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The Impact of India's Slowdown on the Commonwealth

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Abstract

India has 55 per cent of the Commonwealth's population and accounts for 26 per cent of intra-Commonwealth trade. The impact of India's slowdown will be felt differently by Commonwealth countries based on their economic links with India. The Commonwealth least developed countries (LDCs) and Commonwealth members in sub-Saharan Africa (SSA) are most dependent on India in terms of the share of their global imports of goods, services and investment, while India is more dependent on developed and certain developing countries. India exports more labour-intensive goods to the developed Commonwealth, and capital- and skill-intensive products to SSAs and LDCs. Minerals and metals are the most important imports from all groups of Commonwealth countries.

This study uses GTAP analysis to assess the impact of India's GDP slowdown on Commonwealth countries in 2020. It also compares a hypothetical situation of no slowdown of India's GDP for 2019–2020 to 2021–2022 with the projected slowdown. A range of forecasts exist for 2020, and four GDP growth scenarios are considered: 4.2 per cent (the past year's growth), 2 per cent (optimistic), –1.5 per cent and –5 per cent. The uniformly negative effects of India's slowdown on Commonwealth trade and investment are strongest for India's exports to LDCs and SSA, and India's imports from developed Commonwealth countries. In addition to GTAP, a qualitative assessment indicates the products and Commonwealth countries most likely to be affected by India's slowdown.

JEL Classifications: F17, F44, F60

Keywords: India, GDP slowdown, intra-Commonwealth trade, imports, exports

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Abbreviations and Acronyms

| | |
|--------|--|
| CW | Commonwealth |
| CWEIC | Commonwealth Enterprise & Investment Council |
| FDI | foreign direct investment |
| GDP | gross domestic product |
| GFCE | government final consumption expenditure |
| GFCF | gross fixed capital formation |
| GTAP | Global Trade Analysis Project |
| GVC | global value chains |
| IMF | International Monetary Fund |
| IO | Input-output |
| LDCs | least developed countries |
| LICs | low income countries |
| NBFCs | non-banking financial companies |
| n.d. | not dated |
| n.i.e. | not included elsewhere |
| NPAs | non-performing assets |
| PMI | purchasing managers indices |
| PFCE | private final consumption expenditure |
| SSA | sub-Saharan Africa |
| UNWTO | World Tourism Organization |
| WTO | World Trade Organization |

Executive summary

This study examines the effects on Commonwealth members when there is a slowdown of the Indian economy. As there have been a range of estimates and these were repeatedly revised downwards, it was difficult to work with a single number. The study uses a general equilibrium model from the Global Trade Analysis Project (GTAP). It also uses the database from this project for performing the scenario analysis. Two kinds of GTAP, i.e. comparative static and dynamic models have been used. In addition, a qualitative assessment was made of the likely effect of the slowdown in India on Commonwealth countries, using, inter alia, data on India's trade developments up to May 2020.

The comparative static GTAP analysis examines the impact of India's slowdown in 2020 on Commonwealth countries. The range of estimates of India's GDP growth in 2020 used in this report are 2 per cent (optimistic), -1.5 per cent (mildly pessimistic in June 2020) and -5 per cent (most broad assessment of the worst case scenario in June 2020). There is in addition a best case scenario based on the situation continuing as if the 2020 slowdown had not occurred. For this, the study relies on India's GDP growth estimate for 2019-20, i.e. 4.2 per cent as assessed by both the IMF and the World Bank. The dynamic GTAP assessment is conducted by establishing a counterfactual to assess the trade loss compared to the situation if there had been no slowdown in 2019 or 2020. For this purpose it uses the GDP growth projections of the World Bank before and after the slowdown, i.e. forecast made in January 2019 and the current forecasts of India's GDP growth. These comparisons are made for the period 2019-2020 to 2021-2022.

Past experience of 2008 and 2009 provides little guidance on what is to be expected in the COVID-19 scenario. India bounced back quickly from the financial shock of 2008-2009, and belied the IMF and World Bank expectations of a slow recovery. The 2020 lockdown has been very severe in India and the adverse effects on the industry and the core sectors have been dramatic, to say the least. While the key reason for the economic collapse in 2008-2009 was external to India, the COVID crisis combines

both external and internal factors as well as the complications due to the danger of infection with close contact.

The Commonwealth as a whole and almost all Commonwealth groups considered in this study are very important markets for India, accounting for 20 per cent of its total value of exports. Within this group the share of Commonwealth members in sub-Saharan Africa (SSA) is the highest. The product profile of India's exports shows that it exports largely labour-intensive goods to the developed Commonwealth, and capital- and skill-intensive products to SSAs and least developed countries (LDCs). In terms of India's imports, minerals and metals are the most important imports from all groups of Commonwealth countries. Among the Commonwealth groups SSA and LDCs are most reliant on India, as around 15 per cent or more of their imports come from India in five of the seven GTAP product sectors studied here. Developing LDCs rely significantly on India for about four of the seven GTAP sectors. Developed Commonwealth countries are not reliant on India, as for most products imports from India are insignificant.

As far as investment is concerned, foreign direct investment (FDI) inflows from the Commonwealth into India far exceed FDI outflows from India. However, India provides about 40 per cent of the global FDI inflow into the Commonwealth, while the share of the Commonwealth in India's FDI inflows is around 20 per cent. India's largest share (50%) of outward FDI goes to developed Commonwealth members and 60 per cent of FDI inflows come from developed Commonwealth members. The same trend can be observed in services as for outward FDI. The largest exports to all Commonwealth groups are for financial, insurance and business services. The other important categories of services exports from India are transport and information and communications. Unlike goods, India's import of services from Commonwealth members is far lower than its exports. Surprisingly, unlike exports from India of tourism services, this sector is an important sector for import of services into India across all country groups, especially for SSA Commonwealth members.

The impact of India's slowdown will be felt differently by various Commonwealth groups. The trade and investment effects of the difference in the best and the worst case scenarios are uniformly negative on all groups but are strongest for India's exports to LDCs and SSA, and for India's imports from the developed Commonwealth. With the large base of India's exports to developed countries and the small base to SSA countries, the decline of exports to the developed Commonwealth would hit the Indian economy more. Post-COVID recovery will be the slowest in exports to SSA and LDCs and quickest in the case of exports to developed countries. India's imports from the developed Commonwealth would decrease the most and those from LDCs the least.

