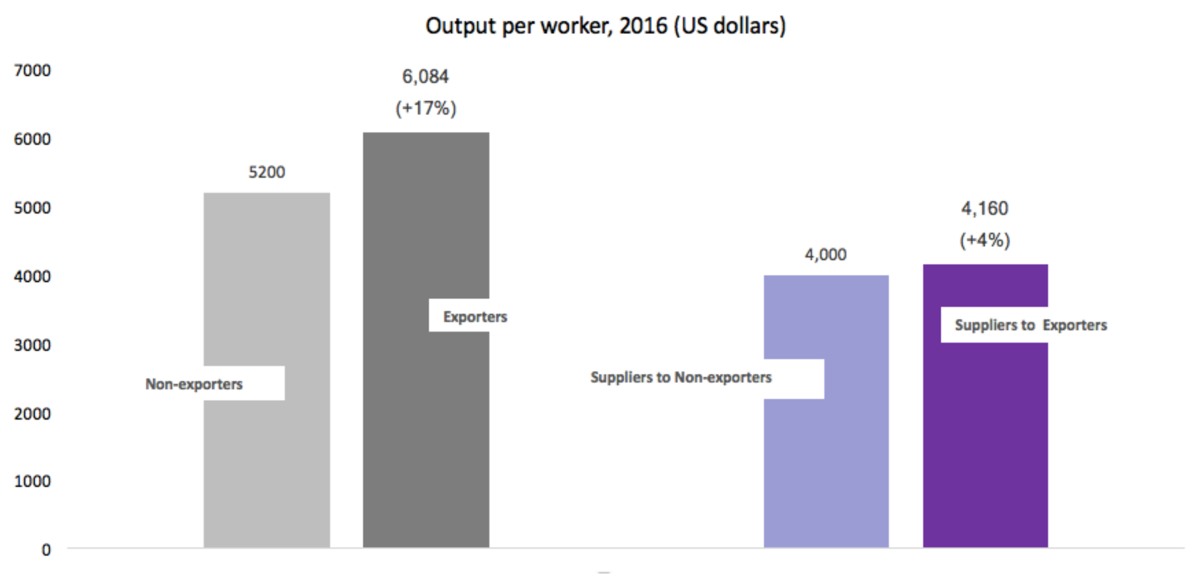
This note, based on IGC's recent discussion paper on Rwanda's industrial policy and previous IGC research, presents five ideas – and a dozen or so specific policy actions – necessary to promote industrialisation along with modern services economy.

## Promoting exports is key to promoting industrialisation

Industrialisation in Rwanda cannot happen without exports. As a small economy, its national market – one-third the size of the city of Nottingham in the UK – cannot support internationally competitive, large firms without exports. Exports from firms in small markets permit them to attain the economies of scale and specialisation necessary to become regionally and even globally competitive.

