MAURITIUS

THROUGH THE EYE OF A PERFECT STORM-COMING BACK STRONGER FROM THE COVID CRISIS

A World Bank Group Country Economic Memorandum



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This is an interactive document in which, rather than reading it cover to cover, the reader is encouraged to navigate according to preference. For easy navigation, two types of symbols are used: The forward arrow (\rightarrow) leads to a section that further develops a topic. A check mark (\lor) takes the reader directly to the policy recommendations to address an issue. The document is therefore best read in electronic format.

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LIST OF ACRONYMS

AFCFTA African Continental Free Trade Area

AML Anti-money Laundering
B2W Back to Work Programme
BAS Business Advisory Service
BIT Bilateral Investment Treaties

BOM Bank of Mauritius

BRP Basic Retirement Pension

CCM Competition Commission of Mauritius

CDCC Child Day Care Centers

CMPHS Continuous Multi-Purpose Household Survey
COMESA Common Market for Eastern and Southern Africa

CPE Certificate of Primary Education
CSG Contribution Sociale Généralisée
DBM Development Bank of Mauritius

E&T Education and Training

ECCE Early Childhood Care and Education
ECCEA Early Childhood Care and Education Act

ECD Early Childhood Development
EDB Economic Development Board
EDLP Early Digital Learning Programme
EIC Employment Information Centers

EP Extended Program

ESP Early Support Programme

FDI Foreign Direct Investment

FGD Focus Group Discussions

GBC Global Business Company

GDP Gross Domestic Product

GII Global Innovation Index

GNI Gross National Income

HEC Higher Education Commission

HRDC Human Resources Development Council

HSC High School Certificate

ICT Information and Communication Technology

IIA International Investment Agreements

IMF International Monetary Fund

IP Intellectual Property

IPR Intellectual Property Rights
ISP Internet Service Provider
M&E Monitoring and Evaluation

MBEMRFS Ministry of Blue Economy, Marine Resources, Fisheries and Shipping

MDA Ministries, departments and agencies

MGI Mahatma Gandhi Institute

MIC Mauritius Investment Corporation

MIDSC Ministry of Industrial Development, SMEs and Cooperatives

MITD Mauritius Institute of Training and Development

MLHRDT Ministry of Labour, Human Resource Development and Training
MLIRET Ministry of Labour, Human Resource Development and Training
MOETEST Ministry of Education, Tertiary Education, Science and Technology

MOFEPD Ministry of Finance, Economic Planning and Development

MPA Mauritius Port Authority

MQA Mauritius Qualifications Authority
MRA Mauritius Revenue Authority

MRIC Mauritius Research and Innovation Council
MSME Micro, Small and Medium Enterprises

Ministry of Social Security, National Solidarity and Environment and Sustainable

MSSNSESD Development

MT Mauritius Telecom

MTFF Medium-term Fiscal Framework

NDRRMC National Disaster, Risk Reduction and Management Center

NEET Not in Education, Employment or Training

NPCC National Productivity and Competitiveness Council

NPF National Pension Fund

NQF National Qualification Framework

NSDP National Skills Development Program

NSDS National Skills Development Strategy

NTM Non-tariff Measure

NYCBE Nine Years of Continuous Basic Education

OECD Organization for Economic Co-operation and Development

OP Occupation Permit

PM&E Performance Monitoring and Evaluation

PPP Public-private Partnership
R&D Research and Development

SACMEQ Southern and Eastern Africa Consortium for Monitoring Education Quality

SADC South African Development Community

SC School Certificate

SDA Skills Development Authority
SEZ Special Economic Zone

SIC State Investment Corporation
SME Small and Medium Enterprise
SOE State Owned Enterprise
TES Technology Extension Service

TVET Technical and Vocational Education and Training

UM Université des Mascareignes

UNESCO United Nations Educational, Scientific and Cultural Organization

UOM University of Mauritius

UTM University of Technology Mauritius

WP Work Permit

WTO World Trade Organization

YEP Youth Employment Programme

EXECUTIVE SUMMARY

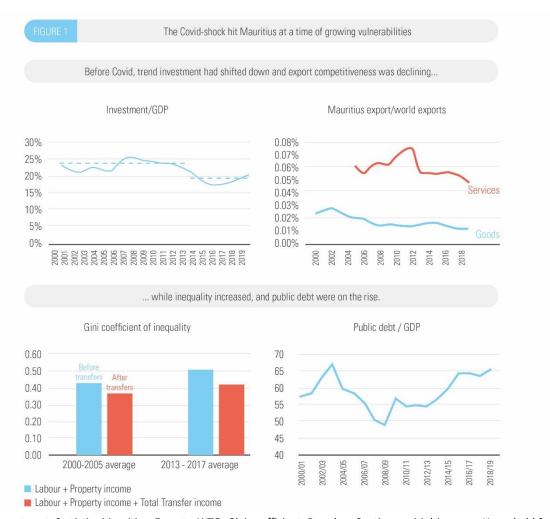
A historical year, for better or worse

- 1. On July 1, 2020, Mauritius officially joined the ranks of High-Income Countries (HIC)¹. This marks a milestone in this small island nation's development trajectory from a poor, remote mono-crop producer to arguably Africa's best development success story. At the time of independence in 1968, per capita GDP was US\$260 and agriculture, mainly sugar cane production, accounted for more than 22 percent of GDP. Over the following years, successful public-private collaboration paved the way for economic diversification and employment creation, and by 2003 economic transformation had reduced agriculture's share of GDP to below 10 percent. Starting as a monocrop producer, Mauritius moved toward a diversified economy exporting textiles, tourism, financial and information and business services.
- 2. Part of Mauritius' development success is that growth was widely shared. Export-led industries translated into substantial employment creation while subsequent productivity gains supported rising salaries and welfare improvements. Growing income not only improved the quality of life but also contributed to human capital development through strong public investment in free education and health programs. Responsive institutions ensured that public services were expanded for all and that significant social protection programs supported the most vulnerable. This shared economic growth pulled most of the population out of poverty and created a large middle class (World Bank 2015).
- 3. It is a cruel historical irony that Mauritius reached the High-Income milestone during one of the worst years in its history. Mauritius delivered a highly successful health response to the global Covid-19 pandemic through a hard lockdown and subsequent quarantine measures, and as a result has effectively been 'Covid-free' from April 2020 to March 2021, when a second outbreak occurred. With a total of 1246 cases and 17 deaths, Mauritius has so far been able to avoid the large-scale health crisis observed in many other countries. However, Covid-19 has caused severe economic disruptions in Mauritius. Initial concerns over the interruption of supply chains from East Asia were quickly superseded by the collapse of the global tourism industry and plummeting demand for garments and other exports as Europe and the United States went through the first wave of Covid-19. The lockdown forced most firms to close in March and April, followed by a gradual reopening starting in May 2020. The border remained closed until October, and restrictive quarantine requirements remained in place that continue to depress tourist arrivals to near zero. Many hotels remain closed while downstream industries like restaurants, tour operators, taxis, and shops catering to tourists struggle with low demand. GDP dropped by 14.9 percent in 2020, compared to an expected 3-4 percent growth, making Mauritius the country with the largest Covid-related GDP loss in Africa. Exports (-36.3 percent), household consumption (-16.8 percent) and investment (-26.7 percent) all fell steeply in 2020 despite extensive government support to households and firms.
- 4. An oil spill in August and Mauritius' inclusion in the EU list of High Risk Third Countries for Money Laundering in October 2020 added further pressure. An estimated 1,000 tons of heavy fuel oil contaminated coastline and beaches in the South-East of Mauritius after the freighter MS Wakashio ran aground and eventually cracked on the reef. While the oil spill was geographically contained and only affected a relatively small part of the coast, the local population was severely affected. After Mauritius'

¹ This classification was made by the World Bank in July 2020 based on 2019 data for per capita GDP, net income from abroad, and price and exchange rate developments.

2019 evaluation by the Financial Action Task Force, the EU's decision to add the country to its High-Risk Country list had been expected. Its entry into force on October 1 requires banks and other financial institutions to apply enhanced customer due diligence for transactions involving Mauritius. While the resulting additional costs and reputational risks did not have an immediately visible effect on the country's financial sector, they will likely undermine Mauritius' attractiveness as a financial and business center and thus slow down new business until a review has been completed to confirm sufficient progress in addressing Anti Money Laundering concerns.

- 5. The shocks of 2020 came at a time when serious structural cracks were beginning to appear in the foundation of Mauritius' long-term growth model. Even prior to Covid-19 and other events of 2020, Mauritius was on an increasingly fragile development trajectory. Four interrelated challenges emerged over the past decade:
 - ➤ A growth trajectory increasingly driven by consumption, with a declining share of investment, and stagnating capital productivity;
 - A sustained loss in overall export competitiveness, reflected in a combination of declining market share in traditional exports of both goods and services, and a failure to quickly develop or scale up new activities in line with the country's evolving comparative advantage;
 - An ageing population and increasing friction in the labor market, resulting in high structural unemployment and inactivity rates, rising skills shortages and labor income inequality, and exclusion in particular of low educated women and youth;
 - Continuous fiscal deficits combined with limited growth effects of public expenditure, resulting in rising levels of public debt to GDP.



Sources: Investment: Statistics Mauritius. Exports: WTO. Gini coefficient: Based on Continuous Multipuprose Household Survey. Debt: IMF World Economic Outlook (October 2020). Debt figures from the IMF's WEO database differ slightly from the government's official numbers on methodological grounds: Government numbers, as published by MoFEPD, deduct government debt held by non-financial state owned entitities while the IMF figures include this debt.

- 6. While the events of 2020 require dedicated responses in the short term, addressing the underlying challenges cannot be postponed if Mauritius is to make a strong recovery. The best strategy for a solid recovery lies in a combination of temporary support to firms and households affected by the shock with a comprehensive reform program to address pre-existing structural challenges. It is unlikely that a strategy of simply addressing the short-term effects by supporting ailing firms while waiting for global conditions to improve would suffice to put Mauritius' economic and social development back on track. On the other hand, the crisis affords policy makers with the opportunity to confront long-festering challenges.
- **7. As Mauritius reaches High-Income level, a new generation of reforms is needed.** Because Mauritius has benefited from strong economic management and democratic continuity with peaceful transitions of power virtually uninterrupted since 1968, it is unique in Africa in needing to focus not on big, stroke-of-the-pen reforms a major macroeconomic adjustment or trade reform but rather an effort to fine-tune multiple, mostly well-functioning institutions and improve microeconomic policies and

policy coordination so as to benefit from new synergies. The reform agenda is necessarily comprised of "second- and third- generation" reforms that tend to be more complex than first generation reforms and require both changes in policies as well as attention to coordinated implementation. This summary presents the main findings and recommendations while the following chapters elaborate more in depth. Detailed policy recommendations, including relevant international examples, are presented in Annex 1 (->).

Challenge #1: Unlocking productive private investment

- 8. The share of investment to GDP particularly private investment has fallen over the last decade, while consumption became the main driver of growth. Consumption increased from 84 percent of GDP in 2009 to 95 percent in 2019. Over the same time, the investment to GDP ratio declined from 25 to 21 percent (Figure 1), and private investment fell by one-fifth to 15 percent of GDP. The productivity of capital (real output / capital stock) has been largely stagnant between 2009 and 2019. Despite an abundance of liquidity in the banking system, and extensive government measures to promote investment, structural constraints prevent capital from flowing into profitable investment opportunities that could lay the foundation for future economic growth.
- 9. Investment came to a near standstill in the second quarter of 2020 and recovered gradually after the first lockdown. Gross fixed capital formation dropped 16 percent in the first and another 65 percent in the second quarter of 2020 in quarter-to-quarter terms. While the reopening after the first lockdown enabled a strong recovery in quarter-to-quarter term, the investment level in the fourth quarter of 2020 remained 6 percent below its level in the same quarter of 2019. Over the whole year, investment fell 26.7 percent, with public investment (-33.0 percent) declining even sharper than private investment (-24.3 percent). While the most immediate effect of Covid-19 on investment was registered through the closure of construction sites during the first lockdown, over the course of the whole year construction activity (-24.5 percent) declined slightly less than purchases of machinery and transport equipment (-30.7 percent).
- 10. With most traditional growth sectors facing decline or significant uncertainty in the medium term, developing productive new economic activities and raising the productivity in mainstay sectors is more urgent than ever. This will require a change in the pre-Covid consumption-led growth pattern with declining private sector investment, focused mostly on real estate and traditional sectors. Encouraging more private investment, including from abroad, to develop productive new growth activities and upgrade existing ones will be indispensable for Mauritius to return to a sustainable growth path and develop the economy in line with its stated aspiration as a technology and innovation driven high-income economy.³
- 11. New thinking is required in Mauritius' industrial policy model to accomplish a shift towards higher and more productive private investment. Because of the unprecedented levels of state involvement in the economy made necessary by the economic shock from Covid-19, Mauritius is now at a crossroads as it moves towards recovery: Whether to reinforce its past state-led model that identifies and subsidizes economic sectors for expansion and actively steers private investment, or whether to shift to a pro-active cross-sectoral supportive role of the state that addresses the structural constraints

² According to Statistics Mauritius, the index of capital productivity stood at 98.0 in 2009 vs 99.3 in 2019.

³ Mauritius Government Programme 2020-24.

preventing investment from flowing into productive new activities. This would involve shifting the balance of state incentive policies toward the removal of horizontal investment constraints in lieu of directed subsidies to particular activities. This report identifies five high priority horizontal issues that such a new strategy would need to address:

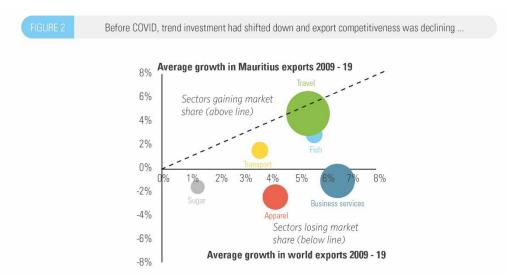
- > Closing the skills gap. Skills shortages at various levels have been consistently identified as one of the critical obstacles to business in Mauritius for many years (World Bank 2015). Fragmentation of responsibilities at the governance level and the absence of a clear 'champion' agency driving reform has translated into misalignment and a lack of private sector consultation at the level of many E&T institutions. A priority is therefore to establish more effective institutional leadership to champion the skills agenda, coordinate the implementation of the National Skills Development Strategy (NSDS) with all relevant stakeholders, and ensure consistent engagement with the private sector as part of a more demand-driven approach. The National Training Fund, mandated to support on the job training, appears to be ineffective in meeting the needs of SMEs. While a reform of Technical and Vocational Education and Training (TVET) is underway, the current system is overly focused on 'lower' TVET and exhibits poor placement rates, while the private sector expresses a need for 'higher' TVET graduates with curricula that emphasize workplace learning opportunities. More emphasis on socio-emotional skills is also needed. As a small economy with a labor market naturally limited in size, Mauritius inevitably depends on migrant labor to fill skills gaps. But the level of foreign workers, especially in high skilled occupations, remains low compared to countries of similar size and per capita income, owing in part to remaining rigidities in the Occupation and Work Permit systems. A more open approach to competing for foreign talent could yield significant benefits for more productive investment. (->)
- > Promoting Competition. Ensuring fair competition is critical to provide opportunities for entry and success of new firms, incentivize productivity enhancing investment, and avoid high costs across sectors that can result from a lack of competition in critical upstream industries. While vertically integrated conglomerates have been among the drivers of Mauritius' economic success, their presence can also result in barriers to entry as firm level data suggests disadvantages in terms of access to finance, export markets, and value chains for non-affiliated firms. Furthermore, anomalies in the regulatory frameworks and the activities of SOEs are affecting competition in key upstream industries, including ICT, energy, and transport. And while Mauritius' openness to trade has served the country well, imports especially in capital and intermediate goods are highly concentrated, which in some cases may be linked to regulatory rigidities. In order to promote more productive investment, the Mauritius Competition Commission should move beyond a focus on consumer protection and give more emphasis to concentrated markets where anti-competitive behavior may deter entry or impose upstream costs that undermine competitiveness. In addition to dedicated market studies, this includes a focus on promoting pro-competitive policies and regulation, especially in sectors with high presence of SOEs. Further strengthening the independence of the Commission by removing remaining entry points for political influence and better defining its performance metrics would reinforce the institution's ability to fulfill this role. (->)
- ➤ Opening Space for Public-private partnerships (PPPs). Encouraging private investment in industries with a heavy state presence can be a win-win that leverages the expertise of the private sector while reducing public investment needs in times of growing fiscal constraints. But this requires, above all, policy certainty and regulatory frameworks that do not impose undue risk on potential investors while

protecting the public interest. This report discusses two priority areas – solid waste management and port operation – where establishing a clear policy vision and improved regulatory frameworks could enhance the prospects for impactful PPPs. Improvements in solid waste management, including moving past rapidly overfilling landfill, decoupling waste volumes from GDP, reducing waste pollution, and introducing circular economy principles, are all urgent public policy priorities for Mauritius. These are areas where private investment can play an important role. However, a lack of a clear policy vision, including competing initiatives by different government entities and the absence of a solid waste strategy, have so far stifled such initiatives despite private sector interest. Similarly, Mauritius has long sought public-private partnerships in the port that could help finance some of the necessary extensions and boost productivity by bringing in foreign management capacity. However, anomalies in the regulatory framework linked to a strong SOE presence are deterring potential investors. (->)

- ➤ Sustainable management of natural resources. While small in territory, Mauritius holds great wealth in terms of its endowment with both land and marine natural resources. Environmental threats, including rising disaster risk related to climate change and the depletion of critical marine life, put these endowments at acute risk. Having in place a sound and predictable regulatory system to manage the sustainable use of natural resources, and the challenge of climate change adaptation, is key for companies to be able to undertake long term investments to exploit evolving economic opportunities in a sustainable manner. This report focuses on two examples, with no claim to completeness: Management of fish stocks, and measures to identify and reduce disaster risk. This requires further investment into thorough assessments of long-term costs and potential damage and enlisting the active participation of the private sector in marine protection and disaster risk management. (->)
- > Redirecting state support towards innovation. The modern industrial policy approach discussed in this chapter would require new thinking on state support. Currently, many state support measures primarily benefit industries that are already well developed or in a state of decline – such as the investment allowance and various direct subsidies to agriculture and manufacturing – or they tend to be overly directive by focusing on specific industries or activities, such as various tax holidays introduced in recent years. Covid-19 related support, while necessary in the short term, increases the risk of doubling down on this model, especially through the newly founded Mauritius Investment Corporation (MIC). A modern industrial policy approach, on the other hand, would give priority to the type of measures discussed in previous sections of this chapter that help to remove horizontal bottlenecks to productive new investment. State support to individual firms or sectors, if used, would help overcome specific market failures in a time bound manner. Innovation in terms of new technology, new processes, or the introduction of products that are new to the country is a primary target for such support. As innovation can have significant positive spillovers to the economy, reprioritizing state support to promote innovation across the board rather than attempting to boost specific sectors would likely yield higher returns. Effective design and delivery of such measures is key, and a review of the existing innovation support system in Mauritius yields three areas in particular that require attention: First, greater coordination, specialization and cross-fertilization across the myriad of disparate and sometimes duplicative institutions that are designed to spur innovation. Second, implementing a number of reforms at the level of key existing programs to improve their effectiveness. And third, adopting a more formal monitoring and evaluation system for public expenditures across the innovation system. (->)

Challenge #2: Restoring external competitiveness

2009 and 2019, exports dropped from 57 to 40 percent of GDP. At the same time, Mauritius saw its share of the global market for both goods and services fall (Figure 1, panel two). In fact, the country has lost market share in all of its six largest export sectors (Figure 2). This includes tourism, where before Covid-19 Mauritius showed solid growth but still performed below world market and regional competitors, as well as apparel and business services, where Mauritius' export growth was negative. Mauritius gained market share in some non-traditional manufacturing activities, including fertilizer, medical devices, and optical glasses, which represent success stories of individual firms or small clusters, but are too small to make a strong contribution to total export growth.



Source: Authors' calculation based on data from COMTRADE and IMF BoP Statistics (IMF 2020a).

- 13. The Covid-19 pandemic has dealt a severe blow to Mauritius' main export sectors. Tourist arrivals dropped to zero in March 2020 as borders were closed. While a gradual reopening started in October, quarantine requirements on arriving passengers and global uncertainty in the industry kept arrivals to a minimum. As a result, exports of travel and transport services dropped by 87 and 83 percent respectively in the second quarter of 2020 (compared to second quarter of 2019) and remained suppressed in quarters three and four. Business and ICT service export also experienced temporary drops during the first lockdown. Merchandise exports dropped 40 percent in the second quarter of 2020, but quickly returned to their pre-crisis levels in the third and fourth quarter.
- 14. Mauritius is clearly outgrowing comparative advantage in low complexity, labor intensive activities, but opportunities exist for upgrading within and across industries, as well as regionalization of production chains. This would entail getting more firms in existing export sectors to follow the example of high performers who have diversified and upgraded their products and invested in technology to enhance competitiveness. At the same time, a focus on supporting innovation and market entrance could promote more sophisticated new products in market niches where Mauritius has potential to be competitive. While a few such niche industries already exist and could be scaled up (medical devices, glasses, watch parts), it would also entail a heavy focus on discovery of new activities. A regional approach complementing these strategies would focus on offshoring labor-intensive production steps to low wage

countries in the region while maintaining more sophisticated operations, including management and logistics, in Mauritius.

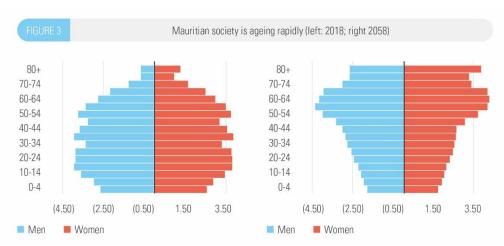
- **15.** Mauritius is facing a twin challenge managing the Covid-19 shock on its main export sectors while turning around a long-term decline in competitiveness. Export competitiveness has to be seen as a holistic challenge that cuts across themes discussed in this report. As the decline in competitiveness is closely linked to Mauritius' evolving comparative advantage outgrowing low skilled labor-intensive activities while productive investment into the discovery or upscaling of more complex new activities is a key part of the story (chapter 1 ->). Chapter 2 (->) focuses on measures more specific to Mauritius' integration with the global economy:
- ➤ Covid-19 response. While Mauritius has delivered a large and generally successful support package to firms in response to the economic shock from Covid-19, going forward, it will be crucial to adjust support measures in favor of a more flexible approach that enables viable firms to adjust to a new reality while allowing exit of firms that were already unviable pre-Covid. This includes taking a more permissive approach to potential workforce adjustments in the tourism and hospitality sector that are currently not permitted under the terms of the wage support scheme, focusing on protecting and retraining workers where needed over protecting jobs. Beyond the tourism sector, which remains heavily affected, future support should be clearly targeted to addressing Covid-related disruptions such as elevated air freight costs in the absence of passenger traffic instead of blanket support to struggling firms. (->)
- Leverage Foreign Direct Investment (FDI). Inward FDI can be instrumental in the development of competitive new merchandise and service exports and to access new global value chains. Mauritius has overall been well served by its openness to FDI and conducive business environment. The services sector, including banking and insurance, accountancy, telecommunications, and shipping, are all open to services trade, although Mauritius protects a few key sub-sectors where SOEs are active. However, developing a more coherent strategy to attract FDI is a priority to compete with other destinations in a world of shrinking overall flows of FDI. This entails revisiting investment promotion efforts and strengthening of after-investment services to investors. A new Intellectual Property Rights law has been adopted but is yet to come into operation, and detailed implementing regulations still need to be passed. At the same time, outward FDI can allow Mauritian companies to develop more competitive production networks through strategic offshoring and to access new markets that require a presence on the ground, especially in services. (->)
- ➤ Take advantage of new trade agreements. Mauritius can leverage its trade diplomacy and take advantage of recent and future new trade agreements to upgrade its exports, both in goods and to strengthen its position as a services hub. An analysis carried out for this report identified a number of products with substantial preferential margins under new agreements with China and India and the forthcoming African Continental Free Trade Areas (AfCFTA) that could contribute to upgrading Mauritius' export complexity (Annex 5 ->). By providing market information on prices, technical requirements and buyers for such products, and facilitating contacts with Mauritian producers, the Economic Development Board (EDB) could help Mauritian producers realize these opportunities. At the same time, the product lists could also inform a strategic outreach to firms potentially interested in relocating to Mauritius to exploit these preferences. By securing deep commitments on services market access under AfCFTA Mauritius could also further strengthen its position as a service hub for

the continent. This would require focusing its negotiation strategy for AfCFTA on obtaining significantly GATS+ market access commitments in sectors such as ICT, financial, and business services where Mauritius enjoys strong export prospects. Consideration should also be given to a new deep trade agreement with a major OECD member, such as the United States or EU, that could focus the attention of reform-minded decision-makers, enhance the quality of public-private dialogue on economic policy, and quicken the pace of reforms needed to promote greater convergence with advanced country regulatory norms and practices. As an aspirational goal, Mauritius could also consider OECD membership. (->)

Address price distortions. While Mauritius has carried out ambitious and successful reforms of its trade regime in the past to address the anti-export bias imposed by protective measures, more attention is required to the dynamics of the real exchange rate. An analysis of pre-Covid dynamics (Yeyati and Fillipini, mimeo) suggests that the decline in competitiveness and widening trade deficit might be associated with overvaluation driven by the large financial flows related to the global business sector. The onset of the Covid-19 pandemic saw a modest 10 percent depreciation of the exchange rate, but since May 2020 the Bank of Mauritius has consistently maintained an exchange rate close to MRU 40 / USD by intervening for a total of US\$ 977 mln between March and December 2020. Avoiding overvaluation will be critical to allow the export sector to bounce back in the early phases of recovery, while also helping to further remedy its pre-crisis misalignment. Further investment in data collection and monitoring of financial flows related to the global business sector would be key to more effective exchange rate management going forward. (->)

Challenge #3: Maintaining inclusiveness

- 16. Structural unemployment was substantial even before Covid-19, despite severe skills shortages. Unemployment, which was below 3 percent in the early 1990s, never fell below 6.5 percent over the last decade. This reflects a high level of structural unemployment- especially among those with limited education- as the labor market continues to evolve towards the services sector and more skill intensive activities. Youth and women are at particular risk to be unemployed or drop out of the labor force and become inactive (Paci et al. 2017).
- 17. Mauritius is a rapidly aging society, which is causing pressure on both the labor market and social security system. The population aged 60 and older, currently 16.8 percent of the total population, is expected to reach almost 25 percent by 2030, 30 percent by 2045, and 35 percent in 2058 (Figure 3). In addition, the working age population, aged 15 to 59, is expected to fall from the current 65 percent of the population to 53 percent of the population by 2058, with an absolute decline of about 45 percent. Maintaining growth as the working age population declines has proven to be challenging in other rapidly aging countries, and a rising dependency ratio will put increasing pressure on the social protection system in the coming decades through a rising share of pension recipients vis a vis contributors.



Source: Based on data of the Digest of Demographic Statistics (2018), Statistics Mauritius.

- 18. Labor income inequality has been on the rise, largely reflecting a skills bias in job creation. While incomes have continued to rise across the board, the distribution of both property and labor income has been progressively more unequal (Figure 1Error! Reference source not found., panel three). Shortages of skilled labor have contributed to disproportionate rises in wages at the top of the skills pyramid (Paci et al. 2017). A number of countermeasures were taken in recent years, including increases in social protection spending, the introduction of a negative income tax in 2017, generous wage increases, and the introduction of a minimum wage in 2018. While taxes and transfers have been effective in mitigating the effects on final income (Ranzani 2019), they have come at the expense of increasing public spending and dependence on social support of those at the bottom of the income pyramid.
- 19. While large scale job losses from the Covid-19 were prevented through extensive government support measures, women and informal workers have been hit particularly hard. The unemployment rate rose from 7.1 to 10.4 percent between the first quarter and December of 2020. The increase was roughly proportional between men (5.2 to 8.6 percent) and women (9.8 to 13.1 percent) but starting from a much higher level for women. In addition, the female labor force participation rate dropped from 47.4 to 45.9 percent, while that for men declined less and from a much higher level (71.6 to 71.1 percent). More extensive job losses were prevented by strong government response measures, including a wage assistance scheme that covered wage payments through the lockdown and continued to do so for the tourism sector throughout 2020. However, informal jobs and incomes, mostly held by those at the bottom end of the income pyramid, were affected disproportionately. In December 2020, 68.8 percent of those in self-employment and 20.0 percent of those in wage employment reported that their income had declined in comparison to the pre-pandemic level. Going forward, it will be critical to strike a balance between measures to protect existing jobs and supporting workers in transitioning into new activities. At the same time, the demands on the social protection system will likely increase in an environment of considerably reduced fiscal space, requiring a focus on cost efficiency and better targeting of social expenditure.
- 20. Policies to maintain Mauritius' inclusive development model will require adjustments to cope with the root causes of inequality and the Covid-19 shock. In an environment of rising social needs and tightening fiscal space, the crucial role of the social protection system can only be sustained if the

efficiency of expenditure is increased through better targeting of those in need. Over the medium term, the growth process itself tends to lead to income inequality as the demand for skilled workers relative to supply widens the wage distribution and creates the evident risk that those with less education will be left behind. While the economy has been generating a healthy supply of low-skilled jobs, these have often been filled by migrant workers while many low-skilled Mauritians have stayed out of the labor force or unsuccessfully sought higher paying jobs for which they may not be qualified. Improving social protection therefore needs to be accompanied by renewed efforts to integrate more Mauritians at the bottom end of the income pyramid into the labor market. This includes targeted measures to address the specific disadvantages faced by women and youth. Additional reforms of the education system, focusing in particular on the crucial early years and the provision of second chance education to early dropouts, is key to a more inclusive labor market.

- Social Protection: From effectiveness to efficiency. Social protection plays an important role in mitigating poverty and income inequality, and schemes such as the Marshall Plan Social Contract and Social Aid are well targeted and effective (Ranzani 2019). However, the bulk of social spending, more than 50 percent, is currently on the basic retirement pension (BRP), which is increasingly costly, poorly targeted, and creates adverse labor market incentives for early retirement. Demographic pressures and tightening fiscal and social demands in the Covid-recovery period further aggravate the need for better targeting and cost efficiency in social protection. This could be accomplished by a reformulation of the BRP to divert more resources to programs such as Social Aid and the Marshall Plan. An ideal reform would combine raising the eligibility age currently at 60 and thus 5 years before the normal retirement age and gradually scaling back BRP to approximately 20 percent of the average wage. A number of implementation details on the recently introduced *Contribution Social Généralisée* (CSG) will be key, including setting the level and gradual increase of benefits in a fiscally sustainable manner, avoiding incentives for evasion of contributions, ensuring equity between public and private sector employees, and including widows and orphans under the new system. (->)
- > Supporting labor market participation. Integrating more low-income earners, and especially women and youth, into the labor market is key to making growth more inclusive but requires targeted support. This would include more effective and comprehensive outreach programs, combined with measures to address structural disadvantages faced by these groups. Increasing and diversifying the supply of early childcare services and strengthening early childhood education could meet the double objective of encouraging more women to work while supporting children from low income households during the crucial early years to better prepare them for primary school. Reforming maternal and paternal leave policies, which ought to include transferring the liability from companies to a public scheme, would diminish disincentives against hiring women. Educational programs to challenge social norms that prevent women's labor market success, including an all-of-society effort against gender-based violence, and stronger enactment of laws to prevent gender discrimination in the labor market are also important parts of the solution. (->)
- ➤ Towards more inclusive education. Reducing the large disparities in learning outcomes by socioeconomic status, enabling lagging schools to improve their effectiveness, and providing more second chance education opportunities to early dropouts could address major sources of exclusion. A stronger focus in education on the early years from 0 to 5 combining increased resources and innovative thinking would help address a longstanding source of inequality where children from poor

households, many of whom speak only Creole at home, enter primary school without adequate preparation. Strengthening lagging primary and secondary schools would help equip the disproportionate share of lagging students enrolled at such schools with strong foundational skills (e.g., literacy and numeracy) before they leave school. Past deficiencies in the education system have produced large numbers of youth dropping out of school starting at 14 years old with no school certificate or skills in demand by employers. For such youth, second chance learning opportunities are also key to help them find productive employment. (->)

Challenge #4: Doing more with less

- 21. Public debt was on the rise even before Covid-19. After declining in the aftermath of the global economic crisis of 2009/10, public sector debt as a share of GDP has been on an upward trajectory since 2013 and reached 66 percent in June 2019. This reflects a rise in expenditure over the course of the decade (an average of 23.4 percent of GDP in 2009-14 vs an average of 25.9 percent of GDP in 2015-19) that was only partially offset by a modest increase in tax revenue collection (average of 20.5 percent of GDP in 2009-14 vs an average of 21.8 percent in 2015-19). While the debt profile is favorable with limited exchange rate risk and a relatively long-term maturity profile, fiscal pressure has been mounting in particular on social expenditure. Large infrastructure projects, such as the recently inaugurated Metro Express, have been financed with the support of bilateral partners, but the availability of concessional and grant financing will likely decline going forward, leaving Mauritius with a larger share of the fiscal burden for future public investment projects.
- 22. While a fiscal expansion was warranted to address the impact of Covid-19, Mauritius now faces an unprecedented fiscal adjustment. A return to fiscal sustainability requires a combination of increasing revenue, gradually rescinding Covid-19 response measures without jeopardizing economic recovery and addressing longstanding fiscal pressures. The fiscal deficit soared was 11.8 percent of GDP in 2019/20. Current expenditure increased by 20.5 percent, mostly as result of the various measures put in place in response to Covid-19, but also reflecting pre-Covid policy decisions such as the December 2019 increase in the Basic Retirement Pension. The debt to GDP ratio rose from 66.2 to 82.8 percent⁴ over the course of the fiscal year 2019/20 as a result of the high deficit and contracting GDP (Figure 1, panel 4). In fiscal year 2020/21, the Bank of Mauritius undertook extensive government financing measures to cope with the fiscal impact of Covid-19, which included a non-refundable transfer of Rs 60 bln (13.5 percent of GDP).
- 23. To balance economic recovery with fiscal consolidation, Mauritius will have to do 'more with less'. This will require gradually unwinding Covid-19 related expenditure measures once the economy recovers, but also halting the longer-term upward trend in current expenditure without jeopardizing social and economic development priorities. Thus, the medium-term fiscal outlook strongly depends on government's ability to increase the efficiency of public spending and accomplish its development priorities in the most resource efficient way possible.
- 24. All chapters of this report highlight opportunities to increase the efficiency of public spending but doing so will not be an easy feat. Chapter 1 (->) discusses how scarce government resources could be put to more effective use in stimulating private investment by focusing on the removal of horizontal obstacles and redirecting state support towards innovation. Chapter 2 (->) focuses on measures related

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⁴ Source: IMF WEO database April 2021

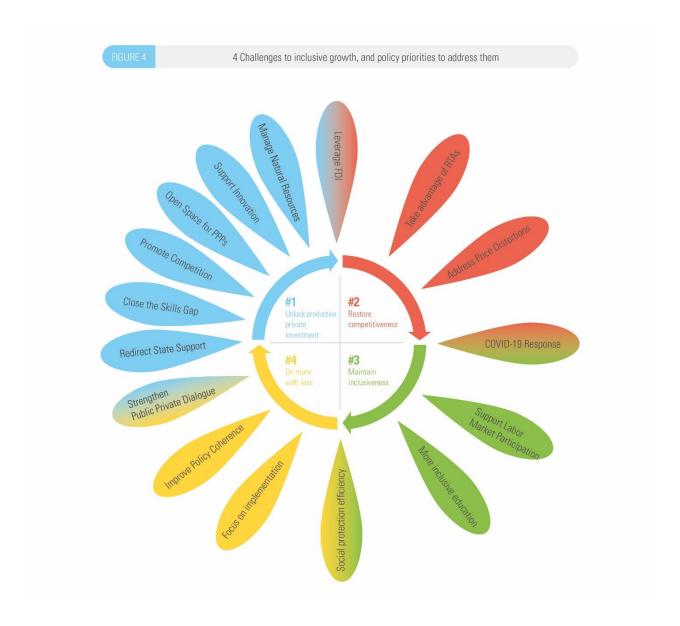
to export competitiveness and foreign investment, but also discusses adjustment to the extensive Covid-19 response measures in order to avoid runaway costs and excessive state involvement beyond the immediate effects of the pandemic. Chapter 3 (->) looks at social protection measures and programs to foster labor market participation, and suggests reforms to increase the efficiency of social protection spending while putting more emphasis on integrating low income earners into the labor market. The type of policy changes proposed in these chapters often fit a classic pattern of 'easier said than done', and their design and implementation require careful planning and execution by strong public institutions in close coordination with the private sector. The final chapter 4 (->) therefore puts the focus on the institutional, policy, and human resource requirements to improve policy coherence, implementation capacity and public private dialogue:

- > Improving Policy Coherence: Chapters 1-3 point to a number of examples where improvements in policy coherence could lead to better outcomes at lower cost. Creating a flexible, market-friendly planning process can contribute to enhanced policy coordination. The newly created Planning Bureau within the Ministry of Finance, Economic Planning and Development could become the centerpiece of a modern, agile planning system in Mauritius. A key feature of such as system is the cascading nature of high-level objectives in the national vision and strategy, to the intermediate outcomes in sectoral and intersectoral strategies and plans, to the outputs of the organizational strategies. Focused capacity strengthening for the Bureau should include economic research, planning, and monitoring. At the same time, public financial management should be strengthened to improve transparency as well as allocative and operational efficiency with a strong budget process at the core. By moving towards a general government accounting system and scaling back the role of the Central Bank and off-budget Funds in fiscal activity the core function of the budget – to plan and manage the use of public funds – could be strengthened. Despite the significant progress made in implementation of Program Based Budgeting (PBB) since 2008/9, after 2015, the budget only presents key outputs for the current budget year that are much less detailed than the original PBB approach. Reestablishing the earlier good practice would enhance the ability of the government to allocate resources to priority policy objectives and increase access of the public and National Assembly to performance information, increasing accountability. (->)
- Focus on implementation. Without adequate implementation capacity, even the best policy initiatives are bound to fail, and Mauritius has no shortage of ambitious plans that never saw the light of day. An important step to enhance implementation capacity is the development of outcome monitoring and evaluation linked to both budget and planning processes. Developing a national performance M&E system anchored at the new Planning Bureau should build on existing experience and focus on the core national planning outcomes. Mauritius could build on its budget monitoring tools to track planning results. An integrated performance M&E tool would track the core national planning outcomes, using a customized performance dashboard. The Bureau could also become a champion and capacity provider for the integration of strong M&E mechanisms, including collection of appropriate data, in new government programs. Negotiating and implementing new deep trade agreements with major advanced economies can be a helpful platform to organize implementation in a time bound manner. (->)
- > Strengthening public-private dialogue. Public private dialogue should be at the center of planning and implementing policy reforms. Under a modern industrial policy approach, Mauritius could not

just build on its successful history of public-private collaboration but raise it to a level of co-creation where key reform initiatives are crafted jointly between public sector, private sector, and civil society. (->)

The road ahead

25. By using the current crisis as a wake-up call to address long standing challenges to inclusive growth – unlocking investment, restoring competitiveness, maintaining inclusiveness, and doing more with less - Mauritius could accelerate its recovery and re-emerge from the storm stronger than before. But this is not an easy feat. Figure 4 summarizes the policy priorities identified in this report, which are developed in more depth in the following chapters, and followed by a list of specific priority actions that could be set in motion under each policy priority in Annex 1 (->). While these recommendations represent the extensive work by a large team of World Bank staff and external experts in close collaboration with the expertise of local stakeholders in Mauritius, they necessarily fall short of the ambition to present an all-encompassing blueprint for the country. Development is as much about means than it is about ends, and only by putting in place mechanisms that ensure continuous stakeholder dialogue, monitoring and evaluation of progress, and openness to change course where needed will the country succeed. Mauritians have demonstrated time and again through their rich history that they have the capacity to do so when working together for a common goal.



Source: Authors

26. Critical policy decisions to implement a new reform agenda could already be launched under the 2021/22 budget. While Annex 1 provides details on an extensive short to medium term reform agenda to address the challenges identified in this report, Table 1 extracts some priority actions that could be launched immediately under the FY21/22 budget to kickstart the process. These represent an ambitious, yet feasible first step to put Mauritius on a reform trajectory to navigate the current storm and emerge on a stronger, more resilient, and more inclusive growth trajectory.

Who?	What?	Why?	How?	How Much?		
	Challenge #1: Unlocking productive private investment					
PMO, MinE MinL	Create a strong institutional champion capable of driving the skills development changes needed, bring vision and leadership, coordinate all stakeholders and ensure coherence in the implementation of the NSDS.	A successful skills reform requires the highest level of political commitment, to deploy a whole-of-government approach, so the champion will be the catalyst of changes needed, with the authority level, network, and needed capacities to bring together government, private sector, independent regulators, E&T institutions, and social partners. Core functions include planning, coordination, M&E, fundraising, and reaching international partners.	This could be done through significant structural and legal changes to adjust the mandate and resources of HRDC and having it report directly to the Prime Minister's office. Alternatively, a new governance structure to drive the Skills Development agenda, such as more effective Skills Councils or Platforms, could be considered. Examples to study include Future Economy Committee in Singapore, Future Skills Needs Committee in Norway (see Annex 6).	Moderate cost increase for agency funding in the short term, potential for significant efficiency gains in education/ skills policy in the medium term.		
MCC, MinC	Examine upstream sectors and markets most relevant for investment, including Information and Communications Technology, Energy, Financial Services, and Transport, and support regulators in developing competition supporting regulation.	Competition is key to determine the pace of economic growth, innovation and productive investment in a country. The extent of rivalry in a market plays an essential role in determining whether firms compete through prices or on-price ways such as innovation. Otherwise, firms are undisciplined by market forces and able to extract rents on the basis of their market power, and if this happens in upstream industries, it can undermine investment and competitiveness throughout the economy. The prioritized sectors are at particular risk given their upstream nature, high level of concentration, and presence of SOEs.	MCC to conduct investigations on key markets within the highlighted industries, giving consideration to the vertical relationships held by conglomerates and state-owned entities, MCC should also work with regulators for these sectors to promote competition enhancing regulation. For the telecom sector, unbinding the local loop and promoting open access to infrastructure such as fiber ring, ducts and passive infrastructure should be considered. The energy regulator needs to be further empowered. Consideration should also be given to investigating whether concentration in banking and retail is impacting the provision of financing products for SMEs.	Limited cost		
MinENV	Adopt and implement the National Solid Waste Management Strategy.	Mauritius is currently a high-income country with a low-income country system of managing solid waste. The generation of solid waste is increasing, and the vast majority is deposited indiscriminately in landfills. At the same time, important opportunities for private sector engagement in waste processing and recycling remain unused.	Work on the strategy is ongoing, and this is an urgent precondition to provide direction for medium term public investment as well as influence private investments in the sector and its ancillary activities. Most infrastructure investments will require specific feasibility studies, to be launched and completed as soon as possible, as well as business plans to guide private sector adjustments. The related regulatory adjustments, including the allocation of land, should also be undertaken in the shortest time possible to engage the modernization of the sector and stimulate the private sector and citizens.	Could involve significant new infrastructure investments, but potential for PPPs		
MinBE	Revise the legal framework for the port in terms of the role of the MPA vis-à-vis potential concessionaries and address regulatory anomalies.	The continued development of the port would benefit from the introduction of a specialist international container terminal operator to improve efficiency and the competitive position of the port vis-à-vis transshipment traffics, and leverage private investment. However, the current regulatory framework is not conducive to such an approach.	Policy documents need to be updated to clarify financing principles and some outdated policy and planning documents are also in urgent need of an update (such as the National Development Plan which dates to 2003), and lack implementation. The contradiction between policy statements and policy implementation on private sector participation needs to be addressed. It is recommended that the MPA presents a single vision that is clear on its future either as a landlord port or as a port authority and shareholder at a terminal operator level, and there is a need to establish an independent regulatory authority. Reduce differences in power between MPA and concessionaire as per section 37 of the Act. Powers of the MPA under section 18 of the Port Act should also be restricted, especially in terms of the clauses in the footnote of the act that could lead to investments of assets or entering into management contracts that are not necessarily required by a port authority	Limited cost		
MinF, BoM	Conduct a comprehensive Review of State Support and phase out measures that are not in line with a modern industrial policy paradigm.	Given the proliferation of direct and indirect subsidies and other state support measures, a thorough stocktaking is required as a baseline for reform. Some existing state support mechanisms are clearly not in line with a modern industrial policy paradigm and are either overly directive or support mature or sunset industries.	Start by listing all existing state support measures, including those implemented through parastatals, the Central Bank, etc., and take stock of their stated purpose, resulting expenditure, beneficiaries, etc. to gain a high level understanding of the full magnitude of state support. One could then drill down on individual programs in light of three key questions guiding a modern industrial policy. 1. Do they address a clearly defined market failure preventing productive new investment? 2. Are they time bound and embedded in a credible strategy to eventually remove such market failures and 3. Is the applied instrument appropriate to achieve its desired outcome in a cost-efficient manner and without introducing market distortions? Priorities among adjusting existing measures should be to limit the role of MIC to Covid-crisis response, avoid tax holidays as an instrument, limit eligibility for the investment allowance to innovation related expenses, and redirect support to the sugar sector towards competitiveness enhancing reforms.	Significant potential for fiscal savings.		

Who?	What?	Why?	How?	How Much?
		Challenge #2: Restoring Competitiveness		
MinF, MinL, BoM	Take a more flexible approach to workforce adjustments in the tourism and hospitality sector, focusing on protecting and retraining workers where needed over protecting jobs.	As the pandemic lingers, a switch from short-term stabilization to medium-and long-term adjustment is needed. While the tourism sector continues to benefit from a government wage support scheme, this only covers part of the wage bill and comes at the expense of not permitting any redundancies. For many hotels, the continuation of the wage assistance scheme, which was a lifeline in the beginning, has now become more problematic. Some workers are retraining themselves, starting street businesses, and taking small loans from the Tourism Employees Welfare fund but with wage assistance in place, entrepreneurship and search for alternative employment has been reduced.	Consider more nuanced wage assistance to allow business to gradually reduce their workforce to reduce the risk of large debt and enable workers to retrain for other industries which may have more medium-term growth potential. For instance, train workers in digital skills for ecommerce and sector shifting to areas such as retail and customer service jobs in other sectors. Expand social protection (chapter 3 ->) under existing systems to provide an effective social safety net for those losing their jobs.	Significant potential for fiscal savings
EDB	In the absence of a comprehensive FDI strategy, sparks in new FDI related activities are usually the result of sector-targeted initiatives by government. By moving beyond sectoral initiatives towards an overall FDI strategy linked to national development objectives under a modern industrial policy approach as outlined in chapter 1 (->) and aligning promotion efforts to these goals, Mauritius could maximize the transformational power of FDI to develop competitive new exports. An FDI strategy would be developed in close cooperation with the private sector and focus competitively attracting specific types of FDI that will support the country's key development goal including the upgrading of exports and access to new market through integration with global val chains. Mauritius could focus on boosting its investment competitiveness towards knowled; intensive and high value-added export sectors, including in services, wile at the same time leverage market seeking FDI in critical upstream industries to enhance competitiveness. A focused manda adequate staffing, clearly defined key performance indicators aligned to the FDI strategy are critified activities are usually the result of sector-targeted initiatives by government. By moving beyond sectoral initiatives by activation and seveloped i		Moderate cost increase as additional resources for EDB might be required to develop and implement the strategy	
EDB	Exploit preferential opportunities under new trade agreements to develop more sophisticated exports and to position Mauritius as beachhead for third country operators seeking deepened access to these markets	Recent and future preferential trade agreements with China, India and Africa create opportunities in vast new markets that could provide new demand for more complex Mauritian products that could contribute to upgrading the existing export portfolio. They also create significant new opportunities for Mauritian service suppliers and enhance the country's attractiveness as regional services hub for investors from third countries eager to take advantage of the country's growing network of preferential trade agreements to key markets.	Annex 5 (- >) provides lists of products that fulfill three criteria in the Chinese, Indian, and African markets: 1. A significant preference margin for Mauritian firms vis-à-vis global competitors under recent forthcoming trade agreements. 2. Existing exports by Mauritian firms or close technological proximity to products that are already exports. 3. Higher complexity than the average Mauritian export. With this list as a starting point, EDB could approach the Mauritian private sector to provide relevant market information, identify products of interest to local producers, and provide support through targeted export promotion efforts in accessing these markets. In addition, and as part of the above mentioned development of an FDI strategy, the information in Annex 5 can also be used by EDB to identify and approach firms in countries currently exporting to these markets under non-zero MFN tariffs, and explore their interest in relocation production to Mauritius to benefit from preferential market access.	Moderate cost for dedicated export and investment promotion efforts
MinFA, MinF, EDB	Examine the case for, scope and potential impact of negotiating deep trade and investment agreements with the European Union and/or the United States, as well as potential OECD membership.	Mauritius has yet to enter into deep preferential ties with an advanced economy that would align Mauritian Practices to OECD level ones. Embracing a deep integration agenda with a major OECD partner, or OECD membership as an aspirational goal, can produce a useful 'electrochoc' to better focus the attention of reform-minded decision-makers, enhance the quality of public-private dialogue on economic polic, and quicken the pace of reforms needed to promote greater convergence with advanced country regulatory norms.	Mauritius could consider the experience of countries such as Costa Rica, Colombia, Peru, Mexico, Malaysia, Singapore and Vietnam who have successfully used deep trade agreements, and in some cases OECD membership, to promote economic reform. Their experience would have to be adopted to the Mauritian context in evaluation different options for such initiatives.	Limited cost
ВоМ	Avoid exchange rate overvaluation while managing short term fluctuations	Based on long term trends, the real exchange rate appears to be overvalued even after recent depreciation, creating an anti-export bias. The global business affects the exchange rate through the trickle down of its activity to the domestic economy via the provision of local wages and services and profits from the dollar lending business that are locally disbursed. Additionally, global business flows, which are ultimately invested abroad, influence the net foreign asset position (NFA) of the country through the stock transactional deposits from GBCs in the local banking sector, which in turn drives the appreciation of the exchange rate. It remains to be seen whether there is a delayed outflow from the global business sector, which adds to the caution with which the BoM should administer its international reserves in current context.	Given the persistence of the Covid-19 shock and previous overvaluation, the exchange rate policy should combine some (downward) correction of the exchange rate and some direct intervention (central bank spot sales). If the trade deficit - and associated reserve losses - continue at the current pace, sustained exchange rate pressure is to be expected. Under this scenario, rather than defending the Rupee at its current level, BoM should focus on managing short term shortages while allowing a gradual downward correction of the exchange rate.	Not a fiscal measure

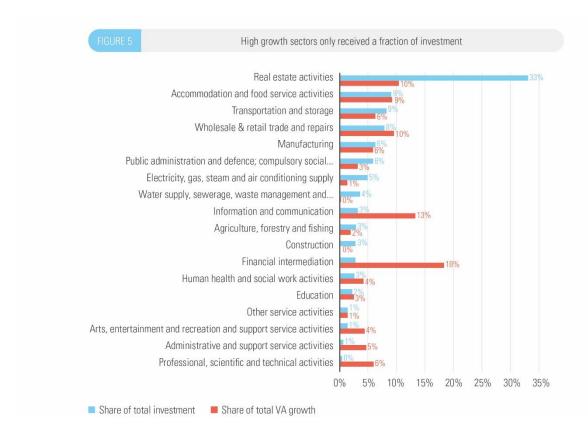
Who?	What?	Why?	How?	How Much?		
	Challenge #3: Maintaining inclusiveness					
MinF, MinSS	Reallocate funding from Basic Pension to targeted social protection	The economic and social turmoil resulting from Covid-19 has drastically affected Mauritius' fiscal space while at the same time putting additional demands on the social protection system. While Mauritius has well-designed and targeted social support systems such as the Marshall Plan and Social Aid that could be used to cushion these effects in a cost efficient manner, the bulk of social spending, more than 50 percent, is currently on the basic retirement pension (BRP), which is increasingly costly, poorly targeted, and creates adverse labor market incentives. The recently introduced CSG aggravates the conflict between pension adequacy and fiscal sustainability, and key implementation details remain to be determined.	Expanding the funding for Social Aid and the Marshall Plan to ensure that all those in need in the aftermath of COVID are covered would greatly strengthen social protection in Mauritius. The fiscal cost could be more than offset by reforms in the pension system. An ideal reform would gradually raise the eligibility age for BRP to 65 and cap it at the current level until it reaches a floor of ~ 20 percent of the average wage, while at the same time expanding the contributory pension system. Key implementation details for the recently introduced CSG include setting the benefit level no higher than expected revenue (-Rs 2,500 per month), indexing future payments to CSG revenue to ensure fiscal sustainability, ensuring that all forms of income are treated equally for CSG collection to reduce incentives for evasion, deduct CSG from public pensions and residual NPF benefits to ensure equity, and ensuring that benefits to widows and the disabled are adjusted proportionately to CSG.	Very high potential for fiscal savings / efficiency gains from better targeting of social protection		
MinL, MinSS MinG	MinSS economic opportunities, but gaps remain in the area of parental/maternity leave legislation to incentivize a more quotas). In addition, employers should not be individually liable for the cost of maternity leave bene		Parental leave can either be a shareable family entitlement or an individual entitlement that each parent can take regardless of the other and may include elements that incentivize uptake by fathers (through bonus months or daddy quotas). In addition, employers should not be individually liable for the cost of maternity leave benefits and transitioning from an employer liability to an insurance system, where maternity and other parental benefits are funded by social security, reduces employer bias against women.	Annual cost of parental leave could amount to between MRU 211 and 545 mln. The idea of removing individual employer liability is to centrally collect and disburse benefits in order to avoid hiring bias against women, so the measure is fiscally neutral.		
MinF, MinE, MinG	Dedicate significant additional resources to early childhood care and education (ECCE) to narrow the wide gaps in learning outcomes and support women's labor force participation.	There is strong international evidence that access to childcare can increase female labor force participation. In Mauritius, the priority is to extend quality publicly funded childcare options for the ages 0-3 and to expand opening hours and accessibility of existing facilities. At the same time, a greater focus on early learning during years 0-5 could alleviate large disparities in learning outcomes by socioeconomic status and language spoken at home.	This could be done through a combination of expansion of the current voucher/susbidy scheme to access early childcare in private day care centers, promotion of work-place based childcare (e.g. a government mandate for large firms or fiscal incentives), expanding availability of government provided childcare or public private partnerships. It would also aim to promote quality early learning by developing innovative early learning curricula, materials, pedagogy that sensibly support young children's physical, motor, cognitive, linguistic, and socio-emotional growth, leveraging age-appropriate play-based practices and multilingual education.	Requires significant additional budget allocation to early childhood education, which currently only receives 1.7 percent of total education funding compared to an average of 9 percent in Middle Income Countries.		