Even if the Indian economy sees a small positive GDP growth of 2 per cent in the COVID period (2020), muted expectations will dampen trade and investment recovery. Interestingly, outward investment falls when India's growth rate rises, and inward investment rises by one and a half times the growth rate. The opposite happens when the growth rate declines, i.e. there is an increase in outward FDI from India, and a decrease in inward FDI.

Asymmetric responses are expected in the positive and negative growth scenarios. When the positive growth rate of 4.2 per cent is considered, then the impact on trade is relatively smaller than the decline in trade with a negative growth rate of -3.2 per cent, for example. It cannot be emphasised enough that all these changes estimated through a GTAP model relate only to an Indian slowdown. While India is slowing down so are the others. Hence supply

and demand bottlenecks will be encountered in all the Commonwealth members which will change the outcomes considerably. However, modelling these changes is beyond the scope of this study, which is focused on assessing the effects of India's slowdown on the Commonwealth groups. There is, however, a qualitative discussion in this study of the product categories and Commonwealth countries most likely to be adversely affected due to a decline in India's growth rate. This qualitative discussion considers India's imports and exports up to May 2020 and the kind of trade relationships Commonwealth countries have with India, thus providing a broad basis for a wider consideration of the changes taking place at present.

To alleviate the trade and investment declines especially for Commonwealth LDCs and SSA, transparency of trade restrictive measures should be requested for all Commonwealth countries. In addition export credit should be eased and transport restrictions lifted, with proper precautions. Policies to encourage high value, low volume tourism should be encouraged. The rules of business have changed structurally and the Commonwealth has to adapt to this changed environment.

Note: At the time of writing, -5% GDP decline for India during the financial year 2020-21 was a reasonable estimate of the worst-case scenario. Now, this rate of decline is forecast at about -10%. Though the quantitative estimates will change with a revised figure, the analysis of the paper suggests that the qualitative insights will remain relevant and unchanged.

1. Introduction

India has 55 per cent of the Commonwealth's 2.3 billion population and accounts for 26 per cent of intra-Commonwealth trade (Economic Times, 2017). India exports some US\$50.15 billion worth of goods, or more than 19 per cent of its exports, to Commonwealth nations. It also imports some US\$54.66 billion worth of goods, or 15.32 per cent of its global imports, from Commonwealth nations (Indian Express, 2020). Nigeria, Malaysia, Australia, Singapore and the UK are among the top exporters to India from the Commonwealth, while India's top five export destinations within the Commonwealth are the UK, Singapore, Bangladesh, Malaysia and Singapore (New Indian Express, 2020). According to estimates by the Commonwealth Enterprise & Investment Council (CWEIC), the Commonwealth's combined GDP was predicted to reach US\$14 trillion by 2020, and intra-Commonwealth trade was projected to surpass US\$1 trillion by 2020, up from US\$525 billion in 2015 (Economic Times, 2018).

The Indian economy was already slowing down before the pandemic disease COVID-19 first hit. Its GDP growth rate at the end of the second quarter of the financial year 2019–2020 was the lowest that it had been in the previous 26 quarters.

There are multiple indicators of the country's slowdown ranging from a 4.3 per cent contraction of industrial output for September 2019, to a decline of merchandise exports in the successive months of August (–6%) and September (–6.6%). Consumer confidence dropped to a six-year low in September 2019. The main reasons ascribed to the slowdown by experts were declining manufacturing activity, weakened investments, and lower consumption demand, both globally and in India (Bloomberg, 2020). Several reasons have been advanced for this slowdown: cyclical, global, structural, policy-induced difficulties and uncertainties, all of them only partially explaining the major slowdown that has led to a 'four-balance sheets' problem, i.e. major adverse financial situation for banks, non-banking financial companies (NBFCs), infrastructure and the real estate sector.¹

Against this background, it is important to assess the impact of India's recent slowdown

on trade and investment with Commonwealth countries. This impact will depend on the extent of decline in India's growth and economic linkages between India and the Commonwealth countries. Section 1 of this paper examines the range of India's recent economic growth forecasts (national and international estimates). Section 2 surveys the relevant literature on the effects of India's slowdown on Commonwealth countries as a group and on selected groups of Commonwealth countries such as least developed countries (LDCs) and countries in sub-Saharan Africa (SSA). Section 3 maps trade and investment flows to and from India with the Commonwealth groups, and the product profile of India's trade with Commonwealth countries (including a specific focus on LDCs and SSA). It also identifies the countries and products with the largest linkages to the value chains in Commonwealth groups and those that would be least impacted by a slowdown in India. Section 4 conducts a GTAP analysis to assess the trade and investment impact of India's growth slowdown on Commonwealth countries in 2020. Section 5 shows the GTAP analysis for the counterfactual situation based on a comparison with a situation without a slowdown in India's growth. Section 6 summarises the results.

1.1 Impact of COVID-19 on India's economic growth in 2020

The estimates for India's decline in growth vary. There are two different parts of India's economic slowdown: first is the slowdown of the Indian economy that occurred in 2019. The second is the impact of COVID-19 (hereinafter 'COVID') (Table 1).

To begin with, the impact is evaluated for 2020 based on three rates of growth for India, namely business as usual, and the optimistic and pessimistic rates of growth likely for 2020. The forecasts for growth rates are being revised downwards and, taking this into account, a 'worst case scenario' is also considered. The respective estimates until June 2020 for these situations were 4.2 per cent (business as usual), 2 per cent (optimistic), –1.5 per cent (pessimistic), and –5 per cent (worst case scenario).

Table 1. NCAER Business Confidence Index, January–March 2020 (percentage rise/fall)

| Consumer durables | Consumer non-durables | Intermediate goods | Capital goods | Services |
|-------------------|-----------------------|--------------------|---------------|----------|
| –32.9% | –31.6% | –35% | –27.5% | –30% |

Source: NCAER (2020).

In addition to the impact during 2020, a longer-term assessment will be carried out for the impact of the slowdown up to 2025. This comparison will consider a counterfactual situation if the slowdown had not occurred in 2019. The pre-slowdown growth rate forecasts (i.e. January 2019) by the World Bank for India were 5.8 per cent, 6.1 per cent and 6.2 per cent respectively for the financial years 2019–20, 2020–21 and 2021–2022. The most recent World Bank forecasts after the COVID crisis for India are 4.2 per cent (2019–2020), –3.2 per cent (2020–2021) and 3.1 per cent (2021–2022) (World Bank, 2019). The GTAP model forecasts changes from one general equilibrium to another. Normally the total or complete effect of any change takes about three years, taking the impact of trade forecasts to 2025.