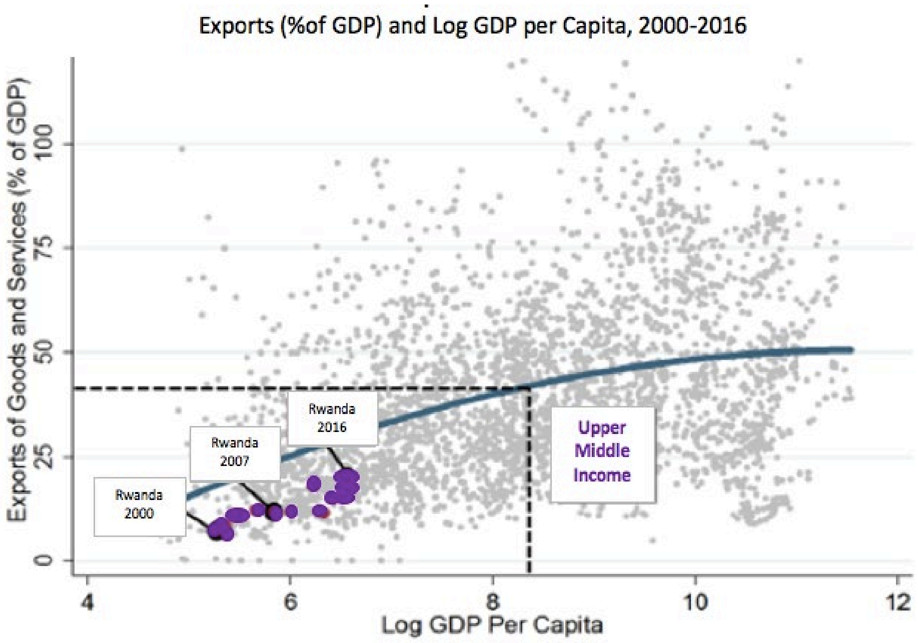
Most countries that recently experienced high growth did so through export-oriented manufacturing. In East Asian countries, export-oriented manufacturing played a critical role in boosting productivity growth (Newman et al, 2016). When domestic firms are exposed to international markets and competition, they harness knowledge spillovers to stay competitive, and have higher chances of absorbing technology and benefiting from economies of scale. Indeed, this has been the experience of Rwanda. Exporters are some 17 percent more productive than non-exporting firms (Figure 2). Moreover, their suppliers tend to be more productive as well – some 4 percent more productive by Spray's (2016) calculation.

**Figure 2: Exporters are more productive than non-exporters and suppliers of exporters are also more productive**




Since 2000, Rwanda has consistently increased its export share, but it is still far below average for countries of its per capita income (the curve in Figure 3) – and well short of the levels necessary to attain middle-upper income status. Achieving upper-middle income status requires double-digit year-on-year export growth rates up to 2035. This is not impossible, but it underscores the importance of exports to industrialisation.

## Figure 3: Rwanda exports have been growing but remain below average for countries of its per capita income




Source: Steenbergen (2017), Author's calculations, COMTRADE 2017 data.

Over the past years, Rwanda has focused on creating an enabling business environment for domestic and local firms and improving national infrastructure. Its success has created a receptive business environment that has attracted new foreign investment and propelled Rwanda to the forefront of reformers in Africa. The way forward for Rwanda is to continue to build on these successes and leverage the East African Community (EAC) market while focusing on increasing Rwanda's participation in global value chains. Some possible actions might include:

- **Think global value chains (GVCs)**. Roughly half of international trade now takes place in value chains. The import substitution form of growth that launched Korea's industrialisation in the 1970s, constructed around attaining fully integrated industries domestically, is no longer viable. Economies like Vietnam, Mauritius, and even China, have sustained high rates of productivity growth by combining export-oriented policies with a focus on GVCs. Rwanda can join a GVC by specialising in one activity in which it has a comparative advantage, and rely on other countries to undertake other tasks based on their own comparative advantages. For example, Vietnam has successfully joined the electronics value chain without developing the full range of component manufacturing, design, and research and development functions. Those functions are conducted elsewhere, while Vietnam leverages its abundant labour to undertake assembly tasks. This has positioned it to steadily move up the value chain. The policy priority for Rwanda is to identify regional and global value chains where it has an incipient foothold and work with its enterprises to look for ways to expand their market share. Second, establishing an effective Supplier Development Program (see below) would also contribute to value chain integration.

- **Use the EAC market as a spring board to the world.** Trade with the EAC allows Rwanda access to regional value chains that are linked to global markets. The EAC is also an important market for Rwanda's non-traditional exports, especially in higher-skilled production. In 2014, for example, the region accounted for 41 percent of manufacturing exports, 66 percent of leather goods, and 53 percent of horticultural products sold abroad (MINICOM, 2015). However, few Rwandan firms currently make use of these opportunities. Spray and Wolf (2016) show that Rwanda's sectors have widely varying participation rates in the external sector (Table 1). The mining sector is best integrated into global supply chains, with 21 percent of firms exporting, mostly to OECD countries. Manufacturing shows the reverse, with 15 percent of firms exporting, but primarily to EAC countries. Agriculture and agro-processing as well as services have lower export rates, spread between the EAC and OECD countries.