Who?	What?	Why?	How?	How Much?			
	Challenge #4: Doing More With Less						
PMO, MinF, EDB, Line Ministries	EDB, Line Ministries improve policy coherence. Planning Policy would strategically define the planning function, as well as the interconnectedness among the national, sectoral, and organizational goals. The newly created Planning Bureau has the potential to become a nerve center of the new national development planning system in Mauritius. Its creation should be routed in a foundational analysis on the alignment of national development planning system in Mauritius. Its creation should be routed in a foundational analysis on the new national development planning system in Mauritius. Its creation should be routed in a foundational analysis on the new national development planning system in Mauritius. Its creation should be routed in a foundational analysis on the new national development planning system in Mauritius. Its creation should be routed in a foundational analysis on the new national development planning divisities. Capacity strengthening for the Bureau would focus on three key sets of functions: economic research, planning, and monitoring. All of wormment, Evaluation (PM&E) to better align public sector service delivery to national development incentives and capacity to implement across public agencies. Of service delivery to national development planning outcomes. Mauritius could build on existing budget monitoring tools to track planning results, by benchmarking good practices. A performance M&E policy would be developed, accompanied by guidelines and the staffing and the sectoral planning outcomes. Mauritius could build on existing budget monitoring tools to track planning results, by benchmarking good practices. A performance M&E policy would be developed, accompanied by guidelines and the staffing and the sectoral planning outcomes. Sectoral, and organizational goals. The newly created Planning Bureau whas the potential to become a nerve center of the hew national development planning system in Mauritius. Its creation Planning Bureau would be formulated, based on the identification, prioritizat		Moderate cost increase fo staffing and resources at MinEDB and potentially the planning functions of line ministries.				
Government,			staffing and resources at MinF and the M&E functions of line ministries.				
PM0	Prime Minister's Office						
MinE	Ministry of Education, Tertiary Education,	Science and Technology					
MinL	Ministry of Labour, Human Resource Deve	elopment and Training					
MinSS	Ministry of Social Security and National Solidarity						
MinG	Ministry of Gender Equality and Family Welfare						
MinBE	Ministry of Blue Economy, Marine Resources, Fisheries and Shipping						
MinENV	Ministry of Environment, Solid Waste Management and Climate Change						
MinC	Ministry of Commerce and Consumer Protection						
VlinF	Ministry of Finance, Economic Planning and Development						

1. UNLOCKING PRODUCTIVE PRIVATE INESTMENT

1.1. A shift in industrial policy paradigm

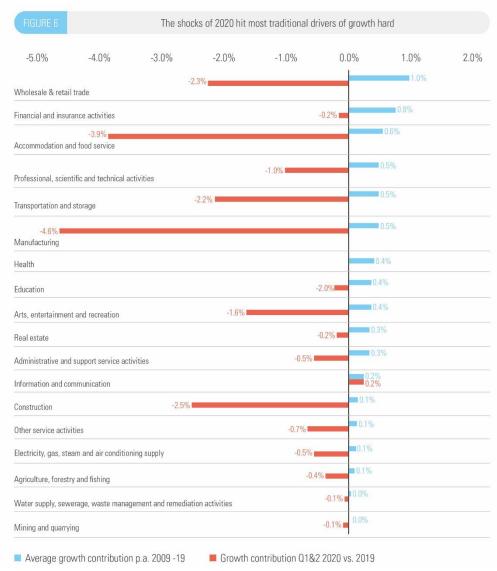
27. A priority for Mauritius is to unlock more productive private investment as a driver of future growth. Investment declined from 25 to 21 percent of GDP (Figure 1) over the past decade, and private investment fell by one-fifth to 15 percent of GDP. Over the past decade, investment has mainly gone into sectors with relatively low productivity and technological sophistication, most notably real estate. This sector single handedly accounted for one third of investment during the 2009-19 period even though it contributed only 10 percent of total value-added growth. Other traditional sectors such as tourism (9 percent), transport (8 percent), and manufacturing (6 percent) also accounted for large shares of investment, with their contributions to growth being roughly proportionate. At the same time, relatively limited investment in technologically advanced sectors such as finance (3 percent), ICT (3 percent) administrative services (1 percent) and professional services (0 percent) leveraged disproportionately large contributions to growth from these sectors. Investment in these sectors, on average, has yielded higher growth dividends.



Source: Authors' calculation based on data from Statistics Mauritius

28. Covid-19 has introduced significant uncertainty and strained companies' cashflows, which will likely continue to depress investment in the medium term. GDP contracted by 14.9 percent in 2020. All of the top six sectors driving growth in the 2009-19 period (retail, finance, tourism, professional services, transport and manufacturing) experienced contractions in the first half of 2020. While manufacturing

exports rebounded in the second half of the year, tourism and transport will likely remain subdued in the medium term until the pandemic has subsided. A recent survey of Mauritian businesses found that 30 percent of firms had cancelled or delayed investment due to the pandemic (Business Mauritius et al 2020). Financial sector growth, while resilient during the first half of 2020, will likely remain subdued in the medium term due to the uncertainty about Mauritius' addition to the EU list of high list jurisdictions until significant progress is made on Anti Money Laundering.



Source: World Bank staff based on data from Statistics Mauritius.

29. Mauritius is doing many things right when it comes to providing an overall enabling business environment. Occupying the 13th rank in the World Bank's Doing Business report and looking back at a solid track record of reform, Mauritius has accomplished sweeping and impactful improvements of its business climate over the past years (World Bank 2020a). It is also the top African country in the World Economic Forum's 2019 Global Competitiveness Index (52^{ndh}) as well as the 2020 Ibrahim Index of African Governance. The tax system, despite some room for improvement, is overall balanced and accommodative of private sector investment. Infrastructure is broadly adequate and sustained public

investment in education has delivered impressive improvements in school attendance and learning outcomes. Mauritius has a well development financial market dominated by banking institutions. However, Bank lending is usually secured through encumbrances on property and fixed assets and while the legislative framework allows for security interests to be created on movable assets, the main shortcoming is the absence of an integrated or unified legal framework for secured transactions. As a result, lending is biased towards businesses which possess land and buildings. Land markets and related regulatory processes, including land planning and conversion, also merit attention in light of the high concentration of land and rapid process of structural transformation.

- **30.** Historically, a strong developmental state has been a driving force in Mauritius' economic development success. Following independence, a pragmatic industrial policy successfully channeled resources towards new export-oriented sectors, including garments and tourism, that supported economic diversification and job creation. Prior to the 1990s, relatively restrictive import policies complemented export-processing zones (EPZ) with duty free access for imported inputs, tax incentives, and a segmented labor market. Competitively valued exchange rates and an active trade diplomacy exploited substantial preferential access in textiles and sugar. Subsequently, a Double Taxation Avoidance Treaty with India was responsible for the development of the global financial sector, and landmark projects such as the Ebene cyber city are the visible results of a development model that combined an activist state with strong public-private collaboration.
- 31. However, as both the Mauritian and the global economy have evolved, so have the hallmarks of successful industrial policy. Industrial policy measures, including subsidies, tax incentives, and direct state investment in the economy over the course of the last decade appear to have been unable to reach the goal of promoting transformational private investment. Not just has private investment declined as a share of GDP, but rather than supporting transformation, many of the existing state support measures favor traditional activities and 'business as usual'. Others geared towards transformational activities, such as the R&D tax credit, Mauritius Africa Fund, and a series of tax holidays targeting specific economic sectors, have met limited uptake by the private sector. As explained by Aiginger and Rodrik (2020), successful industrial policy in the 21st century has increasingly steered away from a top-down state-led model of ex-ante selection of new activities towards a more collaborative approach where public and private sector work together to proactively identify and remove market failures that prevent the emergence of new source of growth.

BOX 1

The effective industrial policy of the future looks guite different from the past

"The industrial policy of the future is unlikely to look like the economist's traditional conception of it: top-down policymaking, targeting pre-selected sectors, and employing a standard list of subsidies and incentives. This kind of industrial policy may have been common in certain countries—Japan, South Korea, Taiwan, and some European countries—and has produced some success, but increasingly, the emphasis is different. The contemporary conception and practice of industrial policy is much less about top-down incentives and much more about establishing a sustained collaboration between the public and private sectors around issues of productivity and social goals. This kind of dialog eschews an ex-ante selection of activities to promote or policy instruments to utilize. It focuses instead on engineering an appropriate institutional setting within which the collaboration can best bear fruit. Government policies, as well as firm strategies, are the outcome of this process. These policies and strategies are viewed as provisional at the outset, to be continuously monitored and revised in light of outcomes."

Aiginger and Rodrik, 2020

32. With government intervention in the economy at unprecedented heights due to the Covid crisis, Mauritius is now at a cross-roads to retool its industrial policy model. While strong state support measures have plaid a critical role in stabilizing the economy in the light of an unprecedented shock, these instruments are not suitable tools to address the longstanding root causes of declining investment. The challenge for a strong economic recovery is therefore to accompany and eventually replace Covid response measures with a revised industrial policy model that focuses on removing barriers to productive new investment. Developing and implementing such a model will require a highly collaborative and institutionalized public private dialogue, and an 'all of government' strategy for implementation as it is not simply about assigning state subsidies, but need to take a holistic view of private sector challenges and potential remedies. The institutional prerequisites to develop such an approach are discussed in chapter 4 (->). The remainder of this chapter lays out a number of horizontal first order policy priorities that, while not exhaustive, would represent key elements of a modern, collaboration-based approach to industrial policy. They do not, by any means, envisage a passive or weakened role of the state - on the contrary, all of them will require highly skilled and well-funded state activity – but a gradual shift towards a more supportive than directive role of the state vis a vis private investment.

1.2. Closing the skills gap

33. Skills are in short supply. Employers point out that education and training (E&T) institutions do not produce workers with the required job skills, that training programs are not aligned with industry needs and have not been updated to reflect the latest changes in industry, and that the quality of training is insufficient. For example, digital skills⁵ training is particularly rare, except in ICT fields, where they tend to be highly academically oriented, and not aligned with industry needs. Private sector representatives, through interviews and focus group discussions for this report, advocated for a greater focus on a

⁵ These are basic information and communication technology (ICT) skills, essential for the effective use of digital devices and associated tools. The Digital Literacy Global Framework (DLGF) include five areas: devices and software operation, information and data literacy, communication and collaboration, digital content creation, safety, problem-solving, and career-related competences.

workforce with middle-level technical skills, graduating from postsecondary (non-tertiary)⁶. However, they indicated that this would only be possible if TVET was properly valued, instead of being viewed as an option for those underperforming in the academic track. To fill the gap, both the government and foreign investors have put in place schemes to provide industry training and in some cases to absorb trainees in the company, but this remains insufficient for the magnitude of the challenge.⁷

- 34. The government of Mauritius has laid out an appropriately ambitious National Skills Development Strategy (NSDS) 2020-2024, but additional efforts will need to be made to ensure continuous private sector involvement. NSDS is intended as the main strategic and planning tool for skills development and is aligned with the vision of a future economy driven by the 4th industrial revolution, anticipating a high demand for jobs in the ICT sector and digital skills. The Human Resources Development Council (HRDC) consulted with stakeholders during the various preparation phases of the-NSDS-2020-24, but the policy will need to go further to ensure continued collaboration between the private sector, government, and E&T institutions. Private sector representatives reported that their views had not been taken into account, beyond the consultation processes. In addition, government capacity to forecast the skills needed for a dynamic labor market, based on professional/occupational standards and job competencies, are limited, and findings for specific economic sectors are inadequate to formulate sound recommendations for the education system, especially in the area of TVET.
- 35. The absence of effective leadership and coordination among all relevant stakeholders weakens the linkages needed to balance the labor market. In addition to the HRDC, several other government agencies play a role in skills development, but there is no clear leader able to coordinate all stakeholders involved to ensure a coherent strategic direction and drive the changes needed. About one third of the governing Council of the HRDC are representatives from the private sector, and HRDC is also supported by sectoral skills committees with private sector participation. In parallel, the Skills Development Authority (SDA) was created to regulate and ensure quality in TVET, set up a skills framework, and manage a Skills Development Fund. However, it lacks the ability to facilitate dialogue and cooperation across stakeholders. The leadership of HRDC will be critical, but its mandate and human resources capacities need to be reviewed, and closer collaboration with the Ministry of Finance, Economic Planning and Development (MOFEPD) and the Economic Development Board (EDB), given their newly assigned

⁶ In addition, highly specialized skills were particularly highlighted as lacking in the ICT sector. It also seems that there is an undersupply of high-quality training in science, technology, engineering and mathematics (STEM) fields at graduate and post-graduate levels, given that 1 out of 3 students in STEM fields are trained in foreign universities. On average, 17.3 percent of students in 2018, and 19.07 percent in 2017 were trained overseas. By program, Medicine shows the highest rate of students being trained abroad (54%), Engineering (38%), and Information Technology (11%).

⁷ For example, Hapag Llyod brought expats to train 150 people on shipping related skills. The Human Resources Development Council (HRDC) and the EDB developed in 2020 a Skills Development Scheme for Foreign Investors, co-funding training (80 percent by HRDC, and 20 percent by foreign investors, in cash or in kind). In creative industries, film companies established partnerships between foreign institutes and the government, whereby the company and the Mauritian government each pay for half of students' training tuition. Many more skills development and employability programs have been put into place by various government entities, in collaboration with the private sector (see footnotes from section 3.3 for a list).

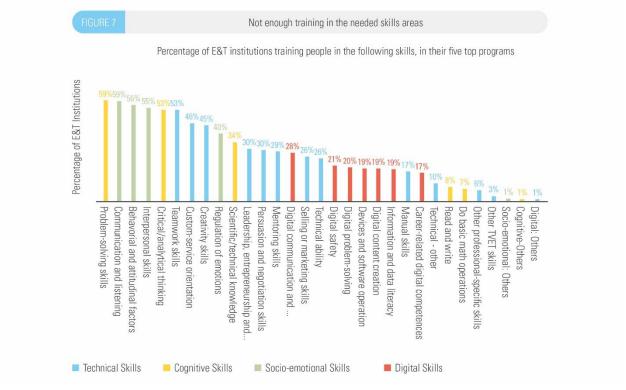
⁸ There are 6 sectoral committees (Agriculture, Financial Services, ICT, Manufacturing, Public Service, Tourism) and special committees that are chaired by the private sector, serve as liaison between HRDC and their sector, and advice on training matters. However, it was unclear if all relevant stakeholders are able to participate, and what are the operating and accountability rules to allow continuous work and achieving results.

planning functions, would be key. This will also require a strengthened collaboration with the Ministry of Education, Tertiary Education, Science and Technology (METEST), E&T institutions, and independent regulators (the Mauritius Qualification Authority [MQA], the Higher Education Commission [HEC], and the Quality Assurance Authority [QAA]), to bring coherent interventions to address challenges in education, training, and research and development. (V)

36. Challenges in skills planning trickle down to E&T institutions where the voice of the private sector is not effective in designing and delivering the curricula. Some 550 E&T institutions operate in Mauritius. Most are private training institutions offering short-term and non-awarding courses. In addition to these established institutions, some firms also offer on-the-job training. According to a survey of E&T institutions conducted for this report (see Annex 2 -> with full results), only 47 percent of E&T institutions consult industry experts when a new program or course is offered, 43 percent of curricula are based on private sector standards, and 50 percent of curricula are delivered by industry experts. Moreover, when consultation did take place, it was often limited to sporadic advisory committee meetings that did not result in tangible actions or reforms. Private sector representatives were concerned by a lack of socio-emotional skills among young workers, translated into poor attendance at work, high turnover, poor communication, lack of teamwork, and poor leadership. However, according to the E&T survey, only a little over half of programs integrated socio-emotional skills (see Figure 7 below).

TABLE 2	Panorama of E&T institutions				
Types	Number of Institutions	Students in 2019	NQF-Level Courses/Programs		
TVET and post- secondary*	22 Mauritius Institute of Training and Development (MITD) centers, registered at MQA	6,973**	NQF Level-2 Certificate to NQF Level-6 Diploma		
secondary	Polytechnics (3 campuses), registered at MQA and TEC	1,048	NQF Level-4 Certificate to NQF Level-7 BA Degree		
Tertiary Education	7 public universities (UoM, OU, UTM, UM, MGI, FDI, and RTI) ¹¹ registered at TEC and the majority at MQA too	18,742			
Institutions	Mauritius Institute of Education, parastatal registered at TEC	2,817	NQF Level-6 Diploma to NQF Level-10 Doctorate		
	Mauritius Institute of Health (MHI), parastatal registered at TEC and MQA	106	The majority also offer short-term, non-awarding courses		
	44 private universities mainly with awarding bodies abroad, ¹² registered at TEC and the majority at MQA too	17,043			
Training Institutions	467 institutions registered at MQA (18 public, and the rest private), excluding those registered at TEC and MITD	unknown	Short-term, non-awarding courses. 9 percent of them also offer award- ing programs, NQF level-2 to NQF level-8 BA Degree		

^{*}These education levels offer programs considered secondary (NQF Levels-2 to 5), post-secondary non-tertiary (NQF Level-6), and tertiary education (NQF Level-7) / **Data refers to 2018 *Source*: Based on Republic of Mauritius (2019b) and TEC (2019a)



Source: E&T survey conducted (see Annex 2 (->) for detailed responses)

37. In addition, the support from E&T institutions to transition to the world of work is limited. According to the E&T survey, less than half of E&T institutions offered support to students to find a job, and less than a third (28 percent) offered job placement opportunities. In the top five programs in which workplace learning is required, the preferred modality is an internship or apprenticeship (89 percent), compared to the dual training (9 percent) of teaching in classrooms and having job practice experiences. Workplace learning lasts 6 months on average. At MITD centers, 38 percent of trainees are in the apprenticeship mode, while 62 percent in the full-time mode, despite the much higher 85 percent of employment rates in the apprenticeship mode, compared to the 53 percent in the full-time mode (MITD, n.d.b). Moreover, only 25 percent of E&T institutions offer career counseling, and 17 percent mentoring from educators or trainers. HRDC launched an Integrated Career Counselling service in seven secondary schools, providing information to senior educators (160) and developing a toolkit with other stakeholders (HRDC, 2018). (V)

- 38. To address the lack of adequately skilled workers, the National Training Fund (NTF) was created. Its purpose is to incentivize on-the-job training, currently through a 1.5 percent levy on the wage bill, reimbursable for private training costs. However, reimbursement rates from 2017-2018 indicate that small employers do not appear to benefit from the NTF. Only 2 percent of small employers who contribute to the NTF have been refunded for their training costs, while 26 percent of medium employers, and 69 percent of large employers were reimbursed. A number of factors may prevent SMEs from participating, including the fact that small businesses tend to need more support to adopt technology, identify skills needs, or meet requirements of training at least 15 people to qualify for reimbursement, as reported by focus group participants. In addition, an overall concern was that requirements are in general too rigid. Lack of awareness, reluctancy to release their employees for training given the impact on business operations, fear that employees may leave for lager companies once they are trained may also play a role. The NTF levy schemes and the other training funding sources need to be evaluated to have a clear idea of the cost-effectiveness of training provided and job progression of those benefitting from it. (V)
- 39. A TVET reform is also expected as part of the Nine Years of Continuous Basic Education (NYCBE) reform, with some activities underway to upgrade TVET, but without a cohesive plan developed⁹. The strategic direction has catered to "lower" TVET or traditional vocational professions and trades, which is not aligned with private sector demands and fast-paced industry changes. MITD centers have focused on training 51 percent of graduates in tourism and hospitality for jobs in food production, restaurant, and bar services, and the other half in fields of construction (21 percent), beauty care and hair dressing (8 percent), automotive mechanics and electronics (5 percent), and manufacturing (4 percent) (MITD, n.d.b). These priorities clearly require an update in the context of the disruptions created by Covid-19, but even pre-Covid, the demand of the private sector was for "higher" TVET. 10 The overall employment rate for MITD graduates is 65 percent, but certain industries are less in demand, like the beauty care and hairdressing sector that has only a 28 percent employment rate.¹¹ (MITD, n.d.b). Polytechnics are preparing students in middle-skilled professions in ICT, tourism and hospitality, and nursing, and have pioneered innovative approaches for partnering with the private sector and exposing students to labor market experience early on, but they only opened two years ago, can accommodate only a limited number of students in a reduced number of programs, and are not an option for those failing the SC or HSC. (\underline{V})
- **40.** To remedy some of the gaps in the labor force, Mauritian firms have increasingly resorted to migrant labor. Two labor migration systems allow firms to hire foreign talent: The Work Permit (WP) system under the Ministry of Labour, Human Resource Development and Training (MLIRET) is a temporary labor migration regime governing employment of foreign workers in basic occupations. The second is the Occupation Permit (OP) system under the Economic Development Board (EDB) which grants employment

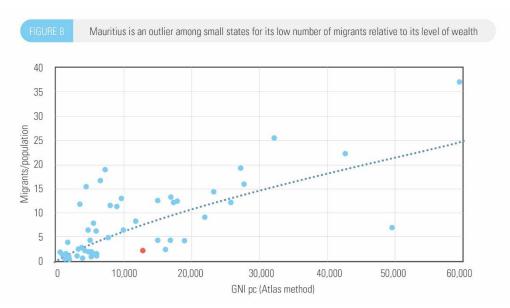
⁹ The reform is focused on reviewing the MITD curriculum, increasing trainer capacities, upgrading equipment and materials, rebranding TVET, and strengthening the quality assurance system (MITD, n.d.a), with some activities in all these streams, except for the rebranding. In addition, the Government Programme 2020-2024 envisioned the creation of an Institute of Technical Education for science, technology, engineering, and mathematics (STEM) fields, but the needed bill has not yet been passed.

¹⁰This refer to middle-skilled technical professions, such as software and app developers, ICT specialists, technical and machine operators, specialists in logistics and supply, lab and industrial engineering technicians, etc.

¹¹ This compares to 81 percent employment rates in tourism and hospitality. The low employment rate (16 percent) in ICT is explained by the fact that the majority of ICT graduates (78 percent) continue their studies (MITD, n.d.b).

and residency to foreign professionals who earn at least MUR60,000 per month. Both systems are open to all skilled occupations except the tourism and medical industries, for which there are specific lists of occupations open to WPs or OPs.

41. While migration has helped to address bottlenecks especially in export-oriented firms, the overall number of foreign workers remains small, especially for high-skilled OP holders. Foreign workers made up about 8 percent of the labor force in 2018, with nearly 90 percent WP holders (semi- or low-skilled workers). In terms of sectors, manufacturing is the main employer of WP holders — mainly export-oriented enterprises in the textile/apparel manufacturing segment seeing an expansion of foreign workers. Among small countries, there is a clear correlation between income level and migration, with the share of migrants typically increasing rapidly with per capita GNI. Mauritius is an outlier with a migrant share of 2.3 percent (not including short term migrant workers), comparable to the migration levels of most low-income small countries, while all small countries with similar or higher per capita GNI levels exhibit much higher levels of inward migration. Migration shares are particularly high among small countries performing well in innovation outcomes, including Singapore (37 percent), Luxembourg (47 percent), and New Zealand (22 percent).



Source: International Organization of Migration (IOM) (migrants / population) and World Bank (GNI pc). Sample is restricted to countries with a population of less than 6 mln. and more than 50,000. Red dot marks Mauritius.

42. Foreign workers spur the productivity of natives. Work permit holders tend to do jobs that few natives take up, and thus help companies to operate. The migration literature suggests that this helps to create jobs for natives and helps natives to specialize in higher-skilled jobs (Dadush, 2014; World Bank 2015). Anecdotal evidence from Mauritius confirms this pattern: An interview with a large construction firm showed that foreign workers were engaged in masonry, carpentry and cooking occupations where few natives were present; natives did either low-skilled jobs such as laborers or higher-skilled jobs such as plant operators or supervisors.

- **43. Foreign workers are also supporting Mauritius' fiscal position.** They tend to be young: 70 percent are below 35 years. By design, work permit holders are temporary labor migrants i.e., they are employed, do not have dependents in Mauritius, and go back to their home countries after terminating their employment contracts. Estimating net fiscal effects of foreign labor with precision would require detailed data on their earnings, but it is safe to assume that they are net fiscal contributors, as age and the employment rate of migrants are the key factors explaining differences in their net fiscal contributions compared to the native population (OECD, 2013).
- 44. Nonetheless, exclusions under Mauritius' migration system add to the cost of doing business. Under the current labor migration systems, firms are facing difficulties to hire foreign labor to fill gaps in specialized occupations or in low-skilled ones¹², as many local job seekers shun difficult, labor-demanding jobs and prefer public sector jobs (MLIRET, 2019).¹³ Export-oriented jewelry firms, for instance, identify that shortages in mid-range specialists or low-skilled workforce are one of the most severe doing-business constraints (International Trade Centre, 2017).
- **45. The current system discourages foreign direct investment.** Mauritius does not have an explicit requirement that investors must hire a certain number of local workers. Yet, the quota of the WP system can deter establishments of foreign firms that need to bring in a group of foreign talents at all skill levels at the initial phase of operations such as business process outsourcing and finance management companies which have been increasing. As a result, the IT industry, for instance, starts to see foreign firms changing their investment destinations to other countries.
- 46. A misalignment between industry needs and the existing skills shortages list poses challenges to affected sectors. WP and OP applications in the tourism and medical industries sectors are subject to skills shortage lists. For instance, the hotels and restaurant industry posted 373 vacancies in September 2019 but nearly 80 percent remained unfilled while 7 percent was filled by local job seekers and 13 percent by foreigners (MLIRET, 2019). This might have been associated with a misalignment between industry needs and the occupation shortages list for the tourism industry published by the Ministry of Tourism and External Communications; furthermore, it would take a longer time to hire foreigners on the occupation shortages list as WP applications may need to be vetted by the Tourism Ministry as well. While current conditions have eliminated most vacancies in the tourism sector, a more flexible and adaptive system to determine skills shortages could support recovery in affected sectors.
- 47. Industries evaluate that the OP system is generally appropriate to address high-skill shortages, but a paradigm shift is required to actively compete to attract international talent. One of Mauritius' key assets is the ability to provide safe and attractive living conditions for expats. Recent reforms in OP create a more conducive environment to attract and retain foreign talents under the OP system, namely (i) a more family-friendly system by allowing spouses of OP holders to work without a separate permit and OP holders to bring in their dependent parents, (ii) provisions to retain foreign talents in Mauritius by extending the OP duration from 3 to 10 years and extending the Permanent Residence Permit from 10 to

¹² WP is labeled as a migration system for "skilled" workers, and therefore, firms have difficulties with hiring foreign workers for low-skilled positions under the current system.

¹³ Under the OP system, as an exception, professionals to be employed in the ICT sector should have more than MUR30,000 of the monthly basic salary, not MUR60,000.

20 years, and (iii) bringing into the labor market untapped foreign talents in Mauritius with a residence permit by allowing them to work without a separate work permit. Furthermore, the plan to set up campuses of world class institutions would further promote inflows of world talents, along with upskilling local talents. Yet, unnecessary restrictions remain in terms of the approval process and limitations on same-sex couples, and a more proactive outreach campaign could contribute to diversifying source countries (French, Indian and South African nationals currently make up more than half of the total OP holders). (V)

48. The WP application system is complex, leading to inefficiencies in job matching. The WP application process is complex and lengthy, taking 5-8 months to complete. MLIRET's interventions to match vacancies with local job seekers add to firm costs, owing to an outdated job-seeker pool¹⁴ and local jobseekers often unwilling to take up those jobs. Efficiency gains would be seen once the ministry implements its plan to update the list by removing from the pool the job seekers who refused three job offers in the past. The WP decision-making process is not clear to stakeholders and often reasons for application rejections are not clearly communicated to employers. Despite the existence of an on-line application portal, firms still need to bring in original documents in person. (\underline{V})

1.3. Promoting competition

- **49.** Competition and competitive rivalry are key determinants of the pace of economic growth, innovation and productive investment in a country. The choices made by firms on where to deploy their resources and capital play a pivotal role in sectoral investment, employment and determining which industries expand. The extent of rivalry in a market can play an essential role in determining whether firms compete through prices or on-price ways such as innovation. Alternatively, firms are undisciplined by market forces and able to extract rents on the basis of their market power. Several studies show that enhanced competition policy has a positive relationship with productivity through reducing the share of less efficient firms, stimulating entry by new lower cost firms and increasing the incentive for firms to reduce costs. Effective competition policy also has been shown to enhance growth.
- **50. Many key markets in Mauritius are highly concentrated.** A high-level analysis of income tax data suggests that a significant proportion of subsectors would be classified as highly concentrated in international comparison. In fact, of 672 sectors, nearly 70 percent would be considered highly concentrated by conventional measures (Table 3). While this concentration may be expected given the relatively small size of Mauritius' economy, it raises the risk of anticompetitive practices and means that sound regulation to enhance contestability becomes even more important. This includes several important upstream sectors such as ICT, financial services, transport and tourism. Firms in these

¹⁴ The job-seeker pool can include those who already found jobs and may not include skills or qualifications a job seeker acquired after registering in the pool.

 $^{^{15}}$ See for example, Roberts, Fox, E (2012), Kitzmuller and Licetti (2012).

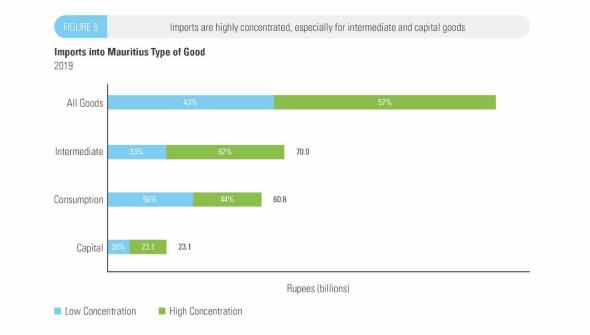
¹⁶ See, for example, Buccirossi et al (2013), Aghion and Shankerman (2004).

oligopolistic industries typically recognize their interdependence — that is, one firm's pricing and production decisions affect another's - and so the incentives to collude is high.

TABLE 3	Many sectors of the Mauritian economy are highly concentrated						
	Indicator	No of sectors	% of BACs				
Highly concentrated	HHI over 2500	462	69%				
Moderately concentrated	HHI between 1500-2500	83	12%				
Competitive	HHI under 1500	127	19%				
Total		672	100%				

Source: Authors' calculation based on corporate tax returns from MRA for the year 2019. Using the Business Activity Code (BAC) as a unit of analysis, Herfindahl- Hirshman Index (HHI), a commonly used measure for market concentration, is $HHI = \sum_{i=1}^{N} Si^2$ where S_i is the market share of firm I and N is the number of firms.

51. While the Mauritian economy is comparatively open, imports themselves are also highly concentrated. In 2019, 57 percent of the value of total imports occurred at a level of high concentration that, if the definition from the Competition Act of 2007 was applied, could be characterized as a monopoly (Figure 9Error! Reference source not found.). Importer concentration is especially prevalent for capital and intermediate goods, where 62 and 67 percent of imports meet this characterization, compared to 44 percent of consumption goods. High concentration in the import sector may warrant further scrutiny, which can be facilitated by analysis of customs data on import transactions from the Mauritius Revenue Authority (MRA). While a number of factors can drive import concentration and a high concentration situation does not necessarily imply an abuse of market power, more scrutiny of potential competition risks in the import sector is warranted.



Source: Authors' calculation based on MRA Customs data.

Notes: Only imports destined for the local market (Customs Procedure Codes 40, 45 and 47) are included, excluding for instance transit trade and raw materials imports by export processing zone enterprises. High concentration uses the monopoly definition

of The Competition Act of 2007 §46: 30 per cent or more of those goods are supplied by one enterprise; or 70 per cent or more of those goods or services are supplied by 3 or fewer enterprises.

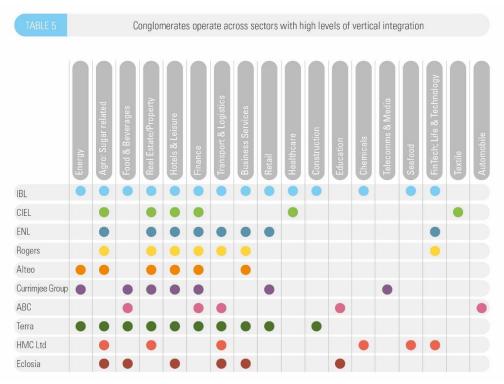
52. Regulatory measures, while often necessary for health or other public interest reasons, can create barriers to entry that reinforce importer concentration. Non-tariff measures (NTMs) are regulatory measures, other than ordinary customs tariffs, that trading firms need to comply with. Sanitary and phytosanitary measures include restrictions on substances to ensure food safety, and those for preventing dissemination of disease or pests; technical barriers to trade include labelling requirements, standards on technical specifications and quality requirements. While these measures are justified by a desire to ensure quality and consumer welfare, they raise the cost of entry for new importers. When comparing the same product across countries based on a global customs dataset, more NTMs are associated with increased concentration of imports at the firm-level.¹⁷ In Mauritius, 21 percent of goods imported under high concentration situations are subject to sanitary and phytosanitary measures while 27 percent of goods imported under high concentration situations are subject to technical barriers to trade. Processes to ensure compliance with these measures should be streamlined to ensure they do not reinforce importer concentration and market power. For instance, in 2017, the competition commission advised the Ministry of Agro-Industry and Food Security to remove a minimum headcount requirement for the import of live cattle that was posing an unnecessary market entry burden for importers and favored a dominant player in the market.

TABLE 4	Across countries, more regulatory measures affecting imports are associated with more concentration of imports at the firm-level							
	Variables	(1)	(2)	(3)				
		Herfindahl	Herfindahl	Herfindahl				
Sanitary and Phytosanitary Measures (#)		56.58		40.26				
		(5.88)***		(4.65)***				
Fechnical Barriers to Trade (#)			87.81	67.07				
			(7.99)***	(6.76)***				
Ln(Import Value in U	S\$)	-384.34	-383.75	-383.44				
		(5.07)***	(5.07)***	(3.30)***				
Observations		131,869	131,869	131,869				
R-squared		0.62	0.62	0.62				
Product-Year Fixed Effects		Yes	Yes	Yes				
Country-Year Fixed E	ffects	Yes	Yes	Yes				

Sources: MRA Customs, World Bank Exporter Dynamics Database, UNCTAD TRAINS Database of Non-Tariff Measures Notes: The dependent variable is the Herfindahl index of concentration (scaled to fit the range 0-10,000), and an observation is an HS6 item code, country, year. Import value is measured in US dollars. The sample includes years 2016-2019 and 14 countries for which data on firm-level imports and regulatory measures are available: Cambodia, Chile, Cote d'Ivoire, Colombia, Croatia, Ecuador, El Salvador, Ethiopia, Mauritius, Nepal, Peru, Paraguay, Senegal, Uruguay. For sanitary and phytosanitary measures, the average number of measures conditional on a product having more than zero measures is 4.2; for technical barriers to trade this average is 2.4. Standard errors in parentheses are clustered at the country-item level. *** p<0.01

¹⁷ The global customs dataset gathers import customs data for more than 30 developing countries and was obtained in the process of expanding the Exporter Dynamics Database project described in Fernandes et al. (2016).

- **53.** Exclusive territorial restrictions implemented by private companies and brands are also prevalent in Mauritius. This is upheld by the system of national exhaustion where the rights holder for a trademark or design can take action against parallel imports. While such arrangements can provide efficiencies, it is important to implement them in a way that is not overly restrictive of competition and that maintains a social welfare objective.
- **54.** A relatively few conglomerates are active across sectors in the Mauritian economy and are also vertically integrated across value chains. While this level of integration can provide benefits, such as reductions in transaction costs, security of supply and quality assurance, it can also have negative consequences. High levels of cross-directorships and multimarket contact facilitate collusion and thwart price competition. Furthermore, the purchasing of products and services within groups reduces the extent to which independent competitors in the economy are able to compete as they may not be able to enter value chains or reach a minimum efficient scale based on the remainder of the non-integrated market. SMEs also struggle to access markets due to complex trading arrangements that may stem from buyer power, including lengthy payment terms (for example, hotels often take 60-90 days to pay suppliers), fees (supermarkets charge fees of up to one third of the selling price of a product) and limited or expensive access to finance and factoring from commercial banks.



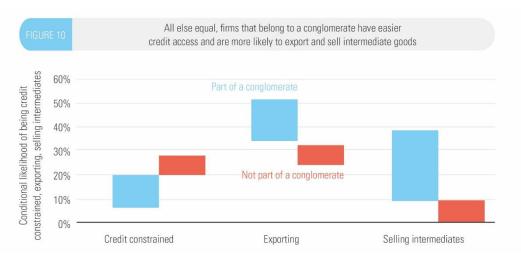
Source: Authors based on a review of publicly available information on company websites, annual report, etc.

55. The dominant position of conglomerates creates a conundrum for innovative independent firms. An analysis of World Bank Enterprise Survey data (Figure 10) reveals that, other firm characteristics being equal, companies affiliated with one of the large conglomerates have easier access to finance, are more likely to be able to export, and are more integrated with domestic value chains. Borrowing a term

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¹⁸ OECD (2013).

from a Mauritian micro-entrepreneur, this leaves smaller firms with the conundrum to either 'ride the dragon' by collaborating with one of the big players or face the resulting disadvantages in access to finance and key markets. To the extent that collaboration with a conglomerate limits the ability to appropriate profits, this could result in diminished returns to innovation for SMEs while at the same time reducing the incentive for conglomerates to risk their own resources for innovative expansion.



Source: Authors' calculations based on 2020 World Bank / NPCC Mauritius Enterprise Survey data. Bars represent 95% confidence intervals of firms showing signs of being credit constrained, exporting at least some of their production, and selling intermediate goods to other firms depending on whether they are (green) or are not (red) affiliated, through full or partial ownership, to one of the large industrial conglomerates, controlling for firm size, age, gender of CEO, and sector of operation.

56. State owned enterprises (SOEs) compete in various sectors including telecommunications, energy and parts of the transportation value chain such as airport and airline services and cargo handling services in the port. The presence of SOEs is not per se a detriment to competition as long as they operate on a level playing field. However, in certain instances, SOEs in Mauritius take on the role of quasi-regulators while also competing on competitive components of the value chains they are involved in (Box 2). Where this occurs, the distortions created inhibit competition.

BOX 2

Information and communications technologies (ICT): ICT is an important sector in Mauritius, accounting for just over 4 percent of the GDP. It is also an important input to most industries and a necessary backbone to various strategic growth industries for the country including financial services and software development. Although the Mauritius telecom sector is reasonably competitive, competition remains limited in certain market segments, in particular the fixed broadband market, with a clear dominance of the incumbent, Mauritius Telecom (MT) holding a market share of approximately 80 percent. The regulatory framework has not yet required that access to essential wholesale infrastructure, currently owned and operated by MT, be made available to entrants or other operators. A decision on local loop unbundling has been delayed since 2012, and there is a risk of further delay when the current moratorium on open access for Internet Service Providers (ISPs) expires in February 2021. Moreover, the current licensing framework is complex and not conducive to market entry, as it is based on more than 15 types of concessions, which forces operators to acquire a wide range of licenses if they have a diversified portfolio of activities, and pay flat rate fees, irrespective of the size of the licensees. Distorted competition has deterred, or at least slowed investment, innovation and growth in the ICT sector. In particular, lack of access to MT's local loop, fiber ring and other infrastructure has been a significant constraint for ISPs, as considerable investments would have been needed from their end to build another domestic fixed-line infrastructure network. In addition, the lack of guidance from Government as to its long-term intentions for its 60 per cent holding in Mauritius Telecom may have constrained investment from the private operators.

Transport: Both air and port transportation are of integral importance to the Mauritian economy, due to the role of passenger transportation in facilitating tourism as well as the fact that as a small island imports and exports are a necessity. Both air and port transportation experience inadequate competition. The role of companies with significant state ownership such as Air Mauritius, AML and ATOL in air transportation that both service and in other instances compete with private competitors, such as airline, ground handling and terminal services. Unclear roles may limit entry and expansion, such as the provision of licenses to access to slots. In ports, the state-owned Cargo Handling Company is seen to be inefficient and insufficiently innovative.

Energy: Energy is another key input for businesses in Mauritius. At present, a new Utility Regulatory Authority is being established. However, at present the parastatal Central Electricity Board is both the purchaser of privately produced electricity as well competing as a generator. Particularly given the government's aim to have 35 percent of electricity from local renewable sources by 2030, a clearer split between the competitive and natural monopoly components of the value chain are required and it is essential that the new authority is sufficiently capacitated and maintains an emphasis on competitive neutrality

57. The Competition Commission of Mauritius (CCM) is effectively enforcing competition law in response to complaints, but more could be done to preemptively address some of the above-described competition risks. The Competition Act of 2007 established a competition authority to enforce laws that can curtail the abuse of market power or collusion by more powerful firms. The Commission has a solid record of enforcement decisions encompassing mergers and prohibited practices such as anticompetitive conduct and cartels. However, its mandate is narrow and does not extend to reviewing anti-competitive regulations of network industries or SOEs (OECD,2018). The Competition Commission could usefully expand its work beyond the narrow application of competition law to more wide-ranging advocacy for competition policy that enhances growth. This could involve (i) more market investigations and studies, targeted in particular to concentrated sectors with a key role for reducing barriers to new investment; (ii) close co-operation with regulators and policymakers to ensure that the competition perspective is considered in new and existing policies and (iii) undertaking specific studies on the extent to which vertical

integration and conglomerates are restricting competition and entry into the value chain in key markets and (iv) ensuring a level playing field with respect to state-owned enterprises that compete with private entities. (V)

58. Additional measures could also be taken to strengthen CCM's mandate and institutional setup. Reforms could further enhance both its independence and efficiency. Independence is the ability to make sound technical decisions independent of any bias arising from undue influence from external parties (both public and private) and internal conflicts of interest. Efficiency is the ability to identify and resource the most relevant and demanding issues according to each authority's policy goals and allocate resources accordingly in a timely manner. ($\underline{\lor}$)

1.4. Opening space for Public Private Partnerships

- 59. Well-developed PPPs for the provision of public services can be a win-win in leveraging private investment while at the same time providing much needed fiscal respite in times of rising debt. However, there are also significant risks in letting the private sector manage what are often natural monopolies with long concession periods, especially in the context of a small country where competition for such concessions might be limited and the cost of failure can be very high. A clear and well thought through government strategy for the sector, a very well-prepared option analysis leading to a balanced deal structure and, most importantly, the development and implementation of PPPs in a transparent and competitive manner are key prerequisites for success.
- **One example where the lack of a clear strategy has hampered progress on PPPs is solid waste management.** Mauritius is facing the urgent need to improve its system of solid waste management. The generation of solid waste is increasing, and the vast majority is deposited indiscriminately in landfills. Municipal waste collection is the responsibility of local authorities, who service almost 100 percent of the Mauritian population. Collected waste transits through one of five transfer stations where it is compacted and transported to the Mare Chicose landfill. There is currently no sorting of waste at the household level. The government is finalizing its Strategy and an Action Plan for a new solid waste management and resource recovery system to be completed in 2021.
- 61. The production of waste has been growing at an average annual rate of 3 percent over the past decade and the only landfill received 545,000 tons of waste in 2018. Only an estimated 5 percent of the waste generated is currently recycled, mostly outside the country. Mauritius spends approximately Rs1.5 billion per year on the management of solid waste, including close to Rs1 billion for the collection of municipal waste. Illegal dumping remains an issue, despite significant progress in the past two decades. Stakeholders note a lack of awareness on the need to dispose of waste properly, and this poses risks to the environment and the tourism industry. Illegal dumping of construction materials is particularly acute, estimated at 100,000 to 200,000 tons per year. An emergency vertical extension of the landfill was decided at the end on 2019 to meet short term waste disposal needs.
- **62.** One of the priorities for the next decade will be to decouple the generation of waste from the growth in GDP. To do this, Mauritius needs a modern solid waste management framework. In a modern, integrated, efficient, sustainable and socially supported system, waste would be seen as a valuable commodity at the basis of a circular economy and profitable value chains. Transitioning to sustainable

waste management practices, including recycling and a more circular economy, would also create opportunities for private sector investment through PPPs, and for SMEs involved in recycling activities. It may also have indirect positive effects on the Mauritian private sector by lowering the need and cost of imports of certain material that can be recycled or reused locally, strengthening the "green" image of Mauritius, and exporting technologies and expertise to other countries in the region.

- 63. Engaging in a recycling revolution would be of great benefit to the environment and the economy. The recycling sector is only emerging and has great potential to reduce the amount of landfilled waste and create value. Unlocking the recycling potential and promoting the circular economy would require sorting the waste at the generation point (e.g. the household), implementing specific collection streams, transforming the transfer stations into sorting platforms, and boosting the nascent recycling industry. These objectives have been taken into account in the Government Programme 2020-2024, which lists as objectives the development of a circular economy, and the promotion of the reduction, reuse and recycling, implemented through a modern and efficient mechanism for waste management through planned collection, sorting and disposal of waste.
- **64.** Private sector investment in solid waste management has been stifled by a lack of policy guidance and implementation. The Government Program makes a reference to exploring waste to energy, but recent initiatives to develop this option through a PPP approach have been plagued by a lack of policy coherence. A PPP tender for a waste to energy plant was launched by the Central Electricity Board in parallel to a project promoted by the Ministry of Environment, Solid Waste Management and Climate Change for anaerobic waste digestion, and eventually canceled. The new solid waste management strategy would clarify key regulatory questions and open opportunities for private sector involvement once adopted. Resolving this policy uncertainty will be critical in order to enable both public and private investment in this sector. (V)
- 65. Arguably the most important component of Mauritius' trade-related infrastructure is the port. Port Louis, Mauritius' only deep-water port, serves as both the primary gateway to the island and as a transshipment hub. In 2018, the port handled approximately 451,000 TEUs of which 42 percent (191,000 TEUs) were transshipment. Traffic has been growing modestly in recent years some 2.4 percent from 2014-2018 and Port Louis now faces fierce and growing competition. Many Eastern and Southern African ports are intent in capturing the transshipment business, so improving efficiency is paramount. Port Louis is roughly average in comparison with 10 Eastern African Ports (including, for example, Dar es Salaam, Durban, and Mombasa) for vessel turnaround time and quay productivity for general cargo, and slightly above average for containers (TEU) per meter of quay, waiting time, and vessel turnaround time, but falls in a range of 44-53 percent of the best performing comparable ports (Humphreys et al. 2019).
- **Major investments are planned to increase port operations.** The Mauritian Port Authority has proposed several investments in the port, major works aimed at increasing container handling capacity and reducing port downtime due to wave action, including the construction of a new 2-km breakwater, a new 60ha container terminal, and dredging of the entrance channel. MRU 14 bln have been earmarked in the public investment plan for the first phase of this project breakwater construction and land reclamation and MPA is pursuing options for Public Private Partnerships for these investments.

67. A PPP approach could provide funds and port management expertise that would increase efficiency, but the current policy framework is an impediment. While the MPA is described as a landlord in most policy documents, in practice, the main cargo handling concession is granted to the public Cargo Handling Corporation Ltd in which MPA has a 40 percent shareholding position; other shares are owned by the External Communications Division and the State Investment Cooperation. As noted in Chapter 1.3. (->), mixing state ownership with regulatory functions hinders foreign entry. Moreover, Mauritius does not have an independent regulator with enough resources to ensure effective auditing, monitoring, and tariff regulation in the port sector, diminishing incentives to improve efficiency or encourage adoption of appropriate incentive-based tariff structures. (<u>V</u>)

1.5. Sustainable management of natural resources (and threats)

- 68. Investment in preserving the island's precious natural resources holds the key not only to the economy's near-term recovery, but to its entire future. This is one lesson dramatically brought home with the oil spill off the south-western coast from MS Wakashio in August 2020. Having in place a sound and predictable regulatory system to manage the sustainable use of natural resources, and adjust to threats such as increased storms and extreme weather patterns amplified by climate change is also key for companies to be able to undertake long term investments that exploit evolving economic opportunities in a sustainable manner. This section discusses two priority areas for such regulation that have exemplary character: managing fisheries and disaster risk management, with a particular focus on coastal areas.
- **69. Fisheries are the heart of the blue economy in Mauritius.** The country's maritime jurisdiction is over 1,400 times larger than its land area, and fishing and shipping are the only significant economic activities currently taking place in this area. Fisheries and post-harvest activities employ about 22,000 people; they contribute an estimated 1.5 percent of GDP and 22 percent of total exports by value (Cervigni and Scandizzo 2017). Small-scale fisheries and the associated value chains provide an important source of livelihood and nutrition for many coastal communities, particularly in Rodrigues.
- **70.** The Government of Mauritius sees the blue economy as the new frontier for its economic development. Since the 2013 release of *The Ocean Economy, A Roadmap for Mauritius,* different governments maintained the objective of doubling the contribution of the blue economy to the country's GDP from 10 percent in 2012-2014 to 20 percent by 2025. It was estimated that additional investment of \$331 million over 10 years in the sector, could generate up to \$380 million of annual revenue and 3,500 additional jobs (Cervigni and Scandizzo 2017). Such an investment would also contribute to maintaining and preserving existing jobs in coastal fisheries and processing, i.e., 22,000 jobs, as well as in other sectors of the Blue economy.
 - The *tuna fisheries* are the biggest contributor to GDP for the sector, and the tuna cannery also creates significant onshore employment. However, the main tuna fishing grounds lie outside Mauritius' jurisdiction, in international waters or EEZs of neighboring states, so the main challenge is to attract an even larger share of the post-harvest activities with efficient logistical infrastructure and a competitive fleet servicing industry. Overfishing is depleting tuna stocks in the Western Indian Ocean and threatening the profitability of the Mauritian and regional seafood industry, even in the very short term.¹⁹

¹⁹ In response to this challenge, a Vessel Monitoring System (VMS) has been set up in Mauritius and a protocol for the satellite monitoring of vessels fishing in the Mauritian EEZ has been negotiated.