1.2 Key growth rate forecasts of India's slowdown

The Indian economy was weakening even before the COVID pandemic. After COVID, India's lockdown has been quite severe in comparison to most advanced economies, reflected for example by the Google mobility indicators.² The estimates for these mobility indicators ranged from 1 to 5 in mid-February 2020 to between –45 and –87 for most of the period during late March to mid-May 2020. The largest decline has been for mobility linked to retail, with the index falling from 1 in mid-February to –70 by end-May.³ Further, the National Council for Applied Economic Research Business Confidence Index has decreased sharply (Table 1). The severe effects of COVID have been felt in all sectors of the economy but especially in trade (Table 4, Section 2).

The Indian Government has implemented a number of fiscal and monetary initiatives to support economic activity and jobs and create social safety nets. However, India's direct fiscal response, according to estimates, is relatively low at 1.1 per cent to 2.7 per cent of GDP, in comparison to an average 7.8

per cent for advanced economies (Center for Global Development, 2020, p. 9). Thus, despite these policy announcements, the slowdown of GDP in 2020 will continue to be substantial (see also the excerpt from the statement by the Governor, Reserve Bank of India in Annex 1).

1.3 The range of GDP forecasts and their revisions over time

The 2020 forecasts for India's growth rates have changed very significantly in the last six months, as the situation with COVID has evolved (Table 2).

The sharp decrease in forecasts over six months is explained as follows: 'the economic costs now beginning to show up in the hard numbers are far worse than our initial expectations. The purchasing managers indices (PMIs; released by IHS Markit) for the manufacturing and services sectors were at 27.4 and 5.4, respectively, in April, implying extraordinary contraction. That compares with 51.8 and 49.3, respectively, in March. Exports contracted 60.3% in April, core sector output contracted 38%, there were no sales in the auto segment and new telecom subscribers declined 35%, while railway freight movement plunged 35% on-year' (CRISIL, 2020, p. 3).

Growth estimates for 2020: Four growth rates are selected based on the forecasts in Table 2.

- Best case scenario:** The GDP growth in 2019–2020 was lower than expected. Both the World Bank and IMF have estimated it as 4.2 per cent (IMF, 2020c, Chapter 1 Table 1.1), compared to the estimate of 5.8 per cent made by both bodies in January 2020 (World Bank Group, 2020; IMF, 2020a).
- Optimistic growth rate:** The optimistic growth rate would be applicable if the COVID situation is addressed in the near future and the economic policies of the government have a significant impact on the second half of the year estimates at 1.9 per cent by both the World Bank and IMF

Table 2. Forecasts for India's GDP growth 2020–21 during December 2019 to June 2020

| | December 2019/ January 2020 | March 2020 | April 2020 | May/June 2020 |
|-----------------------------|--------------------------------|--------------|------------|---------------------------|
| World Bank | 5.8% | 1.5% to 2% | | –3.2% |
| IMF | 5.8% | | 1.9% | –4.5% |
| ADB | 6.5% | | 4% | –3% to –6%; –4% (revised) |
| Reserve Bank of India (RBI) | 5.9% (6 Feb) | | | –1.5% |
| State Bank of India (SBI) | Below 6% | | 1.1% | –6.8% |
| Moody | 6.6% | 2.5% | 0.2% | 0%; –4% (Revised) |
| CRISIL | 6% (2 nd Feb) | 3.5% | 1.8% | –5% |
| ICRA | 6.3% | 2% (Revised) | –1% | –1% to –2%; –5% (revised) |
| Goldman Sachs | 6.4% | | 1.6% | –5% |
| Nomura | 5.5% | –0.5% | | –5% |
| HSBC | | | | –3% |

Sources: Please see Annex 1.

- c. **Mildly pessimistic growth rate:** This estimate of –1.5 per cent was used by the Reserve Bank of India in considering its monetary policy.
- d. **Worst case situation growth rate:** Table 2 shows a broad concurrence around –5 per cent as the worst case scenario for GDP in 2020–2021.

Growth estimates for assessment of impact up to 2024–2025 – the counterfactual: The World Bank estimated growth rates, which rise

up to financial year 2021, will be used for this exercise. For comparing the trade effects on the Commonwealth, pre-slowdown and post-slowdown estimates have been used. The rates post-slowdown are 4.2 per cent (2019–2020), –3.2 per cent (2020–2021), and 3.1 per cent (2021–2022), while those for pre-slowdown from January 2019 are 5.8 per cent (2019–20), 6.1 per cent (2020–2021), and 6.2 per cent (2021–2022). Based on experience from GTAP the effects of the slowdown will be felt until 2024–2025.

2. The possible impact of India's slowdown on Commonwealth groups: An analysis based on a review of the literature and a comparison with the 2008–2009 crisis

2.1 Comparison with the 2008–2009 crisis

The last crisis which was somewhat similar to the COVID crisis was the financial crisis of 2008/2009. Studying its impact on India and the consequent impact on Commonwealth states could provide a narrative for much of the likely effects of the slowdown and of COVID. However, there are also significant differences due, among other factors, to the lockdown and 'social distancing' which prevent economic operations and modes of trade in both goods and services.

In 2008–2009, the expectation was that the Indian economy would collapse to around 4 per cent growth during the subsequent four to six quarters and thereafter go back to around 5 to 5.5 per cent growth over the medium term (World Bank Group, 2020; IMF, 2020a). Instead, the first half (H1) of 2008–2009 saw the Indian economy recording a GDP growth of 7.8 per cent, despite the high level of uncertainty in the international commodity and financial markets. Among India's domestic growth drivers, gross fixed capital formation (GFCF) retained some of its momentum from the preceding years with a growth of nearly 11 per cent (World Bank Group, 2020; IMF, 2020a). Both private and government consumption, however, declined significantly. The growth in private final consumption expenditure (PFCE) in the first half 2008–2009 was 3.3 per cent, less than half of the corresponding period in 2007–2008. Similarly, government final consumption expenditure (GFCE) in the first half of 2008–2009 grew at less than 1 per cent or just one third of the growth in first half of 2007–2008. In the second half (H2) of 2008–2009, India's GDP growth declined to 5.8 per cent, with a further fall in private consumption growth to 2.5 per cent and a significant moderation in growth rate of GFCF to about 6 per cent over the corresponding period of 2007–2008 (Joseph, 2009).