**Table 1: Rwanda's labour productivity and participation in the external sector, 2015**

| Sector | Output per worker (USD$) | Exporters | | | Supplying Exporters |
|---|---|---|---|---|---|
| | | Total | To EAC | To OECD | |
| Agriculture & Agro-Processing | 8,166 | 0.12 | 0.06 | 0.08 | 0.02 |
| Manufacturing | 5,729 | 0.15 | 0.1 | 0.02 | 0.14 |
| Mining | 16,080 | 0.21 | 0.02 | 0.13 | 0.07 |
| Services | 9,855 | 0.05 | 0.02 | 0.01 | 0.09 |

Source: Spray and Wolf, 2017

- **Prices are profits, so review the price *disincentives* to export embedded in the tariff and exchange rate systems.** Rwanda has not been well served by the Common External Tariff (CET). On the one hand, tariffs are substantially higher in comparison with East Asia and other developing region. On the other, high tariffs create price incentives to produce for the home market rather than to export – what economists call "anti-export bias". For Rwanda, these effects are even more prejudicial because the CET taxes Rwandan consumers and producers to pay for jobs that are created in the coastal countries. Moreover, Rwanda already operates at a significant cost disadvantage relative to Kenya and Tanzania because, in addition to direct tariffs of the CET their producers and consumers must pay, importing firms in these countries face implicit "extra tariffs" stemming from the high costs of inland transport. Also, many of the intermediate inputs that Rwandan firms use are misclassified as consumer goods, with a 25 percent duty rather than the 10 percent duty of intermediates should carry. Finally, few Rwandan firms benefit from the Sensitive Items list, but Rwandan consumers – especially poor Rwandans – pay the cost in higher food prices.

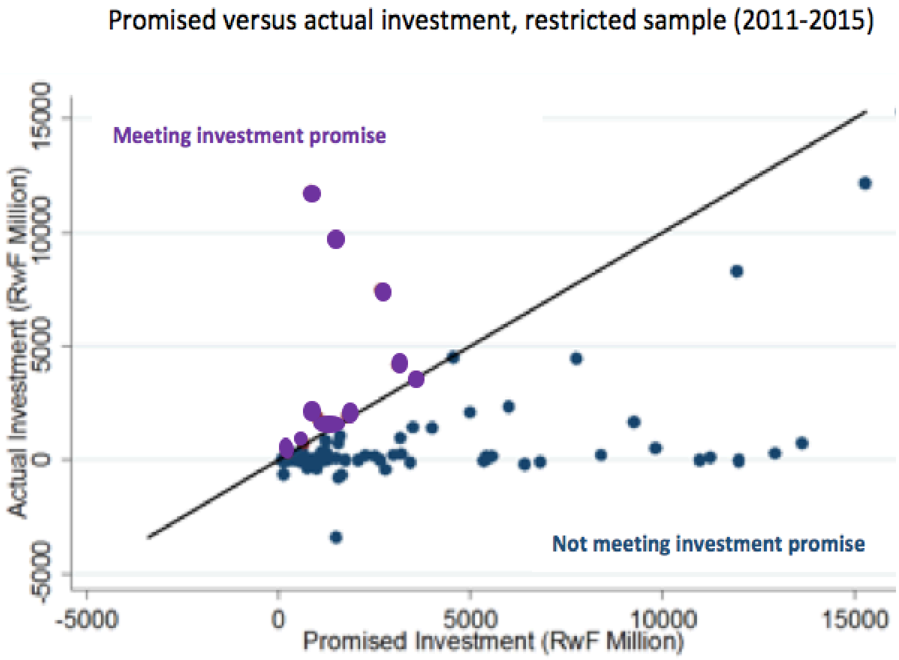
Beside the tariff system, the exchange rate also determines the prices exporters receive for sales abroad. As Rwanda shifts from exporting primarily commodities and merchandise to exporting non-traditional and modern services, appropriate policies toward the real exchange rate become even more important. Dani Rodrik is reported to have said: "The best industrial policy is an under-valued exchange rate" (see Rodrik, 2008). The National Bank of Rwanda (BNR) has expressed interest in more research on how changes in the value of the Rwandan Franc have affected growth in non-traditional exports, complemented with a monitoring mechanism to inform BNR policy on exchange rates. A solid grasp of the channels through with the exchange rate influences industrial development is especially important for currency movements within the EAC because the region is the destination of a large portion of Rwanda's manufacturing and non-traditional exports. Over the long run, an understanding of these underlying dynamics would prove important in discussions around government's aspirations for a monetary union with common currency.