- The coastal fisheries, largely artisanal with declining stocks, employ an estimated 11,000 mostly low-income people. The main challenge is to reduce the fishing effort, providing people with alternative employment, so that the coastal fishing stocks can recover and sustain long-term, well-managed fisheries.
- The *offshore Banks fisheries* are remote fishing grounds covering 50 times the land area of Mauritius, but the industry is relatively small, producing only \$7 million annually and employing about 200 people. The main challenge is the absence of private investment in a modern fleet.
- Aquaculture, despite ambitious development plans, is still in its infancy, employing fewer than 150 people. With a ready market in the large tourist sector, the sector has potential but faces a shortage of suitable lagoon space and a lack of private investment.
- 71. However, the long-term sustainability of the Mauritian fisheries is jeopardized by degrading coastal and marine environments. The social and economic contribution of the fisheries sector relies on the health of the fish stocks and marine ecosystems, which has for the most part declined in the past years. While data are generally lacking, multiple sources attest to the progressive degradation of the lagoons, coral reefs and associated coastal habitats, especially around Mauritius island. This degradation threatens the coastal fisheries, as well as coastal protection and tourism. Part of the degradation can be attributed to natural causes and climate change, and manmade stresses, particularly overfishing, agriculture and urban pollution, are primary causes. A number of measures have been taken to protect and regenerate coastal and marine environments, including the rehabilitation and protection of some 7.1 km of eroded shoreline and significant budgetary resources have been allocated for coastal rehabilitation projects at severely degraded sites in the coming years. In order to enable sustainable investment in fisheries with a long-term growth perspective, government action is also required in order to carefully monitor and manage fish resources while managing competing demands on the ecosystem. (1)
- **72.** Mauritius, lying within the cyclone basin of the Indian Ocean, is highly vulnerable to natural disasters. On average Mauritius experiences direct losses due to tropical storms and floods of some 0.8 percent of GDP. Each year, there is a 1 percent chance of losses exceeding US\$1.9 billion (13 percent of GDP) (World Bank 2016). Direct cyclone hitting the main island of Mauritius are infrequent, but it experiences their indirect effects every year. Climate change has already increased their frequencies and likely to raise these risks in the future.
- 73. The coasts of Mauritius are particularly exposed to erosion and disaster risks. Mauritius' coastline is the location of most of the critical infrastructure, housing, and a high percentage of the country's economy. About 20 percent of the population of Mauritius resides in coastal areas. The coasts are already prone to severe erosion and flooding, and the risks are expected to increase with climate change and sea-level rise. Of A 2019 report estimated that 17 percent of the beaches around Mauritius island are severely eroded and 33 percent already have hard protection structures (MSSNSESD 2019). Coastal vulnerability poses significant risks to hotel attractiveness. Addressing coastal degradation in Mauritius will require strategic investments in coastal infrastructure, artificial or nature-based, by both the government, the tourism industry, and private coastal landowners.

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²⁰ The mean sea-level is anticipated to rise around Mauritius by an additional 0.5 to 1 meter by 2100 if no international action is taken to mitigate climate change (Atela et. al 2017)

- 74. Some actions have been taken to increase coastal resilience, if with mixed results. Beach erosion is often due to a combination of natural and human factors, but the main cause has been assessed in Mauritius as the destabilization of sediment cells caused by the multiplication of uncontrolled works. These include the degradation of coastal dunes by sand extraction or construction, the building of jetties and sand drifting disturbing infrastructure, and the deterioration of coral reefs by dredging of boat channels, overfishing and unsustainable tourism activities (MSSNSESD 2019). Local hard interventions to protect individual constructions (including hotels or housing) against erosion or storm surges have ranged from the construction of defenses with rudimentary materials to more elaborate coastal armoring techniques and sand-trapping structures. Such hard interventions have proven costly and their efficiency debatable. Softer techniques are now also being used, such as reef rehabilitation and beach nourishment, but often do not address the causes of beach erosion. In parallel, Mauritius developed an integrated coastal zones management framework as well as environmental impact assessments for coastal constructions.
- 75. The Government of Mauritius created the National Disaster Risk Reduction and Management Center (NDRRMC) and gradually strengthened its disaster risk management framework. According to a 2019 preliminary gap analysis, Mauritius has a strong disaster risk management system, with robust legislation and well-functioning administrative and operational arrangements, including the NDRRMC (DAI 2019). However, some of the causes of the recent increase in vulnerability owing to tropical storms and floods relate to inadequate development planning: illegal construction in risk-prone areas, undersized and ill-maintained drainage systems, rapid urbanization and soil sealing with insufficient drainage capacity. While instruments to avoid risk-prone constructions exist, they are poorly enforced, and the responsible authorities often have a limited understanding of disaster risk.
- 76. Investing in the preservation of the coasts of Mauritius is critical to increase their resilience and maintain their value to the country, while also protecting existing assets and enabling new investment in coastal zones. Their preservation would imply conducting further studies to understand the erosion processes, implementing better interventions (design, standards, consultation, inspection, maintenance) and a more robust planning mechanism covering land-use planning, coastal management planning, building codes and environmental assessments. ($\underline{\lor}$)

1.6. Redirecting state support towards innovation

77. Under a modern industrial policy approach, state support is used as a means to overcome initial market failures that prevent the emergence of competitive new industries, but reality rarely fits this description. The use of state support should be tied to addressing a clearly defined market failure, applied in a transparent manner that does not limit competition, and have a clear sunset clause. In reality, however, global experience shows that the use of incentives is often plagued by a number of common problems. As a result of political economy pressures that favor the status quo, incentives tend to provide continuous support to well-established or declining industries with a strong lobby, rather than addressing barriers to new activity. When targeting new activities, incentives often reflect a political decision that favors the 'easy route' of granting an incentive or subsidy over the more strenuous path of finding and implementing solutions to complex problems that would require a coordinated, multi-ministerial approach. Such efforts tend to either fail - if the incentive is not big enough to compensate for the persistent market failure - or impose a disproportionate and perpetual cost on the government to keep companies in business despite the presence of market failures. Finally, the choice of instruments for

incentives also plays a key role in determining their success. One of the most common mistakes is for countries to rely on tax holidays and other cost subsidies, rather than directly tying the incentive to the desired outcome. The fundamental flaw of a tax holiday is that, by definition, its benefit to a firm is proportional to the firm's profits, rather than the level of investment or other desirable outcomes such as R&D or job creation. Tax holidays are therefore most attractive to firms that realize high profits in a short time horizon and thus, paradoxically, need the incentive the least, often resulting in high and redundant tax expenditure from firms who would have invested regardless of the incentive.

78. Mauritius is no exception to these common "real-world" flaws of state support. After a sweeping reform in 2006 that removed most tax incentives, corporate tax incentives have gradually crept back. Expenditure on corporate tax incentives increased from 0.5 to 0.8 percent of GDP since the 2017/2018 budget and is expected to further increase to 0.9 percent under the 2020/21 budget. 21 At least 19 different provisions for tax holidays, ranging from 4 to 10 years, focus mostly on specific activities (bio farming, smart cities, pharmaceutical and medical devices, ocean water cooling). A few tax holidays apply across sectors, for instance to IP related income (8 years) or large foreign investors (5 years). Tax holidays often reflect top-down initiatives with limited strategic underpinning or accompanying measures to address market failures to the targeted activities. Most of the reported foregone tax revenue is due to annual allowances, a type of accelerated depreciation. Unlike tax incentives, the annual allowance has the advantage of being directly proportional to the actual investment level carried out by a firm. However, de facto the allowance mostly benefits capital-intensive traditional sectors like Tourism, Manufacturing, Retail and Real Estate which jointly account for over half of tax expenditure from this instrument (Table 6). Direct subsidies also increased from 0.1 to 0.25 percent of GDP, and these predominantly benefit the sugar sector and, to a smaller extent, manufacturing. At the same time, R&D tax credits are hardly used due to the complexity of the current system. Similarly, co-investment offered by the state funded Mauritius Africa Fund for Mauritian companies investing in Africa did not find uptake by the private sector. Under the 2020/21 finance bill, MRIC is tasked to introduce a new R&D tax incentive related to generation of IP.

²¹ This figure excludes revenue foregone from tax holidays, which are not reported in the budget.

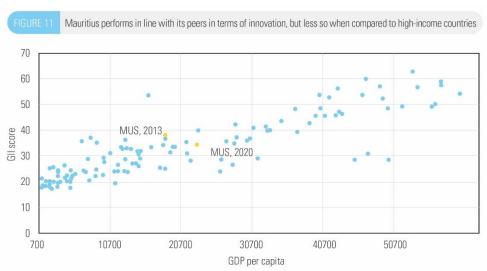
			Firms receiving tax incentives	
Sector	# Firms with incentives	% of Sector	Incentive/Gross Income (%)	% of All Tax Incentives
A. Agriculture, forestry and fishing	194	32%	2%	2%
B. Mining and quarrying	9	62%	3%	0%
C. Manufacturing	946	53%	33%	15%
D. Electricity, gas, steam and air conditioning supply	45	39%	1%	3%
E. Water suppy, sewerage, waste management	30	59%	1%	0%
F. Construction	522	38%	2%	4%
G. Wholesale and retail trade, motor vehicle repair	2,327	42%	1%	10%
H. Transportation and storage	495	53%	5%	7%
. Accommodation and food service activities	607	50%	54%	22%
J. Information and communication	382	40%	1%	12%
K. Financial and insurance activities	284	21%	14%	3%
L. Real estate activities	590	33%	48%	6%
M. Professional, scientific and technical activities	712	40%	2%	2%
N. Administrative and support service activities	431	42%	2%	3%
P. Education	162	47%	1%	1%
Q. Human health and social work activities	73	44%	7%	1%
R. Arts, entertainment and recreation	278	42%	2%	1%
S. Other service activities	3,455	33%	62%	9%
Grand Total	12,322	37%	23%	100%

Source: Authors' calculations using MRA data.

- 79. The response to Covid-19 has brought government involvement in the economy to unprecedented levels. Annex 4 (->) shows a list of the various measures implemented by the government, Bank of Mauritius, and parastatals including State Investment Corporation (SIC) and the Development Bank of Mauritius (DBM) to support the private sector in coping with the effects of Covid-19. While not all these measures can be easily costed, the big-ticket items alone add up to MRU 147 (32 percent of 2020 GDP). This would make Mauritius' Covid-response package the fourth largest in the world as a share of GDP, exceeded only by Germany (40 percent) Italy (39 percent) and Japan (35 percent).
 - MRU 19 bln. directly from the budget for the wage assistance scheme and self-employment assistance that covered wage payments for all sectors throughout the lockdown from March to May and tourism and related sectors since then.
 - MRU 9 bln. in support to the national airline from the Special Resilience Fund
 - MRU 25 bln. in new credit lines from the Bank of Mauritius.
 - The creation of the Mauritius Investment Corporation with up to MRU 80 bln. from the Bank of Mauritius to invest in systemically important companies and projects that support innovation and self-sufficiency in necessities through lending with potential equity conversion in the medium term.
 - A MRU 2.5 bln. equity participation scheme under the SIC
 - A MRU 10 bln. concessional credit line for SMEs from the Development Bank of Mauritius

- **80.** The Mauritius Investment Corporation stands out in terms of its sheer size and medium to long-term perspective of its engagement. MIC was founded as a limited company fully owned by the Bank of Mauritius and its board of Directors includes the first and second Deputy Governors of BoM. While the most immediate Covid response measures such as the wage assistance scheme have already been wound down for sectors other than tourism, the MIC is taking a more long term focus on its engagement in the Mauritian economy and is designed to not just provide immediate crisis relief to systemically relevant companies, but also to invest in firms that support strategic objectives of the government, namely in terms of developing innovation focused activities and self-sufficiency in basic necessities. The MIC provides quasi-equity loans in the form of a nine-year negative covenant bond for the largest distressed firms to help with cash flow. If not repaid, these bonds are converted to equity at the end of their maturity.
- 81. The strong government response to Covid in the short to medium term has been instrumental in saving livelihoods, but these measures are less likely to perform well as industrial policy tools. By virtue of its extended mandate and time perspective the MIC positions the state (in this case, the Central Bank rather than government) to take on a much-enhanced activist role in the economy. As an investor in activities deemed strategic in terms of their transformational or development impact, MIC would take on a directive role in industrial policy. Alternatively, under the above-described paradigm for an effective modern industrial policy, state support would be driven by a broader effort to address market failures that prevent new activities from emerging. Such an agenda is not within the mandate or expertise of a Central Bank tasked with conducting independent monetary policy.
- Innovation and discovery are key factors driving firm-level productivity and long-term economic 82. growth and should be the primary targets of state support under a modern industrial policy approach. The economic literature has used a variety of macro- and micro-data to show that increased innovation activity has a measurable and positive impact on enterprises' productivity and long-term growth (Solow, 1956; Romer, 1986; Aghion et al. 2004). While people tend to associate innovation with high-tech industries and inventions that can be patented, there is a wide spectrum of innovation that also includes technology adoption via capital goods (i.e., imports of modern machinery and equipment), "new to the firm" innovation (when one firm adapts the products and processes existing in the market), and "new to the country" innovation (for example, when a company brings a business model that disrupts existing players, as in digital platforms for e-commerce) that are more commonly referred to as discovery. Innovation and discovery tend to yield high positive externalities as they provide demonstration effects beyond the firm initially undertaking them, while such first mover firms typically bear most of the risk. Thus, pure market outcomes tend to yield underinvestment in innovation and discovery (Cirera and Maloney, 2017), and most countries, including Mauritius, rightly adopt a variety of measures to encourage them.
- 83. Improving the effectiveness and efficiency of public support for innovation and discovery could accelerate recovery. As noted above (chapter 1.1. ->), investment in the past decade has heavily focused on real estate and other traditional activities. The lack of productivity enhancing, innovative investment is likely a reflection of the innovation support system in Mauritius and weaknesses on the demand-side—for example, weak managerial capabilities in SMEs and low levels of private R&D. Mauritius has improved its ranking position in the Global Innovation Index (GII) 2020 (Figure 11), which is a welcome development, yet performance on "input" scores are far higher than for "outputs", which suggests a problem in resource

allocation and/or efficiency. According to GII 2020, main weaknesses in innovation performance are the low percentage of high and medium-tech manufacturing; limited university industry research cooperation, and inadequate R&D financed by business.



Source: Global Innovation Index, 2020

84. As part of Mauritius' objective to become a knowledge economy, the government has outlined several strategies and introduced institutional changes and new programs to promote innovation. The public organizations responsible for the design and implementation of innovation measures generally follow globally recognized approaches such as: having strong private sector participation in the governance of the programs; rolling out funding based on matching grants; linking research with the market through collaborative projects; connecting local MSMEs with international private and R&D stakeholders; improving intellectual property (IP) protection through legal reforms; and taking advantage of regulatory sandboxes to promote innovation in digital financial services; and measures targeting diaspora.

85. Early-stage gaps in access to finance by entrepreneurs have to some extent been addressed by a range of public and private initiatives, including equity-based funding. Entrepreneurs have struggled with access to finance from commercial banks that tend to be risk adverse, including demand for small loans for up to US\$3,000-5,000. A positive development addressing this gap represent programs implemented by business incubators and accelerators based on public-private partnership, access to mentoring, equity financing, and privately owned co-working spaces. The development of the start-up ecosystem in Mauritius has been based on strong private sector involvement which follows a best international practice²² observed, for example, in the US or the UK. Business angel funding remains underdeveloped (currently there are only 5 business angels in Mauritius), but new models are taking root which could enlarge early-stage finance. Fundkiss is one example, a Mauritius' first licensed crowdlending platform that enables individuals and enterprises to lend directly to SMEs. However, as discussed in the

²² For example, the business incubator Turbine offers incubation and acceleration program as well as co-working space services. It is managed by experienced individuals with vast private sector, entrepreneurship and investment experience.

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previous section, access to finance can still be a limiting factor particularly for SMEs not affiliated to a larger group.

- 86. To burnish its credentials for R&D and become more attractive as a location from which companies can manage their IP, Mauritius has introduced changes in the IP law. Protection of innovation has been an issue, e.g., some companies developed IP in India or Hong Kong due to the concern that IP could be lost if developed locally. Effective enforcement of IP regulations should have a positive impact on development of innovation. With the future proclamation of the Industrial Property Act Mauritius will join the Patent Cooperation Treaty (PCT) that will enable protection for an invention in a larger number of countries. This Act may play a key role in increasing the number of patents filed by/granted to inventors and companies in Mauritius which until now, has been underperforming in key IP statistics compared to other small and innovative economies.
- 87. Nonetheless, the proliferation of uncoordinated activities across institutions and programs reduces their collective effectiveness. Key institutions accountable for innovation support include Mauritius Research and Innovation Council (MRIC), SME Mauritius, Economic Development Board (EDB), Higher Education Commission, Ministry of Labour Industrial Relations and Employment, National Productivity and Competitiveness Council (NPCC). Each institution implements multiple programs (see Annex 3 -> for a complete list). In addition, there are diverse fiscal incentives such as rebates and sector subsidies. In total, there may be up to 100 measures targeting similar companies, with a high likelihood of overlap.
- **88.** Recent improvements in data collection on private innovation could translate into stronger monitoring and evaluation of support programs. Both MRCI (in cooperation with Business Mauritius) and NPCC (in cooperation with the World Bank) are investing in the collection of firm level data on R&D and other aspects of innovation. The recently set up SME Observatory could also help, given the objective to collect information and data on the economy including new technology development. MRIC has been addressing the challenge of limited data and since April 2019 it has been designated as focal point for Mauritius to submit R&D Statistics to UNESCO covering R&D expenditure and human capital in both public and private sectors. In the future, MRIC is planning to implement detailed enterprise surveys. Going forward, this data could be used to fill remaining blind spots when it comes to piloting new policies or evaluating ongoing initiatives.
- 89. MSMEs do not have the internal capabilities for technology adoption and adaptation to benefit from some of these programs (Cicera and Maloney 2017). Deficiencies in human capital management and innovation skills among MSMEs, including growth-enabling know-how (i.e., strategic planning, financial and HR management, product and process development, marketing, sales), means that the value of these programs is often not well-understood. Based on global experience, Business Advisory Services (BAS) and Technology Extension Services (TES) target these specific challenges. Such programs address the issue of (1) Information asymmetry as firms do not value this type of support; (2) Coordination failures as business associations do not organize themselves to offer this support. (3) Capability failures as SME owners have difficulty in identifying what their constraints are and how to overcome them.

90. A general overhaul could bring state support in Mauritius more into line with the requirements of a modern industrial policy by focusing it closely on innovation. Large shares of state funding currently appear to be either providing support to the status quo of industries that are well-established or declining, or to take the form of overly directive measures targeting specific industries or activities. Such measures could be considered priorities for reform. On the other hand, Mauritius has introduced several support systems for innovation, but gaps and coordination failures in the institutional landscape hamper the effectiveness of some of the initiatives undertaken. These include high fragmentation of both institutions and innovation programs; deficiencies in programs' design and the selection process; and limited M&E for support programs. Refocusing state support on innovation while addressing these shortcomings could significantly boost investment in productive new activities. (<u>V</u>)

1.7. Conclusion

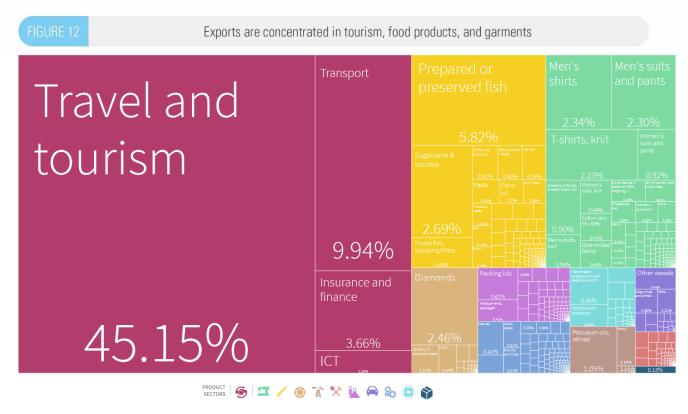
- **91.** Mauritius has historically been well served by its industrial policy model, but secular declines in the level and quality of private investment suggest that new thinking is required. Because of the unprecedented levels of state involvement in the economy made necessary by the economic shock from Covid-19, Mauritius is now at a crossroads as it moves towards recovery: Whether to reinforce its past state-led model that identifies and subsidizes sectors for expansion and actively steers private investment, or whether to pro-actively shift to a cross-sector, more indirect role through close public-private cooperation. This would involve shifting the balance of state incentive policies toward horizontal indirect support benefiting innovation across the board rather than specific industries or priority activities. This chapter has identified five high priority horizontal issues that would comprise a new strategy including renewed efforts on skills, making markets more workably competitive, opening selected public services to PPPs and new forms of foreign participation and improving environmental regulation for the sustainable use of common goods. Equally important, a new strategy would re-align state support to firms with the objective of promoting new investment in high productivity activities by supporting innovation rather than well-established or declining traditional industries.
- 92. In each of the policy domains, Mauritius has long ago implemented first generation, stroke-of-the pen reforms. Second- and third-generation reforms are more complex and detailed, often focused on institutional fine-tuning more than sweeping policy changes and resource reallocation. The following paragraphs summarize the main policy suggestions in the six areas, relegating details, and elaboration of each to the policy recommendations Annex 1 (->).
- 93. Among the several policies that could alleviate the *skills constraints* on investment, the priority is to establish a clearly mandated and sufficiently resourced skills champion institution to drive this agenda forward. Such a leader would provide vision and coordinate the implementation of the NSDS, which is critical to improve engagement with the private sector and incorporate a forward-looking, demand-driven approach. To overcome more persistent skills gaps that short-term training cannot address, further measures to open the labor market to foreign talent under both the OP and WP system are also required. Medium term priorities include measures to systematically enhance the quality and relevance of courses provided by Education and Training institutions measures to upgrade TVET with improved participation of the private sector and efforts to rebrand it as an attractive career pathway. (v)

- 94. Ensuring workably competitive markets, critical to providing opportunity for entry and incentives for investment, requires a special vigilance in the small market economy of Mauritius. Beyond its focus on consumer protection, the Competition Commission should give more emphasis to examining concentrated markets where anti-competitive behavior or high policy barriers to entry may deter investment. These include selected activities in ICT, financial services and transport. Reviewing territorial exclusivity arrangements to ensure that licensing and permit systems are not creating de facto monopolies by preventing entry would likely enhance competitive outcomes. Finally, the independence and effectiveness of the Competition Commission could be further enhanced. (\underline{V})
- 95. Encouraging private investment in industries with a heavy state presence could open the way for more public private partnership and foreign investment. But this requires, above all, policy certainty and regulatory frameworks that do not pose undue risk on potential investors. In ports, for example, it would require adjustments to the roles of MPA and Cargo Handling Company (CHC), while in solid waste management the finalization and commitment to a comprehensive strategy document is essential in order to provide certainty to potential investors. ($\sqrt{}$)
- 96. Managing the sustainable use of natural resource is vital to the success of an island economy and can unlock significant new investment. This report focuses on two examples, with no claim to completeness. These include measures to identify and reduce disaster risk, including both natural and man-made hazards, and the management of fish stocks. This can best be done through evidence-based measures based on thorough assessments of long-term costs and potential damage, and by enlisting the active support of the private sector. ($\underline{\lor}$)
- 97. Finally, a more modern industrial policy would require revamping state support away from traditional sectors and overly directive instruments towards support for innovation. Currently, many state support measures primarily benefit industries that are already well developed or in a state of decline such as the investment allowance various direct subsidies to agriculture and manufacturing – or they tend to be overly directive by focusing on specific industries, such as various tax holidays introduce in recent years. The aftermath of Covid-19 support raises the risk of doubling down on this model, especially through the MIC. A modern industrial policy approach would give priority to the type of measures discussed in previous sections of this chapter that help to remove horizontal bottlenecks to productive new investment. State support to individual firms or sectors would be used only to help overcome specific market failures in a time bound manner. Innovation in terms of new technology, new processes, or the introduction of products that are new to the country is a primary target for such support. As innovation can have significant positive spillovers to the economy as a whole, re-prioritizing state support to promote innovation per se rather than attempting to boost specific sectors would likely yield higher returns from state support. However, effective design and delivery of such measures is key, and a review of the existing innovation support system in Mauritius yields three areas in particular that require attention: First, greater coordination, specialization and cross-fertilization across the myriad of disparate and sometimes duplicative institutions that are designed to spur innovation. Second, implementing a number of reforms at the level of key existing programs to improve their effectiveness. And third, adopting a more formal monitoring and evaluation system for public expenditures across the innovation system. (V)

2. RESTORING COMPETITIVENESS

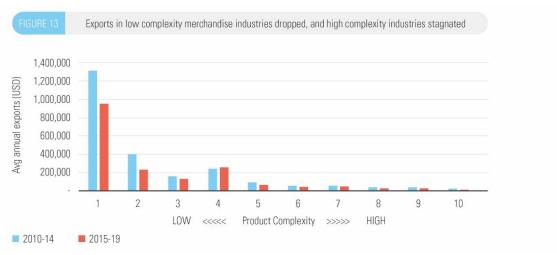
2.1. From decline to collapse

98. Mauritius exports, while diversified, mostly comprise relatively unsophisticated products. Pre-Covid, the export portfolio was dominated by tourism, accounting for nearly half of total exports, along with food products (mostly fish and sugar) and garments. As such, Mauritius' export composition is not dissimilar from that of countries with much lower per capita income and technological sophistication. Emerging export sectors such as insurance and finance, jewellery, chemicals, and optical and medical devices have contributed to upgrading in recent years, but overall remain small. Certain electronics, vessels, and petroleum oil listed in Figure 12 appear to be re-exports of goods not produced in Mauritius.



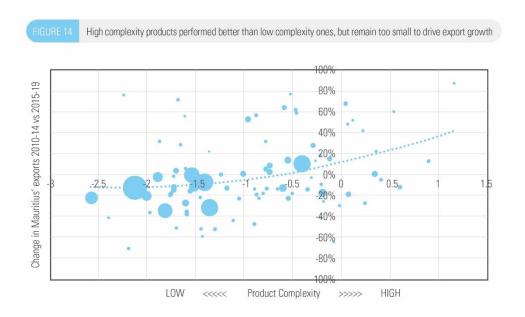
Source: Harvard Atlas of Economic Complexity database based on 2018 data.

99. Declining merchandise exports reflect rapid losses in low complexity sectors combined with limited growth in higher complexity activities. Comparing average exports in 2010-14 vs 2015-19 to control for short term fluctuations, Mauritius' merchandise exports declined by 21 percent in US\$ terms. This decline was mostly driven by the poor performance of traditional products such as sugar and basic garments. Export complexity (Hausmann 2013) is a useful indicator of a product's technological sophistication. During the first half of the decade, 72 percent of Mauritius merchandise exports were in the two lowest percentiles of complexity – including most sugar, garment and fish products – and total exports in this segment declined 30 percent on average between 2010-14 and 2015-19. This contraction was not accompanied by a proportionate expansion in exports of more sophisticated products that one might have expected given Mauritius' rising income level, leading to the overall contraction.



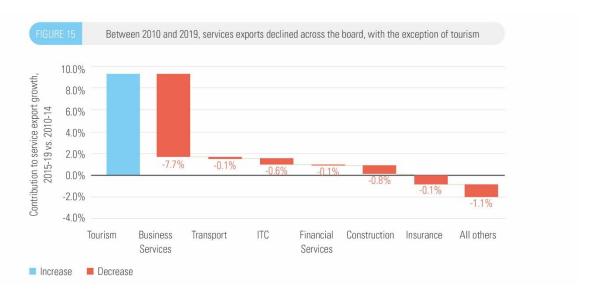
Source: Authors' calculations based on COMTRADE mirror data

100. A more in depth analysis at the product level demonstrates that capacity for developing higher complexity products exists, but has not been successfully scaled up. Figure 14 plots the complexity of Mauritius' top 100 export products against their export growth between 2010-14 and 2015-19. There is a clear correlation, showing that Mauritus has experienced higher growth (or less of a contraction) in more complex products, but these products' overall share of exports remains very small. Stagnating complexity reflects a firm level pattern of relatively few dynamic exporters driving increases in complexity, while the majority of firms is conducting 'business as usual'. At the industry level, firms in the optical and medical, plastics, and machinery industries tend to exhibit the highest complexity levels and some of them have continued to upgrade over the past decade. Firms in jewellery, live animals, and some food producers occupy medium complexity positions, and in many cases the complexity level of their export products has been largely stagnant. Most garment firms occupy the lower ranks of complexity, with a few positive outliers that have aggressively moved into more complex garment products. At the same time, there is limited dynamism at the extensive margin: Newly entering firms, on average, exhibited slightly higher complexity than exiting ones (-0.78 vs -1.11), but new entrants accounted for just 1 percent of total exports in 2015-19, while firms that exited in 2015-19 accounted for less than 2 percent of total exports in 2010-14. Thus, there is a lack of dynamism both in terms of imitation of upgrades by others in the industry and new entry.



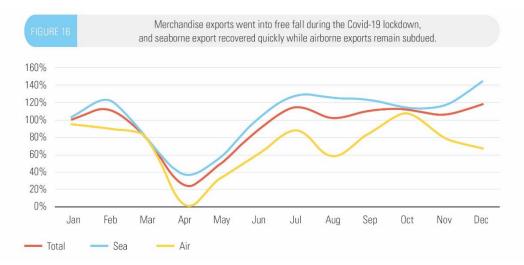
Source: Authors' calculation based on COMTRADE data.

101. Pre-Covid, services exports declined less dramatically than merchandise exports, mostly due to strong global demand for tourism. Overall, services exports declined by 2 percent in US\$ terms when comparing the averages of 2010-14 vs 2015-19. This decline affected all services sectors with the notable exception of tourism which, given its large size and relatively solid growth performance, compensated for most of the contraction in other sectors. However, the expansion in tourism primarily reflected highly conducive global and regional demand, and while Mauritius' tourism exports grew 20 percent, those of regional competitors Seychelles and Maldives increased by 37 and 32 percent respectively over the same period. In 2019, Mauritius recorded a 1 percent drop in arrivals, a 1.6 percent decline in available airline seats, and a drop in arrivals from six out of ten source markets (AHRIM, 2019). Some of the critical issues impacting industry performance are thought to include poor environmental protection, inadequate product innovation, excessive reliance on shrinking traditional markets, and high seasonality, with twice the number of arrivals in December versus the lowest month of June.



Source: World Trade Organization.

102. Merchandise exports collapsed during the lockdown period, but recovered quickly, with the lack of air cargo connectivity remaining an obstacle. After falling by 75 percent in April 2020 against the same month in 2019, merchandise exports recovered quickly and surpassed their 2019 level in July 2020. However, a stark discrepancy emerges between sea and airborne trade, with the former remaining above its 2019 level from July onward and the latter remaining significantly depressed at the same time. The number of active exporters, typically between 120 and 160 firms in a given week, dropped to almost zero at the end of March but recovered swiftly throughout April and May and passed the 2019 numbers for some weeks in July, suggesting that most exporting firms affected by the shock were able to resume business after the initial shock rather than dropping out for good.



Source: Authors' calculation based on MRA customs data. The graph shows a three week rolling average of exports in 2020 vs 2019.

103. Services exports, on the other hand, remain severely depressed due to the absence of tourism and related services. Total service export in the second quarter of 2020 were down 68 percent compared to their level in 2019, and over the course of the entire year of 2020 contracted 52 percent vis a vis their level in 2019. Exports of travel and transport services dropped by 87 and 83 percent respectively in the second quarter of 2020 (compared to second quarter of 2019) and remained at that level in quarters three and four. This was primarily the result of an almost complete halt in tourism and passenger transport service exports. The gradual reopening from October onwards translated into very limited arrivals of longterm visitors willing to undergo a two week quarantine. Business and ICT service exports also experienced temporary drops during the first lockdown in the second quarter but recovered in quarters 3 and 4. Looking ahead, and given lingering uncertainty over the post-pandemic pace at which cross-border travel and tourism will recover, an important challenge confronting Mauritius will be to diversify its services offering with a view to lessening its dependance on travel and tourism (i.e. Mode 2 trade in services). This can be done by leveraging the country's growing ICT sector to supply a wider and more sophisticated range of remotely delivered services – so-called Mode 1 trade. Mauritius can harness its Preferential Trade Agreement (PTA) with India to boost the competitiveness of its export-oriented service sector by attracting greater volumes of efficiency-seeking FDI from leading Indian service firms. Boosting the share of remotely delivered services holds implications for the country's vocational training and migration policies in light of prevailing ICT skills shortages, a challenge Mauritian trade policy can also help address through enhanced commitments on the temporary movement of service suppliers (Mode 4 trade) in the country's PTAs and at the WTO.

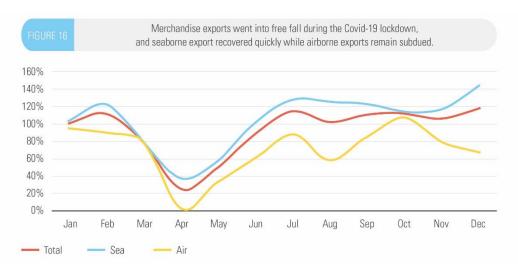
2.2. Putting out the fire – Covid-19 response measures

- **104.** Mauritius' Covid-19 response package was large and effective in mitigating the impact of the immediate export demand shock and the national lockdown on firms. As discussed in chapter 1.6. (->), the total package of support measures announced by the Mauritian government and, mostly, the Central Bank and parastatals, amounts to more than 32 percent of GDP, making it the fourth largest package in the world in terms of its share of GDP. The wage support scheme was widely credited by private sector representatives as a quick and appropriate measure to prevent layoffs during the initial lockdown period. The MRA's work in setting up a system for widespread and non-bureaucratic support in a very short time and under lockdown conditions, using available administrative data sources to minimize potential for abuse, was nothing short of impressive. The government's decision to make support available to all firms while clawing it back from those who remained profitable through a special tax, rather than introducing a means-test at the time of application, also helped to reduce access barriers. As a result, when global demand and transport conditions improved in the second half of 2020, most exports quickly began to recover.
- **105.** The fragmentation of resource across programs and agencies poses coordination challenges for both implementation and monitoring and evaluation. Annex 4 (->) lists over 30 support measures implemented by at least 4 different agencies. This scattering of measures makes an effective outcome monitoring and evaluation of each measures' value addition and performance nearly impossible. It also initially created confusion among firms looking for support measures that fit their needs. In response, the Ministry of Finance, Economic Planning and Development created a single window and overview website to guide firms across programs.
- **106**. Stronger consultation with the private may have provided much needed reassurance to firms and avoided initial design flaws in some of the response measures. While private sector representatives generally see the quick and decisive government response to Covid-19 favorably, many noted room for improvement in consultation and clear communication. As firms and governments around the world were forced to take quick decisions with very limited information during an unprecedented crisis such as the global Covid-19 pandemic, close public-private dialogue was critical to exchange information and align response strategies. In Mauritius, the private sector quickly organized itself under the umbrella of Business Mauritius to implement its crisis response under various thematic working groups. A closer alignment between the government's efforts and the private sector could likely have reduced uncertainty and supported firms in taking the right decisions. At the same time, private sector feedback could have helped to avoid design flaws in some of the early response measures that reduced their effectiveness. For instance, government guarantees would likely have been more effective than new liquidity injections to help maintain credit. Similarly, as companies were reluctant to assume exchange rate risk by accepting US\$ loans, interventions through the open exchange market would have been preferable and could have avoided cases of de factor forex rationing over the summer of 2020.

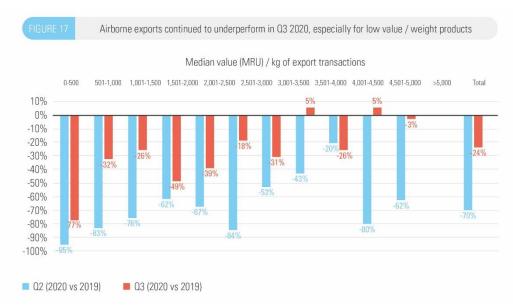
- by the private sector, coordination problems between them also hampered the Covid-19 response. Private sector representatives pointed out that they mostly found open doors and willingness to help within individual government agencies, but often grew frustrated with a lack of coherence when an issue required cross-agency coordination. While the high-level decision making under the chairmanship of the Prime Minister was instrumental in delivering an effective health and social sector response, there appears to be greater need for policy coherence when it comes to more complex measures related to economic recovery. Arguably the most important example in case is the reopening strategy for the tourism sector. Mauritius chose a path of caution in its Covid-19 response, prioritizing public health and its status as a Covid-free island over the economic interests of tourism and related sectors. However, it was not been able to capitalize on its Covid-free status from April 2020 to early March 2021 to develop alternative tourism models, for instance by attracting long-term visitors eager to escape Covid-risk and lockdown measures in their home countries. Such a strategy would require close coordination between health and migration policies, clear policy signals to the private sector to be able to develop and implement an attractive offering, and an extensive and well-targeted overseas marketing campaign.
- **108.** Given previous declining trends, there is a risk that measures intended for short-term stabilization will end up providing another lifeline for firms that were no longer viable pre-Covid. As discussed in chapter 2.1. (->), most traditional export sectors have been on a declining trend over the past decade and a number of exporting firms have been continuously losing market share while failing to upgrade into higher complexity products. In fact, a micro level analysis of MRA customs data reveals that approximately 43 percent of Mauritian exporters' sales declined (in USD terms), with 23 percent declining by over a quarter, between 2010/14 and 2015/19. Some of these companies were likely not viable prior to the pandemic. It is therefore important to gradually adjust firm level support to measures that are directly targeted to the remaining disruptions caused by Covid, rather than providing blanket support to firms.
- 109. The tourism sector is now bearing the brunt of the impact of Covid-19, and as the pandemic lingers, a switch from short-term stabilization to medium- and long-term adjustment is needed. While the tourism sector continues to benefit from a government wage support scheme, this only covers part of the wage bill and comes at the expense of not permitting any redundancies. For many hotels, the continuation of the wage assistance scheme, which was a lifeline in the beginning, has now become more problematic. Most renovations have been completed and with almost zero demand, it is getting harder for businesses to continue paying wages, even with government support, for unproductive workers. Some workers are retraining themselves, starting street businesses, and taking small loans from the Tourism Employees Welfare Fund but with wage assistance in place, entrepreneurship and search for alternative employment has been reduced. The medium-term mechanism developed to support larger businesses of systemic importance is the Mauritius Investment Company (MIC), while smaller hotels can apply for equity injection under the SIC Equity Participation Scheme. There appears to be a lack of cohesive long-term vision for 2021 and beyond, when a "return to normal" is unlikely given pre-Covid trends and the potentially lasting effects of Covid on the industry. A return to previous demand levels may be several years away. There is an urgent need to engage in longer-term solutions to prepare Mauritius' tourism products for a strong recovery while allowing a gradual adjustment in the sector to the new realities. Market research suggests future demand will likely be independent, younger and more adventurous

tourists, and there will be a need to rethink and invest in preparing to relaunch. Work on new products has been limited to relaxing licensing for apart-hotels and some acceleration of work under an EU Sustainable Tourism program. Market research activities seem to be on hold due to funding constraints. While tourism will likely be much more competitive in the future, safe and sustainable islands could attract premium travelers and niche tourism if they are ready, can communicate well and with once voice and are ahead of the curve. (V)

110. Air cargo connectivity will likely remain a binding constraint on exports with low value / weight ratios that depend on speed to market until passenger traffic rebounds. Between 2017 and 2019, about 30 percent of all goods exports went through air cargo, with apparel making up half of it and jewelry, medical equipment, live primates and fishing products also accounting for significant shares. Exports traded using air cargo have on average been more complex than goods shipped by sea, and in the wake of a declining trend in exports, prior to Covid-19, air cargo exports proved more resilient than cargo exported by sea. This trend reversed at the start of the pandemic with air borne exports declining more, and remaining subdued, while seaborne exports recovered quickly As shown in Figure 16, in Q2 the decline in airborne exports was across product groups, and likely primarily reflected demand issues in markets, production problems due to the lockdown in Mauritius, and unavailability of air cargo capacity. However, in Q3, a clear pattern emerged where exports remained subdued in low value / weight products – such as garments – for which freight costs are particularly binding, while higher value / weight products returned to near pre-pandemic levels.



Source: Statistics Mauritius.



Source: Authors' calculation based on MRA customs data.

111. Air Mauritius and other operators have gradually increased their cargo capacity to Europe, Africa and India, but costs remain elevated due to the absence of passenger traffic. Using mostly passenger planes and manually loading boxes into the passenger cabin, Air Mauritius and other operators have resumed air cargo activity into and out of Mauritius in line with industry demand. While this has arguably led to a market clearing supply of air transport capacity, air freight costs, according to operators interviewed, have risen 2-3-fold, reflecting airlines' higher marginal cost in the absence of passenger business. (\underline{V})

2.3. Reversing the trend – restoring competitiveness

- 112. Given the declining state of exports prior to Covid-19, a full recovery will only be possible if short-term crisis response measures are accompanied by systematic efforts to restore competitiveness. Mauritius is clearly outgrowing comparative advantage in low complexity, labor intensive activities, but opportunities exist for upgrading within and across industries, as well as regionalization of production chains. This would entail getting more firms in existing export sectors to follow the example of high performers who have diversified and upgraded their products and invested in technology to enhance competitiveness. At the same time, a focus on supporting innovation and market entrance could promote more sophisticated new products in market niches where Mauritius has potential to be competitive. While a few such niche industries already exist and could be scaled up (medical devices, glasses, watch parts), it would also entail a heavy focus on discovery of new activities. A regional approach complementing these strategies would focus on offshoring labor-intensive production steps in which to low wage countries in the region, such as Madagascar, while maintaining more sophisticated operations, including management and logistics, in Mauritius.
- 113. The measures discussed in chapter 1 (->) around a revised industrial policy model will be critical to support the upgrading of exports that Mauritius needs to restore competitiveness. Chapter 1 lays out a priority agenda to unlock more productive private investment. Such an agenda could provide a much-

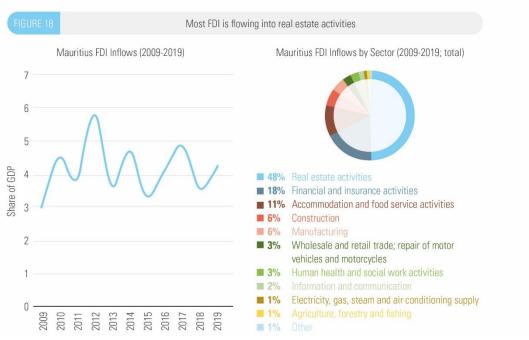
needed boost to export upgrading by putting greater emphasis on innovation and discovery of new activities, removing skills gaps that prevent successful firms and industry clusters from growing, and creating a more competitive environment that encourages firms to aggressively look for new markets and opportunities. The remainder of this chapter supplements this agenda by focusing more in depth on Mauritius' interaction with the global economy. Chapter 2.3.1. (->) discusses the critical role of both inward and outward FDI as a means to develop new exports. Section 2.3.2. (->) analyses the potential to leverage recently signed and future free trade agreements that grant Mauritian producers new market access privileges. The role of price distortions from trade barriers and exchange rate dynamics is discussed in section 2.3.3 (->).

2.3.1. Leveraging FDI

- **114. FDI** can be a powerful force to upgrade exports. On one hand, large foreign companies are commonly at the center of global value chains that now link international markets, so incoming FDI can bring not only product and process technology and managerial innovation but access to export markets (Echandi et al, 2015). On the other hand, outward FDI from Mauritian businesses can play a key role in enabling service exports and creating demand for inputs into those markets.
- 115. FDI inflow levels have fluctuated around 3-5 percent of GDP in recent years, and most FDI went into the residential real estate sector. With an estimated inward FDI stock of 37 percent of GDP, Mauritius performs on pair with some aspirational peer countries such as Lithuania (33 percent), Iceland (35 percent) and New Zealand (37 percent), but significantly below those with a more FDI centered development model like Costa Rica (66 percent), Ireland (244 percent) and Singapore (426 percent). However, recent inflows of FDI have been heavily geared towards the residential real estate sector, which attracted 48 percent of all inflows in the period 2009-19. Most of these investments fall under the 'integrated resort' scheme that allows foreigners a residence permit in Mauritius with the purchase of a domicile. Such investments, while beneficial in other ways, are unlikely to yield the above-mentioned benefits in terms of generating new export opportunities, which are more pronounced in sectors such as high-skilled services and manufacturing that currently account for small fractions of FDI attracted by Mauritius.

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²³ All data from UNCTAD for 2018.



Source: Bank of Mauritius

- 116. In the absence of a comprehensive FDI strategy, sparks in new FDI related activities are usually the result of sector-targeted initiatives by government. Some of these efforts have yielded success in recent years and sparked the development of new industries such as ICT and film production.²⁴ By moving beyond sectoral initiatives towards an overall FDI strategy linked to national development objectives under a modern industrial policy approach as outlined in chapter 1 (->), Mauritius could maximize the transformational power of FDI to develop competitive new exports. (V)
- 117. Investment promotion has not realized its potential. Successful investment Promotion Agencies (IPAs) provide relevant, high-quality services to investors at different stages of the investment life cycle, to meet the objective of attracting, establishing, retaining, expanding, and linking productive private investment (Heilbron and Whyte, 2019). EDB was set up in 2018 by merging the Board of Investment, Enterprise Mauritius and the Financial Services Promotion Agency. It thus has export promotion and investment promotion functions. It is organized in 11 clusters based on sectors and business activities, and each cluster covers both trade and investment promotion. In addition, EDB also manages the one-stop-shop platform and has regulatory functions such as issuance of smart city certificates, regulatory sandbox license, freeport license, occupation permits and is responsible for strategic planning at the sector level. With a total of about 180 staff performing various functions, EDB does not have commensurate staff capacity to deliver on its broad mandate²⁵. (V)
- 118. A strong intellectual property rights (IPRs) framework and its effective enforcement will be important to attract knowledge intensive FDI. Mauritius has not yet ratified key IPR treaties such as the

http://www.edbmauritius.org/schemes/film-rebate-scheme/. See Identical Pictures and Out of the Box as example of companies openly stating they came to Mauritius because of the QPE rebate scheme.

²⁵ WBG Mission Consultations

Madrid Protocol (Trademark), Patent Cooperation Treaty and the Hague Agreement (Industrial Designs). However, in the past year concrete steps have been taken to strengthen the legal framework on IPRs. Mauritius' new Industrial Property Act was passed in 2019. This consolidates provisions on patents, trademarks, industrial designs, utility model, plant varieties, geographical indications and layout design of integrated circuits. The Act was prepared on the basis of WIPO's Intellectual Property Development Plan of Mauritius. It is yet to come into operation and detailed implementing regulations still need to be passed. Although the aspect of trade secrets is not covered in the Act, provisions on other areas reflect good practices. The main challenge is around creating an IPR ecosystem. Specifically, the private sector and government do not fully understand the idea of rights over intangible assets, there are limited lawyers with IPR expertise, the IP Office has inadequate resources and infrastructure (for example, no searchable publicly available online databases). In addition, mission consultations indicated that the private sector (both foreign and domestic) has limited knowledge of the IPR framework of the country. The industrial Designs of IPRs and the idea of the IPR framework of the country.

- **119.** While Mauritius is known to have an open investment regime, some sectoral laws include provisions that impose restrictions. Provisions affecting entry and establishment of FDI are dispersed across various economy-wide and sector laws and regulations²⁹. For example, under the Independent Broadcasting Authority Act, a foreign investor cannot hold 20 percent or more of a company that owns or controls any newspaper or magazine, or any printing press. Further, foreign investors are not allowed to invest more than 15 percent in the voting capital of a Mauritian sugar company. In tourism, there is a minimum investment requirement, and a cap on maximum foreign equity participation in accommodation, pleasure craft, scuba diving, and tour operators.³⁰
- **120.** Mauritius does not fully utilize international investment agreements³¹ (IIAs) to strengthen the enabling environment for FDI. It has signed 45 investment promotion and protection agreements, of which 28 are currently in force³². Its partner countries include UK, India, Singapore, France, UK and South Africa. Some of Mauritius' BITs are dated including France (1974), Germany (1973), UK (1986) and India (2000). Globally, IIAs have evolved significantly in the last few years. Government agencies indicated that the key challenge is ensuring implementation of these agreements. Such non implementation can cause investor grievances, in some cases affect the continuity and expansion of investment³³ and in extreme cases lead to investor- State disputes³⁴. The reason for non-implementation of IIAs is non-alignment

²⁶http://www.mauritiustrade.mu/ressources/pdf/IPDP-FINAL-REPORT-2.pdf.

²⁷ The Act makes provisions for Mauritius to adhere to major IPR treaties such as Madrid Protocol (Trademark), Patent Cooperation Treaty and the Hague Agreement (Industrial Designs).

²⁸ WBG Mission Consultations

²⁹ Key legal instruments include Business Facilitation Act 2006, Business Facilitation (Miscellaneous Provisions) Act 2017, Economic Development Board Act 2017, as well as several sectoral laws and regulations such as the Tourism Authority Act 2006, the Financial Services Act 2007, Securities Act 2005, and the Non-Citizens (Property Restriction) Act 1975.

³⁰ US Department of State, Investment Climate Statements 2020.

³¹ International Investment Agreements (IIAs) refers to bilateral investment treaties and investment chapters of preferential trade agreements.

³² Data from EDB.

³³ Global Investment Competitiveness Surveys 2017-18, 2019-20; Hebous et al. (2019).

³⁴ Mauritius has had three publicly known international investor-State arbitration disputes, two of which are pending and one was decided in favor of State. Thomas Gosling, Property Partnerships Development Managers (United Kingdom), Property Partnerships Developments (Mauritius) Ltd., Property Partnerships Holdings (Mauritius) Ltd. and TG Investments Ltd v. Republic of Mauritius (ICSID Case No. ARB/16/32); Dawood Rawat v. Republic of Mauritius (PCA Case No. 2016-20); Christian Doutremepuich and Antoine Doutremepuich v. Republic of Mauritius (PCA Case No. 2018-37).

between government agencies on the scope, content of IIAs and more broadly, the importance of FDI for national development. Agencies have competing policy priorities and therefore can have inconsistent approaches. This manifests in agencies imposing restrictions/conditions as part of administrative procedures or commercially infeasible terms in public contracts. In fact, stakeholders indicated that a large amount of investment was not realized due to such issues.³⁵ (V)

- **121.** Mauritius can also further capitalize on its own outward FDI (OFDI) to develop service exports and develop regional value chains. While still constituting a small share of GDP, Mauritius' outward FDI flows have on average grown over time. Over the period 2009 to 2018, most outward FDI flows from Mauritius went to sub-Saharan African countries, leading with regional neighbors: Madagascar (23 percent of total SSA outflows), Kenya (13 percent), Reunion (9 percent), Seychelles (7 percent), Mozambique and South Africa (both 5 percent). The majority of Mauritian investment abroad appears to be 'market-seeking' as Mauritian companies invest to reach local markets. This is particularly important for services exports, where delivery often requires a local presence. There are also examples of efficiency seeking investment, notably in the garment sector, where Mauritian firms use offshore production locations in order to reduce costs of their exports to the global market.
- 122. Mauritius has taken measures to support outward investment, including signing IIAs with African countries. Given the relatively small size of local Mauritian investors and the related limited ability to take risk, significant support is needed to allow them to expand to other parts of Africa. Mauritius has 10 BITs in force with African Countries, and in addition agreements have been signed with Kenya, Côte d'Ivoire, Ghana and Rwanda, but these are not yet in force. It also does not have IIAs with some key potential partner countries such as Ethiopia and Nigeria. The World Trade Organization's Investment Facilitation Agreement is currently under discussion, and Mauritius joined the initiative in June 2020. The Investment Protocol of the Continental Africa Free Trade Agreement (AfCTA) is yet to be concluded. Once concluded, this investment agreement will provide more stable conditions for Mauritian outward investment in Africa. The 2016 SADC Investment Protocol signed by 16 countries is in force while the COMESA Investment Protocol is not.
- 123. Importantly, the content of these IIAs does not adequately expand market access or guarantee protection to Mauritian investors. For example, SADC's Investment Protocol does not include key aspects such as fair and equitable treatment, restrictions on performance requirements and clarity on dispute settlement mechanisms. None of the IIAs reviewed for this note provide pre-establishment rights. Therefore, parties can maintain discriminatory restrictions on market access. Further, these IIAs may have annexes under which countries typically list specific measures which will not comply with IIA obligations. These annexes are not publicly available. Finally, many of the partner African countries have failed to implement agreements. 37 ($\underline{\lor}$)

³⁶ WBG staff estimations based on data from the Bank of Mauritius.