Thus, India's GDP growth took time to decline during the 2008–2009 crisis, and even then the growth rate was high compared to several other large economies. This maintained some robustness in the tax receipts for the government.

With the roll-out of the fiscal stimulus, primarily in the shape of implementation of the Sixth Pay Commission recommendations in Q3, as well as the second round of fiscal expansion announced in Q4, the growth in government final consumption expenditure shot up by nearly 36 per cent, partly making up for the shortfall in other components of the domestic aggregate demand. The overall GDP growth for the fiscal 2008–2009 at 6.7 per cent surpassed all estimates and forecasts by international agencies and analysts (India Budget, 2008–9), which mostly ranged from 5.5 per cent to 6.5 per cent.

As expected, the outcome of the recession in countries to which India exported its goods was a sharp fall in growth of Indian organised manufacturing, and in its exports and imports. A downward trend in India's manufacturing sector started in the second quarter of the calendar year 2007 with a slowing of the US economy and its imports of several products from India. The trend was merely accelerated after the meltdown of the US markets and the onset of the global recession. Services sector growth of India was not expected to slow sharply because of its insensitivity to demand cycles and relatively small contribution of service exports to GDP. In fact, there was a sharp increase in the growth of community, social and personal services, which includes GDP from government administration. It is also important to note that in 2009–2010 the Indian economy recovered faster and GDP growth rates in 2009–2010 and 2010–2011 were, respectively, 8.6 per cent and 9.3 per cent. This showed the resilience of the Indian economy against external shocks.

Table 3. Forecasts of India's GDP, world output and world trade growth for 2009 and 2020, and actual growth in 2009

| | Forecast in January 2009 | Forecast in April 2009 | Forecast in July 2009 | Forecast in January 2020 | Forecast in April 2020 | Forecast in June 2020 | Actual growth 2009 |
|--------------------|--------------------------|------------------------|-----------------------|--------------------------|------------------------|-----------------------|--------------------|
| India – GDP | 5.1% | 4.5% | 5.4% | 5.8% | 1.9% | –4.5% | 6.8% |
| World output | 0.5% | –1.3% | –1.4% | 3.3% | –3% | –4.9% | –0.7% |
| World trade volume | –2.8% | –11% | –12.2% | 2.9% | –11% | –11.9% | –10.7% |

Sources: IMF, 2009a, 2009b, 2019.

Note: World trade includes goods and services.

Table 3 shows the forecasts made in 2009 about India's GDP growth, with comparable forecasts for 2020. The growth in forecast trade and actual trade is also shown. The actual performance in the year was better than anticipated. For world output and trade, the actual performance in 2009 was a decline, but a lower decline than anticipated by the worst case scenario predicted by forecasts. Consider now the actual experiences for merchandise trade in the same months of 2009 and 2020.

The decline in trade for both exports and imports in 2019–2020 has been larger than that for 2009–2010 (Table 4). Likewise, comparing the months of March to May in 2009 and 2020, the decline is much larger in 2020. It is noteworthy that the impact of COVID on the Indian economy is very different from the 2009 global economic crisis. The adverse effects are much higher on account of domestic factors such as a fall in domestic demand, non-availability of labour, supply-side shortages and a drastic fall in exports and imports. Hence in the COVID situation, to a substantial extent India itself is generating its slowdown – which will impact the Commonwealth countries.

Thus, in 2020 the Indian economy has both supply- and demand-side disruptions. On the demand side, the brunt of the adverse impact of COVID would be on sectors such as trade,

transport, travel and tourism, hotels, sports and entertainment as well as the financial services sector. There are some sectors which are benefiting due to social distancing and lockdown. **Internet, cloud services and e-commerce have seen double-digit growth rates during this period** (Economic Times, 2020b). On the supply side, disruptions are also coming through supply chain breakdowns in countries such as China, South Korea, Italy, Spain, France, Germany, the UK and the USA. India has substantive trade relations through exports and imports with all these countries (Srivasta, 2020). A recent study has shown, for example, that a decrease in trade in intermediate products from China could have a wide-ranging adverse effect on India's supply chains in multiple sectors.⁴

The consequent production slowdown occurs also because sales are sharply reduced. This in turn would have a knock-on effect in terms of a rise in non-performing assets (NPAs) in banks. If the shutdown on travel and malls continues for a month or more in several parts of India, the economic prospects will be strongly hit, affecting the ability to service loans. Foreign investors withdrew over US\$16 billion from India in the first quarter of 2020, showing the impact of COVID (Congressional Research Services, 2020). Trade and links with

Table 4. Year-on-year percentage decline in merchandise exports and imports of India

| | Exports 2009 | Exports 2020 | Imports 2009 | Imports 2020 |
|----------------|--------------|--------------|--------------|--------------|
| Financial year | –3.5% | –5.2% | –5.0% | –7.8% |
| March | –25.1% | –34.6% | –10.6% | –23.7% |
| April | –32.4% | –60.3% | –20.2% | –58.6% |
| May | –34.1% | –36.5% | –21.6% | –51.0% |

Source: Department of Commerce, Government of India.

Note: Financial years: exports/imports 2009 are for 2009–10; exports/imports 2020 are for 2019–20.

the Commonwealth will thus be affected both due to a fall in income abroad and a major downturn of the economy at home.

2.2 India's exports slowdown and the Commonwealth

India's exports would decline due to both a fall in demand abroad as well as supply-side constraints that arise due to COVID. Forecasts for various Commonwealth economies, developed as well as developing ones (including in sub-Saharan Africa), show major declines in GDP.⁵ This would impact demand for India's exports. In addition, during the COVID crisis domestic factors are also responsible for a reduction in export supply. An indication of the impact of lower international demand would be provided by the income elasticity of India's exports.

India's export elasticity: Estimates of India's income elasticity of exports calculated some time ago suggest that with a fall in incomes abroad, the largest impact (income elasticity of exports between 4.11 and 5.4), would be on India's exports of petroleum, ores and mineral, and gems and jewellery. The next level of impact (elasticity between 2.28 and 2.55) would be on chemicals and chemical products and engineering and electronic products. Products whose export would likely decrease but less than those mentioned above include marine products, leather and leather products, and textiles and textiles products (UNCTAD, 2013). The overall impact on India's exports, however, would depend on both the income elasticity and the domestic supply-side constraints arising due to lockdown.