## Incentives to attract FDI and promote manufacturing should be targeted, time-bound, and performance-driven

In a bid to attract FDI, governments worldwide make use of fiscal incentives and grant packages to position themselves as attractive investment destinations. Over the past years, Rwanda has creatively used tax incentives to increase the inflow of FDI. The 2015 Investment Code expanded incentives to include a set of generous tax holidays and corporate income tax (CIT) rate reductions. However, recent IGC research has shown that current tax incentives are costly and partly ineffective with significant benefits going to domestic firms and the wholesale retail industry rather than towards attracting FDI and supporting the manufacturing sector (Steenbergen, et al, 2018).

The cost of incentives is estimated at between RwF 40-52 billion every year between 2012 and 2016. For the year 2015, this is equivalent to around 0.9 percent of Rwanda's GDP. Despite the cost, only 11 percent of tax expenditure goes to firms whose investment decision is more likely to have been affected by incentives, which amounts to only 3 percent of firms. Moreover, monitoring of firm performance that receive tax incentives has been negligible. About 90 percent of a sample of firms that received tax incentives have failed to deliver on investment promises (Figure 4). The Rwanda Development Board (RDB), working with the Rwanda Revenue Authority (RRA), has recently put in place an investor tracking system to remedy this shortcoming.

**Figure 4: Investment promises unkept**




Source: Steenbergen and von Uexkull, 2018

Rwanda should move towards a more effective tax incentive programme that attracts investor contribution to export promotion, job creation, or backward linkages without eroding the tax base. Such an approach would reduce the number of incentives that have no effect on the economy at the end of the day. In particular, Rwanda might consider to:

- **Use tax credits and cost-based incentives rather than blanket tax exemptions.** A tax credit system would allow firms to deduct a share of what they spend on investments from taxes owed. Rather than reward a firm for profits down the line, with or without hitting investment targets, a tax credit system directly links the amount of benefits an investor receives to the amount invested. It can also reduce the disproportionate benefits that the current system affords to highly profitable firms and firms that would have still invested without incentives. Other cost-based incentives can take the form of accelerated tax depreciation, or additional tax allowances. A cost-based system would require more oversight however it allows the RRA and the RDB to better anticipate the cost of incentives on the tax base and monitor impacts on firms' investment.

- **Replace discretion with transparent administration and regular evaluation**. At present, the take-up of incentives is uneven across the productive sectors because investors are not fully aware of what government incentives they are eligible for. Replacing the application and approval system with a transparent and rule-bound administration would provide greater clarity to investors. Tax incentives programmes should be evaluated yearly to ensure that they are aligned with Rwanda's economic priorities and are achieving their desired result without jeopardising tax buoyancy.