³⁵WBG Mission Consultations

³⁷ For example, Article 7 of SADC Investment Protocol requires that State parties that introduce new regulations that affect the provisions of the protocol need to notify the Secretariat within three months of introducing such regulations, Article 17 provides that state parties shall pursue objectives of harmonization of policies, laws and regulations with the objective of developing a SADC Investment Zone – neither of these provisions appear to be implemented on the ground. WBG Mission Consultations.

124. The Mauritius Africa Fund was established in 2014, with a focus on developing special economic zones (SEZs) in select sub-Saharan African countries. Initially, MAF's purpose was to provide coinvestment to Mauritian companies investing in Africa, but no such investments have been made so far. Instead, the Fund invested in Special Economic Zones (SEZs) in selected Sub-Saharan African countries, including a SEZ in Senegal and an ongoing effort in Madagascar. While much of these initiatives are oriented towards developing SEZ infrastructure, lessons learned from international experience points to the importance of 'soft' foundations -including strong and competent institutions and effective and enforceable legal and performance frameworks- as well as strong public-private partnerships in SEZ development, management and financing. Therefore, a great challenge for MAF's SEZ investment in African countries lies in its capacity to influence the development of effective SEZ institutional frameworks and ensure a strong demand and commitment from business sectors to locate and operate in these SEZs. (V)

2.3.2. Taking advantage of new trade agreements

- 125. Mauritius enjoys preferential access within the region and with major traditional markets. The country continues to benefit from preferences under the South African Development Community (SADC) and under the Common Market for Eastern and Southern Africa (COMESA). In 2019, Mauritius exported about 16 percent of its total exports to these markets, and the average complexity of these exports is higher than the average complexity of Mauritius' global export portfolio. In addition, the country benefits from preferential access to the EU under an interim Economic Partnership Agreement (EPA) and the US market because of the African Growth and Opportunity Act (AGOA). However, it seems likely that preferential access to the US will expire in the coming decade, both because its high-income status may render Mauritius ineligible and because the US may not renew the program when it expires in 2025.
- **126.** Recent preferential trade agreements create opportunities in vast new markets that could provide new demand for more complex Mauritian products. The African Continental Free Trade Area (AfCFTA) requires members to remove tariffs from 90 percent of goods, allowing free access to commodities and services across the continent. Recently, Mauritius also signed with India the Comprehensive Economic Cooperation and Partnership Agreement (CECPA) that seeks to liberalize selected activities. Of possibly greater importance, Mauritius signed a free trade agreement with China in October 2019. This will give Mauritius duty-free access in about 8,500 products, accounting for about 96 percent of all Chinese tariff lines.
- **127.** An analysis undertaken for this report identified several product groups for which Mauritius enjoys substantial preferential margins in these markets that could encourage more sophisticated new exports. Such products would meet three criteria: They enjoy a significant preference margin over competitors in the target market; they could feasibly be exported by Mauritius because they are either already exported elsewhere from Mauritius or exhibit close similarity to existing production capacity; and they are more complex than the current average exports so would contribute to raising complexity in the export portfolio. Annex 5 (->) shows these product lists for China, India and Africa. Most identified products are in the categories of light machinery and electrical devices and plastic products. Export promotion efforts could focus on providing market information and reducing search costs for local producers to exploit such opportunities. At the same time, this information could also be used to approach producers in countries that currently supply these markets and might consider relocating to Mauritius in order to exploit the preferential market access. (<u>V</u>)

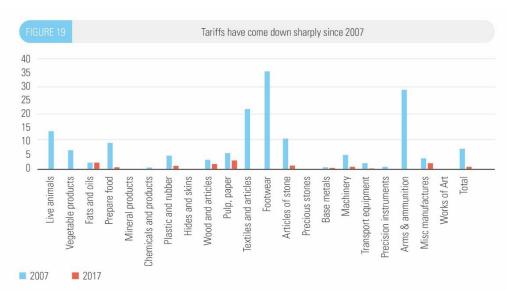
- **128.** Recent trade agreements also open-up potentially significant new export and business opportunities for Mauritian service suppliers. Perhaps most importantly, they enhance the country's attractiveness as a regional services hub for investors, including from third countries, eager to take advantage of the country's growing network of preferential trade agreements to key markets, notably those of Africa, India the EU and China. To harness these opportunities, securing deep and commercially meaningful services commitments from AfCFTA states is critical. (V)
- **129.** Mauritius has yet to enter into deep preferential ties with an advanced economy that would align Mauritian practices to OECD level ones. Experience in many emerging countries, such as Costa Rica, Colombia, Peru, Mexico, Malaysia, Singapore and Vietnam, suggests that embracing a deep integration agenda with a major OECD partner can produce a useful 'electroshock', liable to better focus the attention of reform-minded decision-makers, enhance the quality of public-private dialogue on economic policy, and quicken the pace of reforms needed to promote greater convergence with advanced country regulatory norms and practices to which Mauritius can legitimately aspire. Doing so would also further enhance the country's business environment and help in branding Mauritius as a highly sophisticated investment destination. An even more ambitious policy aim could be for Mauritius to seek to become the first African country to join the OECD as a full member. Doing so is not a simple formality but rather a multi-year process involving a rigorous review of all key areas of a prospective member's policies other than national defense and culture. (<u>v</u>)
- and qualification and licensing requirements and procedures could help address the skills gap in Mauritius and promote exports of educational services. The most recent PTAs with China and India contain Mode 4 (movement of natural persons) commitments scheduled on a broad category of service providers including business visitors, intra-corporate transferees, contractual and short-term service suppliers, and independent professionals and spouses and dependents of the above categories. Such commitments complement full or extensive commitments scheduled on Modes 1 (cross-border trade) and 3 (commercial presence) in the sectors where skill gaps or the need to attract highly-skilled talent are most apparent − i.e. ICT, education, finance, and tourism. In the case of the draft agreement under negotiation with India, Mode 4 commitments are coupled with calls for the relevant regulatory bodies in a wide range of professions38 to conduct negotiations towards the mutual recognition of educational and qualification as well as licensing requirements. The decision to extend Mode 4 privileges to spouses and dependents under agreements with both China and India is particularly welcome and attuned to the need to provide work opportunities to what are typically skilled expatriate couples. Such provisions should also be proposed for inclusion in the services chapter of the AfCFTA. (√)

2.3.3. Address price distortions

Trade distortions from tariffs and non-tariff barriers are limited in Mauritius. The country has progressively liberalized its trade regime since the mid-2000s to become an open economy. Only 2.6 percent of tariff lines in 2019 surpassed 15 percent, the international norm for tariff peaks. The simple average MFN tariff was 0.8 percent in 2019, significantly lower than their level of 3.5 percent in 2007 (WTO, 2007, 2019). Today, over 90 percent of

³⁸ Article 6.11 (Recognition) of the draft Mauritius-India agreement lists the following professions in which mutual recognition negotiations are to be conducted: architecture; engineering; medical doctors; dentists; accountancy and auditing; nursing; veterinary; and company secretaries.

tariff lines are duty free. Mauritius has also thoroughly reviewed its non-tariff barriers (NTBs) for elimination and remaining non-tariff barriers are relatively limited. For example, import permits are used to protect a few agricultural products, including tea, chicken, pork while the Agricultural Marketing Board sets quotas on onions and potatoes (WTO, 2014:7). Most remaining tariffs are on sugar, textiles and apparel and leather products and other finished products like furniture, bedding, and electrical products.



Source: World Trade Organization

- **131. Similarly, there are few restrictions on services trade.** Key backbone sectors such as banking and insurance, accountancy, telecommunications and maritime shipping all showed high levels of openness when the World Bank's Services Trade Restrictiveness Index (STRI) was last measured in.³⁹ That said, Mauritius has protected a few key sub-sectors (notably legal, air transport and auxiliary maritime transport services) where it maintains above-average levels of policy restrictiveness, often linked to the activities of SOEs (chapter 1.2. ->).
- **132.** Based on long term trends, the real exchange rate appears to be overvalued even after recent depreciation, creating an anti-export bias. According to estimations based on a two-stage model (Levy-Yeyati and Filippini, mimeo), the real exchange rate has been increasingly overvalued compared to an equilibrium value as determined based on a structural approach. Since 2007-08, the nominal exchange rate appreciated 1 percent (depreciated 5 percent in effective terms) while inflation accumulated 45 percent. Some further adjustment appears necessary over the medium run even after the depreciation from early 2020. (\underline{V})
- **133.** Foreign exchange flows into and out of Mauritius are heavily influenced by the global business sector. Over the last decade, large trade deficits have been financed through financial account surpluses from the global business sector. The global business sector has channeled large amounts of conduit investment, currently equivalent to roughly 40 times Mauritius' GDP, through the country. While most of these flows enter and exit within a relatively short time period, some temporarily remain within the country as represented by net surpluses in global business related portfolio and direct investment that

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³⁹ The country's STRI is currently being updated.

have enabled Mauritius, pre-2020, to accumulate reserves despite running large trade deficits. These flows have also resulted in the accumulation of foreign currency deposits held by global business firms in the domestic banking system of nearly 90 percent of GDP. While there had been concerns that Mauritius addition to the EU AML list would result in distress to the global business sector, so far foreign assets appear to be stable, and registration of new global business businesses appears to have rebounded in September and October after taking a fall during the height of the pandemic.

- 134. The global business sector affects the exchange rate through the trickle down of its activity to the domestic economy via the provision of local wages and services and profits from the dollar lending business that are locally disbursed. Additionally, global business flows, which are ultimately invested abroad, influence the net foreign asset position (NFA) of the country through the stock of transactional deposits from GBCs in the local banking sector, which in turn drives the appreciation of the exchange rate (Levy-Yeyati and Filippini, mimeo). More accurate data is needed to have a precise allocation of those deposits and to identify possible leakages to the domestic economy. (V)
- 135. After allowing for a modest 10 percent depreciation of the exchange rate at the onset of the Covid-19 crisis, BoM began to intervene consistently to stabilize the Rupee against the US\$. In addition to the direct provision of US\$ loans, BoM intervened in the FX market for a total of US\$ 977 mln between March and December 2020, consistently selling at close to 40 MRU. As Mauritius received substantial US\$ loans from France and the African Development Bank in June and July, the level of reserves at close to US\$ 7 bln in October 2020 remains similar to that in March, sufficient to cover more than 12 months of imports. However, as pointed out by the IMF (2019), import coverage is not the only concern for reserves management in Mauritius given the large global business sector and potential disruption of the Balance of Payment from flow reversals.



Source: Bank of Mauritius monthly statistical bulletin (February 2021).

136. There are two channels through which the events of 2020 affect dollar flows, reserves and, ultimately, the exchange rate balance. The first one is real: tourism receipts, which official estimates place at roughly USD 2 billion per year, collapsed in recent months, while merchandise exports also experienced a temporary decline. The second one is financial: the uncertainty surrounding the pandemic as well as the AML listing reduce the transactional flows channeled through the global business sector. While so far there is no apparent contraction in the global business sector –GBCs flows and deposits have

remained quite stable—, the authorities need to monitor this closely as the unwinding of global business operations, should they materialize, would not be immediate or continuous. (\underline{V})

2.4. Conclusion

- **137.** Mauritius is facing a dual challenge to manage the Covid-19 shock and turn around a long-term decline in competitiveness. Export competitiveness has to be seen as a holistic challenge that cuts across themes discussed in all chapters of this CEM. As the decline in competitiveness is closely linked to Mauritius' evolving comparative advantage outgrowing low skilled labor-intensive activities while productive investment into the discovery or upscaling of more complex new activities is a key part of the story (chapter 1 ->). This chapter has focused on trade specific measures.
- 138. In the short term, it will be crucial to adjust Covid-19 support in favor of a more flexible approach that enables viable firms to adjust to a new reality while allowing exit of firms that were not viable pre-Covid. This includes taking a more flexible approach to potential workforce adjustments in the tourism and hospitality sector, focusing on protecting and retraining workers where needed over protecting jobs. Beyond the tourism sector which remains heavily affected, future support should be clearly targeted to addressing Covid-related disruptions such as elevated aid freight cost in the absence of passenger traffic instead of blanket support to struggling firms.
- 139. Renewed dynamism in the export sector will require additional measures to reverse the longterm trend of declining competitiveness. Developing a holistic strategy and strengthening the institutional framework to support foreign direct investment is a priority. Inward FDI can be instrumental in the development of competitive new merchandise and service exports and access new value chains, while outward FDI can allow Mauritian companies to develop more competitive production networks through strategic offshoring and to access new markets that require a presence on the ground, especially in services. Mauritius can leverage its trade diplomacy and take advantage of recent and future new trade agreements to upgrade its exports, both in terms of goods and to strengthen its position as a services hub. In working with the private sector, EDB could develop targeted strategies to exploit new preferential market access opportunities and attract export oriented FDI based on its attractive market access conditions, and Mauritius should seek to secure deep commitments on services market access under AfCFTA. Finally, monitoring relative prices to ensure that policies do not inadvertently undermine export competitiveness is crucial to both services and good exports. This implies regularly reviewing the real exchange rate in light of effects on the real sectors. Especially during the early phases of recovery allowing depreciation if necessary, to avoid overvaluation will be critical to allow the export sector to bounce back.

3. MAINTAINING INCLUSIVENESS

3.1. Social Protection: From effectiveness to efficiency

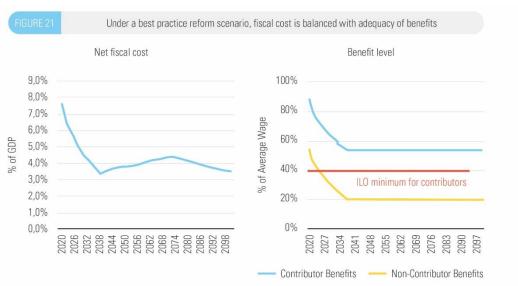
- 140. Social protection in Mauritius plays an important role in mitigating poverty and income inequality and maintaining social cohesion. Social protection expenditure accounted for 27 percent of public expenditures and 7 percent of GDP in 2017/18. Noncontributory benefits include basic pensions, which cover the elderly, the handicapped, widows, and orphans, irrespective of their economic status, and more targeted allowances such as social aid, food aid, and income support, unemployment hardship relief, and funeral grants. In December 2016, the Social Integration and Empowerment Act introduced a targeted antipoverty scheme under which every adult on the Social Register of Mauritius who is living below the absolute poverty line of Rs.2,720 (for one adult) and has signed a Marshall Plan Social Contract is entitled to a monthly subsistence allowance. Overall, the system is effective in mitigating poverty. In 2017, the poverty headcount ratio (measured against the MUR 6,404 a month per adult equivalent poverty line) would have been 15.1 percent, but thanks to social transfers declined to 9.2 percent. The Gini index of pre-fiscal income was 40.0 and declined to 34.2 after direct and indirect taxes and transfers and subsidies are accounted for (Ranzani 2019).
- 141. The economic and social turmoil resulting from Covid-19 has drastically affected Mauritius' fiscal space while at the same time putting additional demands on the social protection system. Informal and self-employed workers, already at a disadvantage before the pandemic, are bearing the brunt of the social burden from Covid-19, resulting in increasing demands on the social safety net. The strong government response limited formal job losses between the first quarter and December 2020 to approximately 26,000. However, informal and self-employed workers, already at the bottom end of the income distribution, were affected disproportionately. According to Statistics Mauritius, 20 percent of formal wage workers and 69 percent of those in self-employment report that their incomes have dropped compared to before the pandemic. This highlights the need for a strong and sufficiently funded social protection system that can help sustain the incomes of the most vulnerable households, while providing retraining and upskilling to individuals who have lost their jobs. However, the combination of reduced revenue and increased expenditure in response to Covid-19 has put a heavy strain on public finances, emphasizing the importance to improve the efficiency and targeting of social spending.
- 142. The bulk of social spending, more than 50 percent, is currently on the basic retirement pension (BRP), which is increasingly costly, poorly targeted, and creates adverse labor market incentives. The benefit has been increased substantially since its inception, while the retirement age has fallen despite an increase in remaining life expectancy at age 60 from 12.6 years at inception to 20.6 years. Mauritius is a rapidly aging society, which will lead to a rapid growth of spending on the BRP, with the potential for squeezing out pro-poor spending. The share of the population aged 60 and older, currently 16.8 percent, is expected to reach almost 25 percent by 2030, 30 percent by 2045, and 35 percent in 2058. As of December 2019, the BRP benefit was raised from Rs. 6,210 per month to Rs. 9,000 per month. The BRP is not pro-poor because the per capita amount received does not decline with a beneficiary's pre-fiscal income. As the BRP is paid to all Mauritians who reach the age of 60, it also encourages early retirement and adversely affects labor force participation.
- 143. In contrast, programs such as Social Aid and the Marshal Plan Social Contract directly target the poor and provide effective social protection at a fraction of the cost of BRP. The Social Aid Program,

which is targeted at households temporarily unable to earn a livelihood, is pro-poor as about 85 percent of this transfer is absorbed by households in the bottom 40 percent of the income distribution (the bottom 40). Pre-Covid, it covered approximately 16,000 beneficiaries. The Marshall Plan Social Contract provides a monthly allowance to low-income households and 100 percent of the cash transfers provided under this scheme are absorbed by households in the bottom 40. Before Covid, approximately 11,000 households (and 40,000 individuals) benefitted from this program. These targeted measures generate a more equal distribution of income and are superior to untargeted transfers because they can achieve the same degree of poverty and inequality reduction with fewer resources. Precisely, the same decline in the Gini index could be obtained by spending only 29 percent of the current BRP expenditure if it was targeted to the poor. The Social Aid program appears to be particularly well-suited to provide income relief to individuals who have temporarily lost their jobs as a result of Covid. The Marshall Plan may represent an alternative in the event some individuals are unable to find new jobs in the medium term because of, for instance, a slow recovery in the tourism sector or a persistent pandemic crisis (Ranzani 2021). These programs could be scaled up in terms of coverage and funding to effectively mitigate the social impact of Covid-19 in a cost-efficient manner.

- 144. Consumption of rice, flour, and LPG as well as commutes by public bus are subsidized; however, lack of targeting to those in need makes them less effective in reducing poverty and inequality. Consumption subsidies are progressive in relative terms as these represent a large share of prefiscal income among poorer households compared with richer households. Yet, they are not pro-poor: except for the rice subsidy, the share received increases with income and high-income households enjoy a larger share of the total spending on consumption subsidies. (Ranzani 2019). (V)
- **145.** Further increases in BRP would threaten the financial sustainability of the entire social protection system and do not seem justified from an equity point of view. It should be noted that the BRP at Rs. 9,000 per month already puts Mauritius among the highest paid universal benefits in the world with respect to average wage and a move to Rs. 13,500, as envisaged prior to the introduction of the *Contribution Sociale Généralisée* (CSG, see below) would make it the highest paid universal benefit in the world. Fiscal projections suggest that the implementation of this increase would raise the cost of BRP to 10 percent of GDP in 2024 and put it on a steadily increasing path to reach 14 percent of GDP around 2050. The noncontributory benefit being paid earlier than the contributory benefit paid by NPF is also highly unusual, with no other country in the world paying noncontributory benefits earlier than contributory ones. Further increases to BRP also do not seem to be justified on poverty and equity grounds. Households headed by individuals aged 60 and above have the lowest poverty rate and depth. Precisely, at 4.8 percent the elderly poverty headcount rate is half that of households with heads aged 30-59 and about one sixth of that observed among households with a young head (ages 18-29).
- 146. A fundamental pension reform, while politically difficult, could bring the old age system in Mauritius in line with international best practice and balance fiscal sustainability with benefit adequacy. Pension systems are considered adequate when they fulfill two criteria: (i) alleviate poverty at old age for everyone (based on international standards, this requires a universal pension level of approximately 20 percent the average wage); and (ii) provide wage replacement so that workers do not experience a large consumption drop as they move from working to old age, which is approximated at 40 percent of average

⁴⁰ Poverty is measured against the income-based relative poverty line (Rs. 7,497 expressed in 2017 prices).

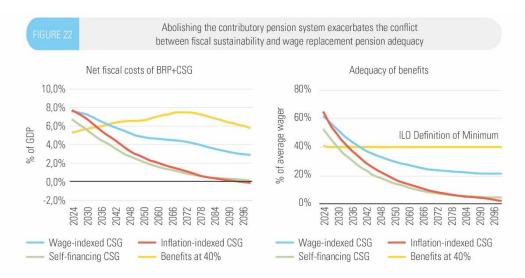
wage for an individual with 30 years of pension contributions. This could be accomplished in a fiscally sustainable manner under a hypothetical scenario where the eligibility age for BRP would begin to rise at the rate of six months per calendar year from 2021 onwards until it reaches 65 in 2030, in line with the retirement age for contributory benefits. This change would bring Mauritius in line countries where benefits are typically given when individuals are close to having 15 years of life expectancy left. The benefit would remain fixed at Rs. 9,000 until it reaches a level of 20 percent of average wage, the benchmark for poverty alleviation for non-contributories. From that point forward it would be wage-indexed. A contributory pension system would continue to collect contributions from workers and provide benefits to contributors. The fiscal cost and benefit level of such a system are shown in Figure 21. It gradually reduces fiscal cost of the pension system, while providing adequate pensions in terms of both the poverty alleviation and wage replacement criteria. Over time and as life expectancy increases, retirement ages could be further raised. Another option could be to offer the full BRP only to a subset of the elderly who are most in need. (\underline{V})



Source: Authors' calculation

- 147. In fiscal year 2020/21, a reform was introduced to cap the existing BRP benefit at Rs 9,000 per month but introduce a new *Contribution Sociale Généralisée*. CSG replaces the current contributory pension system under the National Pension Fund (NPF) with a redistributive mechanism that pays a flat benefit to all Mauritians, regardless of whether they have contributed or not, and is financed through a tax on labor. Workers and their employers would be mandated to pay half the current contribution rates, 1.5 percent of basic wage for the employee and 3 percent for the employer, for employees earning less than Rs. 50,000 per month. For those earning above Rs. 50,000, the mandatory contribution rates would be 3 percent for employees and 6 percent for employers, without a ceiling, while NPF was subject to a ceiling equal to Rs. 18,740. In abolishing the NPF, the Government pledges to pay all those who have contributed thus far the benefits for which they contributed.
- 148. While CSG would represent a step towards raising the retirement age, abolishing the contributory system exacerbates the conflict between fiscal sustainability and wage replacement pension adequacy. The CSG benefit would only be paid from age 65 onwards, beginning in 2024, which

would be an important step towards raising the retirement age as the BRP benefit at age 60 is subjected to a nominal cap and would thus gradually decline in real terms. However, as workers at all income levels seek wage replacement, they will likely push for higher pensions and might no longer see pensions as something that have to be earned, but something that the Government provides through political decisions since benefits are not linked to contributions. Lump sum instruments such as the National Savings Fund and the Portable Gratuity could to some extent make up for this shortcoming, but such payments are a highly imperfect substitute for a lifelong retirement annuity. Keeping the benefit levels of universal instruments high enough to provide wage replacement for those who used to contribute to NPF would impose an unsustainable fiscal cost while resulting in many low income workers earning more in retirement than they earned when they were in the labor market. Figure 22 provides an indication of the trade-offs in terms of maintaining fiscal sustainability and pension adequacy. Four possibilities are considered: (i) CSG benefit is set at Rs. 4500 per month in 2024 and indexed with nominal wage growth in subsequent years; (ii) CSG benefit is set at Rs. 4500 per month in 2024 and indexed with inflation in subsequent years; (iii) CSG benefit is determined by projected CSG revenue available, and (iv) CSG benefit is set such that the combined benefit between BRP and CSG totals the ILO minimum adequacy requirement of 40 percent of average wage for an individual with 30 years of contributions. In all four cases, the BRP is maintained at the current Rs. 9000, with BRP provided at age 60 and CSG at age 65. While the wage-indexed possibility provides a longer period of adequate benefits, it costs significantly more. If benefits are maintained at the ILO defined minimum adequacy level, the fiscal costs are initially lower, but increase continuously and quickly threaten fiscal sustainability.



Source: World Bank Staff estimates. Net fiscal cost includes projected BRP and CSG payments less CSG revenue. The cost estimates and benefits do not include remaining NPF benefits that have already been earned by contributions to NPF prior to September 2020, some, but not all of which can be paid out of NPF reserves.

149. Global experience shows the importance of a contributory pension system in managing the demographic pressures of an aging society. In other aging countries, Governments have introduced or enlarged pension systems which allow working age individuals of all income levels to put money away while they are working which will be paid back to them in the form of a pension when they retire. This allows Governments to focus their limited fiscal resources on those who are poor, including the elderly who are poor, rather than spending fiscal resources on those who can afford to save for their own

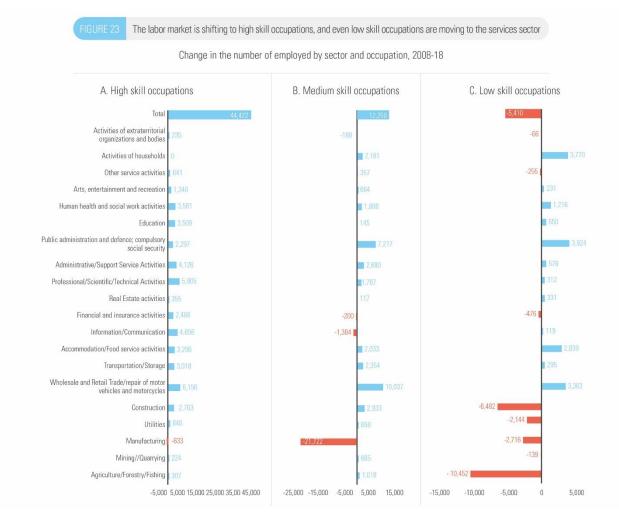
pensions. However, that path is only feasible if there are mechanisms for individuals to contribute for their own old age during their working years. In the absence of such a system, means-testing non-contributory pensions becomes increasingly politically difficult as it risks even lower income for the non-poor elderly. (V)

Key implementation details are still pending and will be critical in determining the outcomes of **150.** CSG. An Inter-Ministerial Committee chaired by the Prime Minister and a Technical Committee chaired by the Secretary to Cabinet have been set up to look into the modalities for the payment of the CSG benefits and contributions. A first point concerns the benefit level. As shown in Figure 22, the already high fiscal cost of pensions would rise by approximately an additional percentage point of GDP if the CSG benefit was set above what can be reasonably expected as revenue. Keeping CSG in line with expected revenue would imply a benefit level of approximately Rs 2,500. Second, the simulations also show the importance of moderating future increases. Pension increases over the last few years have routinely exceeded GDP growth and were largely based on political considerations. Currently, a rule-based system is being elaborated, and simulation results show the importance of restraint in the increase formula, ideally based on CSG revenue or inflation. Third, employers and employees will likely respond to the new system by trying to pay as little CSG contributions as possible, given that there is no longer a link between contributions and benefits. Even the best-run countries experience some degree of tax avoidance and / or evasion if there are incentives to do so, and some workers might take the risk of going informal or try to arrange alternative remuneration channels with their employers. The simulations in Figure 22 assume no tax avoidance / evasion that would further reduce CSG revenues and thus increase net fiscal cost. Fourth, CSG could exacerbate wage and benefit differences between private and public sector workers if public sector workers receive BRP, CSG, and a separate contributory public sector pension which the Government as employer helps finance, in addition to covering the full contribution to CSG. This issue is currently under consideration by the Pay Research Bureau. It could also create an inequity between private sector workers and retirees if those already at age 65 or above will receive the BRP, CSG, and whatever they have earned from NPF, while future private sector workers will receive only BRP and CSG, despite paying the same contributions. Fifth, the benefits payed to widows/widowers and the disabled are currently at the same benefit level as the BRP. If the level of these benefits was also frozen to remain at the same level as BRP, the disabled and widows/widowers would end up in a deteriorating financial situation, so they should either be eligible to receive CSG or equivalent increases in their entitlements. The simulations shown above all assume that the disabled and widows/widowers receive a benefit at the same level as CSG whenever the disablement or spousal death occurs. (V)

3.2. Supporting labor market participation

151. The process of structural transformation – moving workers to higher productivity activities – has powered Mauritius' growth since independence and has continued over the last decade. While agriculture and manufacturing lost nearly 35,000 jobs, the services sector expanded rapidly and created about 88,000 jobs in the 2008-18 decade. Professional and technical activities -- real estate, health sector, and public administration – grew particularly rapidly. Trade, accommodation and food services, administrative and support activities, public administration, and household activities added a large number of jobs thanks to their large initial size.

152. The most dynamic segment of the labor market over the last decade has been the considerable growth in the overall number of medium and high skill occupations. Over the past decade, the number of professionals, technicians and associate professionals increased by between 43 and 56 percent, followed by services and sales workers, clerical support workers, and managers. The number of high and medium skill occupations increased in nearly all sectors. The exception was manufacturing where even the number of managers declined due to the closure of several large firms, particularly in garments.



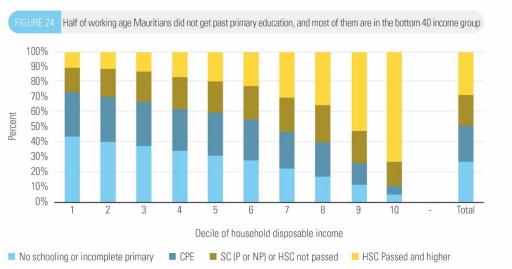
Source: Based on data of the Continuous MultiPurpose Household Survey (CMPHS), Statistics Mauritius.

- 153. The number of low skilled occupations has declined and changed in character. The number of low skilled occupations declined in traditional sectors, including agriculture, construction, and manufacturing. This was partially offset with low skill job creation in services. Between 2008 and 2018, almost 23,000 low skill jobs were lost in agriculture, manufacturing, construction and utilities and many low skilled women who were in their 40s in 2018 with no or minimal schooling transitioned out of agriculture and manufacturing into the service sector, mainly hotels or household services, or left the labor force. Men in the same cohort likewise moved into low-skill services jobs.
- 154. However, the labor market has not fully kept pace with the rapid transformative pressure of the economy, leading to frictions and adjustment costs, including wage inequality, structural unemployment, skills mismatches, and a high inactivity rate. Several factors account for this mismatch:

the rapid transformation in labor demand; continued outflows of local talent taking advantage of higherearning opportunities abroad for doing the same type of jobs; an education system, particularly technical and vocational education and training (TVET), that fails to respond to industries' needs; and a local workforce less willing to work in low-skilled segments of the labor market. Women and youth also face disproportionate obstacles in the labor market.

155. Individuals in the bottom 40 percent of income are less likely to participate in the labor market, and if they do, they are largely employed in traditional sectors. Individuals that belong to less well-off households are considerably less likely to participate in the labor market as they tend to rely more on transfers to make ends meet (World Bank 2017). Less than 1 in 2 Mauritians in the poorest decile are employed or looking for a job as opposed to over 2 in 3 in the richest decile, and no sizable change has been observed in these ratios since 2008. Workers in the bottom 40 percent are mainly employed in traditional sectors including agriculture, manufacturing, and construction. Although the employment shares in these sectors have shrunk considerably compared to a decade ago, they are still larger for the bottom 40 compared with individuals belonging to households in the top 60 percent. For example, in 2018 between 37 and 49 percent of those in the bottom four deciles of income were employed in the primary sectors. This compares with 17 and 13 percent in the ninth and tenth decile.

156. About 2 out of 3 working age individuals in the bottom 40 percent hold at best a certificate of primary education (CPE). 27 percent of the population age 16 and above does not have a CPE. Coupled with about 24 percent that only has completed primary education, this implies that for about 1 in 2 Mauritians in working age, the highest education qualification is a certificate of primary education. These numbers are even less encouraging among the bottom 40 percent. As of 2018, between 34 percent (in the 4th decile) and 44 percent (in the 1st decile) have not successfully completed primary education (Figure 24). This compares with about 11 and 5 percent in the top two deciles.



Source: Based on data of the Continuous MultiPurpose Household Survey (CMPHS), Statistics Mauritius.

157. In addition to the lack of basic education, weak technical and soft skills play heavily against the odds of obtaining a job among low educated individuals. Employers complain about the difficulty in recruiting workers with adequate technical and soft skills. In fast changing labor markets, successful workers are equipped with a bundle of skills. There are cognitive skills that include foundational literacy and numeracy, problem solving and creative thinking skills; socio-emotional skills such as self-control, grit, empathy, and curiosity; and technical skills (World Bank 2018). In Mauritius, employers report difficulties

in finding workers with adequate technical and soft skills as well as past working experience for the jobs they are offering (HRDC 2012a, b, c, d). Employers in the manufacturing sector (nontextile) report skills, including soft skills like communication, interpersonal skills, and teambuilding, attitude and lack of interest as the main reasons behind their difficulty in filling vacancies (HRDC 2017).

158. Despite considerable progress, women still lag men in terms of labor force participation, and the impact of Covid-19 is threatening some of the recent gains. The labor force participation rate among women increased from 44.5 percent in 2008 to 48.3 percent in 2018. This compares with a participation rate of 78.9 percent in 2018 among men. The disparity is heavily driven by the low skilled segments of the labor market. Only about 1 in 3 women with up to primary education participates in the labor market, compared with over 2 in 3 women with upper secondary education. Improved educational attainment has therefore played an important role in mitigating the gender gap in labor force participation. Among women with post-secondary and tertiary education, labor force participation is above 80 percent, as high as the average rate among men. Younger generations of women, particularly those born in the 1970s or later, have higher participation rates relative to their older counterparts at any age. For example, about 77 percent of women born in the 1990s participate in the labor market at age 25. This compares with about 70 percent among women born between 1986 and 1990 at the same age.



Source: Authors' calculation based on Continuous Multi-Purpose Household Survey.

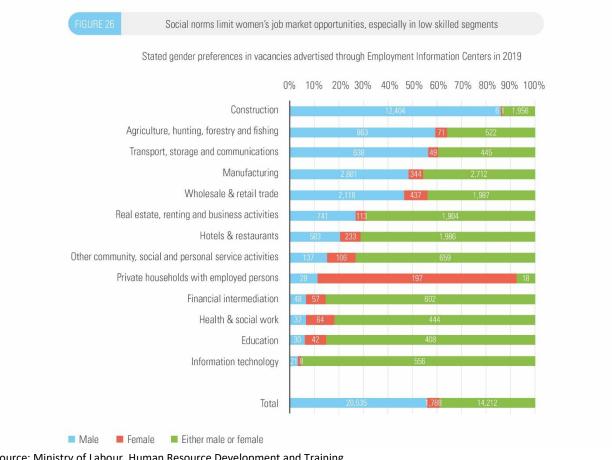
159. While pre-primary education for children aged three to five years has reached an enrollment rate of over 90 percent, there is a lack of affordable day care centers with extended opening hours for younger children. Early Childhood Care and Education in Mauritius includes Child Day Care Centers (CDCCs) and pre-primary schools. Children aged three months to just under three years may attend CDCCs, which are registered with the Ministry of Gender Equality and Family Welfare. As at November 2020, there were 378 child day care centers in Mauritius, of which 239 were still unregistered with the Ministry. Combining this information with data on the number of children aged between 0 and 3 years (per district) from the 2018 labor force survey shows that each CDCC would have to serve, on average, a population of between 80 (Plaines Wilhems) and 180 (Port Louis) age-eligible children, which is insufficient to meet the demand of all parents with young children, particularly in the districts that are relatively underserved (Tandrayen-Ragoobur 2019). In addition, cost is an important barrier for families with low levels of

income. Most care centers are privately owned, and typically charge fees in the range of Rs 2,500-3,500 per month, though with significant variation by geographic zone and across facilities (Tandrayen-Ragoobur 2019), which amounts to approximately 30-40 percent of the average wage of low educated women. Moreover, many centers have limited opening hours that do not cater to the needs of working families. Focus Group Discussions with low income women conducted in October 2019 highlighted that affordability of DCCs and restrictive opening hours are a major constraint for low educated women with children to participate in the labor market. (\underline{V})

160. Lack of affordable childcare affects women disproportionately because social norms assign to Mauritian women the traditional role of providing such care. Labor force participation is much lower among married than among single women, especially during reproductive years. When asked about the main reason why they are not engaged in the labor market, most inactive women with only primary or no completed education mention household and family responsibilities. According to data from Afrobarometer (2017), 7 in 10 Mauritians think that it is better for a family if a woman has the main responsibility of home and child care, and almost half of Mauritians agree with the statement that men should be given preference when it comes to jobs. During focus group discussions, many women commented on the difficulty of balancing work with care for young children and other unpaid household work and some also mentioned that women's labor force participation may be viewed by men as threatening traditional gender roles. This is aggravated by high rates of domestic violence, which according to a 2017 survey (Sultan 2017) affects 18.4 percent of Mauritian women, with 12, 9 and 8 percent of women reporting having been subject to physical, sexual, and emotional abuse respectively over a period of 12 months.

161. Social norms also affect occupational choices of women, and heavily bias labor market opportunities against them. Data from the 2018 round of the labor force survey show that women and men tend to work in different sectors of the economy, with trade, education and household activities being the three most important sectors for female employment, and construction, public administration and manufacturing (other than textiles) dominating male employment. Further analysis in World Bank (2017) highlights that these patterns of sectoral segregation are a contributor to gender wage gaps. Patterns observed in the vacancies published through the public Employment Information Centers (EIC) suggest that such patterns do not just reflect self-selection of employees, but also biases on the side of employers: Of 36,535 vacancies registered in the EIC system in 2019, 56 percent explicitly state a preference for male applicants while only 5 percent state a preference for female applicants and the rest are neutral. The bias is strongest in construction, agriculture, transport, manufacturing and trade where more than 45 percent of vacancies state explicit preferences for male applicants. (V)

⁴¹A few social programs seek to enhance access to childcare for low-income families. Some municipal councils run day care centers with the collaboration of NGOs. These facilities charge a token fee in the range of Rs 400 to 700 and are mainly targeted to vulnerable families in the region. Furthermore, low-income families covered by the Marshall Plan Social Contract (MPSC) are entitled to a creche voucher, which covers up to Rs 2,000 per months per child enrolled in a registered DCC. However, many low-income families are not covered by the MPS and NGO-run childcare centers have limited capacity and are only available in selected localities.



Source: Ministry of Labour, Human Resource Development and Training.

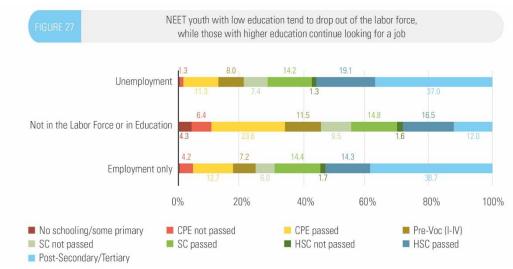
162. When women do participate in the labor market, they are paid, on average, about 18 percent less than men per hour worked in the private sector. In 2008, a woman employed in the private sector made on average about \$0.70 cents to a dollar made by men. Ten years later, the gap had reduced to about \$0.82 cents. Still, the gender pay gap clearly poses a deterrent to the labor force participation of women. Among the observable characteristics that explain the gap, industrial sector of employment, occupation, job tenure, and enterprise size are the most important. However, the largest portion of the gap (about 78 percent) remains unexplained by the data. A possible explanation might be related with the above discussed social norms that assign to Mauritian women responsibilities for a broad range of nonmarket or domestic activities. This translates into more time spent by women in nonmarket activities, and less time devoted to pursuing remunerative employment, often in exchange for greater employment flexibility. In addition to social norms, the choice of curricula women pursue in school and gender discrimination could account for the part of the gender wage gap that is not ascribable to differences in observables traits. (V)

163. Over the past decade Mauritius enacted several reforms to enhance women's economic opportunities but gaps remain in the area of parental/maternity leave legislation. Mauritius has been highlighted as a top reformer in the 2019 edition of Women, Business and the Law and improved its overall score from 75 to 92 out of 100 (World Bank 2019). These reforms included, among other things, an increase in the length of maternity leave from 12 to 14 weeks in 2015, which brought the country in line with standards of the International Labour Organization (ILO) on the duration of maternity leave (ILO 2014). However, Mauritius still only scores 60 out of 100 in the sub-indicator "Parenthood". This reflects,

first, that there is currently no legislation that would encourage a more equitable distribution of care responsibilities between mother and father through parental leave and that, second, maternity leave benefits are the liability of the employer, as opposed to being funded out of mandatory social security contributions or other public funds. In this respect the country lags many other middle- and high-income countries, which often have instituted more progressive parental leave legislation funded by social security. (\underline{V})

164. About **2** in **10** young Mauritians are not in education, employment or training (NEET), and about **2** in **3** NEET are young women. Out of a population of about 256,800 youth between 16 and 29 years of age, about 45 percent are employed and 34 percent are in education.⁴² 11 percent are not in education and neither in employment nor looking for a job ("idle"), while 10 percent are not in education and are looking for a job. Young women are more likely to be NEET compared with their male counterparts. The share of NEET is as high as 27 percent among young women and about 15 percent among young men.

165. NEET youth are mostly low educated. The group of youth not in the labor force or in education is largely composed of low educated youth. About 55 percent has primary education or some lower secondary but did not obtain the School Certificate (SC or lower secondary education). This compares with 32 percent in the overall youth population. By contrast, unemployed youth are largely highly educated: About 37 percent have post-secondary or tertiary education and 19 percent have a High School Certificate (HSC or upper secondary education).



Source: Based on data of the Continuous MultiPurpose Household Survey (CMPHS), Statistics Mauritius.

166. In addition to the skills mismatch issues discussed in section 1.2, employers report the lack of soft skills as an important constraint to employing youth. Employers value not only technical skills, but also soft skills, including behaving in interviews, planning, frustration tolerance, or perseverance, ability to work in a team and communication skills. Employers in the manufacturing sector report skills, including soft skills like communication, interpersonal skills, and teambuilding, attitude and lack of interest as the main reasons behind their difficulty in filling vacancies (HRDC 2017). Therefore, weak technical and soft skills play heavily against the odds of obtaining a job among low educated youth. Finally, once potential candidates are placed in a job, employers mentioned the lack of employment "values" and interpersonal skills (attire, language, punctuality, effort) as challenges to maintaining these positions.

 $^{^{42}}$ Some youth in education also report to have a job. This group is about 3.4 percent of the youth population.

- 167. Low educated youth face important psychological barriers to the aspiration of and search for jobs. Focus Group Discussions with low educated youth were conducted in October 2019 to better understand their work aspirations and job search. Participants exhibited lack of achievable and realistic aspirations, low self-efficacy (low self-perception of their skills and capacity), a sense of rejection or exclusion, and an idealistic mindset around the value of effort, job availability, and a decent job. For example, they indicated that parents would provide for them as long as they could not find a good job. Stable, well paid jobs in the public sector are considered good ones. When asked about job search, youth exhibited unawareness and sometimes information overload regarding the market conditions, including type of jobs available to individuals with their education and skill profile, and the options that are available to them, for example in terms of employment services and vacancies advertised at Employment Information Centres. These factors translate into a lack of motivation to carry out their job search plans.
- **168.** Low educated youth rely mostly on their informal networks to look for jobs and do not follow a formal process to apply for jobs. Word of mouth appears to be the main source of information on low skilled jobs available to low educated youth. Employers reported that low educated individuals typically show up to the place of employment to search for jobs. Interviewees commonly expressed the need to have connections to get a job. However, they did not give the sense that social networks were asymmetrically distributed in favor of in-groups with higher levels of social, political, or economic power. Employment Information Centres are typically seen as not very effective by most of the youth that largely register only to queue for a job in the public sector.
- **169.** Existing employment programs focus mostly on developing job-related skills and providing work experience but are not targeted toward low educated youth. Mauritius has implemented many efforts to activate its young population. Urrent youth employment programs are fragmented and in the absence of a central registry it is difficult to track if participants benefit from more than one scheme. Many programs offer on-the-job or short classroom training, yet they lack integration with job placement services. Moreover, existing programs are all target to individuals with at minimum a School Certificate (lower secondary education) and do not address the needs of low educated youth. These programs are not designed to address relevant technical and soft skills barriers that low educated youth face when approaching the labor market. (\underline{V})
- 170. The key to making growth more inclusive is fostering labor market participation of low-income earners, which requires equipping them with the skills of a knowledge economy. Economic transformation with demand for new skills, including in the bottom segments of the labor market, poses a significant challenge to the inclusion of bottom 40 income earners. Labor demand per se is not the issue Mauritius will need a larger number of working age individuals to join the labor force and to remain employed longer, including in low skilled segments. However, low skilled workers will need to be retrained as they might find access to the jobs of the future difficult without adequate training. This will require additional efforts to help those at the bottom of the income distribution to rely less on fiscal redistribution to make ends meet and more on the economic opportunities that do exist in the labor market with positive effects on the fiscal stance.

⁴³ Examples include the Youth Emloyment Programme (YEP), the Dual Training Programme, the National Skills Development Programme, the Graduate Training for Employment Scheme, the Trained Engineer Scheme, the Back to Work Programme, etc.

3.3. Towards a more inclusive education system

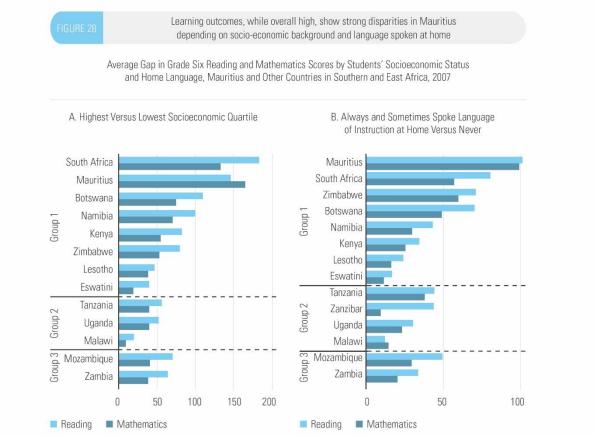
171. Mauritius' investment in foundational skills has achieved notable results: universal coverage in preschool and basic education, and consistency as a top performer in regional assessments of student learning. Owing to decades of sustained policy effort, the Gross Enrollment Ratio has exceeded 100 percent since 2003 in preschool and since 1990 for primary education; in secondary education, the ratio has surpassed 90 percent for at least a decade. Mauritius is also consistently a leader among the 14-15 African countries that participate at 6 year intervals in the Southern and Eastern Africa Consortium for Monitoring Education Quality (SACMEQ) learning assessment of 6th graders.

172. However, exceptionally wide disparities in student learning—by socioeconomic status, home language and gender—mar the country's achievements in basic education. The disparities are some of the widest observed among SACMEQ countries, and also among OECD countries⁴⁵ (Bashir et al. 2018; World Bank 2020). In both reading and mathematics, students in the top socioeconomic quartile outperformed students in the lowest quartile by around 1.5 standard deviations, a gap matched only in South Africa among the SACMEQ countries (Figure 28, panel A). Students who always or sometimes spoke the language of instruction at home (i.e., English in Mauritius) outperformed those who never did by around 1.0 standard deviation, by far the biggest gap among the SACMEQ countries (Figure 29, panel B). In Mauritius, girls in 6th grade outperformed the boys, by about 0.30 standard deviation in reading and 0.20 standard deviation in mathematics; the gaps are again among the widest in the SACMEQ sample. ⁴⁶ Within Mauritius, national examination results confirm the superior performance of girls; and SACMEQ results reveal exceptionally wide gaps in learning by locality, with 6th graders in Beau Bassin and the East, for example, averaging by at least one standard deviation in reading and mathematics scores behind their peers in Curepipe and the South (Dwarkan 2017).

⁴⁴ UIS data accessed at http://uis.unesco.org/en/country/mu on May 22, 2020.

⁴⁵ Countries in the Organization for Economic Cooperation and Development (OECD) are generally high-income countries with high levels of human capital development.

⁴⁶ Bashir et al. (2018) also report urban-rural gaps in test scores. Urban students in Mauritius outperform rural students by about 0.20 standard deviation in both subjects, a much smaller gap than in other SACMEQ countries.



Source: SACMEQ

173. Because lagging students tend to be concentrated in underperforming schools, more needs to be done to improve the effectiveness of teaching and learning in such schools. About 70 percent of the variance in the PISA 2009 test scores of 15 year-olds Mauritian youth can be linked simply to the school they attended, compared with an average of just over 40 percent among OECD countries (Walker 2011). Of this 70 percent, 38 points stem from factors associated with students' economic, social and cultural backgrounds, a much greater weight than in most other OECD countries. The pattern of socioeconomic selectivity mirrors findings from the 2007 SACMEQ assessment of 6th graders (Bashir et al. 2018). Recent data from the national Primary School Achievement Certificate (PSAC) examination confirms the significant underperformance of schools serving the most disadvantaged communities (e.g., those in the Zones d'Education Prioritaire (ZEP) category). In 2019, ZEP schools achieved a PSAC pass rate of just 46 percent versus the nationwide average of 73 percent. The quality of PSAC passes in ZEP schools is also poor: in 2014, the share scoring grade C and better was just 55 percent in English, and just 45 percent in Mathematics (Govt. of Mauritius 2019). Low quality in fact extends beyond ZEP schools. Among students who took the PSAC examination in 2017, for example, 25 percent failed and were channeled into the Extended Programme designed for such students. On a test administered two years later when the students were in Grade 8, three-quarters of them could not solve half of the Grade 6 mathematics problems (MIE 2020). The government has, since 2003, supported 30 ZEP through various interventions, including a feeding program, infrastructure improvement, financial allowances to staff, and continuous professional development for teachers. In 2015, its interventions were refined to promote the concept of fortified teaching and learning environments, with a key focus on de-stressing the contexts in which students learn and providing staff training on brain-based education (Govt. of Mauritius n.d.). The impact of these interventions seems to be limited, however, and further research is needed to understand and address the root causes of under-performance.

- observed would persist and compromise the overall quality of the country's future labor force. With a score of 0.62 on the World Bank's Human Capital Index (HCI), the future labor productivity of Mauritian youth is projected to be only 62 percent that of their peers in top-performing nations (World Bank 2020c). The country's modest score largely reflects deficiencies in basic education. HCI analysis shows that when learning outcomes are taken into account, the 12.4 years of schooling that Mauritian youth can, on average, expect to complete would equal only 9.4 years in a high-performing system (World Bank 2020c; Filmer et al. 2020). Improving the effectiveness of the lagging schools would shrink the sizable shares of students currently leaving primary and secondary school with significant learning deficits, and by implication, the continuing need for remedial or second chance programs that operate with a heavy deadweight of filling gaps in basic literacy and numeracy. The resources thus freed could instead fund high-quality lifelong learning programs to enhance the country's human capital asset, a particularly important objective in light of Mauritius' demographic trends.
- **175**. To boost the foundational skills of all Mauritian youth, the government embarked in 2016 on a comprehensive restructuring of basic education through the Nine Years of Continuous Basic Education (NYCBE) reform. The NYCBE reform follows the country's long tradition of major policy initiatives based on thoughtful analysis, explicit objectives, extensive consultation with stakeholders, and attention to planning and implementation. It leverages six key drivers to help the education system deliver better learning outcomes: curricular change, innovative pedagogies, student assessment, continuous professional development for teachers, conducive learning environment, and governance and accountability. The reform seeks, among other goals, to ensure that all preschoolers are well-prepared for a sound primary school experience; and that all children complete nine years of basic education and acquire the foundational skills and attitudes to succeed through various pathways in post-basic education. Toward these ends, the NYCBE reform has ushered in striking changes, among them the abolition of the prevocational track in Grades 7-9, so that all children now follow the same curriculum in their first nine years of basic education. A new examination at the end of Grade 9-the National Certificate of Education—serves as the basis for selection into upper secondary schools (including the 12 newlyestablished Academies for top performers) and tracks students into the general or vocational and technical streams. New programs have been introduced nationwide to enhance learning for all with a focus on foundational skills, notably the Early Support Programme (ESP) and the Early Digital Learning Programme (EDLP), both targeting children in the early primary grades; and the Extended Programme (EP) for students who enter Grade 7 with failing grades on the Primary School Achievement Certificate examination. To improve teacher skills, the Mauritius Academy for Teachers (MAT) was set up to strengthen in-service teacher training. A new Quality Assurance Framework (QAF) now guides school managers to improve the performance of their schools against explicit benchmarks.
- 176. However, public spending is heavily biased towards higher education, leaving important funding gaps for educating children during their decisive early years. Based on comparative data averaged over 2010-2018, aggregate public spending on education in Mauritius is consistent with UNESCO-recommended levels, but the shares of this spending for preschool and primary education are exceptionally modest—just 1.4 and 24 percent, respectively—compared with the averages of 9 and 34 percent among non-African upper middle income countries. Survey data for 2015 show that households in Mauritius allocated 6.0 percent of their non-food spending to education. The non-trivial private

spending on education in Mauritius reflects significant outlays for childcare and after-school tutoring, practices that disadvantage children from families too poor to afford such services.