Experience in 2008–2009: There are very few studies of the impact of 2008–2009 on India and the link with Commonwealth countries. Therefore, the implications of the Indian trade decline in 2008–9 would need to be assessed based on the sectors which declined in the previous crisis. In 2009, a Government of India labour survey had found that the maximum employment decline for exporting units was in the gems and jewellery sector (Government of India Ministry of Labour & Employment, 2009). Other sectors with a significant fall in employment among exporting units included metals, textiles and automobiles. The current experience also shows a large decline in these products, among others (see Table 2 in Annex 10).

A decline in India's exports could have a significant impact on those Commonwealth

countries for which India provides a substantive share of their imports. India has a small share in the imports of Commonwealth developed countries, but a significant share in the imports of Commonwealth developing countries, SSA and LDCs (see Table 6 in Section 3). Commonwealth LDCs import a significant part of their imports in a number of product categories from India. India's share in total imports by Commonwealth LDCs is 20 per cent for transport and motor vehicles sectors; 17 per cent each for chemicals and pharmaceuticals, textiles, garments and leather products, and 'other manufacturing'; and 12 per cent for petroleum and minerals and metals. For SSAs, the most important sectors are chemicals and pharmaceuticals, transport and motor vehicles, and textiles, garments and leather products.

Table 2 of Annex 10 shows the large decrease in India's exports during April and May 2020. Other than drugs and pharmaceuticals (which saw an increase), and exports of chemicals which fell by 27 per cent, all other categories registered a fall of 40 per cent or more during April and May 2020. This suggests a major impact on Commonwealth LDCs and sub-Saharan African member countries, and also on the group of Commonwealth developing countries.

The large decline in exports largely arose because of the lockdown, transport and travel restrictions, and fear of infection through contact. Some export restrictions on food and medicines in the initial phase of COVID have also been responsible for an export decline from India. Subsequently some restrictions on export of medicines, diagnostic kits, gloves and masks were relaxed in May 2020 (WTO, 2020). However, supply constraints rather than export restrictions have been the major reason for the large decline in exports to the Commonwealth, especially to LDCs and sub-Saharan Africa. This is because the first round of impact on account of inter-state travel restrictions has been on food exports from India. At the best of times trade logistics are a major handicap to Indian exports. This has multiplied many times with COVID.

2.3 India's imports slowdown and the Commonwealth

Experience in 2008–2009 for low income economies in Africa: 'The merchandise

exports of LICs began falling in October 2008, while exports of services (mainly tourism) also declined; overall the exports of goods and services are estimated to have declined by 16% in 2009. ... For 15 LICs in Africa [including Ghana, Kenya, Malawi, Mozambique, Rwanda, Tanzania, Uganda and Zambia], the exports of goods and services as a percentage of GDP fell from 24.8% in 2007 to 24.2% in 2008 and to an estimated 21.8% in 2009. ... Among the worst affected are Mozambique (whose exports fell from 37.8% of GDP to 27.9% of GDP between 2007 and 2009) and Zambia (from 41.9 to 31.9% of GDP in the same years). For sub-Saharan Africa as a whole, the export fall was from 41% of GDP in 2008 to 31.2% of GDP in 2009' (South Centre, 2010, p. 29).

India's imports from the Commonwealth: The Commonwealth countries are important exporters of several products to India, especially the developed Commonwealth countries. However, a small number of companies account for a large share of India's imports from the Commonwealth. Among the Commonwealth, the top ten sources of India's merchandise imports⁶ in 2019 accounted for 92 per cent of India's total imports from Commonwealth. The next top ten sources (WTO, 2019)⁷ accounted for another 7.3 per cent. Thus 20 Commonwealth countries accounted for 99.3 per cent of India's merchandise imports from the Commonwealth in 2019.

India's slowdown will impact Commonwealth countries strongly if it is a prominent export market for them. These countries would be adversely affected due to a large and widespread merchandise import decline from India. The WTO provides summary information on the top five export markets for individual countries, in terms of two product categories, agricultural products and non-agricultural products (WTO, 2019). The Commonwealth countries for which India is a prominent export market are:

- a. **For agricultural products:** Bangladesh, Cameroon, Malaysia, Mozambique, Nigeria, Sri Lanka and Tanzania.
- b. **For non-agricultural products:** Australia, Botswana, Brunei Darussalam, Cameroon, Gambia, Ghana, Lesotho, Mozambique, Nigeria, Pakistan, Solomon Islands, South Africa, Sri Lanka, Tanzania and Zambia.

Particularly strong adverse effects would be felt by those countries for which India is a prominent export market for both agricultural and non-agricultural products. These are the countries given in bold in the list above. This list contains Commonwealth countries from developed, developing, SSA and LDC categories. Table 4 in Annex 2 shows the main products imported by India from the individual Commonwealth countries, and the shares of India's imports from these individual countries in India's total imports. A comparison with the decline in India's imports of important product categories (Annex 10) will show the likely reduction in the product categories exported by individual Commonwealth countries to India.

At present, product-level detail for individual countries is available for March 2020, the first month showing the major effects of COVID. Based on this, more specific information on countries for which India is among the top five export markets for agriculture and non-agriculture products is provided by Table 5. Though very partial, it shows the effects of India's major slowdown on its imports and thus on the exports to India.

In general, there was a major decrease in India's imports from most countries. There were a few exceptions, i.e. cases where India's imports from the country have increased. These were Australia,⁸ Bangladesh⁹ and Tanzania¹⁰ for agricultural products, and Brunei Darussalam,¹¹ South Africa¹² and Zambia¹³ for non-agricultural products. Thus, most Commonwealth countries are facing a shrinking import demand for products for which India is a significant destination of their exports.