## Paths to accelerated industrialisation run through diversification, value addition, and quality upgrading

Over the years, economic literature has pointed to the importance on product sophistication in accelerating economic growth. In a sense, what a country makes is an important indication of the potential for knowledge spillovers, backward linkages, and creation of related product lines (Hausmann and Rodrik, 2006). Rwanda can improve its product sophistication by embracing product diversification, prioritising value addition across value chains, and investing in upgrading the quality of domestically made products to compete on the world market. Taking sector specific performance into consideration along with current quality and value chain development, several actions might help achieve this goal:

- **Create an auction system for allocating mining rights.** This would build on successes in the mining sector by using competition to spur private investors to conduct and share prospecting surveys. Mining is now an important part of Rwanda's economy and accounted for almost a third of good exports since 2008 but there is still room for more. An auction system would create a market for both government and investors to value mining prospects and an efficient and transparent system to allocate mining plots. Domestically, the government should assist artisanal and small-scale mining operations (ASM) to adopt modern technologies and formalise. On the human capital front, ASM operators should be upskilled and government should strengthen supply chains and backward linkages to embed ASM operations into multiple value chains.

- **Create a targeted supplier development programme.** The development impact of foreign investment in particular is limited if the investor does not develop backward linkages with the rest of the economy. In line with the value chain development model discussed above, the government, through industrial development agencies and quality infrastructure, can help smaller firms develop their productive capacity and comply with relevant standards, which signals to larger firms that they are a reliable partner with which they can develop a long-term relationship.

  Encouraging these kinds of relationship-specific investments is key to ensuring that GVCs make a durable investment in Rwanda. Over the medium- to long-term, these kinds of sunk costs are likely to play a bigger role in ensuring that lead firms maintain their networks in-country than temporary incentive packages, even generous ones. Rwanda can make use of rich dataset from Electronic Billing Machines (EBMs) that can be exploited to create potential supplier networks. The IGC explored the potential of this datasets and identified a list of products for a supplier development programme. Among these products are cement, mattresses, and steel tubes. Both National Industrial Research and Development Agency (NIRDA) and RDB are considering variations of this idea.

- **Adopt regional and international standards where feasible** —those issued by transnational bodies, as well as those from key overseas markets such as the EU and the US—to help upgrade production to world standards, and facilitate value chain integration and exports. Small countries, like those in Association of Southeast Asian Nations (ASEAN), have made extensive use of mutual recognition agreements (MRAs) to help avoid costly re-testing procedures that keep smaller firms out of regional and international markets.

  Professional bodies like Rwanda's Chamber of Agriculture and its product-specific members should play a much larger role. These should be the first point of contact for producers to learn about product standards and to receive support from quality upgrading. A programme can be created to help cover the initial cost for small-scale, routine quality monitoring exercises, in return for producers' membership contributions. Initial support from government (under leadership of the Rwanda Standards Board (RSB)) and development partners to train these private sector bodies can thus result in long-term rewards.

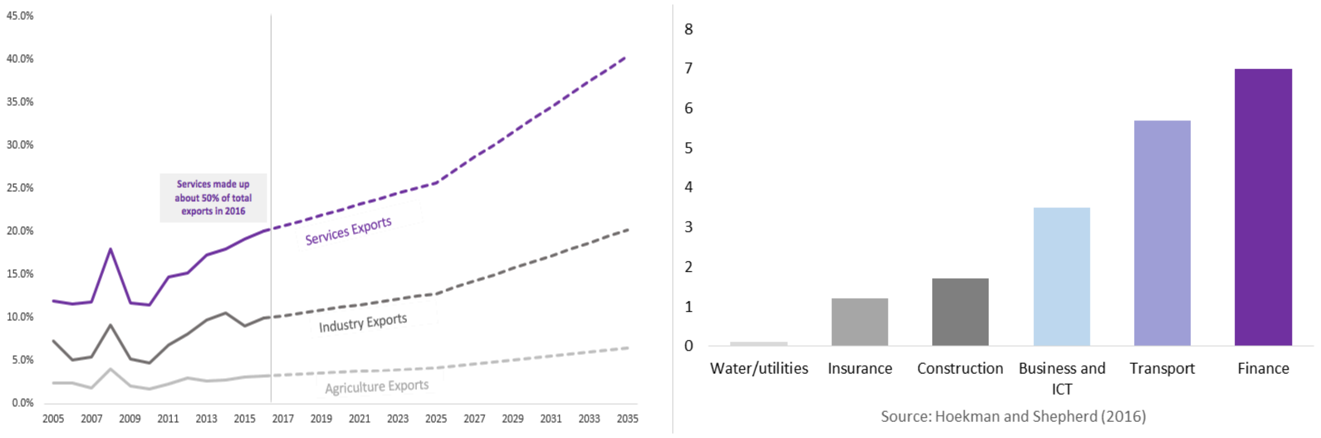
## Services are critical for industrialisation and exports