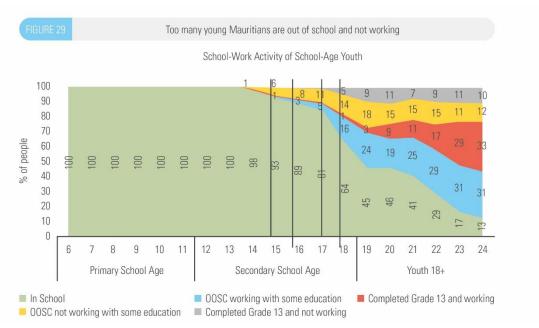
- As the NYCBE reform is being implemented, more attention to early childhood care and education (ECCE) is critical to expose all children to early stimulation and deliver fully on the reform's key aspiration of equipping them with a solid foundation in literacy, numeracy and socio-emotional skills. A more comprehensive ECCE agenda that explicitly includes quality childcare needs to be part of the strategy to reduce learning deficits among a sizable share of children in the earliest primary grades. These deficits accumulate from the earliest ages, and are thus best addressed early on, not only through preprimary education (which the NYCBE reform covers) but also proper childcare for children below the age of 3 to boost their brain and language development. While there are over 850 pre-schools (for children aged 3 to 5 years), there are no more than 400 child day care centers (CDCCs or crèches, for children under 3)⁴⁷. Almost all preschools and CDCCs are privately owned and typically charge fees. These features, coupled with limited operating hours, push parents to rely on informal arrangements, such as childcare provided at home by a grandparent or other relative. Many Mauritian children at a critical developmental stage thus miss important stimulation and learning opportunities. In particular, their weak foundations in English, the language of instruction from first grade onward, impede their accumulation of foundational skills throughout basic education and beyond. An effective ECCE agenda that provides adequate funding and assures the quality of services for young children against both input and outcome measures of performance is therefore a critical priority. Such provision would also create conditions under which women with young children are more likely to participate in the workforce. (V)
- 178. More emphasis on second chance education is needed to upskill early school dropouts. Figure 29 shows the status of youth aged 6-24 in Mauritius. Most children of primary and lower secondary school age (6-14 years old) are enrolled in school. However, dropouts start around 14 years of age. On average, 11 percent of 16-year-old students and 30 percent of 18-year-old students have left school prematurely. These youth attempt to join the workforce without the necessary technical skills demanded by the private sector, explaining their high unemployment and inactivity rates. Of the 14 to 18-year-olds who have dropped out, only 38 percent, mostly young men, are engaged in work. The rest are neither in employment, education or training (NEET). Many uneducated young women, in particular, may simply stay out of the formal labor force.
- 179. One of the reasons behind the large number of secondary school dropouts may be academic failure at the SC in Grade 11 and HSC in Grade 13. This seems to push adolescents to the labor market too early, instead of offering other training pathways, through remedial education or an attractive TVET offer. An estimated 45 percent of students fail or do not even attempt the School Certificate (SC) in Grade 11⁴⁸, and a corresponding 36 percent fail or do not attempt the High School Certificate (HSC) in Grade 13⁴⁹. It is precisely around the time of these examinations that most students will drop out from the

⁴⁷ Gaddis and Ranzani (2020) report the number of centers based on data from the Continuous Multi-Purpose Household Survey (CMPHS) database and from the Ministry of Gender Equality and Family Welfare.

⁴⁸This represents 8,812 students (45 percent of their academic cohort) without the SC. In 2018, 19,806 students were enrolled in Grade 11 in general education. Out of them, 15,374 took the SC assessment, 10,994 students passed it, 4,380 failed it, and 4,432 did not attempt it (Republic of Mauritius, 2019c). Figures for 2017 were similar.

⁴⁹ This represents 3,920 students (35.7 percent of their academic track cohort) without the HSC. In 2018, 10,967 students were enrolled in Grade 13 in general education. Out of them, 9,408 took the HSC assessment, 7,047 students passed it, 2,361 did not pass it, and 1,559 did not attempt it, (Republic of Mauritius, 2019b). Figures for 2017 were similar.

education system. Mauritius has limited remedial education programs to support at-risk students, and TVET programs are not easily accessible to early school-leavers. Only 6,973 students were studying at MITD centers in 2018 in all cohorts, representing 12 percent of the upper secondary population, while it averages 25 percent in middle-income countries, which indicates an access barrier (Tan et al. 2016).



Notes: The blue lines show the theoretical age when SC (15 years old) and HSC (17 years old) examinations take place in Grades 11 and 13, respectively. OOSC = Out-of-school children. Source: Based on Statistics Mauritius, 2018

180. However, most existing training opportunities are not accessible for early school leavers. Few institutions offer programs that do not require the SC or HSC. According to the E&T institutions survey results, 38 percent of training courses offered are short-term courses at private training institutions that do not lead to any qualification. The rest lead to a qualification, but only 7 percent of those do not require the SC. Even at the MITD centers and Polytechnics, most programs require the SC or HSC. In the case of Polytechnics, on average, applicants entering these institutions hold already an SC, HSC, or Diploma. In the case of MITD centers, about 78 percent of programs require SC level and above. Out of five MITD centers surveyed, only two had applicants with no qualifications or a Certificate of Primary Education (CPE). Among the various government skills development and employability programs (5 NTF schemes 50 , 7 national projects offered by HRDC 51 , and 8 programs 52 managed by four other different stakeholders), only the National Skills Development Program (NSDP) and Back to Work Program (B2W) are available to those without the SC. ($\underline{\text{V}}$)

⁵⁰ Local and Online Training Scheme, Overseas Training Scheme, Needs Analysis Training Scheme, Multimedia Facilities Scheme, Foreign Expertise Scheme.

⁵¹Artificial Intelligence (AI) Skills Development Support Program, Oracle Workforce Development Program, Sectoral Skills Development Scheme (SSDS), National Skills Matching Platform, Work Placement Programme for Secondary School Students, Skills for Growth (S4G)/SME Employment Scheme for Graduates, and Skills Development in Housekeeping

⁵² National Skills Development Programme (NSDP), Graduate Training for Employment Scheme (GTES), National Apprenticeship Scheme, Youth Employment Programme (YEP), Trainee Engineer Scheme, Dual Training Program (DTP), Back to Work Programme (B2W), Recognition of Prior Learning Support Scheme (RPL).

3.4. Conclusion

- **181.** Reviving Mauritius' successful path of inclusive development will require adjustments to cope with the root causes of inequality and the Covid-19 shock. In an environment of rising social needs and tightening fiscal space, the crucial role of the social protection system can only be sustained if the efficiency of expenditure is increased through better targeting of those in need. By far the biggest leakage in this regard currently occurs through the general Basic Retirement Pension. Over the medium term, the growth process itself tends to lead to income inequality as the demand for skilled workers relative to supply widens the wage distribution and creates the evident risk that those with less education will be left behind. Improving social protection therefore needs to be accompanied by renewed efforts to integrate more Mauritians at the bottom end of the income pyramid into the labor market. This includes targeted measures to address the specific disadvantages faced by women and youth. Additional reforms of the education system, focusing in particular on the crucial early years and the provision of second chance education to early dropouts, is key to a more inclusive labor market.
- 182. Measures to improve the efficiency of the social safety net have to begin with a reformulation of the BRP to divert more resources to programs such as Social Aid and the Marshall Plan that effectively target the poor. An ideal reform of BRP would combine raising the retirement age and moving toward a progressive system providing an income floor for those otherwise at risk of falling into poverty at old age. With regard to the recently introduced CSG, attention is warranted to a number of implementation details, including setting the benefit levels and increase path need to be set in a financially sustainable manner, below MRU 2,500 and indexed to inflation or CSG revenue, to avoid continuous runaway costs.
- 183. Integrating more low-income workers, and especially women and youth, into the labor market is key to making growth more inclusive but requires targeted support. This would include more effective and comprehensive outreach programs, combined with measures to address structural disadvantages faced by these groups. Increasing and diversifying the supply of early childcare services and strengthening early childhood education could meet the double objective of alleviating childcare constraints and disparities in learning outcomes by socioeconomic status. Reforming maternal and paternal leave policies, which ought to include transferring the liability from companies to an insurance scheme, would diminish disincentives against hiring women. Educational programs to challenge social norms that prevent women's labor market success and stronger enactment of laws to prevent gender discrimination in the labor market are also important parts of the solution.
- 184. Reducing the large disparities in learning outcomes by socioeconomic status, enabling lagging schools to improve their effectiveness, and providing more second chance education opportunities could address major sources of exclusion. A stronger focus in education on the early years from 0 to 5 combining increased resources and innovative thinking would help address a longstanding source of inequality where children from poor households, many of which only speak Creole at home, enter primary school without adequate preparation. Strengthening lagging primary and secondary schools would help equip the disproportionate share of lagging students enrolled at such schools with strong foundational skills before they leave school. In the meantime, past deficiencies in the education system have produced large numbers of youth that dropped out of school early with no school certificate or the skills in demand by employers. For such youth, second chance learning opportunities are key.

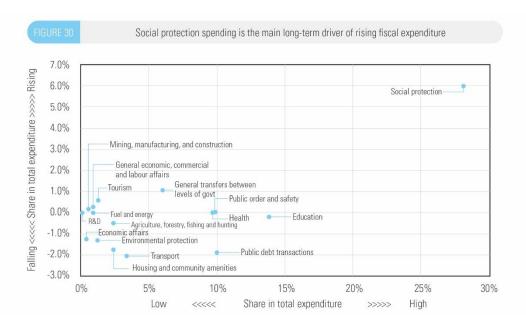
4. DOING MORE WITH LESS

4.1. A new fiscal reality

- **185.** While a fiscal expansion was warranted to address the impact of Covid-19, Mauritius now faces an unprecedented fiscal adjustment. A return to fiscal sustainability requires a combination of increasing revenue, gradually rescinding Covid-19 response measures without jeopardizing economic recovery and addressing longstanding fiscal pressures. The fiscal deficit was 11.8 percent of GDP in 2019/20. Current expenditure increased by 20.5 percent, mostly as result of the various measures put in place in response to Covid-19, but also reflecting pre-Covid policy decisions such as the December 2019 increase in the Basic Retirement Pension. The debt to GDP ratio rose from 66.2 to 82.8 percent⁵³ over the course of the fiscal year 2019/20 as a result of the high deficit and contracting GDP (Figure 1, panel 4). In fiscal year 2020/21 Mauritius resorted to extensive Central Bank financing measures to cope with the fiscal impact of Covid-19, which included a non-refundable transfer of Rs 60 bln (13.5 percent of GDP) from the Bank of Mauritius.
- **186.** To balance economic recovery with fiscal consolidation, Mauritius will have to do 'more with less'. This will require gradually unwinding Covid-19 related expenditure measures once the economy recovers, but also halting the longer-term upward trend in current expenditure without jeopardizing social and economic development priorities. Thus, the medium-term fiscal outlook strongly depends on government's ability to increase the efficiency of public spending and accomplish its development priorities in the most resource efficient way possible.
- **187.** Mauritius has gradually increased its tax collection over the past decade, but additional measures are required to support medium term fiscal consolidation. Tax collection gradually increased from 18.0 percent of GDP in fiscal year 2010/11 to 20.0 percent in 2018/19. Indirect taxes, mostly VAT, continue to account for the lion share at 12.5 percent of GDP in 2018/19. Two new levies introduced under the 2020/21 budget, on high-income individuals and corporations, are expected to add approximately MRU 3.5 bln (0.8 percent of GDP), but additional measures would be required to reach the envisaged additional 2.2 percentage point increase under the 2021/22 budget. According to the 2020/21 budget, tax expenditure amounts to approximately 2.8 percent of GDP, including 1.5 percent on VAT and 0.9 percent on corporate taxes. As discussed in chapter 1.6. (->), there appears to be room for a more efficient use of tax incentives.
- 188. On the expenditure side, pre-Covid 19, the main driver of rising current expenditure was social protection, and pension costs are bound to continue to rise due to demographic pressures and further increases that are pending. As shown in Figure 30, social protection already accounted for the lion's share of public expenditure during the first half of the last decade (22 percent on average from 2010-14), and its share increased dramatically by an additional 6 percentage points in the second half. As discussed earlier (chapter 3.1. ->), more than half of this cost is accounted for by the Basic Retirement Pension (BRP), and these costs are bound to increase further. This is due to a recent BRP increase to MRU 9,000 in December 2019, plans for further increases in 2024, and demographic pressure of an ageing society. A deep reform of the pension system, already overdue pre-Covid, is therefore unavoidable as part of coping with new fiscal realities.

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⁵³ IMF, April 2021 WEO database.



Source: Authors' calculation based on data from Statistics Mauritius.

While Mauritius has a relatively effective government by conventional measures, a successful recovery will demand an unusual degree of policy coherence to maximize efficiency. Mauritius has seen strong achievements in governance during the last two decades, demonstrated by relatively high scores on relevant governance indicators (Worldwide Governance Indicators 2020). Regular multiparty elections, a clear separation of powers, and a relatively free and independent media demonstrate Mauritius' commitment to good governance. In public sector management, some important initiatives have shifted away from a traditional input-based annual budget program to a strategic, performance-oriented multiannual exercise. There were original efforts to move to performance-based budgeting, yet currently MoFPED produces a rolling three-year strategic plan and monitors its output targets. Managing the drastic fiscal adjustments ahead while coping with the medium-term consequences of Covid-19 and implementing the modern industrial policy agenda described in chapter 1 is a daunting challenge for any government. This chapter argues that, in order to step up to the challenge, public sector capability will need to be strengthened along three key dimensions: First, increased policy coherence is at the center of ensuring that public resources are used in the most efficient and transparent manner possible. Excessive focus on short term measures has led to an overabundance of isolated initiatives with limited analytical foundations and lack of coherence, while the increasing use of off-budget instruments creates challenges for the effectiveness of the budget and MTFF for fiscal management. Second, at the implementation stage, performance-based monitoring and evaluation (M&E) are often nascent or non-existent. The government has made efforts to develop its monitoring function, focusing largely on financial monitoring, output monitoring of budget measures, and some monitoring in social sectors. However, the key missing link is the results-based monitoring of outcomes and rigorous evaluation of policy implementation that would create the ability to learn from implementation pitfalls and adjust course where needed. Third, while traditionally a strong area of Mauritius, public private dialogue requires further strengthening. Creating new mechanisms for continuous consultation and collaboration across a broad spectrum of policy areas, from planning to implementation, will be crucial.

4.2. Improving policy coherence

- **190.** Several priority areas for improved policy incoherence and enhanced coordination are discussed in this report and illuminate the scope for doing more with less. Consider the response to the shortage of specific skills, which is currently hampered by the absence of a clear lead agency with the mandate and capacity to champion cross-cutting multi-agency reforms in education, training, and migration policies (chapter 1.2. ->). Similarly, government programs that help the unemployed and support youth to get into the labor market overlap with each other, fail to comprehensively address the obstacles faced by jobseekers, and lack systematic M&E (chapter 3.2. ->). This results in wasted resources and suboptimal outcomes.
- 191. State support to the private sector suffers from the weak link between strategy and budget (chapter 1.6. ->). The Government Program (2020-2024) highlights the role of state support in unlocking productive private investment, stimulating inclusiveness and job creation. While the program should be the basis for planning and budgeting, key policy decisions made based on the annual budget cycle could be brought into stronger alignment with broader strategies. Subsidies appear to mostly follow a 'demand driven' pattern to established industries requesting government support, and the magnitude and impact of indirect support measures through SOEs and parastatals are not fully understood. On the institutional side, the proliferation of activities across institutions and programs for innovation support reduces their collective effectiveness in supporting innovation. The main institution funding innovation is the Mauritius Research and Innovation Council (MRIC). Other key institutions providing innovation support include SME Mauritius, Economic Development Board (EDB), Higher Education Commission, Ministry of Labour Industrial Relations and Employment, and National Productivity and Competitiveness Council (NPCC). Each institution implements multiple programs that are designed in silos and lack coordination, hampering creation of synergies and sharing of lessons learned.
- **192.** Similarly, early childhood care and education (ECCE) would benefit from increased coordination among its various stakeholders (chapter 3.3. ->). Both the Child Protection Act of 2000 and the Early Childhood Care and Education Authority (ECCEA) Act of 2008—two key policies of the government—are multisectoral in nature and mandate extensive collaboration between the various ministries engaged in children's health, nutrition, social protection, and education. However, at the service delivery level, inadequate governance structures limit the extent of multisectoral integration, pooling of resources, and sharing of knowledge. There is considerable fragmentation throughout the sector. Developing a national Early Childhood Development (ECD) policy that not only defines responsibilities and establishes coordination mechanisms among various governmental and non-state stakeholders, but also identifies areas of overlap and opportunities for integration, has the potential of making ECD services more efficient and cost-effective.

⁵⁴ While children aged 0 to 3 years in day care centers come under the purview of the Ministry of Gender Equality and Family Welfare's (MOG) Child Development and Planning and Research Units, children aged 3 to 5 years in preschools are the responsibility of the ECCEA, a parastatal body of the Ministry of Education, Tertiary Education, Science and Technology. Moreover, the Ministry of Health and Wellness has a limited role in providing health and nutrition services within either type of ECCE institution. Each line ministry has its own financing streams, management structures, and reporting and supervision mechanisms.

⁵⁵ ECD comprises ECCE, as well as other services that target young children and their families, such as maternal, neonatal, and child health and nutrition, home visiting programs, and social protection.

- **193.** Coordination failures across public institutions have also hampered Mauritius' ability to leverage private investment through PPPs. For instance, as discussed in chapter 1.4. (->), coordination failures between the Central Electricity Board and Ministry of Ministry of Environment, Solid Waste Management and Climate Change caused significant delays and contradictory signals to the private sector on solid waste management.
- **194.** A coherent policy starts with a clearly delineated strategy, a designated lead institution, as well as a coordination mechanism for policy implementation. Generally, Mauritius has no shortage of strategies and action plans (one notable exception: the absence of a national FDI strategy). However, the plans and strategies that do exist are not always properly budgeted, and are often written by individual ministries, departments, and agencies (MDAs) without systematic consultation with each other, or with broader stakeholders. These strategies are not nested in each other to feed into higher-level goals. Their implementation is seldom systematically tracked as they generally lack robust M&E frameworks. And there are often multiple institutions that are involved in policy making and implementation for a particular agenda. However, all too often, their roles and responsibilities are not clearly defined, leading to overlapping agendas, institutional fragmentation, and increased demands on institutional coordination. Coordination is rendered difficult in the absence of a clearly designated leading or coordinating institution.
- While not a panacea for all ills of public sector performance, a new generation of agile national 195. development planning systems are yielding promising results in enhancing policy coherence around the world. According to a recent study, the number of countries with a medium-term national development plan (NDP) has risen from about 62 in 2006 to 134 in 2018 (Chimhowu et al. 2019). More than 80 per cent of the global population now lives in a country with an NDP. But while in the past, NDP were often the relics of directed economies and state-led development, the re-emergence of national development planning is based on agile and implementation-focused approaches to planning that are fully consistent with the type of 'modern' industrial policy approach discussed in chapter 1.1. (->). The most effective among these "new" NDPs rely on the evidence-based foundational analysis, have a high degree of internal consistency, employ an inclusive rather than elite-driven formulation process, and are directly linked to the budget. The key hallmark of agile planning is prioritization, both top down (directions set by highest levels of government) and bottom up (through participatory process among MDAs). Ideally, these planning priorities are then reflected in the budget, Public Investment Management (PIM) and Human Resource Management (HRM) systems. Such an agile planning approach, adapted to local circumstances, could serve Mauritius well, and a first step in this direction has already been taken through the formal creation of a Research and Planning Bureau at the MoFEPD (√).
- 196. The increasing reliance on off-budget funds and Central Bank involvement in fiscal activities have weakened the effectiveness of public financial management. In the recent past, major capital projects have been managed off-budget using Special Purpose Vehicles. For instance, the Metro Express light rail is owned by a Special Purpose Vehicle financed through a combination of government funds and support from India. And significant amounts of public investment are channeled through extra-budgetary Funds such as the National Resilience Fund, National Environment Fund and, more recently, the Covid-19 Projects Development Fund. At the same time, Covid-19 response measures were extensively financed by the Central Bank. The reliance on off-budget vehicles and the Central Bank for fiscal activity undermines

the effectiveness of the budgetary process and medium-term fiscal framework to manage and control expenditure. Fiscal risk is increasingly hard to ascertain, as contingent liabilities arise from the operations of SPVs, weakening of the Central Bank's balance sheet, and its exposure to significant commercial risk. Strengthening the key function of the budget and MTFF to plan and monitor public finances in a transparent manner will be critical for the government's ability to manage the fiscal consolidation efforts ahead and make more efficient use of public resources ($\underline{\lor}$)

197. The precedent set by Central Bank transfers to the budget could affect the credibility of monetary policy and fiscal consolidation efforts. While Central Banks around the world have pushed the boundary of what would have been considered highly unorthodox government financing measures not long ago, the 60 bln MRU transfer stands out for its non-refundable nature and size (13.5 percent of GDP). While conceived as a one-off measure under unprecedented circumstances, the legal amendment to the Bank of Mauritius act that enabled this transfer has yet to be reversed. (\underline{V})

4.3. Focus on implementation

- 198. Policy coherence is impossible to achieve without ensuring effective implementation, which in turn depends on the right incentives and capacity to implement across public agencies. Generally, a lack of policy coordination may create contradictory directives and opportunities for arbitrage for institutions and individuals. One policy may indirectly affect the implementation of another, creating complexities and potential discrepancies for public servants between doing what is best for the country and what is best for their own institution. Implementation capacity varies widely among MDAs. This includes not only the individual staff capacity, but most importantly institutional capacity of various agencies.
- **199.** This report has highlighted several examples of diverging incentives diminishing the implementation effectiveness of policy initiatives. For instance, the above described misalignment of state support from national objectives around innovation and productivity enhancing investment is mirrored, at the institutional level, by a number of individual agencies implementing and defending their own support schemes benefitting their respective stakeholders (chapter 1.6. ->). Another common example is the lack of alignment among government agencies on the scope and content of IIAs, and more broadly on the importance of FDI for national development, which has resulted in non-implementation of some IIA commitment (chapter 2.3.1 ->). This can cause investor grievances and affect the continuity and expansion of investment.
- **200.** The misalignment of the incentives also exists at a higher level of strategic and national planning. MoFEPD's capacity to ensure coherence between its three-year plans and the various sectoral plans could be enhanced. At the root of this challenge is the disconnect between fiscal planning on the one hand, and national economic planning on the other. The latter has not had an institutional home in Mauritius since the Ministry of Planning was abolished in the early 2000s. As a result, the plans that do exist at the sectoral and/or MDA level are not fully connected to the budget, leaving some of the sector-level policies and strategies largely aspirational. The setting up of the Economic Research and Planning Bureau could reinforce these linkages.
- **201.** Lack of M&E capacity also undermines successful implementation. This applies, for instance, to the numerous innovation support programs (chapter 1.5. ->). Despite recent progress in the collection of

innovation data, fragmented information under the line ministries and recent changes in funding decisions result in those supervising, managing, and designing the programs having blind spots when it comes to piloting new policies or evaluating ongoing initiatives. Similarly, the rolling three-year strategic plan prepared by MoFEPD could be strengthened through an improved theory of change between the budget inputs and the expected outputs and outcomes, as well as a clear roadmap to get there. The existing KPIs are insufficiently outcome-focused, with many of them reflecting outputs rather than outcomes. The unit that is currently responsible for monitoring the three-year plan is severely understaffed.

- 202. Improved Performance Monitoring and Evaluation (PM&E) would better align public sector service delivery to national development objectives to. PM&E refers to tracking the indicators of not just outputs, but also outcomes, and conducting rapid and detailed evaluations of policy implementation to learn about performance challenges, adjusting course if needed. Developing a well-sequenced, actionable, and budgeted strategy for implementing and tracking select national priorities can be introduced under a national development plan or the budget speech. Strong political leadership and technical expertise will be needed to move away from a culture of compliance to a culture of delivering outcomes. Both monitoring and evaluation tools need to be strengthened to ensure the most effective monitoring of government goals, policies, and projects. Statistical capacity and oversight mechanisms also need further strengthening for the utilization of PM&E findings in policymaking and implementation. (\underline{v})
- 203. The discussion of improving implementation capacity, both institutional and human, is linked to the need for a comprehensive human resource strategy in the public sector. There are four key reform areas that Mauritius will have to address: (1) overhauling the existing traditional, process-focused human resource planning, management and development functions, with a relatively centralized, top-down approach; (2) reforming a relatively old system of schemes of services; (3) developing an agile talent attraction and career development system with greater public-private mobility, incentives for innovation, and career mobility; and (4) revamping of the performance management system, aligned with national priorities and greater accountability for results, both at the organizational and individual levels.
- **204.** Building the incentives and capacity to deliver requires active change management. Change management is critical both from top-down and bottom-up to align institutional incentives to a new delivery focused model and build up the required capacity. First, the highest levels of decision-making at the level of the economic cabinet have to be cognizant of the value of strategic planning and M&E, and in fact demand periodic evidence of the implementation progress. Some of the implementation bottlenecks can only be resolved at the policy level. Second, true ownership and effective implementation of plans at all levels is only possible when various MDAs as well as other stakeholders, including private sector, are actively involved in the collaborative or bottom-up strategic planning and implementation problem solving. Both prongs require a change management strategy that would accompany strategic planning and M&E capacity building. (V)

4.4. Strengthening public private dialogue

205. The need for strong public private dialogue in addressing some of the urgent challenges confronting the country has emerged across all chapters of this report. Chapter 1 (->) makes the case for a new approach to industrial policy based on a less directive, activist state. The suggested approach is a collaborative one, where government supports the private sector by focusing on removing market failures

that prevent new growth activities. In addition, Chapter 1 has laid out the need for stronger involvement of the private sector to ensure that skills taught by the education system match the needs of the labor market. Chapter 2 (->) discusses challenges to export competitiveness and the need to upgrade the existing export portfolio, which will require a high degree of public private collaboration. In addition, support programs for those in need should effectively support labor market participation, rather than dependence on social welfare, and therefore require a high degree of private sector buy in as discussed in chapter 3 (->).

- **206.** While Mauritius has a strong history of public-private dialogue, collaboration between government and private sector could be strengthened further. While public sector representatives occasionally express their impatience with the private sector's perceived lack of entrepreneurial spirit and unwillingness to take on risk, private sector representatives voice concerns over a lack of government leadership in defining an economic vision around which they could coalesce and align their efforts. As discussed in chapter 1.1. (->), a potential way to resolve this conflict is a paradigm shift towards a more supportive and less directive role of the state in economic development that could also help clarify expectations in this regard.
- **207.** The response to Covid-19 demonstrated both the best and the worst in public-private collaboration in Mauritius. On one hand, the 'all hands on deck' situation during the initial lockdown brought actors together in a spirit of firefighting, with the government showing willingness and ability to address private sector concerns. The private sector, in turn, organized itself in remarkable ways to address the immediate challenges of supply and distribution of essential goods during the lockdown. At the same time, there appear to have been instances of significant delays in communication and consultation in the development of medium-term crisis response measures and coherent strategies for the reopening of the economy. As discussed in chapter 2.2. (->), this has in some cases led to suboptimal outcomes in Covid-response measures.
- **208.** Public-private dialogue appears to be weakest in circumstances where a cross-government solution to complex issues is needed. For instance, despite the services sector's central importance to the country's economy, Mauritius does not possess a business coalition in services designed to engage with the government on the broad set of policy issues driving the sector's growth, ranging from skills to regulation, access to finance, trade and FDI promotion and taxation. Efforts underway at the Mauritian Chamber of Commerce and Industry to create such an entity represent a welcome step. Institutionalizing regular public-private dialogue on issues weighing most heavily on the Mauritian service sector's development and diversification prospects, arguably a pressing challenge in a post-COVID recovery context, will require commensurate efforts on the part of the Mauritian government. (V)

4.5. Conclusion

209. To support a strong recovery and address its long-standing structural challenges, Mauritius will need to accomplish more with fewer resources. This will require a strong focus on public sector effectiveness through better policy coherence and stronger implementation, underpinned by stronger collaboration with the private sector. Four elements of reform are crucial: Creating a flexible, market-friendly planning process, strengthening public financial management through the budget process, developing outcome monitoring and evaluation linked to both budget and planning processes, and enhanced engagement with the private sector.

- 210. The newly created Planning Bureau within MoFPED could become the centerpiece of a modern, agile planning system in Mauritius. Its creation should be rooted in a foundational analysis on the alignment of national planning with economic and fiscal planning, including global benchmarking, good practices, and lessons learned. A key feature of such as system is the cascading nature of high-level objectives in the national vision and strategy, to the intermediate outcomes in sectoral and intersectoral strategies and plans, to the outputs of the organizational strategies of the MDAs. Focused capacity strengthening for the Bureau should include economic research, planning, and monitoring.
- 211. Public financial management should be strengthened to improve transparency as well as allocative and operational efficiency with a strong budget process at the core. By moving towards a general government accounting system and scaling back the role of the Central Bank and off-budget Funds in fiscal activity the core function of the budget to plan and manage the use of public funds could be strengthened. Despite the significant progress made in the implementation of Program Based Budgeting (PBB) since 2008/9, after 2015, the budget only presents key outputs for the current budget year that are much less detailed than the original PBB approach. Reestablishing the earlier good practice would enhance the ability of the government to allocate resources to priority policy objectives and increase access of the public and National Assembly to performance information, increasing accountability.
- **212.** Developing a national performance M&E system anchored at the new Planning Bureau should build on existing experience and focus on the core national planning outcomes. Mauritius could build on its existing budget monitoring tools to track planning results, by benchmarking good practices and creating a roadmap for performance M&E. An integrated performance M&E tool would track the core national planning outcomes, using a customized performance dashboard. The Bureau could also conduct selected rapid evaluations to identify efficiency and effectiveness gains and inform decision-making, using methodologies allowing to replicate such evaluations across sectors.
- **213.** Public private dialogue should be at the center of planning and implementing policy reforms. Under a modern industrial policy approach, Mauritius could not just build on its successful history of public-private collaboration but raise it to a level of co-creation where key reform initiatives are crafted through a co-creation process between public sector, private sector, and civil society.

Annex 1: Policy Recommendations

√ Close the Skills Gap

✓ Better coordination of the skills development system (SHORT TERM)

The skills development system needs a strong champion capable of driving the skills development changes needed, bring vision and leadership, coordinate all stakeholders in a new governance structure, and ensure coherence in the implementation of the NSDS. A successful skills reform requires the highest level of political commitment, to deploy a whole-of-government approach, so the champion will be an agency with strong private sector knowledge to be the catalyst of changes needed, with the authority level, network, and needed capacities to bring together government, private sector, independent regulators, E&T institutions, and social partners. Core functions include planning, coordination, M&E, fundraising, and reaching international partners. Operational and accountability rules will be key to ensure relevant partners work together on a continuous basis and results are achieved. SDA being focused on TVET, and HRDC under the MOLHRDT would need structural and legal changes to accommodate their mandates, and resources to strengthen their human capital, to accomplish the task. Alternatively, a new governance structure to drive the Skills Development agenda, such as more effective Skills Councils or Platforms, could be considered. Annex 6 (->) gives further details on international examples (Singapore and Norway).

The NSDS 2020-2024 requires a more forward-looking and demand-driven approach, with strong endorsement from the private sector. More continuous engagement of private sector with HRDC, beyond ad-hoc consultations and limited meetings in sectoral committees may be achieved by increasing the percentage of private sector representatives in the HRD Council. HRDC may wish to seek international technical assistance, for example from South Korea or Singapore, to review the framework, the process, and data sources needed to develop effective skills assessments that feed the strategic direction of the NSDS. Skills assessments need to link occupational or professional standards to specific job competencies (not only being focused on number of vacancies per job categories), and relying on a variety of methods (e.g., regular occupational surveys, enterprise surveys, interviews and focus group discussions, artificial intelligence learning machines to summarize job post advertisements –such as Headai in Kenya- etc.). An anticipatory skills exercise, so far missing, would forecast (indicating trends) future skills needs, assessing future scenarios, and making policy recommendations in education, labor policy, training, education, and migration. The NSDS could strengthen some of the strategies: (a) upskill middle management, technical and professional workforce (through linking E&T institutions with local and international industries to offer workplace learning opportunities for all students), (b) review the framework for curriculum development (through strengthening foundational skills in basic education, teaching digital skills as a cross-curricular area, and integrating socio-emotional skills in schools), and (c)upskill and reskill teachers, educations, and lecturers (integrating facilitators and support teachers into a system of professional advancement beyond just offering training and mentoring opportunities). In addition, study tours by key stakeholders abroad, to understand how successful countries have been able to develop their skills system could provide valuable insight (Annex 6 (->) explains how South Korea has been able to develop an education system aligned with its economic demands).

✓ Compete for foreign talent (SHORT TERM)

Mauritius should create more favorable OP conditions to attract foreign professionals in line with its strategic vision for an innovation driven economy. The current OP system should grant OP dependents, including same-sex partners, the right to work and lift the current 10-year permanent residency restriction (as in Singapore, providing a pathway to citizenship which offers various social benefits). Greater institutional efficiency and transparency can be achieved through shifting the role of the Joint Committee solely to policymaking. It appears that the EDB is competent in validating OP applications based on established OP criteria, which are vetted by the Passport and Immigration Office. The EDB, together with the private sector, should expand outreach activities to attract professionals and investors from diverse countries. In Japan, for instance, Employment Service Centers for Foreigners provide international students and foreign professionals with free job placement service in Japan, including hosting job fairs for them in conjunction with periodic information and training sessions for firms. Other countries adopted web-based advertisements of employment opportunities for foreign skills – such as "Work in Sweden" (see OECD, 2019 for further discussion). Improving local amenities (e.g., international schools) relevant for expats would be an additional pull factor.

The WP system should be simplified. The economic needs test (ENT) – posting vacancies to seek local talents for a certain period - should be sufficient evidence for employers to seek foreign hires. Thus, the government's intervention to match jobs can be excluded from the mandatory ENT, unless firms voluntarily seek such service. Singapore adopts the foreign worker levy system, instead of ENT, to ensure that firms do not hire foreign labor to cut labor costs. MLIRET should shorten the internal process to vet permit applications – currently a final decision made at the Minister's level. The government could consider reforming the quota system – as a first step to replace the current firm-level quota with a more flexible system and to allow WP holders to change their employers to enhance labor market efficiencies (as seen in South Korea).

 Reform National Training Fund (NTF) for better use of funding (SHORT TERM), complementing with costeffectiveness analysis of existing programs and additional innovative funding (MEDIUM TERM)

The NTF needs to be reformed to make it more accessible and to incentivize flexible training and a better use of funding. HRDC should assess the effectiveness and efficiency of NTF training schemes and look at options that reduce administrative burden for employers, especially SMEs. Cluster training and deployment of shared training managers may work better for SMEs (e.g. the South Korean model of SMEs Training Consortium, clustering 30-50 SMEs in the same area and industry, as described in Annex 6 (->)). For the training grant, HRDC should assess whether requirements are too rigid to incentivize training (e.g. re minimum class size), and make revisions toward more flexible options such as lifelong training credits for individuals (e.g., SkillsFuture in Singapore, or individual lifelong learning vouchers in South Korea).

Conduct a cost-effectiveness analysis of all skills development and employability programs, national projects, and training schemes managed by HRDC, METEST, MLHRDT and MITD. Focus the objectives on identifying the most cost-effective programs and those that are useful for disadvantaged populations (e.g., uneducated, poor, and women). Redirect funding where it is more cost-effective, avoid program fragmentation, and keep a single registry of beneficiaries, unifying databases and registration procedures.

✓ Increase relevance and attractiveness of TVET (MEDIUM TERM)

TVET systems in Mauritius require an upgrade to support the development of a high-quality technical workforce, focused on increasing its relevance, quality, and size. This requires all relevant stakeholders to converge on envisioning and operationalizing TVET as an attractive pathway to produce well-trained, middle-skilled workers. Important parts of the reform would include increasing the share of TVET offer (e.g., consider the 25 percent benchmark of TVET share in middle-income countries) and adjusting curricula to private sector needs by focusing on expanding high TVET programs through the Institute of Technical Education. Quality and relevance of programs can be improved with routine industry engagement in co-design and co-delivery of curricula, and inclusion of digital and entrepreneurial skills. A concerted rebranding effort would show TVET as an attractive option for career progression (including publicity, outreach to students and especially young women, parents, and future employers) with support from the private sector. Upgrades to classrooms, learning infrastructure, and training of trainers would also be important elements of a comprehensive reform. Train and update TVET trainers with the support from private sector, to catch up with rapid industry changes, and set up platforms for formal community of practice among trainers. Set up mandatory workplace learning opportunities in all TVET programs, and if possible, in a dual modality, combining classroom and workplace learning (considering partnerships with international private companies). Include in the partnerships with the private sector the possibility to coach students on socio-emotional skills to better transition to the world of work. Ensure high speed internet in MITD centers (the target should be 100Gbps per 5,000 students in each campus, and 443 Gbps in the country -same target applicable in higher education).

√ Improve quality of education and training (E&T) institutions (MEDIUM TERM)

It is essential to enact regulations to further develop quality assurance systems, from approval to delivery, for all training and education programs, including short-term private training. MQA and HEC should approve courses and programs in public and private institutions only if there is evidence that they are in line with labor market demand (e.g., showing skills needs studies conducted, proof of consultation with private sector, employment rates in the field, etc.), can set up goals for student enrolments rates in fields identified as priority (e.g., STEM, ICT, R&D, etc.), and limit the renewal of courses less needed (e.g., management an beauty care). Regulators should only renew licenses if E&T institutions show evidence of a successful transition of their graduates to the labor market, and having put in place mechanisms to support such transition (e.g., workplace learning

opportunities offered for all students, career counseling, and job search services implemented, etc.) Short-term or non-awarding courses should also be subjected to a quality assurance process, to stem the spread of low-quality for-profit institutions that do not deliver the right skills. Finally, quality assurance systems should not only be in place for approval of E&T programs, but also to ensure quality delivery of said programs.

Facilitate long-term partnerships between the private sector and E&T institutions to align training to the labor market demand. The government should support the establishment of skills partnerships such as the successful case of the Dual Training led by the MEXA with the *Université des Mascareignes*. The objective is to attain Memoranda of Understanding (MoUs) between E&T institutions and employers, establishing working modalities to (a) translate industry needs into the curricula, jointly codesign and co-deliver the curricula, (b) train educators with industry updates, and (c) offer workplace learning opportunities for all students. International partnerships, for instance between local E&T institutions and international or regional companies, should also be promoted (or between international or regional E&T institutions and local companies). The World Bank Group's International Finance Corporation (IFC) can provide support to enhance TVET institutions through collaboration with regional educational companies.

Introduce digital skills training across the board. Despite existing efforts, Mauritius should focus more on the development of digital skills, from basic to tertiary education, not only in ICT programs. ICT should be taught as a cross-curricular area, through project-based learning, instead of an isolated subject (Uruguay is an example of good practice in this area), and training for teachers for all levels should be offered, focusing on pedagogical practices and how to integrate ICT into lessons. For TVET and higher education, teacher training should be provided in line with industry needs and recent developments. Assessments of digital skills for the labor market, and of digital literacy, will be critical to make necessary curricular changes, ensure minimum proficiency levels of digital skills, and better balance private sector needs. The World Bank can provide support in implementing digital skills assessments. Innovative and rapid digital skills training through academies, bootcamps, summer schools, digital labs, etc. (e.g., coding for children, incubators for digital entrepreneurship, AI academies like in Finland or Singapore) could quickly fill existing digital skills gaps. The World Bank Group's IFC can provide support to develop digital skills through private providers (e.g., Andela, Moringa, Le Wagon, etc).

Schools can contribute to the socio-emotional development of students at high risk of dropping out from school prematurely. MOETEST could expand to primary schools (prioritizing those that enroll large shares of disadvantaged students) a life skills course similar to the one offered by trained facilitators to lower secondary students enrolled in the Extended Programme (EP). An evaluation of the intervention by the Mauritius Institute of Education (MIE) showed that it improved the students' socio-emotional wellbeing self-esteem and eagerness to learn, while at the same time making it easier for teachers to manage their classroom dynamics. This type of program, complemented, as needed, with specialized services from psychologists and social workers, would provide disadvantaged students with holistic support to develop the socio-emotional skills they need to persevere in their schooling and to succeed in the world of work; such skills can also help young women avoid pregnancy while still at school and make wise choices as future mothers in raising and caring for their children.

√ Promote Competition

Focus on competition in priority sectors for investment (including upstream) (SHORT TERM)

Beyond its current focus on consumer protection, the competition authorities should examine sectors and markets most relevant for investment, including critical upstream industries. Industries that merit special review are Information and Communications Technology, Energy, Financial Services, Transport. Consideration should also be given to the vertical relationships held by conglomerates and state-owned entities, including screening the potential for these relationships to create a softened business environment that is conducive to tacit collusion. This should include careful consideration of the extent to which partial shareholdings and cross-directorships affect business incentives from a competition perspective. This can be considered in merger assessments as well as investigations (including cartel screening) and provide perspective on interventions that can be made to promote firm entry.

Regulators and policy-makers should be empowered to incorporate pro-competition principles in market regulation and policy, especially in key upstream industries. A number of competition-enhancing reforms for the telecom sector could be considered, most notably, unbundling the local loop and promoting open access to infrastructure such as the fiber ring, ducts and passive infrastructure. Subsequently, the regulator should aim to review pricing at the wholesale level and, if required, enforce accounting separation between the wholesale and retail businesses of MT. Another reform that would foster competition would be to simplify the licensing regime and move in the direction of unified licenses (e.g., facilities-based operator licenses and service-based operator licenses) and adjusting the license fees. The energy regulator needs to be empowered with a clear mandate and staff that is separate from the CEB. In transport, separation of roles and competitive neutrality should be examined. The regulatory framework for the sector needs to be strengthened – there is a need to establish an independent regulatory in the sector. The powers of the MPA over concessionaires are very strong in the current Ports Act, which hampers potential for collaboration with private investors. Consideration should also be given to investigating whether concentration in banking and retail is impacting on the provision of financing products or purchase of products from SMEs. The Competition Commission can play a key role in this through identification of areas that could inadvertently harm competition and advocacy around adopting less distortive alternatives in order to promote policy goals. But it is also key that the Government of Mauritius ensures that the broad range of agencies that set market frameworks build capacity and resources to better understand policies that distort market outcomes and hinder competition. These agencies will also require support from the highest levels of government to ensure neutrality and independence.

A careful prioritization of activities at the sector level can maximize the use of scarce resources for market studies and advocacy. Annex 7 (->) proposes a framework for prioritization and presents results of an initial application to Mauritius. It drills down on some sectors – ICT, Transport, Energy, Financial Services, - to analyze them with regard to their risk profile for noncompetitive practices and present some initial recommendations for potential competition enhancing reforms.

✓ Review regulatory measures for unintended obstacles to market entry (SHORT TERM)

Related to the above, the Competition Commission could scale up its work to review regulations and policies that restrict entry, facilitate collusion, and/or create undue advantages for certain players in selected markets. These include markets in which SOEs compete (such as airline and airport services, ports and telecommunications) and assess contractual and pricing practices, providing clear competition expertise to assist regulators in maintaining a focus of the effects and potential of regulation in supporting competition. There is the potential for greater competition advocacy in regulated markets such as telecommunications, energy and transport, as well as in markets with non-tariff measures and other import regulations to ensure that they do not unnecessarily limit entry. In order to build a clear case for reforms the Competition Commission could focus on building capacity to quantify the economic and welfare impact of potential reforms and could use these impact estimates to engage selectively with the media to gain public support for such measures.

✓ Strengthen the legal mandate, processes, and independence of the Competition Commission (MEDIUM TERM)

A number of changes to the CCM's processes and institutional standing could enhance its ability to deliver on its advocacy mandate and to prevent anticompetitive practices and mergers. These include limiting influence from external stakeholders

on the agency, in particular, the ability of the responsible Minister to influence decision-making of the CCM as this undermines overall independence, and specifying a defined term of office in the Act for the Executive Director (subject to renewal). In addition, basing performance metrics on case outcomes (i.e. the type of decision made in cases) can threaten independence and efficiency and should be avoided, focusing instead on absolute number of cases reviewed or decided, or on more qualitative factors, such as robustness of analyses. Alongside other important considerations being made to update and strengthen Mauritius' competition law (such as through imposing financial penalties for abuse of dominance), application of objective screening processes for both anticompetitive practices and merger control could improve efficiency. The merger control regime is a key tool to prevent anticompetitive mergers that can exacerbate existing issues with market concentration and could also be strengthened further in Mauritius. This would include adopting a mandatory pre-merger notification process instead of the current voluntary regime, alongside complementary moves to allocate enough human resource to deal with increased notifications, and to set appropriate notification fees. World Bank support is being provided to determine optimal merger threshold levels for Mauritius. Finally, the CCM's merger intelligence function should be strengthened to detect potentially harmful mergers.

√ Review territorial exclusivity arrangements (MEDIUM TERM)

Reviewing territorial exclusivity arrangements to ensure that licensing and permit systems are not creating de facto monopolies by preventing entry would likely enhance competitive outcomes. This would require that the Competition Commission continues to monitor the exclusive arrangements in markets in which a particular firm is highly dominant and able to use exclusive arrangements to limit competition, as well as where there are overlapping exclusive arrangements across brands held by a dominant firm which would impact on inter brand competition.

√ Open Space for PPPs

✓ Example: Resolve policy uncertainty in Solid Waste Management

Adopt and implement the National Solid Waste Management Strategy. This is a necessary precondition to provide direction for medium term public investment as well as influence private investments in the sector and its ancillary activities. Most infrastructure investments will require specific feasibility studies, to be launched and completed as soon as possible, as well as business plans to guide private sector adjustments. The related regulatory adjustments, including the allocation of land, should also be undertaken in the shortest time possible to engage the modernization of the sector and stimulate the private sector and citizens.

Encourage private sector engagement in material and energy recovery from waste. As an island country Mauritius has limited land available to dedicate to landfilling and should be exploring alternatives that will promote maximum material diversion from landfills and minimize the volume of the waste that needs disposal. These options include composting, anaerobic digestion and mass burn waste to energy as commercially proven and implemented around the world. Private sector engagement could be through PPPs and purely private investments (including B2B models) with government support and guarantees (where required). This approach will have multiple benefits from integrated material management systems, through recovery of valuable materials, generation of carbon credits, renewable energy and biogas, to GHG mitigation and contribution to creating circular economy on the island. Additionally, effective waste processing can have significant carbon mitigation effects; an emissions reduction quantification process could be developed. The sector could benefit from recognizing the energy generated from waste-to energy facilities as renewable power that counts towards the country's renewable energy goals. This coupled with feed in tariff for electricity generated from waste processing facilities could provide strong system support for solid waste project development.

Involve the private sector through public-private partnerships. A modern and holistic waste management system leaves ample space for the involvement of the private sector. Formalizing public-private partnerships all along the waste value chain (from generation to disposal) can result in significant improvements in efficiency and quality of solid waste management. This would however require meticulous contract enforcement and supervision of private activities. While the use of public-private partnerships in Mauritius is limited, the country has some experience and a sound legal framework. Such partnerships could be designed for waste collection, the operation of sorting platforms, recycling facilities, treatment plants, processing plants, or the management of producer responsibility organizations.

✓ Example: Address regulatory anomalies in the port

The continued development of the port would benefit from the introduction of a specialist international container terminal operator (preferably untied to a shipping line) to improve efficiency, improve the competitive position of the port vis-à-vis transshipment traffics, and leverage private investment. However, the current regulatory framework is not conducive to such an approach. In the short term, policy documents need to be updated to clarify financing principles (currently there are only statements that allocate the development tasks to MPA) and some outdated policy and planning documents are also in urgent need of an update (such as the National Development Plan which dates to 2003), and lack implementation. The contradiction between policy statements and policy implementation on private sector participation needs to be addressed. It is recommended that the MPA presents a single vision that is clear on its future either as a landlord port or as a port authority and shareholder at a terminal operator level, and there is a need to establish an independent regulatory authority. It is also necessary to rethink the legal framework in terms of the role of the MPA vis a vis potential concessionaries. The powers of the MPA over concessionaires are very strong in the current Act. In the current system where the port authority has a substantial shareholding in the single concessionaire of the port this is not a major issue. But if there is a desire to enter into more or other concession agreements with private operators, this would become a problem as it is expected that private operators will not appreciate the differences in power between the MPA and a concessionaire as per section 37 of the Act. It is further recommended that the powers of the MPA under section 18 of the Porta Act are restricted, especially in terms of the clauses in the footnote of the act that could lead to investments of assets or entering into management contracts that are not necessarily required by a port authority.

√ Manage natural resources (and threats)

✓ Example: Managing fisheries

Focus on securing the tuna resource before further developing the seafood hub. Recent alerts on the health of Indian Ocean tropical tuna stocks, in particular yellowfin, are a major risk to the Mauritian seafood hub and canning industry. While management decisions are taken at the regional level, Mauritius, with other coastal countries and IOTC members, should use its voice to promote adequate conservation and management measures and ensure that its fleet respects these measures. Conservation and management measures might lead to less raw material from the Indian Ocean in the short term but more sustainable and predictable stocks in the medium and long term. Sustainability, potentially through ecolabelling, will also be critical to provide a competitive advantage in major markets, including the European Union.

Invest in assessing the existing and new stocks of the Banks fisheries to unlock sustainable private investments. The current lack of information on the status of fished stocks of the offshore banks and seamounts fisheries poses a threat to the sustainability of the resource. It is also identified by the private sector as a major disincentive for investment and long-term profitability. Public investments in stock assessments and management plans, including measures such as individual transferable quotas and long-term concessions, could unlock the potential of these fisheries.

Bring marine spatial planning to the next level. The current marine spatial planning is based on sound institutional arrangements but is limited to answering specific, ad-hoc questions. As such it is more a strategic framework for decision-making in the ocean space than a spatial planning. The next stage would be to develop a comprehensive spatial plan involving all sectors over the entire maritime territory. One of the key missing sectors, fisheries, should be integrated into the planning. The Government of Mauritius is likely to benefit from the financial and technical support of Germany and The Nature Conservancy to engage in such a second phase of the marine spatial planning.

Adopt a National Oceans Policy and a National Blue Economy Strategy. The development of the blue economy as a whole, and the fisheries sector in particular, should be based on a clear vision and action plan for the future. The preparation, adoption, publication and implementation of these documents will be critical to transition from the current business-as-usual growth approach to a planned and sustainable development of a blue economy. They will also build credibility and security for investors and help stakeholders align with the Government objectives.

✓ Example: Managing Disaster Risk

Continue strengthening the strategic framework for disaster risk management. Mauritius has made strong progress over the years by establishing mandated institutions and defining roles and responsibilities. However, the strategic framework for disaster risk management still has gaps. Several operational strategies, including the National DRM Strategy updating the National DRR Strategic Framework and Action Plan of 2012, have been drafted since the approval of the 2016 National Disaster Risk Reduction and Management Bill (No. II of 2016) but have yet to be finalized and approved. Further developing and institutionalizing these national strategies with a focus on resilience and risk reduction is important for the strengthening of the national disaster risk management system.

Involve the private sector in coastal risk management. The private sector, especially the hotels, has the stake and will to be a valuable partner in combatting beach erosion. Involving them through well designed and monitored public-private arrangements could prove beneficial for all parties. The Government would act as a catalyst for private investment and action, providing co-financing, mobilizing external finance, ensuring coherence with local integrated coastal resilience planning and involving relevant stakeholders. Similarly, the private sector can support disaster risk reduction, for instance through the insurance sector. The insurance of businesses and households to climate events and disasters should be further promoted and could provide additional incentives to more risk-conscious planning and risk reduction initiatives. In addition, the private sector should be more involved in the formulation of disaster risk reduction strategies and plans to better reflect its vulnerability and potential contribution. Part of this effort would include undertaking sectoral vulnerability assessments to identify the greatest risks to the Mauritian economy.