Interaction between exports and imports during the COVID crisis: Exports from Commonwealth countries have been adversely affected as they rely on external demand. Manufacturing, in particular of garments, has been a main development driver for LDCs such as Bangladesh. COVID-19 has resulted in cancellation of orders as fashion retail in India collapsed. At the same time, Bangladesh's domestic supply was constrained by mandatory factory closures: 'By the end of March 2020, a quarter of the 4 million mostly female Bangladeshi garment workers had been fired or furloughed' (United Nations Department of Economic and Social Affairs, 2020). Garments exports from Bangladesh declined by more than 80 per cent on a year-to-year basis in April 2020. This in

Table 5. Growth of India's imports in March 2020 (year-on-year, %)

| | Growth rate of India's agricultural imports | Growth rate of India's non-agricultural imports | Growth rate of India's merchandise imports |
|-------------------|---|---|--|
| Australia | 232.3% | -38.7% | -37.3% |
| Bangladesh | 14.9% | -4.8% | -2.56% |
| Botswana | See Note 3 | -20.56% | -20.56% |
| Brunei Darussalam | See Note 3 | 38.5% | 38.5% |
| Cameroon | See Note 3 | -83.96% | -83.96% |
| Gambia | See Note 4 | -73% | -18.59% |
| Ghana | -49.1% | -89.3% | -86.53% |
| Lesotho | See Note 3 | See Note 3 | See Note 3 |
| Malaysia | -95% | -39.2% | -52.08% |
| Mozambique | -20.6% | -16.1% | -17.29% |
| Nigeria | -25.6% | -21.7% | -21.76% |
| Pakistan | -50% | -99.2% | -95.15% |
| Solomon Islands | See Note 3 | -77.86% | -77.86% |
| South Africa | -8.5% | 59% | 58.53% |
| Sri Lanka | -24% | -80.7% | -70.68% |
| Tanzania | 663.2% | -43% | 32.83% |
| Zambia | See Note 5 | 52.1% | 51.62% |

Source: Department of Commerce, Government of India.

Note 1: The highlighted estimates show the product categories for which India is among the top five exports markets for specific CW countries in this table.

Note 2: The coverage of products is at GS 2-digit level. Products from HS 1 to 24 are considered as agricultural products. Others are taken as non-agricultural products.

Note 3: No imports took place in March 2019 or March 2020.

Note 4: Imports of agricultural products from Gambia increased from zero in March 2019 to US\$0.6 million in March 2020.

Note 5: No imports took place in March 2020.

turn meant that its appetite for imports from India, especially for raw materials for its garments sector, was at an all-time low (Ibid.).

Tourism is a major export of many Commonwealth LDCs. India has imposed strong travel restrictions and advisories. In addition, the destination countries themselves are limiting tourist inflows to contain COVID (Trade for Development News by EIF, 2020). Thus decreasing revenues have resulted in decreased import demand from India. Reduced demand for migrant workers and travel bans imposed by receiving or sending countries has drastically reduced remittances, which are essential in many LDCs.

Job losses and the return of migrant workers who have lost their jobs due to the crisis abroad can put further stress on limited social protection and health systems. In fact, the large influx of migrant workers from neighbouring countries has all but dried up, reducing the

import demand in these countries. Informal border trade has also come to a virtual standstill because of travel and transport restrictions by India.

Commodity exporters have been hit by both reduced demand and resulting price declines. Oil-exporting countries such as Nigeria have been hit by the fall in demand from India: 'While other commodities have been less affected than oil, prices for most metals and minerals have declined by 20 per cent, slashing export earnings and potentially reducing foreign direct investment (FDI) inflows.' (Trade for Development News by EIF, 2020). This in turn has affected their demand for products from India.

Additionally, pressure on exchange rates in Commonwealth LDCs and sub-Saharan Africa from an export slump would lead to balance of payments problems. This would intensify their pre-existing debt problems and also

reduce their demand for imports from India: 'Already before the Covid-19 crisis, 19 out of 39 LDCs covered by the debt sustainability assessment of the International Monetary Fund (IMF) for low income countries were at high risk of, or already in, debt distress' ((Trade for Development News by EIF, 2020). The IMF has calculated that COVID is set to wipe out nearly ten years of progress in economic development for sub-Saharan Africa (IMF, 2020e, p. 6).

Impact at the regional level

The outbreak of the COVID-19 pandemic may bring new opportunities for regional cooperation in South Asia with the setting up of an emergency fund of US\$10 million on India's initiative (Mitra, 2020). Bangladesh supplied food and medical equipment to the Maldives and India provided medical assistance to the whole region. A decline in globalisation may lead to the relative strengthening of regional supply chains. India could gain investment from some of the firms moving out of China. However, India's limited trade connectivity with South Asia has meant that intra-regional trade in South Asia is among the lowest in the world (at 5 per cent) (Sinha and Sareen, 2020). India's trade with South Asia has varied from 1.7 per cent to 3.8 per cent of its global trade, while China has steadily increased its exports to the region from US\$8 billion in 2005 to US\$52 billion in 2018 (Ibid.). As a result, only Afghanistan, Nepal, and Bhutan now have a higher trade share with India as compared to that with China. However, India continues to be an important market for all its neighbouring countries, except Myanmar and Pakistan.

The impact of India's slowdown is likely to be widespread. Table 4 in Annex 10 shows that India's imports of a large range of items fell sharply in April and May 2020. The largest decline was for gold and pearls, semi-precious and precious stones. These categories are part of the main imports of India from a number of countries (e.g. Botswana, Dominica and Ghana). Import falls of more than 40 per cent took place for cotton, textile yarn and made-up articles, leather and leather products, ores and minerals, petroleum and products, electronic goods, machine tools, electrical and non-electrical machinery, and transport equipment. A decrease between 20 per cent and 40 per cent was observed for chemicals, vegetable oil, pulp and waste paper, artificial resins, plastics and

products thereof, fruits and vegetables, non-ferrous metals and silver. These products cover exports from most Commonwealth countries.

In addition, the lockdown and social distancing implies that service trade through Modes 2, 3 and 4 will decline strongly. To some extent, the move towards digitalisation of trade would mitigate this effect but services trade in sectors like tourism, transport, construction, and financial services may decrease.

An important issue being discussed in the literature is that the COVID situation has disrupted global value chains. It has also adversely impacted several services exports and imports notably tourism, hospitality, aviation and financial and business services.

2.4 Global value chains (GVCs) between India and the Commonwealth

India's GVCs are rapidly changing both in terms of their product composition and the countries targeted. Earlier studies have pointed out that small economies in the Commonwealth could integrate into GVCs for a limited range of products such as agri-food, seafood, textiles and apparel, tourism and IT and business process outsourcing (The Commonwealth, 2016a). However, these are not products for which significant trade-related GVCs currently exist in India.