Trading in services provides a double value: export of services earns foreign exchange and assists diversification, while services imports can lead to greater competition, lower prices and increased quality, thus enhancing efficiency gains and competitiveness. Backbone service sectors (such as transport, telecom, and professional services) serve as a critical input into manufacturing GVCs, which can help raise exports and improve sectoral productivity (Figure 5). For this, there is a need to lower policy barriers to services competition and strengthen services trade for EAC professionals. Rwanda could consider the following options:

**Figure 5: Services are already half of Rwanda's exports and are critical inputs into manufacturing firms**

**Cumulative Exports (% of GDP), 2005-2016 and potential trajectory to middle-upper income status by 2035**

**Share of manufacturing costs spent on services**




- **Advocate for EAC member states to negotiate more cross-border services trade**. Currently the telecommunications, energy, and finance sectors are not sufficiently competitive to lower costs. Hoekman and Shepherd (2015) argue that increases in firm level competition improve services efficiency and this benefits downstream users, particularly manufacturing. Using cross-country data for the world and East Africa, they found that a 10 percent increase in services productivity is associated with a 0.34 percent increase in manufacturing productivity in Rwanda. An EAC mandate to improve business regulatory environment for firms looking to enter other EAC member countries will create gains from scale and learning similar to competitive markets for goods.

- **Elevate tourism in the hierarchy of decision-making.** In 2016, tourism was the largest source of export earnings for Rwanda bringing in 23 percent of total exports revenue, close to that of tea, coffee, and mineral exports combined. To support growth in these areas, the Rwandan government has made significant investments to promote business and leisure travel-notable investments include the Convention Center, Rwandair, the new airport, and even backstop to fledgling private debt in the hotel sector. These efforts have begun to pay dividends. Tourism receipts almost doubled from $200 million in 2010 to $390 million by 2016. However, there are more gains to realise. The average visitor currently spends only around 3.2 days in the country. If visitors were enticed to double the average length of their stays, the sector could generate another $60 million without an increase in the number of tourists (English, 2017).

On the administration side, there is currently no single authority which is responsible for tourism and could serve as a focused champion for the sector. MINICOM has limited capacity on tourism, while RDB tends to be stronger on implementation than on policy formulation. Both have a mandate which stretches far beyond tourism. The government should consider setting up a separate ministry to oversee the tourism sector with the continued support of the RDB and MINICOM. A well-resourced and focused authority would have greater capacity to plan and support routine ministerial activities while also innovating to further boost tourism growth.

- **Push to harmonise regional standards for EAC professionals – and in the meantime, liberalise Rwanda**. Differences in services regulation provide critical non-tariff barriers that limit integration in the East African Common Market and prevent the exploitation of economies of scale. A coherent approach to the movement and employment of professional services, within the EAC, will reduce the cost of doing business, facilitate knowledge exchange, and further support the manufacturing sector that requires stable supply of quality service professionals to grow. Working on mutual recognition agreements in professional services might be a first step.

  Rwanda can do much on its own to use foreign professionals to gain expertise and access to technology. A first priority is to re-orient the review process for work visa applications away from viewing foreigners as taking Rwandan jobs, but rather toward seizing opportunities to bring in international skills from which local Rwandans can learn. Rather than review visa applications from a protectionist stance, a better policy would be to ask firms employing foreigners to present an active programme of training for Rwandan staff to ensure learning and technological transfer.