√ Redirect State Support towards Innovation

Reform State Support tools at odds with modern industrial policy paradigm (SHORT TERM)

Some existing state support mechanisms are clearly not in line with a modern industrial policy paradigm and should be reformed. As discussed earlier (->), MIC was conceived as a means to respond to the Covid-19 emergency, but by design is not a suitable tool for a modern forward-looking industrial policy. It is recommended to limit MIC's mandate to its primary purpose of providing relieve to systemically relevant companies affected by Covid-19. The investment allowance supports investment of all types and, as a result, is not well targeted towards emerging activities or technological upgrading that might be hampered by market failures. One option could be to limit the eligibility of investment expenditure for the annual allowance to capital goods that are more closely associated with technical upgrading, such as machinery and IT equipment. While individual tax holidays were not analyzed for this report, the instrument is generally flawed as discussed earlier, and tax holidays should either be phased out or, if they meet the other criteria for a modern industrial policy, be replaced with more effective instruments such as investment credits or allowances. Direct subsidies mostly benefit the sugar sector, which clearly does not fit the bill of an emerging industry. However, a recent analysis (World Bank 2020) has revealed reform options that could put the sector back on a potentially profit making paths, and state support to the sector, if deemed justified in light of social or other objectives, should be redirected towards supporting such reforms rather than providing cost-subsidies to the status quo. Finally, the ongoing overhaul of the R&D credit - arguably a justifiable instrument to compensate market failures that typically lead to underinvestment in innovation, and embedded into broader efforts to support innovation – is timely given the lack of private sector uptake of the current mechanism.

✓ Conduct a Comprehensive Review of State Support (SHORT TERM)

Given the proliferation of direct and indirect subsidies and other state support measures, a thorough stocktaking is required as a baseline for reform. Such a review would start by listing all existing state support measures, including those implemented through parastatals, the Central Bank, etc., and take stock of their stated purpose, resulting expenditure, beneficiaries, etc. to gain a high level understanding of the full magnitude of state support. It could then drill down on individual programs in light of three key questions guiding a modern industrial policy: 1. Do they address a clearly defined market failure preventing productive new investment? 2. Are they time bound and embedded in a credible strategy to eventually remove such market failures and 3. Is the applied instrument appropriate to achieve its desired outcome in a cost-efficient manner and without imposing market distortions? Such a review will be particularly important given the unprecedented levels of state support that was put in place in response to Covid-19. While these measures were deemed necessary in light of the rapidly unfolding economic crisis of 2020, unless they meet the above described criteria, they should not be extended beyond the immediate crisis management period. In addition, since such state support can also have significant implications for competition and market distortions (especially where it is selective in nature), it is important to ensure programs are designed to minimize potential market distortions, e.g. by minimizing discrimination and discretion to the extent possible and by increasing transparency of the programs to the extent possible (for example by publishing clear award criteria and publishing names of firms that receive support along with details of the support received).

√ Strengthen coherence and coordination across innovation programs (SHORT TERM)

Given the wealth of stakeholders and institutions with sometimes overlapping mandates for innovation support, a first order priority is to achieve better coherence and coordination across programs. Key stakeholders include the Ministry of Technology, Communication and Innovation; Ministry of Education, Tertiary Education, Science and Technology; Ministry of Industrial Development, SMEs and Cooperatives; and the Ministry of Finance, Economic Planning and Development, as well as MRIC, SME Mauritius, EDB, the Higher Education Commission and National Productivity and Competitiveness Council (NPCC). Examples of mechanisms applied by other economies to tackle the governance and coordination challenge for innovation support include: (i) Conducting a functional review of institutions to identify gaps, overlaps and disconnections of the different institutions' mandate; (ii) Consolidation of institutions accountable for the main areas of innovation (business innovation, research, human capital); (iii) Setting up coordination councils at the ministerial level (implemented e.g., in Japan, the UK, Chile); (iv) Creating advisory councils made up of scientists, entrepreneurs, and policy experts, to provide specific knowledge and guidance to

agencies and to help form national innovation strategies; (v) Using interlocking directories across agencies, i.e. sharing some common directors responsible for overseeing the coherent design of instruments across institutions and sectors.

✓ Improvements to key programs (SHORT TERM)

Some programs recognized as particularly important could be further improved. These include EDB's Regulatory Sandbox and MRIC programs such as Collaborative Research and Innovation Grant Scheme (CRIGS), Research and Innovation Bridges (RIBs), and National SME Incubator Scheme (NSIS). Suggested measures include: (i) Refine membership of the applications evaluation process: international peer reviewers in some cases lack the knowledge about the realities of innovation on the ground in Mauritius to adequately assess the project innovation potential, while local evaluation in certain cases is conducted by civil servants that can affect the transparency of the selection process. (ii) Reduce time for evaluation to avoid undue delays. (iii) More clarity in the project evaluation methodology and the selection criteria, and better communication by MRIC on the evaluation results and justification of project rejections. In addition, several MRIC grant beneficiaries are large firms (e.g., in the CRIGs), which already have access to resources for risky innovative projects. Thus, a review the existing innovation support measures from the perspective of MSMEs and more tailored MSMEs programs should be considered. This includes measures to tackle the challenge of low managerial capabilities among MSMEs. An example could be the Business Advisory Services (BAS) or Technology Extension Services (TES). Exemplar countries successfully applying BAS/TES are Germany, Canada, Spain, Japan.

Introduce reforms in R&D funding by the Higher Education Commission (HEC) to build linkages with the market and foster creation of new sectors. Successful experience from developed and developing economies has been (i) introducing competitive funding to boost the quality and relevance of public research; (ii) increasing overall public investment in R&D, with more funding directed toward HEIs and promotion of applied research; and (iii) promoting research internationalization. Montenegro is an example of successful reforms in this area.

✓ Increase transparency and M&E for state and innovation support (MEDIUM TERM)

To maintain transparency on state support and provide real time feedback on its effectiveness, additional data collection and rigorous M&E provisions are required. While Mauritius follows the good practice of publishing tax expenditure data along with its budget, this information appears to exclude losses from tax holidays, and does not provide sufficient granularity for decision makers to assess the effectiveness of this expenditure. Publishing a complete breakdown by instruments and beneficiary types (by sector and firm size) would be an important first step. Similarly, the costs of direct and, importantly, indirect state support should be assessed and published as part of the budget exercise. As is the case for all public programs, rigorous provisions, including collection of appropriate data, should be included in all state support measures to enable decision makers to assess their effectiveness and cost efficiency on an ongoing basis.

Leverage collection of private R&D data to strengthen innovation programs' M&E. This includes the introduction of a systematic approach to data collection on private sector innovation in Mauritius. Regular surveys following the Oslo Manual could be considered. Sound M&E methodology and where possible impact evaluations should be integrated into the design of innovation programs as well as related government subsidies (such as export promotion subsidies) to understand their impact. Once an innovation database is developed, data access by other institutions should be permitted to perform analyses that could inform better policy design (an example is the ONS Virtual Microdata Laboratory in the UK). Foster an open data culture inside and outside public sector.

√ Adjust Covid-19 response

Move towards more flexible adjustment support for the tourism / hospitality sector (SHORT TERM)

Take a more flexible approach to potential workforce adjustments in the tourism and hospitality sector, focusing on protecting and retraining workers where needed over protecting jobs. Consider more nuanced wage assistance to allow businesses to gradually reduce their workforce to reduce the risk of large debt and enable workers to retrain for other industries which may have more medium-term growth potential. For instance, train workers in digital skills for ecommerce and sector shifting to areas such as retail and customer service jobs in other sectors. Expand social protection (chapter 3 ->) under existing systems to provide an effective social safety net for those losing their jobs.

Make realistic data-based decisions on lockdown and reopening with clear messaging and open dialogue. Prioritize vaccination to support safe reopening of the tourism sector. Research best practice experiences in rapid testing for airports and hotels. Look at alternatives to in-room quarantine that allow some degree of tourist activity while maintaining safety. Improve tourist communications on COVID protocols and examine carefully the experience of other countries in reopening.

Prepare for the future through public-private dialogue to envisage and rethink the next era for more sustainable Mauritius tourism. Develop a recovery action plan together with the private sector and invest in market research to inform movement away from group travel, weddings and cruise tourism towards ecotourism, adventure and high-end leisure. Develop new products for long-stay, film tourism and growing eco market segments. Employ unproductive workers in developing new ecoproducts, eco-trails, tree planting, artificial reefs etc.

✓ Beyond tourism, future support should focus on Covid-specific disruptions

Rather than giving blanket support to firms, future assistance should focus on alleviating specific constraints that are clearly linked to the global pandemic. While the situation remains in flux and subject to abrupt change, the primary remaining disruption for the export sector appears to be a dramatic increase in air cargo cost due to the absence of passenger traffic. While airlines, including Air Mauritius, have spare capacity to offer additional flights, the cost of doing so will remain elevated until passenger traffic is restored. Subject to the phase out of blanket firm support measures, a temporary, partial air freight subsidy, targeted to relatively low value per weight shipments (e.g. shipment value of less than USD 100 / kg) and clearly time bound to the return of air freight rates to pre-Covid levels, could be considered to prevent exporters depending on air freight from losing access to key overseas value chains.

√ Leverage FDI

✓ Strengthen FDI promotion efforts (SHORT TERM)

It is imperative that Mauritius develops a clear and targeted FDI Strategy. Such a strategy would be developed in close cooperation with the private sector and focus on competitively attracting specific types of FDI that will support the country's key development goals, including the upgrading of exports and access to new market through integration with global value chains. Mauritius could focus on boosting its investment competitiveness towards knowledge-intensive and high value-added export sectors, including in services, while at the same time leveraging market seeking FDI in critical upstream industries to enhance competitiveness. The FDI strategy should align with and leverage trade agreements and trade policy priorities of the country and clearly outline the key principles governing the investment policy of the country (such as non-discrimination, protection of property rights).

To increase effectiveness of investment promotion efforts, the country's investment promotion institutions as well as service delivery to investors should be improved and carefully sequenced. A focused mandate, adequate staffing, clearly defined key performance indicators aligned to the FDI strategy are critical for any investment promotion agency's effectiveness. A balanced mix of the four service categories -marketing, information, assistance, and advocacy – across the investment lifecycle should be provided. Greater emphasis should be placed on service delivery during the retention and expansion phase as well as linkages. Two specific areas that should be further strengthened are (1) assistance services and (2) information services. Assistance services include follow up with existing investors through aftercare and grievance management programs, and matchmaking with local service providers and partners. Information services include publishing investor guides and manuals outlining the main rules and processes to invest. This would be especially useful for new regulatory areas and for some of the newer sectors – such as creative industries and arts, FinTech, IP, etc. In addition, EDB should periodically conduct standardized investor surveys to gauge the level of investor satisfaction and determine specific service areas that need to be improved.

√ Support outward FDI (SHORT / MEDIUM TERM)

The Mauritius Africa strategy sets the right objectives for outward FDI, but a prioritization exercise could help focus on the most effective instruments. Mauritius has rightly championed regional integration, and further initiatives to reduce the cost of trade through better connectivity and logistics, tariff reduction, removal of NTBs, and sharing experience on reducing business cost should remain at the forefront of its efforts. As part of the above discussed FDI strategy, Mauritius could review and prioritize its activities in this regard with respect to priority markets and barriers to be addressed. However, the risk perception among Mauritian investors on the African continent remains high, and further efforts at de-risking appears to be a priority. While MAFs efforts as a co-investor have so far not been successful in doing so, the new focus on bilateral SEZs provides only a limited solution in specific countries and areas while inviting a whole set of additional problems related to infrastructure, land acquisition, zone management etc. A review strategy review could consider alternative strategies for de-risking, such as facilitating and supporting joint venture projects, potentially involving experienced institutional investors such as the World Bank's International Finance Corporation and exploring new options for risk insurance, potentially with the support of the World Bank's Multilateral Investment Guarantee Agency.

Mauritius should consider expanding its network of IIAs within Africa and include provisions to increase market access and strengthen investment protection. This includes ensuring that AfCFTA services and investment negotiations that are currently underway yield trade-and investment expanding commitments. In IIAs where partner countries have made reservations (with respect to any treaty obligations), an inventory of non-conforming measures should be maintained to increase transparency and ensure that additional restrictive measures are not added by signatory states. This can also be a first step towards greater harmonization of investment rules in the region. In addition, regional platforms such as SADC can be leveraged to set up regional mechanisms for implementation of IIA provisions (e.g. regional SIRM). Mauritius should also expand its network of commercial attaches in African countries to allow for greater economic diplomacy.

✓ Streamline the policy framework for FDI (MEDIUM TERM)

Mauritius should consider adopting a consolidated investment law that clarifies the investment entry and protection regime in the country. Such a law would consolidate the currently dispersed investment entry rules, clarify the institutional framework on investment, investment protection and reflect commitments under international treaties. It should include reference to the negative list (the actual list with the restrictions/conditions on FDI should be made part of a regulation/secondary instrument), guarantees for transfer of funds, fair and equitable treatment, protection from expropriation, transparency and dispute settlement options. Over 120 countries have adopted investment laws covering either only foreign investors or both foreign and domestic investors. For Mauritius, passing this new law would not necessarily entail new obligations for the State, but more consolidation of the existing ones. An investment law will not address all issues hampering FDI in Mauritius, however it will be a key instrument to consolidate and clarify FDI entry rules, improve transparency, provide strong protection guarantees to investors, and ultimately boost investor confidence.

With its increasing focus on knowledge intensive sectors, it will be important to ensure not just strong intellectual property rights (IPRs), but also the supporting infrastructure to enable IPR administration and enforcement. Mauritius should consider accelerating the process of accession to key international IPR treaties such as the Madrid Protocol and Hague Agreement. It should ensure greater information dissemination on the country's IPR frameworks and stronger institutional set up and capacity to ensure enforcement. This can also create an opportunity for Mauritius to further strengthen its position as an administrative business hub — with simplified and effective support, legal, accounting and other administrative services.

Mauritius' domestic laws should be aligned with its IIAs with regard to legal rights and protection guarantees provided. Extending application of protection guarantees to a larger set of investors (beyond those from signatory countries) by including the guarantees in domestic law will level the playing field. In addition, it will also allow for better implementation of the guarantees across the government. Mauritius should set up a mechanism within the government for implementation of its IIAs. A practical tool being implemented by countries with support of the WBG is the Systemic Investment Response Mechanism (SIRM) to enable governments to identify, track, and resolve, in a timely manner, investor-state grievances that can lead to disputes or put investment projects at risk of withdrawals/cancellations. This entails the empowerment of a reform-oriented government agency and establishment of an intergovernmental mechanism for systematically addressing grievances arising from non-implementation of IIAs. In the context of Mauritius this tool may be relevant, as Mauritius tries to set itself up as an international business administrative hub.

√ Take advantage of new trade agreements

Use preferential market access to develop new merchandise exports (SHORT-TERM)

In working with the private sector, EDB could develop a targeted strategy to exploit new preferential opportunities under recently signed and forthcoming trade agreements to develop new exports. Annex 5 (->) provides lists of products that fulfill three criteria in the Chinese, Indian, and African markets: 1. A significant preference margin for Mauritian firms vis a vis global competitors under recent or forthcoming trade agreements. 2. Existing exports by Mauritian firms or close technological proximity to products that are already exported. 3. Higher complexity that the average Mauritian export. With this list as a starting point, EDB could approach the Mauritian private sector to provide relevant market information, identify products of interest to local producers, and provide support through targeted export promotion efforts in accessing these markets. In addition, and as part of the above mentioned development of an FDI strategy, the information in Annex 5 can also be used by EDB to identify and approach firms in countries currently exporting to these markets under non-zero MFN tariffs, and explore their interest in relocating production to Mauritius to benefit from preferential market access. Looking forward, this dialogue with the private sector could also be used to formulate strategic trade policy objectives by identifying high complexity goods of potential interest to Mauritian exporters for which market access under future agreements is a priority.

✓ Market Mauritius as a beachhead for services FDI into Africa (SHORT-TERM)

Position Mauritius as beachhead for third country operators, notably from India and China, seeking deepened access to the African market. To harness the above opportunities, Mauritius will need to make full use of the preferential trade agreements it has recently concluded (with China), is near completing (with India) or still in the process of negotiating (with AfCFTA trading partners on the African continent and regionally with the EU) to build a more recognizable 'Mauritian brand'. Such a marketing strategy would highlight the attributes of Mauritius to serve as a trade, finance, business and professional services hub for countries seeking the secure conditions of access to the rapidly growing African market that the AfCFTA's services and investment rules and commitments will guarantee, and close collaboration with the private sector in addressing remaining obstacles.

Securing deep and commercially meaningful services commitments from AfCFTA states is critical to realizing the above aim. Mauritius should focus its negotiation strategy for AfCFTA on obtaining significantly GATS+ market access commitments in in sectors where it enjoys strong export growth prospects – ITC, financial, professional and business services and tourism-related services – all of which are earmarked for priority market opening under the continental pact. This means that Mauritius must be ambitious in its market opening requests, ensuring that such commitments span both cross-border (Mode 1) and establishment-related trade (Mode 3), with complimentary commitments on key personnel (Mode 4). Mauritius will need to work with other like-minded African countries seeking expanded services access – Morocco, Egypt, South Africa, Ghana, Kenya, Rwanda – to push the envelope as much as it can in the AfCFTA chapter on investment (both rules and commitments). Mauritius should also take the lead in Africa on the conclusion of continent-wide mutual recognition agreements promoting the greater mobility of skills and talents in selected professions (e.g. accountancy, actuary, legal, IT-engineering, architecture; traditional medicine) where it has strong domestic capacity. This would boost Mode 4 exports for Mauritian nationals and the expat community attracted via Mode 3 operations.

✓ Seek a deep trade and investment agreement with an advanced economy that would align Mauritian practices to OECD level ones, and consider OECD membership. (MEDIUM-TERM)

Leverage trade negotiations with an advanced OECD partner, and / or OECD membership as an aspirational goal to catalyze the economic reform agenda. While Mauritius is currently involved, alongside other African nations in Southern and Eastern Africa, in ACP-anchored trade talks with the EU towards an Economic Partnership Agreement (EPA), the slow pace, limited substantive coverage and generally lower ambitions of such talks offer an arguably second best route to deepened Mauritian trade ties with the EU. Consideration should also be given to leveraging the US government's growing strategic interest in Africa by engaging in the negotiation of preferential trade and investment ties, either on a bilateral basis or by proposing that ongoing negotiations towards a free trade agreement between the US and Kenya feature an accession clause allowing Mauritius to reap the economies of scale and scope on offer in trade and investment rule-making and market opening. In considering an

application for OECD membership as the First African country, Mauritius could study the experiences of Colombia and Costa Rica, the latest countries to accede to the Paris-based organization in 2020 after seven and five years respectively of efforts aimed at aligning domestic regulatory practices and policies with those of the world's most advanced economies and complying with the governance norms embedded in a range of OECD legal instruments.

✓ Increase the share of remotely delivered services (MEDIUM-TERM)

Mauritius needs to diversify its services offering with a view and lessening its dependance on travel and tourism (i.e. Mode 2 trade in services), and to leverage the country's growing ICT sector to supply a wider and more sophisticated range of remotely delivered services – so-called Mode 1 trade. Mauritius should harness its PTA with India to boost the competitiveness of its export-oriented ICT sector by attracting greater volumes of efficiency-seeking FDI from leading Indian service firms. To scale up cross-border exports of digital services, Mauritius can design a regime to attract and retain highly skilled professionals seeking attractive locations for cross-border teleworking purposes (so-called 'digital nomads') .

√ Address price distortions

✓ Avoid exchange rate overvaluation while managing short term fluctuations (SHORT-TERM)

Given the persistence of the Covid-19 shock and previous overvaluation, the exchange rate policy should combine some (downward) correction of the exchange rate and some direct intervention (central bank spot sales). If the trade deficit —and associated reserve losses—continue at the current pace, sustained exchange rate pressure is to be expected. Under this scenario, rather than defending the Rupee at its current level, BoM should focus on managing short term shortages while allowing a gradual downward correction of the exchange rate. It remains to be seen whether there is a delayed outflow from the offshore sector, which adds to the caution with which the BoM should administer its international reserves in the current context. A dedicated countercyclical instrument is needed to smooth out potential risks, including the events of 2020. Given that reserves appear to be the flipside of recent capital inflows and central bank efforts to curve the appreciation of the rupee, at least a significant fraction of the reserve stock should be regarded as a countercyclical buffer in the event of a sudden stop and should be treated accordingly, which a segregated allocation to liquid assets and a disbursement rule aimed at offsetting financial flows.

✓ Improve data collection on global business related flows (MEDIUM-TERM)

There is a need for more consistent and detailed balance-of-payments data and more granular bank information on sources and uses of GBC flows. The implementation of a complete, currency- and source-specific information requirement standard should be key to design a proper policy to profit from the financial center without exposing the country to avoidable financial risks. In particular, such a standard should be able to trace global business funds and to identify and characterize bank claims that directly funded by GBC deposits. This will increase transparency and allow the Bank of Mauritius to manage the BoP risks associated with the global business sector more carefully.

√ More efficient social protection

Reallocate funding from Basic Pension to targeted social protection programs (SHORT-TERM)

Expand coverage and funding for Social Aid and the Marshal Plan Social Contract. The unequal impact of the crisis on the economy, the labor market, and living standards, together with the uncertainty about the timing and intensity of the economic recovery, calls for an expansion of social protection programs in the medium term to support individuals and households affected by the crisis. Informal workers appear to be the group most affected by the lockdown and the downturn, and they will likely endure the negative effects for a longer time. Existing programs, such as the Social Aid Program and the Marshall Plan Social Contract, could be expanded to reach a larger population. In addition, a reemployment and reskilling component could be associated with cash transfers, particularly in the case of individuals who have lost their jobs and have low educational attainment and low skills. The Social Register of Mauritius, a large database of potential and actual program beneficiaries, could be updated and used to improve targeting of cash transfer programs and subsidies. The means-tested antipoverty program introduced under the Marshall Plan Social Contract makes use of the SRM and currently reaches about 11,000 low-income households and could be gradually expanded if more resources were freed up from untargeted schemes. Additional efforts are warranted to update the Social Registry, especially in light of the impact of Covid-19: A recent survey of vulnerable households by the Comite de Solidarite revealed that 34 percent of those interviewed were not on the Social Registry despite meeting the eligibility criteria.

Eligibility for other public transfers that are universally provided should be reviewed, particularly consumption subsidies. The savings resulting from this review could then be funneled into targeted programs like the Marshall Plan Social Contract or special allowances for those in need, including the elderly, to ensure adequate standards of living.

An ideal reform of the BRP would ensure fiscal sustainability and space for funding more targeted measures while maintaining the key functions of a public pension system. To accomplish this, the eligibility age for BRP would have to rise at the rate of six months per calendar year from 2021 onwards until it reaches age 65 in 2030, in line with the retirement age for contributory benefits. This change would bring Mauritius in line countries where benefits are typically given when individuals are close to having 15 years of life expectancy left. The benefit would remain fixed at Rs. 9,000 until it reaches a level of 20 percent of average wage, the benchmark for poverty alleviation for non-contributories. From that point forward it would be wage-indexed. A contributory pension system would continue to collect contributions from workers and provide benefits to those who contribute. This would allow contributors to reach the 40 percent of wage benefits internationally accepted as adequate while providing benefits for those who have not contributed as well, but at a lower level, providing incentives for all to join the contributory system if they can. As the aging of the population proceeds, the Government should also gradually enact the following measures: (i) raise the retirement age in line with improvements in life expectancy; (ii) reduce the benefit from BRP for the highest income brackets; and/or (iii) raise the contribution rate in line with rates in other high-income aging countries, where workers and employers contribute a combined 20 percent of wage on average. With the decision to dismantle NPF, attention is also warranted to alternative solutions for wage replacement at old age. This could include promoting private pension options and working with the financial sector to develop secure options to convert lumpsum payments from the NSF and portable gratuity to a lifelong annuity. Significant efforts at building contributor confidence in private pension options would be required if private pensions and lifelong annuities are to serve as a substitute.

A number of implementation details will be crucial for the functioning of the CSG. This includes setting the initial benefit level in such a way that it does not exceed a reasonable expectation of revenues. According to preliminary calculations, this would be around MRU2,500 per month. The second key question is how benefits are increased over time. A clear legally mandated link to CSG revenue, perhaps following a moving average over the previous 3-5 years' income to avoid sudden fluctuations and create buffers in good times, would be ideal. Third, any time workers at one income level are taxed differently from workers at a different level, there are always incentives for workers and employers to arrange compensation to be taxed at the lower rate. While the CSG is considered a contribution, since the benefits are not linked to the amount contributed, it would clearly fall into this category. Coupled with lack of a cap on salaries, the new system could induce some employers and workers to work informally and/or shift part of what they receive as basic salary to other form of compensations that are excluded from the tax base. A uniform rate across income categories would reduce this type of tax avoidance significantly. Similarly, a more gradual threshold would avoid distortions around the Rs 50,000 cutoff line for the higher contribution rates. Fourth, inequities between

public and private sector workers and between private sector workers who have already reached retirement age and those who have not also need to be resolved. To achieve this, it could be considered to deduct CSG benefits from the contributory public sector pension benefit, and a similar system could be applied for those with pre-existing entitlements under the NPF, to avoid duplication of benefits. Finally, widows/widowers and the disabled should either be eligible to receive CSG or equivalent increases in their entitlements.

√ Support labor market participation of disadvantaged groups

Consolidate job support programs and make them more comprehensive (MEDIUM-TERM)

To provide effective labor market integration support to low income individuals, programs will need to be consolidated, tailored to the changing job landscape, and made more comprehensive. Mauritius has developed a large number of training and job placement programs, but institutional fragmentation often causes them to take a piecemeal approach and lack coordination and lack of program level information hinders a much-needed cost-benefit analysis. Comprehensive programming that combines on-the-job training, short classroom training, life-skills training, and labor market intermediation services have shown to be more effective compared with a piecemeal approach. The private sector should be engaged in the design of the program to ensure that curricula and content reflect rapidly evolving employers' needs. According to the OECD (2019b), successful labor market support programs share a number of important characteristics: They proactively reach out to potential beneficiaries, provide holistic and personalized support, and offer modular and customizable learning approaches (E.g. in Mexico, the Model for Life and Work Program allows learners to choose between different modules at initial, intermediate and advanced level. It is also important that such program recognize existing skills that applicants have acquired, often through practical experience rather than formal learning. Recognizing such skills through validation and certification can increase their motivation and become a steppingstone to additional learning. In Chile, Califica is such a system of lifelong learning and training that meets industry needs and also serves disadvantaged groups. Successful programs also typically include a component of financial support to allow poor applicants with no savings to dedicate time to learning and job search activities.

√ Address obstacles to women's labor force participation (MEDIUM-TERM)

Reform maternity and parental leave benefits. An increasing number of high- and middle-income countries offer paid parental leave, which is often supplementary to specific maternity and paternity leave periods. Parental leave can either be a sharable family entitlement or an individual entitlement that each parent can take regardless of the other and may include elements that incentivize uptake by fathers (through bonus months or daddy quotas). Evidence from Canada (Quebec) suggests that well designed parental leave regulations can increase uptake by fathers and lead to a more equitable sharing of home and market work between parents in the long run (Patnaik 2019). In addition, employers should not be individually liable for the cost of maternity leave benefits and transitioning from an employer liability to an insurance system, where maternity and other parental benefits are funded by social security, reduces employer bias against women (ILO 2014). Depending on the level of uptake and behavioral change introduced by the system, the annual cost could amount to between MRU 211 and 545 mln. It is important to note that the idea is not to provide an additional subsidy, but to centrally collect and disburse maternity benefits from employers in order to avoid hiring bias against women. If the cost is fully recovered, for instance through an increase in payroll tax, the net effect on both the public budget and companies as a while would be zero, but firms employing more women would benefit and bias against women due to their potential motherhood would be removed.

Expansion of childcare with after-hour services. There is strong international evidence that access to childcare can increase female labor force participation (Mateo Diaz and Rodriguez-Chamussy (2013), Buvinic and O'Donnell (2016)). In Mauritius, the priority is to extend quality publicly funded childcare options for the ages 0-3 and to expand opening hours and accessibility of existing facilities. Measures to support this aim could include (i) expansion of the current voucher/subsidy scheme to access early childcare in private day care centers (targeted at low-income households, e.g. by expanding the existing scheme under the Marshall Plan Social Contract), (2) promotion of work-place based childcare (e.g. a government mandate for large firms or fiscal incentives), (3) expanding availability of government provided childcare (with a sliding fee scale, i.e. a payrate based on income) or (4) government-supported childcare in a public private partnership (see examples in IFC 2018).

Introduce programs to change social norms and gender stereotypes that disadvantage women. In addition to the above mentioned 'daddy quotas' for parental leave, educational entertainment ("edutainment") programs, i.e. media-based interventions in an entertaining format, can be effective tools to shift attitudes, change social norms and generate behavioral changes. Likewise, school-based programs that combine edutainment with classroom discussions about gender equality can lead to more gender-equitable behavior. An example is the League of Stars program in Haryana, India (https://inbreakthrough.org/taaron-ki-toli/; see also Jayachandra 2019). Under this program, young students (boys and girls) meet every week to learn about gender-based discrimination and explore and understand ways in which they can prevent it.

One of the reasons why Mauritian women earn less than their male counterparts is that traditionally they work predominately in sectors where wages are lower than the average. To break these patterns, teachers and career services need to ensure that girls and young women are encouraged to enter male-dominated fields. Mentoring programs, support networks and information campaigns about the profitability of jobs in different industries can encourage women to enter and stay in male-dominated fields. For example, a vocational training program in western Kenya included an information session that provided participants with information about returns to vocational education, broken down by trade, and highlighted the large discrepancy in earnings between traditionally male-dominated (e.g. mechanic) and female-dominated trades (e.g. seamstress).

Strengthen enforcement of anti-discrimination measures already embedded in Mauritian law. No legal biases against women are known in Mauritius' legal framework and a 1995 constitutional amendment prohibits discrimination on the basis of gender. The Equal Opportunity Act in 2008 bans discrimination against persons on the ground of sex, marital status, pregnancy, or potential pregnancy, among others. However, the fact that employers are allowed, and routinely resort to, stating gender preferences in vacancies, including those published in the public employment information system, is clearly at odds with the spirit of these provisions. Prohibiting the use of gender requirements in job advertisements except for well-founded exceptions would be a simple starting point. This should be accompanied by a more aggressive stance on the enforcement of anti-discrimination rules in recruitment and promotion decisions.

An all of society effort against gender-based violence (GBV) is needed to break the chain of dependence for women in abusive relationships. Mauritius has recently adopted a National Strategy and Action Plan against GBV which focuses on changing cultural norms that enable GBV, supporting victims and holding perpetrators accountable, identifying and addressing discriminatory practices that enable GBV, and conducting coordinated monitoring and evaluation. These are important priorities, and full implementation of the plan should take Mauritius a big step ahead in preventing GBV.

✓ Provide targeted support to youth (MEDIUM-TERM)

Consolidate youth employment programs and make them more comprehensive. Existing youth employment programs are fragmented and in the absence of a central registry it is difficult to track if participants benefit from more than one scheme. This is most likely as some interventions overlap: there are, for example, several entrepreneurship schemes with similar target groups. Programs focus mostly on developing job-related skills and providing work experience, yet they are not designed to address relevant technical and soft skills barriers that low educated youth face when approaching the labor market. This calls for greater emphasis on comprehensive programs targeting low educated youth that go beyond traditional policy strategies and include provision of accurate information about the labor market, motivation, tools to better signal their employability, and soft skills to improve job search outcomes.

Help young jobseekers navigate the labor market by providing them with adequate information, feedback, and motivation. In Turkey, for example, a brochure distributed to newly registered jobseekers proved to be useful to increase substantially the take-up of active labor market policy services offered by the government and the use of more varied job search channels. The information primer included: (i) a description of the local labor market conditions, including the number of new jobs created in the previous year, with breakdowns by gender and age and the average duration of an unemployment spell, (ii) the number of vacancies registered with the local employment office and the number of placements, (iii) simple job search strategies, and (iv) motivational messages. It emphasized that job search effort increases the chances of finding a job and provided tips on how to look for jobs. It is also critical to equip young jobseekers with accurate, reliable, yet simple signals of employability. In South Africa, the World Bank's Africa Gender Innovation Lab supported an intervention that introduced simple, standardized reference letters in the recruitment process with new, credible (reliable and verifiable), and relevant (reflect actual ability) information. Employers trusted the letters that helped them select higher ability candidates. This led to an increase in response from employers and interview rates. Finally, low educated youth show a low self-perception of their capacity and a sense of rejection and exclusion. In South Africa, as part of the job counseling workshops conducted by the Department of Labour, jobseekers were asked to complete a job search plan template. In the template, jobseekers were asked to fill a weekly chart with detailed day-by-day information about whether, how and where they searched for jobs. In addition, they were also asked to report weekly goals in terms of number of hours spent searching and number of applications submitted. Jobseekers who completed a detailed job search plan had a higher number of job applications submitted, diversified their search strategy and used more formal search channels. This translated into more job offers and probability of getting a job.

√ More inclusive education

√ Address disparities in learning outcomes (MEDIUM-TERM)

Paying more attention to early childhood care and education (ECCE) to narrow the wide gaps in learning outcomes. Priority actions include the development of a national multisectoral strategy for ECCE that leads to a an integrated action plan for endorsement and implementation by all ministries concerned with young children's health, nutrition, education, and protection. Notably, establishing a cross-ministerial parastatal body to anchor the effort (e.g., an upgraded ECCE Authority) would ensure greater efficiency in government-wide coordination of early childhood financing, service provision, information systems, and supervision mechanisms. This body would aim to diversify and integrate services for families with young children—targeting in particular vulnerable families. It would also aim to promote quality early learning by developing innovative ECCE curricula, learning materials, and pedagogy that sensibly support young children's physical, motor, cognitive, linguistic, and socioemotional growth, leveraging age-appropriate play-based practices and multilingual education. Such an approach would require improvements in the recruitment and training of the day care and preschool workforce to increase the professionalization and quality of the ECCE sector, and a strengthening of regulatory mechanisms for both child day care centers and preschools to assure quality of services and accountability. An accompanying information campaign could sensitize families, in particular in low income areas, of the importance of early childhood development through play-based learning, early stimulation, and positive caregiving at home.

Assessing the impact of ZEP school interventions. Since 2003 the government has implemented specially-designed programs to benefit students in ZEP schools, a group of low performing schools that serve disadvantaged communities in Mauritius. It would now be important to assess the impact of these interventions and also to better understand the new challenges faced by these schools, particularly in the context of the COVID-19 pandemic and related school closures. The assessment results would shed light on the root causes of under-performance, highlight gaps in policy and in the design of the interventions, and identify the need for new approaches and resources to provide more effective support to students in ZEP schools. The evaluation could pay special attention to a few critical areas, including language of instruction; tools and approaches for remedial education to improve student learning; incorporation of socio-emotional skills training as part of the curriculum; use of digital technology to enhance student motivation and improve teaching and learning, etc.. The assessment would yield the evidence needed to develop a well-informed strategy and implementation plan for reforming ZEP schools to accelerate student learning.

Strengthening school leadership and effective pedagogy in lagging primary and secondary schools. Many countries pay close attention to enhancing school leadership and pedagogical practices because these are two of the most influential school factors affecting student learning. International experiences suggest promising systemic measures that Mauritius might explore for adaptation to local conditions. Examples include Shanghai's approach of: (i) rotation of leaders and teachers from highperforming schools to low-performing ones; (ii) linking performance in rotation programs to promotions and career advancement; and (iii) pairing of weak and strong school principals for job-shadowing. For teachers, Australia, Canada, Finland, and Singapore not only promote well-known good practices throughout their systems (e.g., lesson study groups, teacherresearch groups, etc.) but also organize systematic on-the-job coaching for new or weak teachers. Fostering an accountabilitycum-autonomy model of school governance, one that expects and enables all schools, especially the lagging ones, to meet minimum standards of performance, respond effectively to student needs, and succeed in helping every child acquire strong foundational skills. Priority actions include enhancing systemic accountability for results by benchmarking the learning outcomes of Mauritian youth to international standards, choosing from options suited to the country's conditions (e.g., Progress in International Reading Literacy (PIRLS), Trends in International Measurement of Mathematics and Science Study (TIMSS), Programme for International Student Assessment (PISA), etc.). The professionalization of the educator workforce could be reinforced by enhancing need-based support, incentives, resources that encourage and assist each school to innovate and improve student learning in their context, including, for example, socio-emotional development for disadvantaged students. The process would benefit from intentional alignment, coordination and integration of the material and technical support provided to schools by system-level actors to meet performance standards (e.g., those specified in Ministry of Education's Quality Assurance Framework under the NYCBE reform). For this purpose, a comprehensive staff development program would be required to build the relevant system-wide technical and managerial capabilities.

✓ Provide more opportunities for second chance education (MEDIUM-TERM)

Offer the opportunity to join TVET for those without an SC or HSC conditional on passing remedial courses in basic literacy and numeracy courses. This can be formalized through certificates recognizing academic and professional skills to help them join higher qualified programs in TVET and post-secondary studies (e.g., the General Education Development [GED] in the United States or Canada, the Certificat d'Aptitude Professionnelle [CAP] in France). Provide pathways for TVET graduates to continue post-secondary studies if desired, in a vision of lifelong learning. This should be combined with financial support that enables drop-outs already in the labor market to return to school.

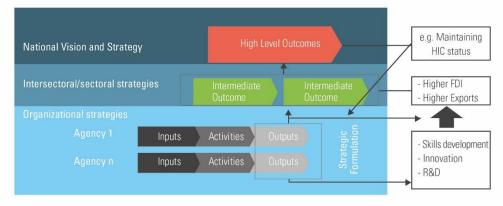
√ Improve Policy Coherence

✓ Strengthen Public Financial Management (MEDIUM-TERM)

The budget process should be strengthened to improve allocative and operational efficiency, and completeness of budget. As reported in the 2015 PEFA report, the change of budgeting approach in 2015 from previous Program Based Budgeting (PBB) adopted in 2008/9, limits the ability of the government to allocate resources to priority policy objectives and also limits the performance information presented to the public and National Assembly for accountability. In this regard, the Government should further strengthen the link between planning, budgeting and results (performance). This should also focus on incorporating emergency planning practices and strategic reallocation of resources towards the revised priority goals. Similarly, the supplementary budgeting practices, including those that address emergency situations, should ensure that all revenues and expenditures are included in the budget to avoid off-budget funds and achieve full accountability of resources. The government should also revaluate and minimize the use of extra-budgetary Special Purpose Vehicles (SPVs) as they limit the effectiveness of the budgetary process and medium-term fiscal framework necessary to manage and control expenditure, and potential fiscal risks. Specifically, this would include limiting the role of MIC to the immediate Covid-crisis response, and reversing the provisions included in the Bank of Mauritius act through the Covid-19 bill that allow for Central Bank transfers to the budget.

✓ Develop an agile national planning system (MEDIUM-TERM)

At the heart of the modern planning system is the linkage among national, sectoral, and organizational objectives. The diagram below describes how such a system can be structured. Its key feature is the cascading nature of the high-level objectives in the national vision and strategy, to the intermediate outcomes in the sectoral and intersectoral strategies and plans, to the outputs of the organizational strategies and plans of the MDAs. At the same time, the formulation process must ensure that the organizational objectives are in turn nested in the sectoral objectives which then feedback up to the national development strategy goals and the long-term vision. In other words, such alignment can only be achieved through an iterative process that is both top-down and bottom-up and relies on a structured process. Strengthening the planning function requires a strong lead agency, institutional capacity for analysis and coordination, linkages to the budget and M&E, as well as stakeholder consultations and change management. Malaysia is a good example of how this process works in practice. In Malaysia, the key lead agency is the Economic Planning Unit (EPU), a large, powerful, and high-capacity agency of about 500 staff. Linkages to the budget were ensured both through the EPU, which was responsible for capital budgeting, and a strong role of the Ministry of Finance, responsible for operational budgets. The complex iterative process of nesting and cascading goals to align the national development objectives with those of sectoral and organizational strategies and plans involves dozens of interagency groups, technical working groups, and focus groups, taking up to 18 months.



Source: Authors

The iterative process of top-down/bottom-up alignment of national, sectoral, and organizational goals must be underpinned by institutional capacity of the lead agency, and the right incentives for MDAs must be ensured through the linkages of the plan to the budget, through the M&E system, and the change management process. This could include performance contracts for MDA leads that include KPIs mirroring indicators from the nested plans. These could cascade within the MDAs to lower-level

officials, based on the appropriate organizational plans and their indicators. The Government of Mauritius has made important recent steps in this direction, first by empowering the Economic Development Board (EDB) to focus on strategic planning in key economic sectors, and more recently by deciding to create a Planning Bureau within the Ministry of Finance, Economic Planning and Development (MoFEPD) to focus on the national development planning. The key next steps would include strengthening both the new Bureau and EDB to perform their respective functions without duplication or overlapping mandates, while also designing the architecture of the overall national planning system, performance M&E, and talent and change management.

Strengthening the newly created Planning Bureau within MOFPED should start with a foundational analysis, benchmarking, roadmap, institutional architecture, and targeted capacity development. The Bureau has the potential to become a nerve center of the new national development planning system in Mauritius. Its creation should be rooted in a foundational analysis on the alignment of national planning with economic and fiscal planning, including global benchmarking, good practices, and lessons learned. Then, a roadmap for the Planning Bureau would be formulated, based on the identification, prioritization, and sequencing of national development planning activities. This would lead to the institutional architecture for the planning function vested in the Bureau, including the definitions of its mandate, roles and responsibilities, functional and organizational review, as well as the structure, staffing needs, and coordination mechanisms. Capacity strengthening for the Bureau would focus on three key sets of functions: economic research, planning, and monitoring.

Strengthening EDB's strategic planning and monitoring in key economic sectors should focus on its interface with private sector and the alignment of sectoral strategies with national development goals. While the Bureau would focus on the national development planning, EDB would continue with its mandate in supporting strategic planning and monitoring of the key economic sectors, as an important interface with the private sector. This could include creating a public-private platform to develop integrated sector plans for selected priority sectors, targeted strategic sector planning nested in the national development planning system, as well as management, monitoring, and sector-specific technical support.

Designing the national planning system should begin with a National Planning Policy and its implementation. Both the Bureau and the EDB would become key institutions in the national planning system. A National Planning Policy would strategically define the planning function, as well as the interconnectedness among the national, sectoral, and organizational goals. It would be accompanied by a technical manual to guide the implementation of the policy as well as by methodological guidelines. Key national planning instruments include diagnostic, prioritization, mapping, budget, and crisis management tools. These instruments would be used for the design of a national strategy and sector plans.

√ Focus on Implementation

√ Talent and change management (SHORT-TERM)

Talent management for the new planning function should be part of a broader effort to strengthen human resource management in the public sector in Mauritius. Because the planning function more broadly and the Planning Bureau are being introduced anew in the country, they can serve as a pilot for many of the modern HR and talent management tools to be later mainstreamed across the public sector. Specifically, attracting, managing, and retaining talent for the new planning function will require a strategy and action plan. The focus should be on targeted talent management and skills upgrading, including digital skills tools. It will also involve a customized hands-on capacity-strengthening for the Planning Bureau.

Change management will also be critical for introducing the new, strengthened national planning function. A typical change management approach requires stakeholder identification and engagement, as well as strategic communications. A risk management strategy will have to be developed, as well as a program of quick wins for each sector. Finally, documenting and sharing success stories of national planning will be important to showcase and position Mauritius as a successful reformer.

✓ Leverage future deep trade agreements with major advanced economies to push the reform agenda on a time bound schedule. (MEDIUM-TERM)

Negotiating deep FTAs can be a powerful tool to align all stakeholders around a common goal with a clear time horizon. As illustrated by the experiences of other small open economies such as Costa Rica, negotiating international treaties can be a powerful force to connect international insertion strategies with domestic institutional reforms. In particular, on the domestic front, FTAs can be useful to catalyze domestic interests and institutions around a concrete agenda with clear objectives, deadlines and procedures, as well as set up inter-agency coordination mechanisms that otherwise would be difficult to put in place. Negotiating deep FTAs can serve as a credible commitment device for the government and help re-align the existing incentives within the system. Mauritius already has FTAs with key trading partners such as China, India, and the EU, but potential additional deep FTAs with major advanced economies such as the EU or US could serve as a catalyst for such realignment. As an aspirational goal, OECD membership could also be envisaged to fulfill the same purpose.

√ Strengthen M&E capacity (MEDIUM-TERM)

Developing a national performance M&E system anchored at the new Planning Bureau should build on existing experience and focus on the core national planning outcomes. Mauritius could build on its existing budget monitoring tools to track planning results, by benchmarking good practices and creating a roadmap for performance M&E. A performance M&E policy would be developed, accompanied by guidelines and methodologies, tracking planning with performance M&E for greater impact. An integrated performance M&E tool would track the core national planning outcomes, using a customized performance M&E dashboard at the Planning Bureau. The Bureau would also conduct selected rapid evaluations to identify efficiency and effectiveness gains and inform decision-making, using methodologies allowing to replicate such evaluations across sectors.

The Planning Bureau could also play the role of a champion and provider of technical support for M&E at program level. This would entail working with line ministries and other agencies requesting funding for new programs in order to ensure that relevant, specific and measurable outcome indicators are agreed upon and corresponding data collection mechanisms are integrated into the program design. This would require a team of trained M&E and impact evaluation experts at the Planning Bureau to develop methodological guidelines, provide direct support to implementing agencies, and assist in the analysis and interpretation of collected data. Where appropriate, principles of randomized controlled trials could be integrated into new government initiatives.

√ Strengthen Public Private Dialogue

✓ Strengthen public private dialogue (MEDIUM-TERM)

Mauritius would benefit from further strengthening public-private dialogue and elevating it to a level where the government not only consults, but co-creates policies, institutions, and services jointly with businesses and citizens. International experience shows that citizen- and business-centricity of policies and institutions is best achieved when the government proactively involves private sector actors in its decision-making. This requires creating institutional platforms and feedback loops at multiple levels. Instead of pro-forma consultations late in the policy cycle, successful co-creation would involve an upstream involvement of citizens and businesses in strategies and actions plans, so that they reflect the pain points of those most affected by particular government policies. For example, export promotion strategies are best formulated jointly by government and exporters; similarly, one-stop shops for public services can only be citizen-centric if citizens are involved in their design. Institutional platforms for such approach will vary by sector and by specific policy. Therefore, the government is best advised to adopt a cross-cutting collaborative approach with sector-specific platforms, building on some of the existing "islands of excellence", such as the highly reform work that has propelled Mauritius to the 13th rank of the World Bank's Doing Business Report.

Negotiating future deep trade agreements can also help strengthen public-private dialogue. In particular, FTAs can forge a focused dialogue with the private sector around competitiveness and regulatory modernization. In addition, negotiating deep FTAs can promote a dialogue with civil society on the external positioning of the country. Perhaps most importantly, such processes can help shift the dynamic of interaction between the government, private sector, and society at large from the pre-Covid inertia and the current pandemic-induced crisis mode toward a more long-term development vision. Such vision, centered around competitiveness, diversification, and international positioning, requires both public and private sector working together in unison.

Annex 2: Responses to Survey of Education and Training Institutions

The E&T Survey was designed by the World Bank and administered by DCDM Research in Mauritius. The total sample included 109 institutions, representing 20 percent of all E&T institutions in the country, a sample calculated with 90 percent of confidence level and 7 percent margin of error. The response rate was 94 percent, including 103 institutions in total (5 public institutions, including the National Computer Board, the National Women's Council, the National Cooperative College, the Mauritius Maritime Training Academy, and the Mauritius Sugar Cane Industry Research; 5 MITD centers; the Mauritius Institute of Health [MIH] as parastatal body; Polytechnics; 78 private training institutions; 7 private universities; and 6 public universities [3 faculties responded for the University of Mauritius]). The sampling techniques included purposive sampling of public and private tertiary education institutions, as well as the MITD centers, and the random sampling of private training institutions.

Table A. Percentage of mentions in which E&T institutions train people, by economic sector

Economic Sector	Percent
Professional, scientific activities*	19%
Information and communication	16%
Administrative and support service activities	11%
Accommodation and food service activities	10%
Manufacturing	9%
Financial and insurance activities	7%
Human health and social work activities	6%
Other service activities	5%
Education	4%
Transportation and storage	4%
Agriculture, forestry and fishing	4%
Construction	3%
Arts, entertainment and recreation	1%
Wholesale and retail trade; repair of motor vehicles and motorcycles	0.4%
Real estate activities	0.4%
Electricity, gas, steam and air conditioning supply	0.4%
Total	100%

Note: *It also includes "technical activities", referring to design and photographic activities.

Table B: Training Sector of Courses and Programs Reported by E&T Institutions

Training Sector	Sum	%
Agroindustry	6	2%
Adult literacy and financial literacy	1	0%
Automation and robotics	2	1%
Automotive	4	1%
Beauty care and hairdressing	11	4%
Biotechnology	1	0%
Building construction and civil engineering	7	3%
Consulting services (accounting, auditing, marketing, etc.)	11	4%
Education, basic (primary and secondary)	2	1%
Education, early childhood and care	7	3%
Electrical and electronics engineering	8	3%
Engineering	6	2%
Financial services	17	6%
Health and social care	11	4%
Information and communication technologies (ICT)	30	11%
Jewelry	2	1%
Management and business	35	13%
Mechanical engineering	4	1%
Office skills	9	3%
Printing	1	0%
Seafood and marine industry	2	1%
Security and occupational safety services	4	1%
Social work	4	1%
Textile and apparel	7	3%
Tourism and hospitality management	18	7%
Transport and logistics	8	3%
Wood trades and craftmanship	3	1%
Other*	9	3%
Languages, Translation and Journalism	9	3%
Soft Skills (team work, work readiness, motivation, youth	5	2%
development, etc.)		
Customer Service	5	2%
Design and Photography	5	2%
Food services	16	6%
	270	100%

Note: *Other sectors reported included aviation, biodiversity, conservation, diving, kite surf, law, library and information science, metalwork, philosophy, psychology, real estate, religious, renewable energy, retail, and system management (quality assurance).

Table C: Qualifications Level of Courses Offered, by Type of Institution

Qualifications Level	Public Training Inst.	MITD	МІН	Poly- tech.	Private Training Inst.	Private Uni.	Public Uni.	All Inst.
No NQF	9%	-	-	-	5%	-	-	3.4%
NQF-1 Primary	9%	-	-	-	4%	-	-	2.9%
NQF-2 Certificate	9%	17%	-	-	4%	3%	-	4.2%
NQF-3 Certificate	9%	8%	-	-	6%	9%	-	5.9%
NQF-4Certificate	9%	17%	25%	-	8%	9%	-	8.0%
NQF-5 Certificate	9%	17%	25%	33%	7%	12%	4%	8.8%
NQF-6 National Diploma	9%	17%	25%	33%	9%	9%	8%	9.7%
NQF-7 BA	-	-	25%	33%	4%	15%	8%	6.3%
NQF-8 BA with honors	-	-	-	-	3%	18%	24%	7.1%
NQF-9 MA	-	-	-	-	2%	18%	24%	6.3%
NQF-10 Doctorate	-	-	-	-	-	3%	24%	2.9%
MQA Approved	18%	25%	-	-	45%	3%	8%	31.5%
Non MQA Approved	18%	-	-	-	3%	3%	-	2.9%
Total	100%	100%	100%	100%	100%	100%	100%	100%

Table D: Entry Qualifications Requirements, by Type of Institution

Qualifications Level	Public Training Inst.	MITD	МІН	Poly- tech.	Private Training Inst.	Private Uni.	Public Uni.
No qualifications	27%	11%	-	-	5%	-	-
СРЕ	20%	11%	-	-	9%	-	-
SC / O-Level	13%	44%	50%	33%	20%	10%	4%
HSC / A-Level	20%	33%	-	33%	23%	35%	26%
NQF-6 Diploma	7%	-	-	33%	14%	25%	17%
ВА	7%	-	50%	-	18%	20%	26%
MA	7%	-	-	-	9%	10%	22%
Doctorate	-	-	-	-	1%	-	4%
Total	100%	100%	100%	100%	100%	100%	100%

Table E: Student Socio-Economic Status, by Type of Institution

SES	Public Training Inst.	MITD	МІН	Poly- tech.	Private Training Inst.	Private Uni.	Public Uni.
Low	29%	63%	n.i.	40%	28%	16%	28%
Medium	66%	34%	n.i.	40%	54%	64%	54%
High	5%	4%	n.i.	20%	18%	20%	18%
Total	100%	100%	n.i.	100%	100%	100%	100%

Table F: Partnerships Established with Public Institutions, Private Companies, Universities, International Entities, or Any Kind of Organization, by Type of Institution

Institution Type	No	Yes
Public Training Institutions	0%	100%
MITD Centers	20%	80%
MIH	0%	100%
Polytechnics	0%	100%
Private Training Institutions	49%	51%
Private Universities	0%	100%
Public Universities	0%	100%
Total	38%	62%

Table G: Workplace Learning Required in the Five Top Programs*, by Type of Institution

Institution Type	Internship/ Apprenticeship	Dual Training	Other**	Total
Public Training Institutions	n.i.	n.i.	n.i.	n.i.
MITD Centers	85%	15%	0%	100%
MIH	-	100%	-	100%
Polytechnics	100%	-	-	100%
Private Training Institutions	94%	-	6%	100%
Private Universities	100%	-	0%	100%
Public Universities	100%	-	0%	100%

Notes:

^{*}This refers to the five programs with highest student enrolments in 2019.