India has relatively low GVC participation: India is comparatively weakly integrated into GVCs because of its primary focus on domestic markets. Annex 9 shows some details regarding India's GVC participation. India's backward and forward participation has been low; at 19 per cent and 14 per cent respectively in 2015 (see Annex 9, Table 1) (OECD, 2013). India's foreign value-added content of gross exports are lowest for primary agriculture (3%) and processed food (6%) and highest for petroleum products (47%) and basic metals (39%). A notable point is that though India's rank in GVC participation is low, the rate of growth of its GVC participation was among the fastest from 2005 to 2015 (Annex 9, Table 2).

Potential products/countries identified for Commonwealth GVCs: A number of studies have identified several goods and service sectors for which potential GVCs could be established between India and other Commonwealth countries. These studies and a consideration of synergistic possibilities for

India and Commonwealth countries suggest that GVCs connections could be established in several sectors such as fish, cashew nuts, food processing, vegetable oils and fats, metals and minerals, petroleum/coal products, home appliances, dyes, leather articles, footwear, carpets, apparel, textiles furnishing articles, jewellery, machinery and equipment, motors, turbines, transformers, tractors, wagons, tourism, the financial sector, and ICT products (including over-the-top products such as apps) (for example, The Commonwealth, 2016a; Ukkusuri et al., 2016).

Commonwealth countries as GVC partners: A number of Commonwealth countries are active participants in GVCs (e.g., Australia, Malaysia, Singapore and South Africa – Table 3 of Annex 9). These countries have a number of products suitable for developing greater GVC links with India. Among the Commonwealth LDCs, those most likely to be integrated into India's GVCs are Bangladesh, Malawi, Mozambique, Rwanda, Sierra Leone, Tanzania, Uganda and Zambia. A number of the above-mentioned countries are Commonwealth sub-Saharan African countries. Other countries with potential for GVC with India include Botswana, Cameroon, Ghana and Kenya in sectors such as petroleum, mineral fuels and oils, gems and jewellery, food processing and machinery and appliances.

Importance of lead firms: A number of the sectors mentioned above have been identified

as potential candidates for GVCs with India for several years but trade with India in these areas has not progressed much (see Section 3). An important point to give momentum to GVC links is that they need specific focus and effort. A significant insight from the experience with GVCs is that specific targeted strategies have to be developed for them, together with 'lead firms', i.e. firms which manage or co-ordinate the GVCs. Although Indian lead firms are relatively few, they are substantively present in many sectors as actual or potential lead firms. In addition, some of the foreign lead firms in India could also be part of such an effort. Some examples of these include¹⁴ the automotive sector (e.g., Maruti, Mahindra, Tata Motors, Ashok Leyland, Hero Motors, Bajaj Auto), textiles and apparel (e.g., Arvind Mills, Raymonds, Welspun, Vardhaman, Shahi Exports, Orient Craft, Eastman Exports Global, and Arvind Lifestyle Apparel), pharmaceuticals (e.g., Biocon Biologics, Natco Pharma, Lupin Pharmaceuticals, Dr. Reddy Laboratories), engineering goods (L&T, Kirloskar, BHEL, Triveni Engg), chemicals (Reliance, Tata Chemicals, Jubilant, UPL, Deepak Fertilizers), electrical and electronic products (e.g., Amar Raja batteries, Bajaj Electronics, Centum, Deki Electronics, Dixon Technologies, Kirloskar Electronics, Lava, Flex, Foxconn, Honeywell), gems and jewellery, and plastics (for some discussion, see ICRIER, 2020).

3. Trade flows between India and the Commonwealth

3.1 Trade flows between India and Commonwealth country groups

India and the Commonwealth are important for each other. Table 6 shows that India's imports from the Commonwealth member countries exceeded its exports to the Commonwealth consistently for nearly 20 years. An important feature of India's trade with the Commonwealth countries is that while their share in India's exports is almost one fifth, India's share in their imports is very small (about 3% or one thirtieth). Both have grown exponentially by over seven times in the past twenty years.

Table 6 shows that both for sub-Saharan Africa (SSA) and LDCs, India is an important trade partner. India accounted for more than 13 per cent of the total imports of LDCs and 8 per cent of the imports of the sub-Saharan African Commonwealth countries. Within LDCs, Bangladesh, Uganda and Tanzania were the most important trading partners as India accounted, respectively, for 16 per cent, 14 per cent and 12 per cent of their total imports. The other important trading partners were Malawi, Rwanda, Gambia, Sierra Leone and Mozambique in descending order of magnitude.¹⁵ Bangladesh and Mozambique are among

Table 6. Importance of Indian trade in the Commonwealth

| Country groupings | India's exports in (US\$ billion) | | | India's imports in 2019 (US\$ billion) | | | India's share in overall imports (in %) | | | % share in India's total exports | | |
|-------------------------|-----------------------------------|------|------|--|------|------|---|------|------|----------------------------------|------|------|
| | 2000 | 2010 | 2019 | 2000 | 2010 | 2019 | 2000 | 2010 | 2019 | 2000 | 2010 | 2019 |
| All CW Countries | 7.6 | 45.2 | 64 | 10 | 53.2 | 75 | 0.79 | 0.66 | 2.9 | 9 | 20.5 | 19.8 |
| Developed Countries CW | 3.4 | 10.6 | 16 | 4.7 | 20 | 22 | 0.61 | 0.3 | 1.26 | 4 | 4.8 | 4.85 |
| Developing CW Countries | 4.2 | 34.7 | 48 | 5.3 | 33.2 | 53 | 1.21 | 1.17 | 4.67 | 5 | 15.7 | 14.9 |
| LDCs CW | 1 | 5.2 | 14 | 0.2 | 0.8 | 4 | 4.38 | 6.9 | 13 | 1.2 | 2.3 | 4.19 |
| Sub-Saharan Africa CW | 1.3 | 11.2 | 17 | 2.4 | 18.2 | 24 | 2.06 | 0.82 | 7.6 | 1.5 | 5 | 5.21 |

Source: ITC trade Maps. Base data given in Annex 1.

the top ten export markets of India among Commonwealth countries (Annex 3, Table 1).