## Cabinet coordination and oversight of industrial policy is a recipe for success

Achieving Rwanda's ambitious growth targets with an industrial strategy requires a government-wide push. Policies determining export growth and industrial development extend far beyond MINICOM and the RDB to include several other ministries. For example, the Mnistry of Infrastructure (MININFRA)'s policies in road infrastructure and the cost of electricity are vital for manufacturing exports, as well as its investments that have paved the way for a tourism industry. The new Land and Forest Ministry will oversee policies toward the parks, vital to tourism. The Ministry of Finance and Economic Planning (MINECOFIN) oversees tax policy and tax incentives affecting the decisions of private companies, including FDI. Moreover, Rwanda's success in exports is also contingent on its negotiations with regional and foreign partners. The need for concerted efforts of the entire economic cabinet becomes clear when considering the policy priorities for developing exports.

- **Establish regular monitoring of industrial policy.** The need for periodic review of the cabinet suggests formulating action plans that can be monitored quarterly at the cabinet level – and even linked to the performance contract system – to ensure timely action and follow up. Industrial policy is a learning process, both in terms of identifying measures that work in a particular context, and in terms of learning more about underlying economic and commercial structures. As such, Rwanda's industrial policy should be accompanied by a rigorous monitoring, independent of the agency granting the benefits, as well as an evaluation process that informs policies that need to be phased out and ones that need more support. A key part of that framework needs to be a major effort to improve data availability in the areas of productivity measurement in all sectors, measurement of trade flows and business environment.

- **Invest in economic diplomacy – both in terms of staff and cabinet level oversight.** Many medium-term trade priorities relate to deepening regional integration and furthering collaboration with external actors. For example, the EAC is a critical platform for transformation – and regional policies are critical to Rwanda's export success (e.g., by determining the CET, reducing non-tariff barriers (NTBs), removing policy barriers to entry in services, and regional agreements on customs and transport arrangements).

- Other important opportunities relate to negotiating market access through new bilateral trade agreements, transport agreements (e.g., Open Skies), and even multilateral discussions. Yet, many negotiations are sometimes undertaken by a small, mid-level group of individuals, often with insufficient tools for economic analysis and only indirect guidance from the economic cabinet. But the issues under consideration in Arusha, Geneva, Johannesburg, Washington, and other capitals require detailed analysis and policy positions formulated at the highest levels. This suggests investing more in staff knowledge to optimally undertake these external negotiations. Ensuring that the economic cabinet endorse policy positions that Rwanda's representatives convey in negotiating forums, such as the World Trade Organization (WTO), and improving cabinet level input (including involving the Presidency in external negotiations where appropriate), could further help strengthen Rwanda's negotiating position.

In addition to these five main ideas, it is important to elevate the role of human skills investment and financing for the next stage of Rwanda's industrial development and growth. The Government of Rwanda is already focused on improving policy in both areas. Essential policy actions might include:

- **Increase investments in human capital.** The low level of human capital investment along with stunted growth and low school completion rates poses a challenge to training a workforce that is sufficient for strong, high quality structural transformation. Manufacturing jobs require numeracy and literacy and higher value services jobs require higher levels of training as well as critical thinking skills from a well-rounded education system. Rwanda must address the issue of stunting and work towards providing Rwandans with an affordable and quality education at pre-school, primary, secondary, and tertiary level. Investments in on-the-job and non-job training should not be neglected.

- **Encourage higher private investments and savings to complement public financing of industrial policy**. To support Rwanda's ambitious economic goals would require higher levels of investment. Capital markets offer an important source of financial support to boost industrial development. Rwanda has had success with recent bond issuances. Most recently with its 10-year bond that saw a 239 percent subscription rate. This success has been in part due to an impressive public awareness campaign. Rwanda needs to continue investing in creating a robust capital market infrastructure with a vibrant secondary market to further encourage private investment and savings.

In summary, Rwanda has the organisational capacity to industrialise rapidly and the capability, perhaps unique in Africa, to implement a modern industrial policy. Its ability to achieve its aspirations for 2035 depend on these state capabilities.

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