^{**}Other workplace learning reported was Classroom Practice

Table H: Average Length of Workplace Learning in the Five Top Programs, by Type of Institution

Institution Type	Length (Months)
Public Training Institutions	n.i.
MITD Centers	3.6
MIH	31.2
Polytechnics	n.i.
Private Training Institutions	6.2
Private Universities	4.0
Public Universities	3.6
Total	6.4

Table I: Estimated Percentage of Graduates from the Five Top Programs Who Find a Job, by Type of Institution

Institution Type	Within 6 Months	After 6 Months	Already Employed
Public Training Institutions	41%	12%	23%
MITD Centers	n.i.	n.i.	n.i.
MIH	-	-	100%
Polytechnics	n.i.	n.i.	n.i.
Private Training Institutions	70%	53%	83%
Private Universities	80%	15%	58%
Public Universities	70%	27%	54%
Total	69%	39%	79%

Note: The sum of categories reported (within 6 months, after 6 months, and already employed) totals 100% for each institution included, but the sum of average percentages for each type of institution and the total is higher than 100.

Table J: Percentage of Institutions Providing the Following Support to Students to Find a Job:

Support Offered	Public Training Inst.	MITD	MIH	Poly- tech.	Private Training Inst.	Private Uni.	Public Uni.
No support is offered	80%	40%	100%	0%	58%	14%	0%
Job placement during studies	0%	60%	0%	100%	22%	57%	57%
Collaboration on projects with potential employers	0%	40%	0%	100%	14%	57%	86%
Career counseling or professional orientation	0%	0%	0%	100%	21%	86%	43%
Career services, such as job listings, job fairs, resume review, mockup interviews, etc.	20%	40%	0%	100%	14%	71%	57%
Mentoring from teachers/trainers	0%	20%	0%	100%	8%	57%	71%
Connections with employers	0%	60%	0%	100%	35%	86%	71%
Other	20%	20%	0%	100%	3%	43%	0%

Table K: Percentage of Institutions Implementing the Following Mechanisms to Ensure the Relevance of Programs:

Mechanism Implemented	Public Training Inst.	MITD	МІН	Poly- tech.	Private Training Inst.	Private Uni.	Public Uni.
Conducting studies or assessment of skills needs (formal)	60%	0%	100%	100%	45%	100%	83%
Analyzing local training and labor market (informal)	60%	40%	0%	100%	64%	100%	83%
Consulting the industry or private sector when opening a new program or course	60%	80%	0%	100%	36%	86%	100%
Designing the curricula based on competency standards	40%	40%	100%	0%	36%	86%	83%
Designing the curricula based on industry or private sector standards	40%	20%	0%	100%	41%	29%	100%
Delivering the curricula by the industry or sector experts	20%	40%	100%	100%	49%	43%	83%
Other	20%	0%	0%	0%	15%	14%	17%

Table L: Percentage of Mentions in which Institutions Report Training People in the Following Skills, by Economic Sector

	Accommodation and food service activities	Administrative and support service activities	Agriculture, forestry and fishing	Arts, entertainment and recreation	Construction	Education	Electricity, gas, steam and air conditioning supply	Financial and insurance activities	Human health and social work activities	Information and communication	Manufacturing	Other service activities	Professional, scientific and technical activities	Real estate activities	Transportation and storage	Wholesale and retail trade; repair of motor vehicles
Cognitive	18	18	19	11	14	25	30	20	23	20	19	17	20	19	19	17
Socio-emotional	23	27	24	-	20	27	40	24	27	23	21	26	25	31	25	35
Digital	16	16	9	-	27	13	-	20	16	24	22	8	18	13	28	4
Technical	44	39	49	89	39	34	30	35	34	33	39	50	38	38	28	43
Total (%)	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Table M: Percentage of Mentions in which Institutions Report Training People in the Following Skills, by Type of Institution

Skill Type	Public Training Inst.	MITD	МІН	Poly-tech.	Private Training Inst.	Private Uni.	Public Uni.
Cognitive	29%	24%	23%	24%	19%	19%	20%
Socio- emotional	22%	19%	30%	19%	28%	23%	20%
Digital	18%	22%	23%	23%	13%	25%	27%
Technical	31%	34%	24%	35%	40%	33%	34%
Total	100%	100%	100%	100%	100%	100%	100%

Table N: Distribution of Cognitive Skills in Which People are Trained

Skill Type	Freq.	%
Read and write	42	5%
Do basic math operations	37	4%
Scientific/technical knowledge	176	21%
Problem-solving or general reasoning	304	36%
Critical/analytical thinking	275	33%
Others	6	1%
Total	840	100%

Table O: Percentage of Mentions in Which People are Trained in the Following Cognitive Skills, by Type of Institution

Skill Type	Public Training Inst.	MITD	МІН	Poly- tech.	Private Training Inst.	Private Uni.	Public Uni.	All Inst.
Read and write	36%	0%	0%	80%	4%	26%	10%	8%
Do basic math operations	12%	28%	0%	80%	5%	6%	10%	7%
Scientific/technical knowledge	44%	76%	100%	80%	24%	49%	83%	34%
Problem-solving or general reasoning	68%	76%	100%	80%	52%	91%	87%	59%
Critical/analytical thinking	64%	56%	100%	80%	46%	89%	87%	53%
Others	0%	0%	0%	0%	0%	3%	17%	1%

Table P: Percentage of Mentions in Which People are Trained in the Following Cognitive Skills, by Economic Sector

	Accommodation and food service activities	Administrative and support service activities	Agriculture, forestry and fishing	Arts, entertainment and recreation	Construction	Education	Electricity, gas, steam and air conditioning supply	Financial and insurance activities	Human health and social work activities	Information and communication	Manufacturing	Other service activities	Professional, scientific and technical activities	Real estate activities	Transportation and storage	Wholesale and retail trade; repair of motor vehicles
Read and write	12	3	11	0	8	10	33	10	8	7	8	16	4	0	0	0
Do basic math operations	7	2	4	0	11	5	33	3	6	5	9	13	2	0	1	0
Scientific/technical knowledge	17	16	26	100	23	23	33	20	27	24	24	16	20	33	24	0
Problem-solving or general reasoning	34	39	38	0	30	30	0	34	30	31	31	38	37	67	39	50
Critical/analytical thinking	29	39	21	0	29	30	0	32	29	30	27	16	36	0	34	50
Others	1	0	0	0	0	0	0	1	0	2	0	0	0	0	1	0
Total (%)	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Table Q: Distribution of Socio-Emotional Skills in Which People are Trained

Skill Type	Freq.	%
Interpersonal skills, such as pro-social behavior, adaptability, empathy, collaboration, contact with people, etc.	282	26%
Communication, listening, ability to make oral presentations, etc.	302	28%
Regulation of emotions, such as dealing with frustration or conflict	204	19%
Behavioral and attitudinal factors, such as setting goals, time management, perseverance, discipline, decision making, tasks accomplishment, independence and responsibility etc.	290	27%
Others	7	1%
Total	1,085	100%

Table R: Percentage of Mentions in Which People are Trained in the Following Socio-Emotional Skills, by Type of Institution

Skill Type	Public Training Inst.	MITD	МІН	Poly- tech.	Private Trainin g Inst.	Private Uni.	Public Uni.	All Inst.
Interpersonal skills	48%	36%	100%	80%	51%	83%	87%	55%
Communication and listening, oral presentations	60%	68%	100%	80%	52%	91%	87%	59%
Regulation of emotions	4%	32%	100%	80%	40%	57%	33%	40%
Behavioral and attitudinal factors	56%	40%	100%	80%	51%	91%	87%	56%
Others	0%	8%	0%	0%	1%	0%	0%	1%

Table S: Percentage of Mentions in Which People are Trained in the Following Socio-Emotional Skills, by Economic Sector

	Accommodation and food service activities	Administrative and support service activities	Agriculture, forestry and fishing	Arts, entertainment and recreation	Construction	Education	Electricity, gas, steam and air conditioning supply	Financial and insurance activities	Human health and social work activities	Information and communication	Manufacturing	Other service activities	Professional, scientific and technical activities	Real estate activities	Transportation and storage	Wholesale and retail trade; repair of motor
Interpersonal skills	24	26	25	-	30	24	25	28	26	27	27	28	27	40	27	25
Communication and listening, oral presentations	29	29	37	-	31	27	25	32	28	30	29	27	29	20	28	25
Regulation of emotions	18	19	9	-	12	23	25	12	20	15	14	17	16	20	19	25
Behavioral and attitudinal factors	28	24	28	-	28	26	25	28	26	28	29	27	28	20	27	25
Others	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total (%)	10 0	10 0	10 0	-	10 0	10 0	10 0	10 0	10 0	10 0	10 0	10 0	10 0	10 0	10 0	10 0

Table T: Distribution of Digital Skills in Which People are Trained

Skill Type	Freq.	%
Devices and software operation: Basic knowledge of how to use computers or other digital devices and software	98	13.32%
Information and data literacy: Judge the relevance and evaluate digital content (e.g., by learning how to browse, evaluate and manage digital content)	96	13.04%
Communication and collaboration: To interact and engage through digital technologies and manage one's digital identity.	145	19.70%
Digital content creation: Create new or modify existing digital content, while understanding copyrights, licenses, and programming.	97	13.18%
Safety: Ensure security measures while safeguarding against risks, protecting devices, personal data, privacy, health and environment.	107	14.54%
Problem-solving: Solve problems in digital environments and use digital tools to innovate, bridging personal gaps in digital skills, as well as computational thinking.	102	13.86%
Career-related competences: Use of digital technologies and content for opportunities in the digital economy, and mastery of specialized digital technologies for specific career-related fields.	86	11.68%
Others	5	0.68%
Total	736	100%

Table U: Percentage of Mentions in Which People are Trained in the Following Digital Skills, by Type of Institution

Skill Type	Public Training Inst.	MITD	МІН	Poly- tech.	Private Training Inst.	Private Uni.	Public Uni.	All Inst.
Devices and software operation	40%	64%	100%	80%	12%	17%	37%	19%
Information and data literacy	24%	44%	100%	80%	9%	34%	70%	19%
Digital communication and collaboration	20%	36%	100%	80%	17%	80%	87%	28%
Digital content creation	12%	36%	0%	20%	12%	49%	70%	19%
Digital safety	20%	12%	0%	80%	16%	51%	53%	21%
Digital problem-solving	12%	8%	0%	20%	15%	60%	53%	20%
Career-related digital competences	12%	0%	0%	20%	13%	60%	40%	17%
Others	0%	16%	0%	0%	0%	0%	0%	1%

Table V: Percentage of Mentions in Which People are Trained in the Following Digital Skills, by Economic Sector

	Accommodation and food service activities	Administrative and support service activities	Agriculture, forestry and fishing	Arts, entertainment and recreation	Construction	Education	Electricity, gas, steam and air conditioning supply	Financial and insurance activities	Human health and social work activities	Information and communication	Manufacturing	Other service activities	Professional, scientific and technical activities	Real estate activities	Transportation and storage	Wholesale and retail trade; repair of motor vehicles
Devices and software operation	21	13	31	-	13	20	-	13	21	12	16	29	10	50	6	-
Information and data literacy	17	9	12	-	21	19	-	13	19	13	16	18	12	-	6	-
Digital communication and collaboration	22	22	12	-	17	31	ı	24	26	21	19	11	21	50	21	100
Digital content creation	9	16	8	-	12	19	-	14	10	15	15	7	14	-	18	-
Digital safety	12	15	15	-	12	5	1	13	13	17	13	14	15	-	17	-
Digital problem- solving	10	12	12	-	14	3	ı	14	7	16	12	11	16	-	17	-
Career-related digital competences	9	12	12	-	7	3	-	8	5	4	7	11	12	-	14	-
Others	1	1	-	-	3	-	-	-	-	-	2	-	-	-	-	-
Total (%)	100	100	100	-	100	100	-	100	100	100	100	100	100	100	100	100

Table W: Distribution of Technical or Job-Specific Skills in Which People are Trained

Skill Type	Freq.	%
Custom-service orientation, or courtesy and friendliness	236	15%
Creativity skills	230	14%
Selling or marketing skills	135	8%
Persuasion and negotiation skills	155	10%
Leadership, entrepreneurship and management skills	156	10%
Mentoring skills	150	9%
Teamwork skills	274	17%
Manual skills that require physical effort, such as standing, lifting, carrying, etc.	88	5%
Technical ability to operate certain types of tools, machinery, materials, and equipment	128	8%
Other technical, vocational or occupational-specific skills	15	1%
Other professional-specific skills	32	2%
Other	16	1%
Total	1,615	100%

Table X: Percentage of Mentions in Which People are Trained in the Following Technical or Job-Specific Skills, by Type of Institution

Skill Type	Public Training Inst.	MITD	МІН	Poly- tech.	Private Training Inst.	Private Uni.	Public Uni.	All Inst.
Custom-service orientation	20%	52%	100%	80%	44%	57%	53%	46%
Creativity skills	28%	52%	0%	80%	40%	83%	67%	45%
Selling or marketing skills	20%	28%	0%	80%	22%	46%	53%	26%
Persuasion and negotiation skills	20%	8%	0%	80%	27%	60%	57%	30%
Leadership, entrepreneurship and management skills	4%	12%	0%	0%	31%	51%	43%	30%
Mentoring skills	20%	4%	0%	80%	29%	60%	17%	29%
Teamwork skills	56%	44%	100%	80%	47%	89%	87%	53%
Manual skills	20%	56%	0%	20%	13%	6%	50%	17%
Technical ability	28%	60%	20%	80%	23%	11%	30%	25%
Other TVET skills	0%	12%	0%	0%	2%	0%	17%	3%
Other professional- specific skills	20%	4%	100%	0%	4%	0%	17%	6%
Others	0%	0%	0%	0%	3%	0%	17%	3%

Table Y: Percentage of Mentions in Which People are Trained in the Following Technical or Job-Specific Skills, by Economic Sector

	Accommodation and food service activities	Administrative and support service activities	Agriculture, forestry and fishing	Arts, entertainment and recreation	Construction	Education	Electricity, gas, steam and air conditioning supply	Financial and insurance activities	Human health and social work activities	Information and communication	Manufacturing	Other service activities	Professional, scientific and technical activities	Real estate activities	Transportation and storage	Wholesale and retail trade; repair of motor vehicles
Custom-service orientation	15	14	13	-	12	15	-	13	16	13	13	15	14	-	10	20
Creativity skills	13	16	9	-	13	13	-	14	11	17	14	15	15	17	14	20
Selling or marketing skills	10	9	11	-	4	10	-	10	7	8	9	12	9	17	10	20
Persuasion and negotiation skills	10	9	9	-	8	9	-	13	8	10	9	8	12	17	10	20
Leadership, entrepreneurship and management skills	8	13	9	-	4	10	-	10	7	9	6	4	11	17	15	-
Mentoring skills	9	12	7	29	3	4	33	8	6	9	6	8	9	17	10	-
Teamwork skills	15	16	17	29	16	18	33	18	18	20	14	15	15	17	19	20
Manual skills	6	5	9	-	12	10	33	6	11	5	10	6	5	-	7	-
Technical ability	7	4	8	41	11	6	-	4	9	8	10	13	6	-	4	-
Other TVET skills	2	-	0	-	6	1	-	-	-	-	2	1	-	-	-	-
Other professional- specific skills	2	-	4	-	3	-	-	1	3	-	2	-	2	-	-	-
Others	4	2	6	-	8	4	-	3	4	1	3	3	3	-	-	-
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Annex 3: Overview of Innovation Funding Schemes in 2020

A. Mauritius Research and Innovation Council, National Innovation and Research Fund with budget of Rs 100 million for 2019/2020 (USD 2.6M)

	Program's name	Budget and eligible applicants	Beneficiaries
1	Collaborative Research and Innovation Grant Scheme (CRIGS) Private sector led research development and innovation initiative to bridge the gap between academic research and private sector needs.	Matching grant up to Rs 5M (USD 134k) Applicants: MSMEs and large local enterprises that have been registered in Mauritius for at least one year.	Applications obtained: 51 applications received since 2014. Projects approved: 23 ongoing collaborative projects between private companies and academic/research institutions. Total project value of ongoing projects is Rs 148M, with the government contributing approx. Rs 64.6M and private sector contributing approx. Rs 86.5 M. Examples of ongoing or competed projects: 1) 3 projects in sugarcane industry. All those three projects are led by conglomerates (Onminace LTD or Terra LTD a conglomerate) and involve and Mauritius Sugarcane Industry Research Institute (MSIRI). 2) Two project in cement products – led by Gamma Material Ltd (a large enterprise with 300 employees). 3) Recycling/waste management projects, e.g. refrigerators, waste glass. 4) Software solutions for education/healthcare.
2	Pole of Innovation Grant Scheme (PolGS) Creation of innovative products/ services and goods and spurring innovation through advanced research and partnerships among local institutions and/or companies and/or international stakeholders.	Matching grant up to Rs 8M per pole (USD 200k) with an annual maximum ceiling of Rs 3M (USD 81k), for a duration of 36 months. Applicants: Publicly-Funded Institutions and Private Post-Secondary Educational Institutions or Polytechnique. Relevant Ministries/Parastatals and private bodies conducting research and innovation activities are also eligible.	Applications obtained: 7 applications received under first call and 6 applications under second call for proposal. Projects approved: 3 ongoing projects under first call of proposal, with a total project value of Rs 83.0 M, private/academic/research contribution of Rs 58.4 M (USD 1.5M) and the government through MRC contributing approx. Rs 24.6 M. Applications under second call for proposal currently under review.
3	Intellectual Property Promotion Scheme (IPPS) Financing Patents applications and registration of Industrial Designs. This scheme is open to SMEs, industry, public and private institutions, teaching, training and research institutions, and the public.	Reimbursement of up to 50% of IP application fees.	NA

4	Social Innovation Research Grant Scheme (SIRGS)	Grant of up to Rs 1M (USD 26.9k) for up to 24 months.	NA
	Proposals shall combine action-research and a social innovation potential with tangible outcomes in social development research areas including but not limited to social integration of vulnerable groups, equal opportunities and environmental issues.	Applicants: NGOs and/or public funded bodies in collaboration with academic/research institutions/private sector companies.	
5	National SME Incubator Scheme (NSIS)	Three (3) accredited private incubators:	Out of the 106 projects incubated by the NSIS:
	Government and accredited private sector incubators work in partnership to foster the growth and development of innovative businesses.	1. Turbine Incubator Ltd, (turbine.mu); 2. Verde Ventures, (http://www.verdefrontier.mu/ventures/) 3. La Plage Factory, (coworking.mu/incubator).	 5 start-ups have successfully graduated and are currently operating independently and are faring very well as per the Incubators' report. 4 Projects have been terminated prematurely due to unsatisfactory progress. 58 projects have successfully completed the pre-incubation phases but the project leaders were not willing to continue with the business implementation. 22 projects are currently ongoing with their respective incubation phases.
			The total project value of the 106 projects amounts to approximately Rs 48.2M. The NSIS has agreed to part fund a sum of Rs 14.3M the remaining cost, i.e. Rs 33.9 M is the contribution of the NSIS accredited Incubators and the Incubatees.
6	Proof of Concept Scheme (PCS)	Grant up to Rs 1 million (USD 26.9k) per project for up to 12 months.	Applications obtained: 34 applications received since February 2017.
	Scheme designed to assist innovators in advancing their research outputs and ideas with a view to developing prototypes, establishing proof of concept and validating business cases.	Applicants: i. MSMEs and Large enterprises; ii. Start-Up companies; and iii. Research institutions in collaboration with enterprises/companies. Enterprises/companies and research institutions must be already existing legal entities registered	Projects approved: 6 ongoing projects involving 6 private companies - total project value of Rs 11.2 M, with private sector contribution of Rs 5.3 M and the government through the MRIC contributing approx. Rs 5.9 M.
7	Research and Innovation Bridges (RIB)	in the Republic of Mauritius; A matching grant up to Rs 10 million (USD 267k)	Applications obtained: 4 applications received
	Scheme designed to improve the competitiveness of Mauritius through bilateral and multilateral collaborative research and innovation partnerships between Researchers and Industry of the two or more countries.	Applicants: Small, Medium and Large company registered at the Registrar of Companies in the Republic of Mauritius for at least one (1) year. Eligible partners: A Company (Small, Medium, Large) from any of the partner country(ies) A public/private Research Organisation /Academic Institution from any of the partner	since December 2017 Projects approved: 2: 1 ongoing project - total project value of Rs 6.4 M (USD 151k), with private sector contribution of 3.2 M and government contribution through MRIC of Rs 3.2 M) with a link created with Australia (1 university). 1 project approved in March 2019 total project value of Rs Rs 6.4 M - total project

	value of Rs 20 M, with private sector contribution of Rs 10 M and government contribution through MRC of Rs 10 M. Link with South Africa and UK (2 universities)
	created.

Source: MRIC

B. SME Mauritius, annual budget of approx. Rs 90 M for 2018-2019 (including operating cost and provision for SME Schemes)

	Program's name	Budget and eligible applicants	Beneficiaries
1	SME Graduate Scheme The SME Employment Scheme targets some 1,000 graduates.	A monthly stipend of Rs 14,000 based on attendance will be provided to each graduate during this period while the employer will pay the monthly traveling costs.	Projects approved: As at 30 June 2019, some 534 graduates were placed under the Scheme in Mauritius and 43 graduates in Rodrigues with disbursed amount of over Rs 18 M. SME Mauritius faced difficulties in matching current competencies and talents to requirements of the job market and therefore, proposed to include diploma holders with qualifications relevant to the job market in the next budget.
2	Certification and Accreditation Scheme SME Mauritius is actually leading this Scheme in close collaboration with the Mauritius Standards Bureau (MSB) for the MS165 accreditation and ecolabelling.	Up to Rs 200,000, 80% of costs	Projects approved: As at 30 June 2019, there were 64 beneficiaries. Out of budgeted amount of Rs 3.5 M (USD 89k), Rs 618,29 (USD 15.7k) has been disbursed.
3	Providing SMEs with technical expertise to improve their internal value creation functions, thereby directly impacting on their overall competitiveness and sustainability. Phase 1 consists of an audit of the internal functions and in-plant improvement proposals, while Phase 2 consist of implementation of proposals to be closely monitored by SME Mauritius.	A grant of 20% of the cost of Productivity Improvement Program up to a maximum of Rs 50,000 (USD 1,3 k). Applicants: Enterprises with an annual turnover not exceeding Rs 50M, and in operation for at least two years.	Projects approved: As at 30 June 2019, some 26 beneficiaries benefited from this Scheme. Out of Rs 3 M earmarked in the Budget 2018-2019, Rs 440,000 (USD 11k) has been disbursed. ⁵⁶
4	Communication & Visibility: Online Presence	Up to Rs 35k, 80% (USD 909) for online presence and marketing. Applicants:	NA
5	Access to Market Barcode Registration	Implementation of barcoding which helps in tracking sales of products and relationship with customers. Applicants: SMEs	Projects approved: As of June 30, 2019, 117 have benefitted from the barcode scheme

 $^{^{56}\,\}underline{http://cooperatives.govmu.org/English//DOCUMENTS/ANNUAL\%20REPORT\%202019-20\%20FINAL.PDF}$

6	Training: Mentoring & Hand-holding	Applicants: SMEs.	Projects approved: As of June 30,
	A developmental partnership through which mentors/industry-experts share their lifelong acquired experience to foster the sustainable growth of SMEs.	Assistance to each SME will begin with a 'growth diagnostic'; this will evaluate all key elements of the business, which contribute towards increased sales and business growth. The intention is to identify, in order of priority, the weaknesses or gaps that, when remedied, will lead to the highest. possible impact in terms of increased sales growth.	2019: 118 projects
7	Inclusive Business: Techno & Skills Transfer	Create a partnership with other SMEs through an inclusive business approach and receive a 15% refund on all transactions made. Applicants: SMEs.	Less than 50
8	Green Energy Solar Photovoltaic	Applicants: SMEs A one-off grant of 80% of total cost not exceeding Rs 100,000 (USD 2.6k) for the installation of a solar PV installation	Projects approved: As of June 30 2019, 39 SMEs benefitted from the program.
9	Holders of the SME Development Scheme Certificate will be eligible for the following incentives and facilities: (a) Income tax holiday for the first 8 years and other tax concessions. (b) Business support solutions from SME Mauritius. (d) Fast-track mechanism for obtaining permits and licences. (e) MauBank SME Financing Scheme which are as follows: (i) Interest rate (Key Repo Rate less 1.0%), currently 2.5% for the first 4 years. (ii) A maximum of 90% project financing with maturity of up to 10 years.	The project value should not exceed Rs 20 Million (USD 509k). Applicants: enterprises: - with annual turnover not exceeding Rs 50 Million; - incorporated as a small company under the Companies Act, or - formed as a Cooperative Society, or (iv) an individual issued a Business Registration Card; on or after 2 June 2015 and registered under the SME Act 2017.	Data on SME Development Scheme Certificate (as at 30 June 2019) ⁵⁷ : Program introduced in January, 2016. Number of applications received and examined: 582. Approved: 414, with the following sector breakdown: Ocean economy – 20; ICT – 25; Food processing (including bakery & pastry) – 61; Manufacturing – 106; Handicraft -13; Agri-Business – 185; Recycling/Green- 4.
10	Foreign Expertise and Technical Assistance Scheme in Handicraft Ongoing: Foreign Expertise and Technical Assistance Scheme will be set up to boost the Handicraft Sector. This will bring innovation in product development, design in order to remain competitive on the market.	Provision for all costs relating to foreign experts' fees, fares, accommodation, and transport. Applicants: SMEs	Out of the Rs 2M earmarked for this Scheme, a total of Rs 1,1M has been disbursed for the financial year 2018-2019. Projects approved: 54 SMEs and trainers benefited under this Scheme ⁵⁸
11	Certification under 'Made in Moris' label	Rs 5,000 per SME (USD 130).	Projects approved in 2017/2018: 20 SMEs have adhered to this concept

 $^{^{57}\,\}underline{http://cooperatives.govmu.org/English//DOCUMENTS/ANNUAL\%20REPORT\%202019-20\%20FINAL.PDF}$

⁵⁸ http://cooperatives.govmu.org/English//DOCUMENTS/ANNUAL%20REPORT%202019-20%20FINAL.PDF

		Applicants: SMEs.	encompassing more than 250
			brands. ⁵⁹
12	Technology and Innovation Scheme (TINNS) TINNS seeks to enable SMEs to -continuously invest in Technology and automated production capabilities -create technology based integrated and sustainable SMEs	80% of total costs up to a maximum of Rs 150,000 (USD 3.8k). Applicants: - For registered young and women entrepreneurs (29 years), a full grant up to Rs 50,000 (USD 1.2k) is applicable for any productive equipment, excluding ICT. - registered SME, with an annual turnover not exceeding Rs 50 Million; must have been in operation for at least six months.	NA
13	SME Marketing Support Scheme (MSS) Improve market accessibility and competitiveness in both local and export markets.	80% of total costs up to a maximum of Rs 150,000 (USD 3.8k). Applicants: - registered SME, with an annual	NA
		turnover not exceeding Rs 50 Million	
14	Internal Capability Development Scheme (ICDS) ICDS seeks to help SMEs to improve: -efficiency of their value chain -responsiveness to customer requirements and	80% of total costs up to a maximum of Rs 150,000 (USD 3.8k). Applicants: - registered SME, with an annual	NA
	market dynamics -Accreditation to National/International/Sector specific standards	turnover not exceeding Rs 50 Million - must have been in operation for at least six months	
	-Registration of Trademarks, Patents and Intellectual Property -Barcode Registration with initial registration, training and membership fees -Financial restructuring -Technical Training, others.		

Sources: smemu.org; The Ministry of Business, Enterprise and Cooperatives (MoBEC) Annual Reports for 2018-2019 and 2017-2018.

C. Economic Development Board

Pro	gram's name	Description			
1	Smart City Scheme	The Government of Mauritius has set up the 'Smart City Scheme', providing a clearly defined enabling framework and an attractive package of fiscal and non-fiscal incentives to investors. This			

 $^{^{59} \}underline{\text{http://enterbusiness.govmu.org/English//DOCUMENTS/ANNUAL\%20REPORT-} \underline{\%20(AS\%20AMENDED\%20BY\%20GOVT\%20PRINTING)\%20(1).PDF}$

		paves the way for tremendous investment opportunities in a wide array of components in the pioneering urban development.
2	Property Development Scheme	The Property Development Scheme (PDS), which has replaced the IRS and RES, allows the development of a mix of residences for sale to non-citizens, citizens and members of the Mauritian Diaspora
3	Sme Refund Scheme MUR 200,000 (USD 5k)	The Participation in International Fairs SME Refund Scheme has been set up by the Government to finance the participation of Small and Medium Enterprises (SMEs) in international fairs. The objective of the scheme is to assist SMEs to expand their businesses through their participation in export promotion activities.
4	Film Rebate Scheme	In its endeavor to develop new sectors of activity within the creative arts industry, the Government of Mauritius, through the Board of Investment has introduced the Film Rebate Scheme. The scheme allows 30 per cent refund on all the Qualifying Production Expenditures (QPPE) incurred by a film producer in respect of his/her project in Mauritius.
5	Mauritian Diaspora Scheme	The Mauritian Diaspora Scheme has been set up with a view to attract members of the Mauritian Diaspora back to Mauritius to participate in the economic development of the country. Any member of the Mauritian Diaspora who, before 24 March 2015, has been living and working outside Mauritius and has the necessary skills, talent and experience and who is willing to return and serve Mauritius is eligible to apply for registration under the Scheme.
6	Regulatory Sandbox License	The Regulatory Sandbox License (RSL) offers the possibility for an investor to conduct a business activity for which there exists no legal framework, or adequate provisions under existing legislation in Mauritius. The RSL will be issued by the Economic Development Board to eligible companies willing to invest in innovative projects according to an agreed set of terms and conditions for a defined period.
7	Speed-To-Market Scheme	As per Budgetary Measures 2017/18 the Speed to Market Scheme (STMS) for the Textile and Apparel exports on the European markets has been extended to Jewellery, Medical Devices, Fruits, Flowers, Vegetables, Chilled Fish, Articles of Leather, Footwear, Watches, and Fabric Plush Toys to further address the threats from Brexit. The Scheme will entail a 40% rebate on Air Freight cost (All-in-prices) to Europe
8	Freight Rebate Scheme	Exporters are informed that, as announced in Budget 2014, they may apply for a refund of 25% of the Basic Freight Cost to the maximum of USD 300 per 20-feet container and USD 600 per 40-feet container exported to eligible Ports in Africa, Madagascar and Reunion Island
9	Export Credit Guarantee Scheme	The Trade & Export Office of the Economic Development Board-Mauritius, the implementing agency of the Export Credit Insurance Scheme for Africa, has signed Memorandum of Understandings (MoUs) with eligible credit insurance providers
10	Food Processing Scheme	The Registration Certificate (Food Processing) has been introduced to promote global value chain through the cultivation and importation of agricultural products to be used as raw materials for processing into intermediate and finished products and to encourage re-export activities

Source: EDB

D. Research programs funded by the Higher Education Commission under the Research Fund. Budget of the Research Fund for 2017/2018 was Rs 20M⁵⁰ (USD 500k)

	Program's name	Description
1	Early Career Research Grant	Rs 500,000 (USD 13.k) per research project

⁶⁰ http://www.tec.mu/current_budgets

2	Research Publication Incentive Scheme	Institutions will be paid a fee as follows: Rs 10,000 per peer-reviewed journal publication*. Rs 7,000 for book chapters. Rs 20,000 for edited book. Rs 40,000 for authored book.
3	Interdisciplinary/Inter-Institutional Team-Based Research The objective of the scheme is to promote research where complementary expertise is essential as to encourage collaboration between researchers within an institution, or between institutions with varied resources and capabilities. Partnership with the government, industry, business sector, NGOs or overseas partners is an integral part of the research project.	The Scheme covers financial assistance up to a maximum of Rs 3.0M (USD 78k) over a three-year period.
4	Team-Based Research in Specific Discipline/Field	Rs 3.0M (USD 78k) for three years.
	The objective of the Scheme is to promote research in a specific discipline, requiring complementary expertise. Collaboration between academics within a Department/ School/ Faculty/ Institution is an integral part of the scheme.	
5	Individual Research Support Scheme.	Rs 300,000 (USD 7.8k) per project
6	Matching Grant Scheme The objective of the scheme is to encourage public Tertiary Education Institutions to raise funding from external sources, local or overseas, for carrying out research.	The matching grant will be equivalent to the value of external fund raised up to a maximum of MRU 500,000 (USD 12.7k) per research project.
7	Enhancing Research Capacity To Bridge The Gender Gap The objective of the scheme is to bolster research by women in all fields including engineering and technology-related fields, where they are presently significantly underrepresented.	The Scheme provides for financial assistance, up to a maximum of MUR 500,000 over a period not exceeding three years.
8	Incentive Scheme for Masters By Research/Doctoral Completion	The grant is limited to the tune of: Rs 50,000 per Doctoral Program by Research Award, if completed within 3 years full-time equivalent and 4 years for those enrolled on MPhil/PhD programs. Rs 30,000, if completed in more than 3 years. Rs 20,000 per Master's by Research (MRes)/Doctoral Program by Research Award.
9	Top-up TEC's MPhil/PhD Scholarship	The Scheme provides for a top-up allowance of Rs 10,000 monthly as from the date of publication by awardees for the remainder of the MPhil/Doctoral Program by Research Scholarship.
10	Research Fellowship Scheme for Academic Staff in Publicly Funded Tertiary Education Institutions (TEIs)	The Scheme aims to provide part funding to academic staff of public TEIs in Mauritius to enable them to spend 8-12 weeks in a University/research institution overseas to advance their research. The fellowship is intended to assist local researchers to pursue and foster international research collaboration.
11	Scheme for International Conferences/Workshops For MPhil/PhD Students	Students will be funded up to a maximum of Rs 50,000 towards meeting the costs of registration fees for the

Ī		International Conference and an economy class airfare. Ten
		awards will be made annually.

Source: www.tec.mu.

Annex 4: Firm Support Measures in response to Covid-19

Government

	Paradiation	F-March of a cont
Measure	Description	Estimated cost
Wage Assistance	Enterprises received support for all of their employees drawing a monthly basic	Rs 15.2 bn
Scheme	wage of up to Rs 50,000 subject to a cap of Rs 25,000 per employee.	
	Mar-May 2020: all private sector	
	Jun 2020: Tourism sector, Sports and recreational activities	
	Jul-Dec 2020: Tourism Sector	
	The assistance was increased to a maximum of Rs 25,375 for those earning a	
	basic wage of Rs 50,375 per month.	
	Jan-Apr 2021: Tourism Sector	
	Mar-Apr 2021: All other sectors	
	Scheme being extended on a monthly basis	
Self Employed	Eligible self-employed individuals received an amount of Rs 5,100 per month.	Rs 4.2 bn
Assistance Scheme	Mar-May 2020: all self-employed	
	• Jun 2020: self-employed in Tourism sector, Sports and recreational	
	activities	
	Jul-Dec 2020: self-employed in Tourism Sector	
	The monthly financial assistance was increased to Rs 5,287.	
	Jan-Apr 2021: self-employed in Tourism Sector	
	Mar-Apr 2021: self-employed in all other sectors	
	Scheme being extended on a monthly basis	
One-Off Grant to	One-off grant of Rs 10,000 paid to self-employed persons	Rs 2.25 bn
Self-Employed		
Work Permits	All work permits for expatriate workers that will expire in year 2020 were	
	extended automatically up to 31st December 2021.	
Freight Rebate	The Freight Rebate Scheme was extended for exports to South Africa and	
Scheme	Tamatave up to 31st December 2020. It has been further extended to all African	
	countries.	
Speed to Market	The Scheme was extended for exports to Africa, Japan, Australia, Canada and	
Scheme	Middle East up to 31st December 2020.	
Export Credit	The Export Credit Insurance Scheme has been extended to cover all exports.	
Insurance Scheme		
Environment	The Fee of 0.85% charged on the monthly turnover of hotels, guest houses and	
Protection Fee	tourist residences has been suspended up to 30 June 2020.	
Training Levy	The training levy payable by operators in the tourism sector has been reduced	
	by 0.5 percentage points as from 15th March 2020.	
Port charges	Waiving of port dues and terminal handling charges for exports up to June 2020.	
	These charges for exports were further waived up to December 2020 and	
	reduced by 50% for the period January to June 2021.	
Fees payable by	Government has waived the fees payable by sellers of vegetables, haberdashery	Rs 5 m
sellers of	and general merchandise in markets around the island during the curfew period.	
vegetables		
Support to Local	Local artists - Rs 19 million to finance the COVID-19 Action Plan 2020 to	Rs 19 m
Artists (Budget	support the production of virtual concerts.	
Measure)		

Support to National Carrier Support to hotels Support to tourism sector	Provision has been made in the budget to support the national carrier as it was seriously affected by the COVID-19 pandemic. Introduction of an Aparthotels Scheme to enable existing hotels to convert part of their accommodation units into serviced apartments that can be sold individually. • The licensees of Tourism Authority and Beach Authority are exempted	Rs 9 bn
Support to hotels Support to tourism	Introduction of an Aparthotels Scheme to enable existing hotels to convert part of their accommodation units into serviced apartments that can be sold individually. The licensees of Tourism Authority and Beach Authority are exempted	
Support to tourism	of their accommodation units into serviced apartments that can be sold individually. • The licensees of Tourism Authority and Beach Authority are exempted	
	individually. • The licensees of Tourism Authority and Beach Authority are exempted	
	The licensees of Tourism Authority and Beach Authority are exempted	
sector		
	from payment of license fee for a period of two years.	
	The rental payment of state lands for hotels is waived for the upcoming	
	financial year.	
	The rebate under the Hotel Reconstruction and Renovation Scheme on	
	rental of state lands for hotels has been increased from 50% to 100% for	
	two years up to 30 June 2022.	
	Up to December 2021, companies operating under the Deferred Duty and	
	Tax Scheme as well as the Mauritius Duty Free Paradise are allowed to sell	
	their goods on the local market, provided they pay the taxes.	
Increasing the	Training program managed by the HRDC for some 9,000 unemployed in various	
National Training	fields including, amongst others, construction, manufacturing, logistics,	
and Reskilling	ICT/BPO, agro-industry, renewable energy and circular economy.	
Intake		
Employment	Scheme to provide wage support of up to Rs 10,575 monthly to some 11,000	
Support Scheme for	new employees in SMEs and MMEs provided that the entity has not laid off any	
SMEs and MMEs	employee since September 2020	
Deferment of Taxes	The income tax liability of companies under the Advance Payment System	
	(APS) has been deferred to June 2021.	
	For self-employed individuals, the advance payment of personal income	
	tax under the Current Payment System (CPS) payable in December 2020,	
	March 2021 and June 2021 will be paid together with the return in	
	October 2021.	
Incentive to settle	The Tax Arrears Settlement Scheme (TASS) which provides full waiver of	
Tax Due	penalties and interest on all tax dues has been renewed	
Incentives for	All debtors to benefit from 100% waiver of the late submission penalty and	
payment of Training	80% waiver of surcharge on late payment of Training Levy provided that the	
Levy arrears	employer signs an agreement with the MRA by 30 June 2021 and effect	
	payment of all dues under an instalment programme up to 31 March 2022.	
Air Freight Scheme	Support to the National Carrier in the provision of cargo services to export-	
for Export-Oriented	oriented enterprises at affordable prices. Since November 2020, Air Mauritius	
Enterprises	has already operated 5 flights to Paris at full cargo capacity. Additional flights	
	to Paris, Guangzhou and Antananarivo are also being explored for the period	
	January to June 2021	
Financial Support to	Government has decided to provide financial assistance to Small and Medium Enterprises (SMEs) for the payment of the Salary Companyation for the months	
SMEs for the	Enterprises (SMEs) for the payment of the Salary Compensation for the months of January 2021 to June 2021 as follows:	
payment of salary	Where the SME is not an export Enterprise, Rs 375 for each full-time	
compensation 2021	employee earning a basic wage or salary of up to Rs 50,375.	
	Where the enterprise is an Export Enterprise, Rs 235 for each full time	
	Mauritian employee earning a basic wage or salary of up to Rs 50,235. The	
	MRA will pay an amount of Rs 140, being part of the salary compensation	
	for 2021, as special allowance directly into the bank account of the Mauritian employee.	

Measure	Description	Estimated cost
Financial support to	The period for the repayment of Value Added Tax (VAT) has been extended as	
SMEs in the context	at date, to 15 July 2021.	
of the second		
lockdown.		

Bank of Mauritius

Measure	Description	Estimated cost
Reduction in Key Repo Rate	The Bank of Mauritius has lowered the Key Repo Rate from 3.35% to 2.85% on 10 March and to 1.85% on 16 April 2020.	
Reduction in Cash Reserve Ratio	On 13 March, the Bank of Mauritius reduced the Cash Reserve Ratio applicable to commercial banks from 9% to 8%. The amount released through this cut is held in a special account at the Bank which commercial banks can use for any facility to be granted to any impacted economic operator.	Rs 4 bn
Bank of Mauritius Special Relief Programme (Banking)	The Bank of Mauritius has introduced a Special Relief Programme for an amount of Rs 5 billion through commercial banks as from 23rd March 2020 up to 30 Sept 2020 to meet cash flow and working capital requirements of economic operators, including SMEs. The interest rate is capped at 1.5% p.a. and with the loan repayment period being 4 years, including a moratorium of up to 9 months on capital and interest repayments.	Rs 5 bn
Commercial banks moratorium to economic operators	Commercial banks provided a moratorium of 6 months on capital repayment for existing loans for economic operators that are being affected by COVID-19. Extended to DEC	
Easing of Banking Guidelines	The Bank of Mauritius has put on hold the Guideline on Credit Impairment Measurement and Income Recognition, which was effective since January 2020. This measure will allow commercial banks to continue supporting enterprises facing cash flow and working capital difficulties in the context of COVID-19. The Bank of Mauritius has also reviewed two of its guidelines, namely the Guideline on Standardised Approach to Credit Risk and the Guideline on the Computation of Debt-to-Income Ratio for Residential Property Loans. With relation to its Guideline on Scope of Application of Basel III and Eligible Capital, the Bank of Mauritius has deferred the implementation of the last tranche of the capital conservation buffer amounting to 0.625% to 1 January 2021. These measures will help release more capital to banks whilst also giving them more flexibility in terms of funding capacity and support they can provide to customers.	
Special Foreign Currency (USD) Line of Credit	The Bank of Mauritius has introduced a Special Foreign Currency (USD) Line of Credit targeting operators having foreign currency earnings, including SMEs. The line of credit of an amount of USD 300 million was made available through commercial banks at 6-month USD Libor. This line of credit was available from the 24th March 2020 until the 30th June 2020 and repayment would be over a period of 2 years from the effective date of disbursement. The facility was extended for an amount of USD 200 million up to December 2020 repayable one year after disbursement.	\$ 500 m = Rs 19.5 bn
Swap Arrangement to Support Import Oriented Businesses	The Bank of Mauritius has introduced a USD/MUR swap arrangement with commercial banks for an initial amount of USD 100 million. This arrangement will enable commercial banks to support import-oriented businesses.	\$ 200 m = Rs 7.8 bn

Measure	Description	Estimated cost
	The swap arrangement was effective as from the 24th March 2020	
	until the 30th June 2020. It was thereafter renewed for an additional	
	amount of USD 100 million available up to December 2020.	
Mauritius Investment	The Bank of Mauritius has set up the MIC as a fully owned subsidiary.	Up to Rs 80 bn
Corporation Ltd (MIC)	The objective of the MIC is to mitigate contagion of the ongoing	
	economic downturn to the banking sector, thus limiting macro-	
	economic and financial risks. MIC will invest in large- and medium-	
	sized enterprises having a minimum annual turnover of Rs100 million;	
	Second, invest in companies geared towards building self-sufficiency	
	in key basic necessities; Third, invest in companies enhancing	
	Mauritius as an innovation-driven economy; and It will support the	
	development of return-generating key strategic assets and projects.	
Exceptional contribution to	The Board of Directors of the Bank has provided Government with a	Rs 60 bn
government budget	one-off exceptional contribution of Rs 60 billion to assist Government	
	in its fiscal measures to stabilize the economy of Mauritius.	

State Investment Corporation

Measure	Description	Estimated Cost
SIC Equity Participation	The SIC Ltd has launched an Equity Participation Scheme to assist	Rs 2.5 bn
Scheme	enterprises with annual turnover up to Rs 250 million to overcome	
	their financial difficulties in the wake of COVID-19.	
SME Factoring Scheme	Enterprises with annual turnover of up to Rs 50 million are	
	benefitting from a reduced interest rate of from 2.5% instead of 3.9%	
	under SME Factoring Scheme.	
Leasing Equipment	Enterprises with annual turnover ranging between Rs 50 million and	
Modernization Scheme	Rs 1.5 billion are benefitting from a reduced interest rate ranging	
	between 2.5% and 3.35% per annum.	
Corporate Guarantees to	ISP Ltd is issuing corporate guarantee to banks to enable them to	
banks	grant loans to companies affected by COVID-19, on a case to case	
	basis.	
	For economic operators having a turnover of up to Rs 50 million (that	
	is, the SMEs), the SIC is providing corporate guarantee of 60% of the	
	credit facilities and 50% for operators with turnover above Rs 50	
	million.	
SME Equity Fund Ltd	The SME Equity Fund Ltd has reduced its minimum return dividend	
	rate requirement on equity/quasi-equity financing from 6% to 3% up	
	to 31 December 2020.	

Development Bank of Mauritius Ltd

Measure	Description	Estimated cost
Enterprise	Enterprises with annual turnover of up to Rs 10 million are	
Modernization Scheme	benefitting from a reduced interest rate of 2.5% instead of	
(EMS)	3.5% up to 31st December 2020.	
Revolving Credit Fund	A Revolving Credit Fund of Rs 200 million has been established	Rs 200 m
	at the Development Bank of Mauritius Ltd to help companies	
	(with turnover of up to Rs 10 million) to ease cash flow	
	difficulties up to Rs 1 million with repayment over 2 years.	
	Interest will not be payable if loan is repaid within 9 months.	
	Otherwise, interest will be at a rate of 6% per annum.	
Rental payments	DBM has waived 50% of rental payments from its lessees of	
	DBM Industrial Estates for the months of March and April 2020	
	and deferred the payment of the remaining rental for the	
	months of March to June 2020 for payment in instalments over	
Landon France	12 months starting July 2020.	
Leasing facilities	For smaller enterprises with annual turnover of up to Rs10	
	million, the DBM is providing leasing facilities at reduced	
	interest rate of 1.75% per annum up to 31 December 2020 and	
Commant to Applicational	a grant of 15% up to a maximum of Rs 150,000.	
Support to Agricultural	For distressed companies affected directly by the Covid-19	
Sector (Budget	pandemic in the agricultural sector, the DBM is providing	
Measure)	loans at the concessional rate of 0.5% p.a. The DBM will provide loan at concessional rate of 0.5% p.a. to	Rs 10 bn
Budget Measure	distressed enterprises and cooperatives to meet the	K2 10 DII
	restructuring cost, investment in new equipment,	
	digitalization of operations, transfer of technology cost,	
	consultancy cost, and financing of working capital.	
	Enterprises in the SME sector having turnover up to Rs 100	
	Million are eligible.	
SME Interest Free Loan	The SME Interest Free Loan Scheme is being implemented by	
Scheme	the Development Bank of Mauritius (DBM) Ltd to provide loans	
	to SMEs with turnover not exceeding Rs 50 million and which	
	have contributed to the Contribution Sociale Généralisée	
	(CSG). An interest-free loan of Rs 100,000 with a moratorium	
	of 5 years on repayment will be provided to eligible SMEs.	
COVID-19 Special	The Development Bank of Mauritius (DBM) Ltd is	
Support Scheme	implementing the COVID-19 Special Support Scheme whereby	
	SMEs will be able to apply for unsecured loans of up to Rs 1	
	million at an interest rate of 0.5% per annum with repayment	
	period of 5 years including a moratorium of 1 year on capital	
	and interest	
Extended moratorium	The DBM is granting an extended moratorium period of 1	
on existing schemes	year to all SMEs, on all its existing schemes, as at date.	
Loan facilities by DBM	DBM will provide loans to enterprises without the need for	
	collateral for an amount up to Rs 1 million instead of Rs	
	350,000	

Source: Ministry of Finance, Economic Planning and Development.

Annex 5: Products with Preferential Market Access under new Trade Agreements that could Boost Mauritius' Export Complexity

Products to India	Similarity to exports (0% 100% highe	RCA > 1 means well established export, <1 niche export, missing if no exports			Product sophistication lowest, 100 hig	•			
Product description	Product code	Imports*	MUS proximity	MUS RCA	PCI percentile	MUS exports* to market	Product condition	Tariff	Top suppliers
Liqueurs and cordials	220870	16,540	15.4%	0.5	55		No RCA (exported)	0%	United Kingdom (MFN: 150%), Germany (MFN: 150%), Singapore (MFN: 150%)
Nickel ores and concentrates	260400	33,200	17.6%		53		Potentially new (not exported)	0%	Netherlands (MFN: 2.5%), Austria (MFN: 2.5%)
Medicaments; consisting of mixed or unmixed products <u>n.e.c.</u> in heading no. 3004, for therapeutic or prophylactic uses, packaged for retail sale	300490	571,138	14.8%	0.6	65	4.0	No RCA (exported)	0%	United States (MFN: 10%), Switzerland (MFN: 10%), Germany (MFN: 10%)
Paints and varnishes; based on polymers <u>n.e.c.</u> in heading no. 3208, dispersed or dissolved in a non-aqueous medium	320890	99,561	14.9%	0.3	60		No RCA (exported)	0%	United States (MFN: 10%), Germany (MFN: 10%), Italy (MFN: 10%)
Paints and varnishes; based on acrylic or vinyl polymers, dispersed or dissolved in an aqueous medium	320910	13,655	14.7%	0.4	57		No RCA (exported)	0%	Italy (MFN: 10%), United States (MFN: 10%), Japan (PRF: 2%)
Paints and varnishes; (including enamels, lacquers and distempers), prepared water pigments of a kind used for finishing leather	321000	18,413	17.8%	5.8	54		RCA (exported)	0%	Switzerland (MFN: 10%), China (MFN: 10%), Germany (MFN: 10%)
Perfumes and deodorizers; perfuming or deodorizing preparations needs, heading no. 3307	in 330790	7,763	15.1%	0.1	65	0.1	No RCA (exported)	0%	United States (MFN: 20%), Poland (MFN: 20%), Indonesia (PRF: 0%)
Polishes, creams and similar preparations; n.e.c. in heading no. 3405, excluding waxes of heading no. 3404	340590	10,960	16.6%	3.4	64		RCA (exported)	0%	United States (MFN: 10%), Germany (MFN: 10%), China (MFN: 10%)
Solvents and thinners; organic composite solvents and thinners, n.e.c. or included, prepared paint or varnish removers	381400	22,313	15.6%	0.3	54		No RCA (exported)	0%	Singapore (PRF: 0%), Korea, Rep. (PRF: 0%), Germany (MFN: 10%)
Plastics; tubes, pipes and hoses thereof, rigid, of plastics n.e.c. in heading no. 3917	391729	27,434	14.8%	0.1	55		No RCA (exported)	0%	China (MFN: 10%), Japan (PRF: 2.7%), United Arab Emirates (MFN: 10%)
Plastics; tubes, pipes and hoses thereof, n.e.c. in item no. 3917.30	391739	29,452	14.9%	0.4	63		No RCA (exported)	0%	China (MFN: 10%), Germany (MFN: 10%), United States (MFN: 10%)
Plastics; plates, sheets, film, foil and strip, other than cellular	392190	145,095	14.3%	0.1	63		No RCA (exported)	0%	China (MFN: 10%), United States (MFN: 10%), Italy (MFN: 10%)
Plastics; boxes, cases, crates and similar articles for the conveyance or packing of goods	392310	53,935	15.2%	0.4	53		No RCA (exported)	0%	China (MFN: 10%), Taiwan, China (MFN: 10%), France (MFN: 10%)
Leather; composition leather with a basis of leather or leather <u>fibre</u> , in slabs, sheets or strip, <u>whether or not</u> in rolls	411510	4,023	15.7%		73		Potentially new (not exported)	0%	Germany (MFN: 10%), Italy (MFN: 10%), United Kingdom (MFN: 10%)
Paper articles; handkerchiefs, cleansing or facial tissues and towels	481820	8,494	15.9%	0.2	50	1.9	No RCA (exported)	0%	Korea, Rep. (PRF: 0%), China (MFN: 10%), Germany (MFN: 10%)
Printed matter; books, brochures, leaflets and similar printed matter n.e in item no. 4901.10 or 4901.91	. ^{C.} 490199	115,804	16.6%	0.4	60	1.2	No RCA (exported)	0%	United Kingdom (MFN: 10%), United States (MFN: 10%), China (MFN: 10%)
Yarn, synthetic; filament, monofilament (less than 67 <u>decitex</u>), other tha high tenacity or textured yarn, single, untwisted or twisted 50 turns or le per <u>metre</u> , <u>n.e.c.</u> in heading no. 5402, not for retail sale, not sewing thre	ss 540249	8,345	20.2%	2.1	66		RCA (exported)	0%	United States (MFN: 10%), Japan (PRF: 2.7%), Netherlands (MFN: 10%)
Fabrics, woven; containing 85% or more by weight of filaments of nylon other polyamides, unbleached or bleached	or 540741	2,487	15.3%		59		Potentially new (not exported)	0%	Thailand (PRF: 0%), United Kingdom (MFN: 10%), Japan (PRF: 0%)
Fabrics, woven; containing 85% or more by weight of filaments of nylon other polyamides, dyed	or 540742	8,879	16.1%		73		Potentially new (not exported)	0%	China (MFN: 10%), Korea, Rep. (MFN: 10%), Taiwan, China (MFN: 10%)
Fabrics, narrow woven fabrics, n.e.c. in heading no. 5806, of man-made fibres (excluding goods of heading no. 5807)	580632	20,265	14.2%	0.3	51		No RCA (exported)	0%	China (MFN: 10%), Thailand (PRF: 0%), Hong Kong, China (MFN: 10%)

Products to India (cont.)

Product description	Product code	Imports*	MUS proximity	MUS RCA	PCI percentile	MUS exports* to market	Product condition	Tariff	Top suppliers
Cellulose <u>fibre</u> -cement; articles or the like, sheets, panels, tiles and similar articles (other than corrugated sheets), not containing asbestos	681182	6,038	14.2%		60		Potentially new (not exported)	0%	Thailand (PRF: 0%), United States (MFN: 10%), Indonesia (PRF: 0%)
Iron or non-alloy steel; in coils, flat-rolled, width 600mm or more, cold-rolled, of a thickness of 3mm or more	720915	19,699	15.5%		52		Potentially new (not exported)	0%	Korea, Rep. (PRF: 0%), Germany (MFN: 12.5%), Japan (PRF: 0%)
Iron or non-alloy steel; bars and rods, n.e.c. in chapter 72, cold-formed or cold-finished, (not free-cutting)	721550	11,105	14.6%		61		Potentially new (not exported)	0%	Belgium (MFN: 10%), Japan (PRF: 0%), United Kingdom (MFN: 10%)
Iron or non-alloy steel; wire, (not plated or coated), whether or not polished	721710	14,327	15.5%		52		Potentially new (not exported)	0%	Korea, Rep. (PRF: 0%), Germany (MFN: 10%), Vietnam (PRF: 0%)
Iron or steel; woven cloth, other than of stainless steel	731419	9,929	14.9%		56		Potentially new (not exported)	0%	China (MFN: 10%), Japan (PRF: 2.7%), Hong Kong, China (MFN: 10%)
Copper; wire, of copper-zinc base alloys (brass)	740821	25,662	14.3%		54		Potentially new (not exported)	0%	Japan (PRF: 0%), Malaysia (PRF: 0%), China (MFN: 5%)
Tools, hand; other hand tools (incl. glaziers diamonds), excluding household tools, drilling, threading or tapping tools, hammers and <u>sledge hammers</u> , planes, chisels, gouges, similar cutting tools for working wood, screwdrivers	820559	17,745	14.7%	0.1	88		No RCA (exported)	0%	Germany (MFN: 10%), China (PRF: 9%), Japan (PRF: 3.6%)
Boilers; <u>vapour</u> generating boilers, including hybrid boilers <u>n.e.c.</u> in heading no. 8402	840219	13,766	14.9%		54		Potentially new (not exported)	0%	China (MFN: 10%), Italy (MFN: 10%), Germany (MFN: 10%)
Refrigerators; for household use, compression-type, electric or other	841821	8,564	14.4%	0.1	61		No RCA (exported)	0%	China (MFN: 10%), Thailand (PRF: 0%), Singapore (PRF: 0%)
Machines; parts of those for cleaning, sorting or grading seed, grain or dried leguminous vegetables or for milling or working cereals or dried leguminous vegetables (not farm-type machinery)	843790	17,743	14.6%		57		Potentially new (not exported)	0%	China (MFN: 7.5%), United Kingdom (MFN: 7.5%), Thailand (PRF: 0%)
Machinery; industrial, for the manufacture of confectionery, cocoa or chocolate	843820	41,542	15.6%		56		Potentially new (not exported)	0%	Germany (MFN: 5%), China (MFN: 5%), Italy (MFN: 5%)
Textile machinery; n.e.c. in heading no. 8445, for preparing textile fibers	844519	9,383	14.7%		52		Potentially new (not exported)	0%	France (MFN: 5%), Malaysia (PRF: 0%), Switzerland (MFN: 5%)
Machines; parts and accessories of machines of heading no. 8447 or auxiliary machinery, sinkers, needles and other articles used in forming stitches	844851	17,318	15.3%	0.6	59		No RCA (exported)	0%	Germany (MFN: 5%), China (MFN: 5%), Korea, Rep. (MFN: 5%)
Sewing machine needles	845230	16,054	14.3%	4.3	59		RCA (exported)	0%	Germany (MFN: 8.8%), Japan (PRF: 3.1%), Vietnam (PRF: 0%)
Sewing machines; furniture, bases and covers for sewing machines and parts thereof, and other parts of sewing machines	845290	19,152	16.9%	1.0	60		No RCA (exported)	0%	China (MFN: 8.1%), Japan (PRF: 2.9%), Malaysia (PRF: 0%)
Machine-tools; for threading or tapping by removing metal	845970	7,739	14.3%		71		Potentially new (not exported)	0%	Taiwan, China (MFN: 7.5%), China (MFN: 7.5%), Japan (PRF: 2.7%)
Machine-tools; flat-surface grinding machines, in which positioning in any one axis can be set up to an accuracy of 0.01mm or better, other than numerically controlled	846019	8,542	14.5%		84		Potentially new (not exported)	0%	Germany (MFN: 7.5%), Korea, Rep. (PRF: 0%), United States (MFN: 7.5%)
Machine-tools; planning machines, and other machine-tools n.e.c. in heading no. 8461; working by removing metal, sintered metal carbides or cements.	846190	23,114	15.3%		63		Potentially new (not exported)	0%	China (MFN: 7.5%), Korea, Rep. (PRF: 0%), Japan (PRF: 2.7%)
Machine-tools; shearing machines (including presses), (other than combined punching and shearing machines, other than numerically controlled), for working metal	846239	20,275	14.2%		70		Potentially new (not exported)	0%	China (MFN: 7.5%), Japan (PRF: 2.7%), Korea, Rep. (PRF: 0%)
Molding boxes; for metal foundry	848010	9,058	15.1%		51		Potentially new (not exported)	0%	China (PRF: 6.4%), Italy (MFN: 7.5%), Japan (PRF: 2.7%)

Products to India (cont.)

Product description	Product code	Imports*	MUS proximity	MUS RCA	PCI percentile	MUS exports* to market	Product condition	Tariff	Top suppliers
Reception apparatus for television, <u>whether or not</u> incorporating radio- broadcast receivers or sound or video recording or reproducing apparatus; incorporating a colour video display or screen	852872	614,786	16.7%	3.1	52		RCA (exported)	0%	China (MFN: 10%), Vietnam (PRF: 0%), Malaysia (PRF: 0%)
Vehicles; public transport type (carries 10 or more passengers), compression-ignition internal combustion piston engine (diesel or semi-diesel)	870210	5,730	15.4%		51		Potentially new (not exported)	0%	Thailand (MFN: 40%), Germany (MFN: 40%), South Africa (MFN: 40%)
Helicopters; of an unladen weight not exceeding 2000kg	880211	21,066	14.4%		58		Potentially new (not exported)	0%	France (MFN: 10%), Germany (MFN: 10%), Canada (MFN: 10%)
Spectacles, goggles and the like; (other than sunglasses) corrective, protective or other	900490	13,026	16.2%	0.4	69		No RCA (exported)	0%	China (PRF: 9.3%), Taiwan, China (MFN: 10%), Malaysia (PRF: 0%)
Medical, surgical or dental instruments and appliances; n.e.c. in heading no. 9018	901890	561,460	14.6%	2.6	63	4483.8	RCA (exported)	0%	United States (MFN: 6.8%), Germany (MFN: 6.8%), China (MFN: 6.8%)
Pocket watches and other watches, including stop-watches; (excluding wrist-watches), other than those of heading no. 9101, other than electrically operated	910299	15,495	16.2%	3.8	61		RCA (exported)	0%	Switzerland (MFN: 10%), China (MFN: 10%), Hong Kong, China (MFN: 10%)
Clock or watch parts; other than springs (including hairsprings), dials, plates, and bridges	911490	4,818	17.1%	3.4	70		RCA (exported)	0%	Switzerland (MFN: 10%), China (MFN: 10%), Hong Kong, China (MFN: 10%)
Tricycles, scooters, pedal cars and similar wheeled toys; dolls' carriages; dolls; other toys; reduced-size (scale) models and similar recreational models, working or not; puzzles of all kinds	950300	279,376	14.5%	0.2	81		No RCA (exported)	0%	China (PRF: 8.9%), Hong Kong, China (MFN: 12.5%), Sri Lanka (PRF: 0%)
Tennis, badminton and similar racquets; whether or not strung	950659	16,522	14.5%		68		Potentially new (not exported)	0%	China (MFN: 10%), Japan (PRF: 3.6%), Singapore (PRF: 0%)

^{*} Thousands of USD

Products to China

Similarity to existing exports (0% lowest, 100% highest)

RCA > 1 means well established export, <1 niche export, missing if no exports Product sophistication (0 lowest, 100 highest)

Product description	Product code	Imports*	MUS proximity	MUS RCA	PCI percentile	MUS exports* to market	Product condition	Tariff	Top suppliers
Cyclic amides (including cyclic carbamates) and their derivatives; other than the derivatives and salts of ureines, 2-acetamidobenzoic acid (Nacetylanthancillic acid), and ethinamate	292429	615,529	14.6%		76		Potentially new (not exported)	0%	Norway (MFN: 6.5%), Italy (MFN: 6.5%), Japan (MFN: 6.5%)
Medicaments; consisting of mixed or unmixed products n.e.c. in heading no. 3004, for therapeutic or prophylactic uses, packaged for retail sale	300490	9,346,853	14.8%	0.6	65		No RCA (exported)	0%	Germany (MFN: 3.8%), France (MFN: 3.8%), Italy (MFN: 3.8%)
Paints and varnishes; based on polymers n.e.c. in heading no. 3208, dispersed or dissolved in a non-aqueous medium	320890	322,922	14.9%	0.3	60		No RCA (exported)	0%	Japan (MFN: 10%), Taiwan, China (PRF: 6.7%), Germany (MFN: 10%)
Paints and varnishes; based on acrylic or vinyl polymers, dispersed or dissolved in an aqueous medium	320910	83,899	14.7%	0.4	57		No RCA (exported)	0%	Germany (MFN: 10%), United States (MFN: 10%), Japan (MFN: 10%)
Paints and varnishes; (including enamels, lacquers and distempers), prepared water pigments of a kind used for finishing leather	321000	96,819	17.8%	5.8	54		RCA (exported)	0%	Japan (MFN: 10%), Italy (MFN: 10%), Korea, Rep. (PRF: 2%)
Perfumes and toilet waters	330300	181,780	15.0%	0.9	51		No RCA (exported)	0%	France (MFN: 10%), Italy (MFN: 10%), United Kingdom (MFN: 10%)
Perfumes and deodorizers; perfuming or deodorizing preparations n.e.c. in heading no. 3307	330790	107,087	15.1%	0.1	65	0.04	No RCA (exported)	0%	United States (MFN: 9%), Japan (MFN: 9%), France (MFN: 9%)
Polishes, creams and similar preparations; n.e.c. in heading no. 3405, excluding waxes of heading no. 3404	340590	193,321	16.6%	3.4	64		RCA (exported)	0%	Japan (MFN: 10%), United States (MFN: 10%), Korea, Rep. (PRF: 2%)
Finishing agents and dye carriers; to accelerate dyeing or fixing of dye- stuffs, other products and preparations, used in the textile industry (excluding those with a basis of amylaceous substances)	380991	226,705	17.0%	2.6	51		RCA (exported)	0%	Japan (MFN: 6.5%), Germany (MFN: 6.5%), Korea, Rep. (PRF: 1.3%)
Solvents and thinners; organic composite solvents and thinners, n.e.c. or included, prepared paint or varnish removers	381400	109,091	15.6%	0.3	54		No RCA (exported)	0%	Japan (MFN: 10%), Germany (MFN: 10%), United States (MFN: 10%)
Propylene, other olefin polymers; polypropylene in primary forms	390210	4,351,505	15.0%		55		Potentially new (not exported)	0%	Korea, Rep. (MFN: 6.5%), Saudi Arabia (MFN: 6.5%), Singapore (PRF: 0%)
Plastics; tubes, pipes and hoses thereof, rigid, of plastics n.e.c. in heading no. 3917	391729	72,270	14.8%	0.1	55		No RCA (exported)	0%	Germany (MFN: 10%), United States (MFN: 10%), Japan (MFN: 10%)
Plastics; tubes, pipes and hoses thereof, n.e.c. in item no. 3917.30	391739	135,676	14.9%	0.4	63		No RCA (exported)	0%	Japan (MFN: 6.5%), Germany (MFN: 6.5%), Singapore (PRF: 0%)
Plastics; plates, sheets, film, foil and strip, other than cellular	392190	558,256	14.3%	0.1	63		No RCA (exported)	0%	Japan (MFN: 6.5%), United States (MFN: 6.5%), Korea, Rep. (PRF: 3.8%)
Plastics; boxes, cases, crates and similar articles for the conveyance or packing of goods	392310	454,152	15.2%	0.4	53	0.7	No RCA (exported)	0%	Japan (MFN: 7.5%), Korea, Rep. (PRF: 5.8%), Taiwan, China (PRF: 0%)
Rubber; vulcanised (other than hard rubber), articles n.e.c. in heading no. 4016, of non-cellular rubber	401699	781,233	14.6%	0.01	66		No RCA (exported)	0%	Japan (MFN: 9%), Germany (MFN: 9%), United States (MFN: 9%)
Cases and containers; handbags (whether or not with shoulder strap and including those without handle), with outer surface of plastic sheeting or of textile materials	420222	256,125	16.2%	0.1	56	15.9	No RCA (exported)	0%	France (MFN: 10%), Italy (MFN: 10%), China (MFN: 10%)
Yarn, synthetic; filament, monofilament (less than 67 decitex), of nylon or other polymides (not high tenacity or textured), single, untwisted or twisted 50 turns or less per metre, not for retail sale, not sewing thread	540245	264,187	14.4%		62		Potentially new (not exported)	0%	Taiwan, China (MFN: 5%), Vietnam (PRF: 0%), Korea, Rep. (PRF: 3.3%)
Fabrics, woven; containing 85% or more by weight of filaments of nylon or other polyamides, unbleached or bleached	540741	147,080	15.3%		59		Potentially new (not exported)	0%	Taiwan, China (PRF: 0%), Thailand (PRF: 0%), Japan (MFN: 10%)
Fabrics, woven; containing 85% or more by weight of filaments of nylon or other polyamides, dyed	540742	331,673	16.1%		73		Potentially new (not exported)	0%	Taiwan, China (PRF: 0%), Japan (MFN: 10%), Philippines (PRF: 0%)

Product description	Product code	Imports*	MUS proximity	MUS RCA	PCI percentile	MUS exports*	Product condition	Tariff	Top suppliers
Fabrics, woven; of artificial filament yarn, of artificial monofilament, strip and the like, n.e.c. in heading no. 5408, dyed	540832	47,282	16.0%		54		Potentially new (not exported)	0%	Japan (MFN: 10%), Korea, Rep. (PRF: 6.5%), Italy (MFN: 10%)
Fabrics, narrow woven fabrics, n.e.c. in heading no. 5806, of man-made fibres (excluding goods of heading no. 5807)	580632	129,930	14.2%	0.3	51		No RCA (exported)	0%	Japan (MFN: 10%), Taiwan, China (PRF: 0%), China (MFN: 10%)
Fabrics; knitted or crocheted fabrics, other than those of headings 60.01 to 60.04, of wool or fine animal hair	600610	36,781	16.9%		60		Potentially new (not exported)	0%	Japan (MFN: 12%), Italy (MFN: 12%), Taiwan, China (MFN: 12%)
Glass; articles n.e.c. in chapter 70	702000	660,429	14.9%	0.1	68		No RCA (exported)	0%	Korea, Rep. (PRF: 6%), Taiwan, China (MFN: 10.3%), Vietnam (PRF: 0%)
Iron or non-alloy steel; flat-rolled, width 600mm or more, plated or coated with aluminium, other than plated or coated with aluminium zinc-alloys	721069	224,756	14.2%		62		Potentially new (not exported)	0%	Korea, Rep. (MFN: 8%), Japan (MFN: 8%), Germany (MFN: 8%)
Iron or non-alloy steel; wire, (not plated or coated), whether or not polished	721710	70,981	15.5%		52		Potentially new (not exported)	0%	Korea, Rep. (MFN: 8%), Japan (MFN: 8%), Taiwan, China (PRF: 0%)
Iron or steel; articles n.e.c.in heading 7326	732690	1,844,949	14.6%	0.05	61		No RCA (exported)	0%	Japan (MFN: 9.7%), Germany (MFN: 9.7%), United States (MFN: 9.7%)
Aluminium; articles n.e.c. in heading 7616	761699	532,890	14.6%	0.04	59	2.0	No RCA (exported)	0%	China (MFN: 11.7%), United States (MFN: 11.7%), Japan (MFN: 11.7%)
Tools, hand; other hand tools (incl. glaziers diamonds), excluding household tools, drilling, threading or tapping tools, hammers and <u>sledge hammers</u> , planes, chisels, gouges, similar cutting tools for working wood, screwdrivers	820559	57,407	14.7%	0.1	88		No RCA (exported)	0%	United States (MFN: 10%), Germany (MFN: 10%), Japan (MFN: 10%)
Mountings, fittings and similar articles; suitable for other than buildings or furniture, of base metal	830249	51,290	14.7%	0.1	61		No RCA (exported)	0%	United States (MFN: 12%), Japan (MFN: 12%), China (MFN: 12%)
Lifts and skip hoists	842810	204,112	14.3%		68		Potentially new (not	0%	Japan (MFN: 7.3%), Sweden (MFN: 7.3%), Netherlands
							exported)		(MFN: 7.3%)
Printing machinery; used for printing by means of plates, cylinders and other printing components of heading 84.42, n.e.c. in item no. 8443.1	844319	109,831	14.2%	0.6	62		No RCA (exported)	0%	Taiwan, China (PRF: 2.9%), Japan (MFN: 9.7%), Italy (MFN: 9.7%)
Knitting machines; flat, stitch-bonding machines	844720	333,443	16.7%		76		Potentially new (not exported)	0%	Japan (MFN: 8%), Germany (MFN: 8%), Taiwan, China (PRF: 6.4%)
Machines; parts and accessories of machines of heading no. 8447 or auxiliary machinery, sinkers, needles and other articles used in forming stitches	844851	139,178	15.3%	0.6	59		No RCA (exported)	0%	Germany (MFN: 6%), Portugal (MFN: 6%), Czech Republic (MFN: 6%)
Washing machines; household or laundry-type, fully-automatic, (of a dry linen capacity not exceeding 10kg)	845011	40,212	14.5%	0.1	51		No RCA (exported)	0%	Germany (MFN: 10%), Korea, Rep. (PRF: 6.5%), Turkey (MFN: 10%)
Sewing machines; furniture, bases and covers for sewing machines and parts thereof, and other parts of sewing machines	845290	82,575	16.9%	1.0	60	2.6	No RCA (exported)	0%	Japan (MFN: 14%), Taiwan, China (PRF: 11.2%), Vietnam (PRF: 0%)
Television cameras, digital cameras and video camera recorders	852580	8,351,565	14.3%	0.1	93		No RCA (exported)	0%	Korea, Rep. (PRF: 6%), China (MFN: 4.6%), Japan (MFN: 4.6%)
Reception apparatus for television, <u>whether or not</u> incorporating radio- broadcast receivers or sound or video recording or reproducing apparatus; incorporating a colour video display or screen	852872	29,578	16.7%	3.1	52		RCA (exported)	0%	Korea, Rep. (PRF: 20.6%), Japan (MFN: 30%), China (MFN: 30%)
Signalling apparatus; electric, sound or visual, burglar or fire alarms and similar, other than those of heading no. 8512 or 8530	853110	73,198	14.3%	0.6	58	2.8	No RCA (exported)	0%	China (MFN: 10%), United States (MFN: 10%), Sweden (MFN: 10%)
Electrical apparatus; relays, for a voltage exceeding 60 volts	853649	286,793	14.4%	0.05	64		No RCA (exported)	0%	China (MFN: 10%), Germany (MFN: 10%), Japan (MFN: 10%)

Product description	Product code	Imports*	MUS proximity	MUS RCA	PCI percentile	MUS exports* to market	Product condition	Tariff	Top suppliers
Boards, panels, consoles, desks and other bases; for electric control or the distribution of electricity, (other than switching apparatus of heading no. 8517), for a voltage exceeding 1000 volts	853720	316,035	15.8%	0.1	52		No RCA (exported)	0%	Germany (MFN: 8.4%), Sweden (MFN: 8.4%), United States (MFN: 8.4%)
Electrical apparatus; parts (<u>e.g.</u> boards, panels, consoles, desks, cabinets, other bases), for goods of heading no. 8537, not equipped with their apparatus	853810	111,291	14.5%	0.7	61		No RCA (exported)	0%	Japan (MFN: 5.2%), Germany (MFN: 5.2%), United States (MFN: 5.2%)
Insulated electric conductors; for a voltage exceeding 1000 volts	854460	160,510	14.3%	0.1	61	0.03	No RCA (exported)	0%	Germany (MFN: 12.9%), United States (MFN: 12.9%), Italy (MFN: 12.9%)
Insulating fittings; (other than of ceramics or plastics), for electrical machines, appliances and equipment, excluding insulators of heading no. 8546	854790	103,009	16.3%	8.1	60		RCA (exported)	0%	Sweden (MFN: 9%), Germany (MFN: 9%), Japan (MFN: 9%)
Motorboats; (other than outboard motorboats), for pleasure or sports, other than inflatable	890392	117,104	15.1%		69		Potentially new (not exported)	0%	Italy (MFN: 10.5%), Mexico (MFN: 10.5%), United States (MFN: 10.5%)
Spectacles, goggles and the like; (other than sunglasses) corrective, protective or other	900490	33,960	16.2%	0.4	69		No RCA (exported)	0%	China (MFN: 18%), Taiwan, China (MFN: 18%), Japan (MFN: 18%)
Medical, surgical or dental instruments and appliances; n.e.c. in heading no. 9018	901890	2,138,565	14.6%	2.6	63		RCA (exported)	0%	United States (MFN: 3.2%), Germany (MFN: 3.2%), Japan (MFN: 3.2%)
Clock or watch parts; other than springs (including hairsprings), dials, plates, and bridges	911490	153,868	17.1%	3.4	70		RCA (exported)	0%	Japan (MFN: 14%), China (MFN: 14%), Switzerland (PRF: 7.8%)
Tennis, badminton and similar racquets; whether or not strung	950659	30,183	14.5%		68		Potentially new (not exported)	0%	Japan (MFN: 14%), Taiwan, China (MFN: 14%), China (MFN: 14%)

^{*} Thousands of USD

Products to Africa

Similarity to existing exports (0% lowest, 100% highest)

RCA > 1 means well established export, <1 niche export, missing if no exports

sophistication (0 lowest, 100 highest)

Product description	Product code	Imports*	MUS proximity	MUS RCA	PCI percentile	MUS exports* to market	Product condition	Tariff	Top suppliers
Liqueurs and cordials	220870	26,791	15.4%	0.5	55	26.2	No RCA (exported)	0%	Germany (PRF: 0%), South Africa (PRF: 0%), United States (MFN: 25%)
Cyclic amides (including cyclic carbamates) and their derivatives; other than the derivatives and salts of ureines, 2-acetamidobenzoic acid (N-acetylanthancillic acid), and ethinamate	292429	61,785	14.6%		76		Potentially new (not exported)	0%	China (MFN: 4.4%), Switzerland (MFN: 5.5%), India (MFN: 4%)
Medicaments; consisting of mixed or unmixed products n.e.c. in heading no. 3004, for therapeutic or prophylactic uses, packaged for retail sale	300490	4,308,487	14.8%	0.6	65	7.9	No RCA (exported)	0%	India (MFN: 0.7%), France (PRF: 0%), Switzerland (MFN: 0.5%)
Paints and varnishes; based on polymers n.e.c. in heading no. 3208, dispersed or dissolved in a non-aqueous medium	320890	106,722	14.9%	0.3	60		No RCA (exported)	0%	United States (MFN: 18.2%), Italy (PRF: 0%), United Kingdom (PRF: 0%)
Paints and varnishes; based on acrylic or vinyl polymers, dispersed or dissolved in an aqueous medium	320910	23,160	14.7%	0.4	57		No RCA (exported)	0%	South Africa (PRF: 0%), Germany (PRF: 0%), Kenya (PRF: 0%)
Paints and varnishes; (including enamels, lacquers and distempers), prepared water pigments of a kind used for finishing leather	321000	13,662	17.8%	5.8	54		RCA (exported)	0%	China (MFN: 14.6%), United Kingdom (PRF: 0%), Turkey (PRF: 0%)
Perfumes and toilet waters	330300	144,933	15.0%	0.9	51	0.04	No RCA (exported)	0%	France (PRF: 0%), Poland (PRF: 0%), Spain (PRF: 0%)
Perfumes and deodorizers; perfuming or deodorizing preparations n.e.c. in heading no. 3307	330790	22,341	15.1%	0.1	65	0.3	No RCA (exported)	0%	France (PRF: 0%), Italy (PRF: 0%), Germany (PRF: 0%)
Solvents and thinners; organic composite solvents and thinners, n.e.c. or included, prepared paint or varnish removers	381400	36,029	15.6%	0.3	54		No RCA (exported)	0%	Italy (PRF: 0%), South Africa (PRF: 0%), Netherlands (PRF: 0%)
Propylene, other olefin polymers; polypropylene in primary forms	390210	631,122	15.0%		55		Potentially new (not exported)	0%	Saudi Arabia (PRF: 0%), United Arab Emirates (PRF: 0%), South Africa (PRF: 0%)
Plastics; tubes, pipes and hoses thereof, rigid, of plastics n.e.c. in heading no. 3917	391729	77,833	14.8%	0.1	55		No RCA (exported)	0%	Romania (PRF: 0%), China (MFN: 11.2%), Hungary (PRF: 0%)
Plastics; tubes, pipes and hoses thereof, n.e.c. in item no. 3917.30	391739	70,106	14.9%	0.4	63		No RCA (exported)	0%	Germany (PRF: 0%), China (MFN: 10.9%), South Africa (PRF: 0%)
Plastics; plates, sheets, film, foil and strip, other than cellular	392190	269,387	14.3%	0.1	63	6.2	No RCA (exported)	0%	China (MFN: 14.3%), India (MFN: 16.1%), Saudi Arabia (PRF: 0%)
Plastics; boxes, cases, crates and similar articles for the conveyance or packing of goods	392310	65,015	15.2%	0.4	53	67.9	No RCA (exported)	0%	Italy (PRF: 0%), China (MFN: 16.9%), France (PRF: 0%)
Rubber; vulcanised (other than hard rubber), articles n.e.c. in heading no. 4016, of non-cellular rubber	401699	150,057	14.6%	0.01	66	3.8	No RCA (exported)	0%	China (MFN: 9.7%), Thailand (MFN: 9.7%), Germany (PRF: .5%)
Cases and containers; handbags (whether or not with shoulder strap and including those without handle), with outer surface of plastic sheeting or of textile materials	420222	51,434	16.2%	0.1	56	11.6	No RCA (exported)	0%	China (MFN: 30.7%), France (PRF: 10%), South Africa (PRF: 0%)
Paper articles; handkerchiefs, cleansing or facial tissues and towels	481820	27,996	15.9%	0.2	50	1.3	No RCA (exported)	0%	France (PRF: 0%), Italy (PRF: 0%), China (MFN: 23.6%)
Paper articles; articles of paper, cellulose wadding or fibres, n.e.c. in heading no. 4818	481890	20,256	15.6%	0.1	57	0.3	No RCA (exported)	0%	Turkey (PRF: 0%), Germany (PRF: 0%), France (PRF: 0%)
Printed matter; books, brochures, leaflets and similar printed matter n.e.c. in item no. 4901.10 or 4901.91	490199	288,514	16.6%	0.4	60	173.3	No RCA (exported)	0%	United Kingdom (PRF: 0%), United States (MFN: 1.1%), India (MFN: 0.6%)
Yarn, synthetic; filament, monofilament (less than 67 decitex), other than high tenacity or textured yarn, single, untwisted or twisted 50 turns or less per metre, n.e.c. in heading no. 5402, not for retail sale, not sewing thread	540249	101,393	20.2%	2.1	66		RCA (exported)	0%	China (MFN: 8.5%), Singapore (MFN: 10%), Japan (MFN: 10%)

Fabrics, wover; of synthetic filament yarn, of yarns of different colours, n.e.c. in heading no. 5407 Fabrics, wover; of synthetic filament yarn, of yarns of different colours, n.e.c. in heading no. 5407 Fabrics, wover; of synthetic filament yarn, of yarns of different colours, n.e.c. in heading no. 5407 Fabrics, wover; of synthetic filament yarn, of yarns of different colours, n.e.c. in heading no. 5407 Fabrics, wover; of synthetic filament yarn, of yarns of different colours, n.e.c. in heading no. 5407 Fabrics, wover; of synthetic filament yarn, of yarns of different colours, n.e.c. in heading no. 5407 Fabrics, wover; of synthetic filament yarn, of yarns of different colours, n.e.c. in heading no. 5407 Fabrics, wover; of synthetic filament yarn, of yarns of different colours, n.e.c. in heading no. 5407 Fabrics, wover; of synthetic filament yarn, of yarns of different colours, n.e.c. in heading no. 5407 Fabrics, wover; of synthetic filament yarn, of yarns of different colours, n.e.c. in heading no. 5407 Fabrics, wover; of yarns of different colours, n.e.c. in heading no. 5407 Fabrics, wover; of yarns of different colours, n.e.c. in heading no. 5407 Fabrics, wover; of yarns of different colours, n.e.c. in heading no. 5407 Fabrics, wover; of yarns of different colours, n.e.c. in heading no. 5407 Fabrics, wover; of yarns of different colours, n.e.c. in heading no. 5407 Fabrics, wover; of yarns of different colours, n.e.c. in heading no. 5407 Fabrics, n.	dia (MFN: 6), South dia (MFN: 6), Spain PRF: 0%) 0), United Italy (PRF:
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machines for the transmission or reception of voice, images or other data 851769 394,049 15.6% 0.3 54 24.7 No RCA (exported) 0% (MFN: 5%), Germ (including wired/wireless networks), n.e.c. in item no. 8517.6 China (MFN: 6.2%)	ed States
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Reception apparatus for television, whether or not incorporating radio-broadcast receivers or sound or video recording or reproducing apparatus; 852872 179,533 16.7% 3.1 52 20,059.7 RCA (exported) 0% (MFN: 26.5%), Society of the control of the co	uth Africa
Signalling apparatus; electric, sound or visual, burglar or fire alarms and similar, other than those of heading no. 8512 or 8530 853110 42,349 14.3% 0.6 58 No RCA (exported) (exported) States (MFN:	i), United
Electrical apparatus; relays, for a voltage exceeding 60 volts 853649 65,659 14.4% 0.05 64 No RCA (exported) 0% China (MFN: 10.3% (exported)) (PRF: 0%), France	
Boards, panels, consoles, desks and other bases; for electric control or the distribution of electricity, (other than switching apparatus of heading no. 853720 198,754 15.8% 0.1 52 0.4 No RCA (exported) 0% China (MFN: 7.5% (PRF: 0%), France (PRF:	
Electrical apparatus; parts (e.g., boards, panels, consoles, desks, cabinets, other bases), for goods of heading no. 8537, not equipped with their 853810 55,190 14.5% 0.7 61 329.9 No RCA (exported) 0% China (MFN: 4.2% of the paratus) 0%, France (Paratus) 0%, Fr	
Insulated electric conductors; for a voltage exceeding 1000 volts 854460 121,293 14.3% 0.1 61 3.5 No RCA (exported) 0% China (MFN: 16. (exported) 0 (MFN: 14.6%), Turk	

Product description	Product code	Imports*	MUS proximity	MUS RCA	PCI percentile	MUS exports* to market	Product condition	Tariff	Top suppliers
Insulated electric conductors; optical fibre cables	854470	94,186	14.9%	0.6	69	3.0	No RCA (exported)	0%	China (MFN: 11.1%), Germany (PRF: 0%), France (PRF: 0%)
Vehicles; public transport type (carries 10 or more passengers), compression-ignition internal combustion piston engine (diesel or semi-diesel)	870210	452,874	15.4%		51		Potentially new (not exported)	0%	Japan (MFN: 14.3%), China (MFN: 18.6%), Korea, Rep. (MFN: 20.3%)
Helicopters; of an unladen weight not exceeding 2000kg	880211	114,434	14.4%		58		Potentially new (not exported)	0%	Canada (MFN: 0%), France (MFN: 2.5%), United States (MFN: 1.7%)
Motorboats; (other than outboard motorboats), for pleasure or sports, other than inflatable	890392	17,523	15.1%		69		Potentially new (not exported)	0%	United Kingdom (PRF: 0%), France (MFN: 21.3%), United States (MFN: 17.9%)
Medical, surgical or dental instruments and appliances; n.e.c. in heading no. 9018	901890	674,164	14.6%	2.6	63	547.8	RCA (exported)	0%	United States (MFN: 4.7%), Germany (PRF: 0%), China (MFN: 2.8%)
Military weapons; other than revolvers, pistols, and arms of heading 9307, n.e.c. in heading 9301	930190	50,816	15.2%		61		Potentially new (not exported)	0%	Croatia (MFN: 22.5%), Slovak Republic (MFN: 20%), United States (MFN: 20%)
Furniture; wooden, for office use	940330	54,214	15.0%	0.1	61	0.3	No RCA (exported)	0%	China (MFN: 26.7%), Italy (PRF: 0%), Malaysia (MFN: 24.4%)
Tricycles, scooters, pedal cars and similar wheeled toys; dolls' carriages; dolls; other toys; reduced-size (scale) models and similar recreational models, working or not; puzzles of all kinds	950300	222,096	14.5%	0.2	81	0.2	No RCA (exported)	0%	China (MFN: 20%), South Africa (PRF: 0%), Czech Republic (PRF: 0%)

^{*} Thousands of USD

Annex 6: Examples in Skills Formation

Examples: Singapore and Norway- Governance of Skills Systems

Multiple stakeholders need to be involved in the development of skills assessments, policies, and recommendations pertaining the education and training, labor market, migration, and R&D areas. They include ministries, public employment services, E&T institutions, regional- or sector-specific institutions, industry representatives and their associations, and social partners, such as NGOs, and unions. To organize such array of actors, countries have mainly deployed formal mechanisms to facilitate the discussions, in the form of advisory boards, or skills councils, as well as legal provisions to organize consultations. In addition, informal mechanisms, such as work groups or round tables, with specific objectives and a realistic time line, have also been developed to reach consensus.

Skills councils, sectoral councils, commissions or committees have been established by several countries (Australia, Canada, Denmark, Estonia, Finland, France, Germany, Norway, Portugal, the Slovak Republic and the United Kingdom, etc.) in the form of independent organizations providing a platform for stakeholders to discuss skills-related issues or develop joint policy responses. Their tasks include: monitoring the labor market and forecasting what skills will be needed; defining occupational standards and job competencies to help identify the skills and qualifications needed for a particular job; organizing apprenticeships, and facilitating partnerships between training providers and employers; helping in the design and implementation of policies to adjust to skill changes, etc.

In Singapore, the Future Economy Committee was set up to drive Singapore's economy. It is chaired by the Deputy Prime Minister and the Minister of Finance, and includes members from government, industries, unions, trade associations, and E&T institutions. It is in charge of ensuring the implementation of recommendations guiding the economic strategy for the next 5 to 10 years, the 2017 Report of the Committee on the Future Economy, advanced by the Committee on the Future Economy (CFE), organized in five sub-committees led by private and public sector co-chairs. The CFE relies on the 6 Industry Transformation Maps (ITMs) so far established, platforms for planning and implementation in specific industries, and bringing together all relevant stakeholders. Each ITM is tailored to the specific needs of an industry, and coordinated by a single Government agency. They put forward a growth and competitiveness plan, featuring four pillars: (a) productivity, to support companies, and especially SMEs; (b) jobs and skills, to invest in people to acquire deep skills, or redesign jobs; (c) innovation and technology, to leverage R&D and adopt technology; and (d) trade and internationalization, to expand to overseas markets.

Norway responded to a fragmented skills policy (without vertical coordination among government levels, and horizontal coordination among stakeholders) with the following governance arrangements:

- •Skills Policy Council advisory body for policy implementors and non-binding advice
- •Future Skills Needs Committee thinking body to provide evidence-based assessment of future skills needs for planning and strategic decision making
- •Inclusion of social partners (NGOs providing lifelong learning programs, unions offering training and scholarships) and the Sami indigenous peoples as observers

Source: Committee on the Future Economy (2017) and OECD (2020).

Example: South Korea's Educational Development Case

South Korea's 2018 PISA mean scores in reading (514), mathematics (526), and science (519) are among the highest, making the country's skills formation a case to study. These are some salient factors, impossible to replicate given the uniqueness of context, but providing important lessons:

- Economic expansion was closely associated with its education system development. Since the 1960s, Korea committed to an industrialization program for which investments in elementary school were crucial to produce unskilled but literate workforce for labor-intensive manufacturing. By mid-1970s, heavy industries were developed, needing a skilled workforce, so vocational high schools, vocational colleges, and engineering-major colleges were created. In the 1980s, the country deregulated various sectors, and labor demand increased as the economy grew. Concurrently, it expanded higher education, strengthening science and engineering fields to produce white-collar workers, and invested in R&D. In the 1990s and 2000s it pursue high-value-added manufacturing by promoting high-technology innovation and highly skilled workers in ICT and biotechnology.
- Korea moved to a skills formation regime producing general skills in universities, rather than in the workplace or vocational schools (representing 18 percent of enrolment rates, compared to 44 percent in OECD peers), which was the case in the past. Higher education promotes knowledge-intensive and high-technology industries, especially in ICT.
- Government's interventions turned out to be critical, but today is only a facilitator, with business having a strong voice. Centralization made possible an effective coordination between industrial and education policies. However, government's role is today that of a facilitator, and democratization shifted the power balance from the state to business, which exercise their voice strongly in the skills system.
- The government prioritized education spending and private resources are important. Government spending in education increased more than 29 times between 1960s and 2000s, reaching in 2002 7.1 percent of GDP, and 5.6 percent in 2016 (around the OECD average). However, budget constraints are less limiting, given the large flows of private funding in secondary (40 percent) and tertiary education (70 percent).
- Teachers are supported. High academic achievement is maintained despite large class sizes. The government recruits competent people for the teaching profession, removed fees in 1990 to train public teachers, provide high salaries, and job security.
- Student selection is reserved at the university level, which is one of the most stressing events in Koreans lives, and draining large amounts of expenses in private tutoring. Lower secondary graduates decide between attending an academic or a vocational high school. Despite the possibility for vocational graduates to enter higher education, few will do it.
- Higher education expanded with the abolishment of college entrance examinations in the 1980, accompanied by renovation of facilities and introduction of incentives for teachers. In the 1990s, the numbers of institutions and students increased steeply because of regulations. The government has strategically expanded and limited the enrollment quotas in specific fields to avoid the oversupply and underemployment of graduates.
- Training has been supported by industries based on a levy training scheme, instead of participating in the apprenticeship model like the German one. Government initiatives included the establishment of training institutions in the 1980s that developed training programs tailored to firms. Since then, many companies have established their own training departments and training centers with instructors trained by the initial training institutions. An employment insurance scheme was established in 1995 to offer vocational training for employees. The Korean Skills Quality Authority established in 2015 has the key role of ensuring training quality, based on employability outcomes, and identifying low quality training. In addition, firms participate in the lifelong learning movement, based on a voucher system for individuals learning.

- The government formulated a new industry-academia collaboration system, given the poor interaction between universities and business at the technical level, as a result from large firms building up their own training systems. The new collaboration takes into consideration the diverse regional characteristics and unique circumstances of universities and industries. It introduced a contract-based system that allows to reflect the industry needs in the university matters e.g., in terms of the student quota, student selection process, curriculum, teaching and learning processes, etc. This also enables the practical application of research.
- Current challenges include an imbalance between quantitative expansion and qualitative improvement; stress resulting from students' preparation for college level, focused on rote memorization; and large enterprises are able to compete to attract, develop, and retain employees to build knowledge-based organizations, while SMEs suffer from a lack of skilled workers.

Sources: Anna, K., and Byung-Shik, R. (2006); Di Maio, G. (2020); Fleckenstein, T., and Soohyun, C. (2018); and OECD (2016).

Example: South Korean SME Training Consortiums

In 1995 South Korea introduced a levy-grant system, in which enterprises paid a training levy of on average US\$1,000 and were reimbursed for the costs incurred in training their employees (100 percent the large enterprises and 270 percent the SMEs). SMEs represented 99 percent of all enterprises and 88 percent of all employment and needed the most support in training activities. However, despite the fact that they were paying the training levies, they were not benefiting from the levy-rebate program:

- Only 5 percent of SMEs were participating in the program, compared to 78 percent of large enterprises.
- SMEs contributed with 4.5 million to the levy fund, while large enterprises 2.4 million, but the rate of reimbursement for SMEs was 15 percent, while it was 30 percent for larger enterprises.

As a solution, an SME Training Consortiums was designed and piloted in 2001. "Training Managers" for groups of SMEs were hired with public funds. Groups of 30 to 50 SMEs in the same area and industry were assigned two Training Managers. Training topics included management, accounting, tax administration, financial, technical, etc.

It was launched by the Ministry of Labour and Home Affairs, and the training implemented by the Korean Chamber of Commerce and Industry (KCCI). Importantly, the operating committee also comprised SMEs members, and training experts. It was piloted in 3 cities (Busan, Incheon, and Kwangjoo), and 240 SMEs and 6,500 workers participated. After the pilot, the rebate rate for SMEs increased to 48 percent, and the share of SMEs participating in training to 50 percent.

After the successful piloting, the Training Consortiums were expanded in 2003 to the whole country, reaching 8,000 SMEs and 20,000 workers trained. By 2005, the program added new ways of training, including large buyers and universities, and private training providers, in addition to the KCCI. By 2007, the program reached 134,000 SMEs and 295,000 workers trained.

Key successes in the South Korean case include:

- 1. Stable funding from the Employment Insurance Fund
- 2. Implementation by the private sector (KCCI)
- 3. Shift to market-oriented training services (more relevant to SMEs needs)
- 4. Reimbursement provided at time of approval of training rather than after
- 5. More support for in-plant and on-the-job training, including mobile training

Source: Lee, K.W. (2016).

Annex 7: Proposed Sector Prioritization Framework for Competition Investigations

This annex proposed a methodology for prioritization of sectors in Mauritius for enhanced scrutiny on competition in terms of their effects on inclusive growth based on international experience and available data in Mauritius. It should be noted that there are differing criteria and mechanisms to determine how to allocate resources for reactive case-loads as opposed to proactive market studies or investigations. This methodology is focused on the latter.

Generally, criteria that are commonly used by agencies in prioritization include the following:

- 1. Whether there is an impact on consumer welfare
- 2. Whether there is an impact on the economy or the sector is a key sector in the economy
- 3. Institutional and procedural considerations

Some examples of prioritization criteria in different jurisdictions include the following:

- United Kingdom: The UK Competition and Markets authority (CMA) has a prioritization mechanism that is focused on the impact and strategic significance of the work.⁶¹ This is balanced against the risk and resources involved in undertaking it. In terms of impact they look at direct and indirect effects on consumer welfare, and additional economic impact on efficiency, productivity and the wider economy. They assess strategic significance is based on their stated vision and goals. For example, in their last published vision and strategy document they noted that they would prioritise regulated sectors, emerging sectors and models, themes as a result of economic circumstances and markets that have historically been public services.⁶²
- Belgium: In Belgium the competition authority has a prioritization methodology that assigns a priority level to each case
 in light of its "impact on the economy and competition in Belgium, the interest of the consumer, the availability of
 resources, proof, precedent value, gravity of infringement, sector."⁶³
- United States: In the US, the Department of Justice uses a matter-by-matter analysis based on various factors including
 "the volume of commerce affected, geographic area, impact of investigation, whether it affects the federal government,
 if it is criminal, the degree of culpability of conspirators and the deterrent impact".⁶⁴
- South Africa: The South African Competition Commission in early stages used two criteria for prioritization. Firstly, competition concerns such as degree of concentration, barriers to entry, price being unrelated to cost, irregular price differences and a low rate of price changes. Secondly, they considered alignment to government economic policy and sector priorities. This included importance to economic policy, importance to the country's competitiveness and effective working, the extent to which it provides essential inputs to other sectors, and the extent to which it contributes to empowerment, new entry and the growth of SMEs. In the next phase the Commission refined this using what they termed a screening approach and looked at priority sectors, competition issues, resources, extent of harm, enforcement capacity and net result. In developing their prioritization strategy they also engaged in consultations with a range of stakeholders including business representative organizations, unions and government departments and looked at surveys, sectoral contribution to GDP and the governments expenditure framework. 65
- An OECD meeting on prioritization of sectors for market studies noted that strategic considerations for prioritization by competition authorities could include (i) government priority sectors, (ii) sectors undergoing significant change and (iii) sectors in which there have been numerous antitrust cases. ⁶⁶ Prioritization indicators from a list of potential industries

⁶¹ Competition and Markets Authority (2014)

⁶² Competition and Markets Authority (2013).

⁶³ Petit (2010).

⁶⁴ UNCTAD (2013).

⁶⁵ Burke, M (2019).

⁶⁶ OECD (2017).

include the importance to the economy in terms of output, employment, the weight of the product or service in consumer baskets, R&D spending, and inter-relationships with other sectors.

Apart from the criteria there are differences in the approach, methodologies and source of indicators that have been used. Two key types of indicators are "top-down" and "bottom-up" approaches:

- Top-down approaches include using aggregate statistics to prioritize industries and sector. This can include information
 such as government involvement in a sector, price increases relative to other jurisdictions, increases in concentration,
 lack of market entry, market share stability, entry and exit barriers.
- Bottom up indicators include using sources such as information in merger reviews, consultations, trends in complaints, feedback from academics.

As such, consumer welfare and strategic importance or importance to the economy are key prioritization criteria in numerous jurisdictions. While the detailed indicators, specific criteria and methodology used to determine this are often not published publicly, themes that are often used to describe mechanisms to prioritize sectors or studies include the following:

- importance to economy (output, employment)
- the extent to which it provides essential inputs to other sectors, and
- importance to economic policy
- importance to the country's competitiveness and effective working,
- the extent to which it contributes to empowerment, new entry and the growth of SMEs
- regulated industries
- new industries (such as digital)

Prioritization criteria for Mauritius

Based on an assessment of available data as well as methodologies and criteria for prioritization used internationally the following themes should be considered:

- 1. Contribution to the economy
- 2. Growth industries
- 3. Key inputs
- 4. Contribution to employment
- 5. Strategic importance to the economy
- 6. Regulated industries and industries with SOE participation

The proposed indicators and data sources for each of these themes are shown in the table below.

Prioritization criteria	Proposed indicators	Data availability
		National Accounts (% contribution to GVA by industry group)
		Income tax data
1. Contribution to the economy	Proportion of GDP (December 2019)	VAT data
		National Accounts (gross value added- sectoral real growth rates % over previous
2. Growth industries	% growth in GVA (December 2019)	year)
3. Important inputs	Input-output tables	Total industry; Top exports
	Employment by industry and size of	Digest of Labour Statistics, 2018
4. Contribution to employment	establishments	Income tax data (less reliable)

5. Strategic importance to the economy	Strategic plans	Three-year strategic plan; Trade plan
		Qualitative interviews with stakeholder groups
6. Regulated industries/ Industries with SOEs		

This should be triangulated with input from stakeholder consultations across government, industry and consumer groups to develop a shortlist of industries or products of interest.

Once this occurs the next stage of analysis would be to assess which candidate markets within the prioritized sectors have a market structure conducive to anticompetitive conduct. For markets with a high number of flags, a market study or closer investigation by the MCC may be required. Basic flags that can be considered include the following:

- Concentration in markets (measured by HHI, information from mergers and market studies)
- 2. Multimarket contact by companies

It can be noted that common methods of delineating industries such as trade or industrial codes often are too broad to be considered as competition markets. As such many screening tools including those suggested above are imperfect for competition assessments. However, in the absence of alternatives they still have some use.

Application of the framework

Based on the prioritization framework proposed above, using most recently available data the following sectors were highlighted.

- 1. Contribution to the economy: This was assessed by ranking the proportion of GDP made up of different sectors. The data source used was the National Accounts (% contribution to GVA by industry group). The sectors that were highlighted in the preliminary analysis were as follows:
 - a. Wholesale and retail trade
 - b. Financial and insurance
 - c. Manufacture (particularly textiles and food)
 - d. Transportation and storage
 - e. Accommodation and food services
- 2. *Growth industries*: This was analyzed using the sectoral growth rates and highlighting those over 5 percent. The data used was the National Accounts (gross value added- sectoral real growth rates % over previous year- average over last five years). Sectors highlighted were the following:
 - a. Construction
 - b. Financial and insurance activities (particularly financial leasing and monetary intermediation
 - c. Information and Communication
 - d. Monetary intermediation
 - e. Professional, scientific and technical
 - Administrative and support service activities
- 3. Important inputs: This was assessed using the country Input Output tables and triangulated with stakeholder interviews. The total industry input as well as top exports were used. Sectors highlighted were as follows:
 - a. Wholesale and retail trade
 - b. Transport (land, water, air, supporting and auxiliary transport services)
 - c. Financial intermediation, insurance and auxiliary services
 - d. Business services
 - e. Lodging, food and beverage serving services
- 4. *Contribution to employment*: We ranked employment by industry and the size of establishments using data from Digest of Labour Statistics (2018) as well as Income Tax data from 2019. Sectors highlighted were as follows:
 - a. Wholesale and retail trade
 - b. Manufacturing (textile important)
 - c. Construction
 - d. Accommodation and food services
- 5. Strategic importance to the economy: We noted industries that were highlighted in country planning and strategies as important to future growth plans and this was triangulated against stakeholder interviews. Key industries include the following:
 - a. Food processing (including value add sugar)

- b. Manufacture
- c. Financial services
- d. ICT
- e. Ocean economy/Fisheries and aquaculture
- f. Food processing
- g. Jewelry
- h. Financial services
- i. Scientific and medical devices
- j. Software development
- k. Cultural tourism
- 6. Regulated/SOES
 - a. Telecommunications
 - b. Transport
 - c. Energy
 - d. Banking and financial services

It can be noted that many of the categorizations in the national statistics are quite broad. As such, the role of stakeholder interviews and triangulation becomes more important in defining areas for further investigation.

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