The picture changes somewhat when the group of SSA countries is analysed. Imports from sub-Saharan countries exceed exports, even though SSA accounts for a smaller share of Indian exports than its imports from India. Indian imports were highest from Nigeria, South Africa, Ghana and Mozambique in that order, whereas Indian exports were highest to South Africa, Nigeria, Mozambique, Kenya and Tanzania. The product profile analysis in the next section will indicate the co-dependency of India and SSA on each other. This creates a possibility of value chain linkages between India and SSA, explored in the next sub-section.

As far as developed Commonwealth countries are concerned, India's imports from them exceed its exports to them. These countries are more important to India than India is to them for trade, as their share in Indian exports is higher than India's share in their global imports. Among the developed countries, the UK, Australia and Canada are important trading partners for India, whereas New Zealand, Cyprus and Malta are relatively unimportant trading partners. While the UK is the largest developed country market for India's exports to the Commonwealth, the largest source for India's imports from the developed Commonwealth is Australia.

For the developing Commonwealth group, India's share in their total imports is far lower than their share in India's total exports. Excluding LDCs and SSA, the largest trading partners for India are Singapore, Malaysia, Sri Lanka and Pakistan. India has a trade deficit with the first two countries and a trade surplus

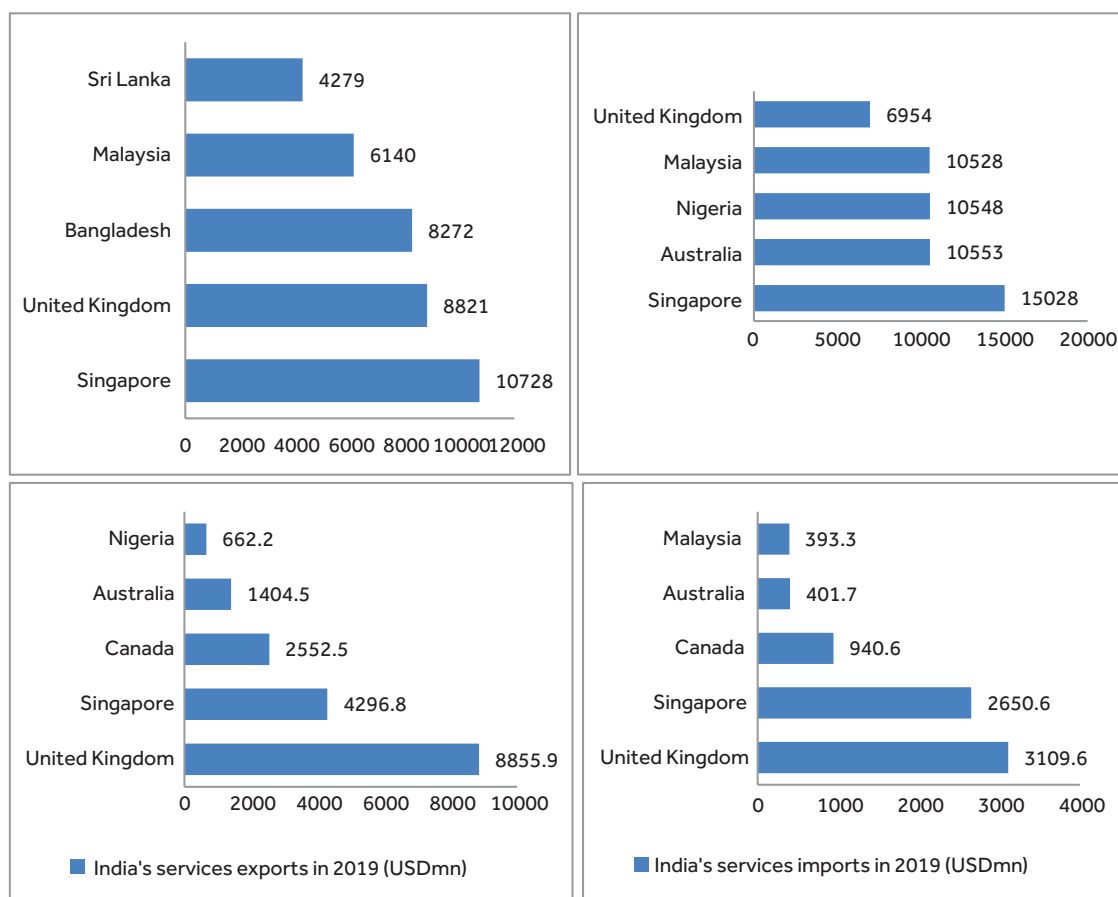
with the next two. Its trade deficit with this group is entirely accounted for by its deficit with Singapore and Malaysia, as can be inferred from Figure 1.

Both developed and developing Commonwealth countries are important trading partners for India, and for SSA and LDC Commonwealth countries India is an important trading partner. Thus, with India's slowdown, the vulnerable groups of countries (those likely to be more impacted) would be SSA and LDCs, especially Nigeria and Bangladesh. India's slowdown will affect the export opportunities of developed and developing Commonwealth countries to India, particularly for specific groups of countries as shown in Tables 7 and 8.

3.2 Trends in trade flows to major country groups

Trade with the Commonwealth grew in the five years from 2015 to 2019. Table 7 shows that while the overall growth of India's merchandise exports has been a robust 4 per cent since 2015, trade with LDCs grew fastest at an average compound rate of 9 per cent per annum. The rates of growth of exports to developed countries and SSA have been lowest at 2 per cent per annum. Exports to developing countries have followed the average trend. Given that nearly 8 per cent of SSA's imports come from India this is a disappointing trend, but the rate of GDP growth of SSA was at an all-time low of around 2.5 per cent between 2015 and 2019 (Statista International, 2020b). The developed countries showed an average annual growth of 2 per cent over the five years in question, which is consistent with average growth of the economies

Figure 1. India's top 5 exporters and importers of goods and services in 2019
 Top 5 Export destinations of goods Top 5 Exporters of goods to India



Source: ITC trade maps and GTAP database.

(World Bank (n.d) GDP Growth). Developing countries have grown at average annual rate of around 4 per cent and export growth has been consistent with it (Ibid.). However, it is India's exports to LDCs which have outstripped their GDP growth rate (Ibid.). This is explained by the fact that over 40 per cent of India's exports to LDCs went to Bangladesh, Tanzania and

Uganda, which have grown at over 6 per cent per annum over this period (Ibid.).

India's imports from the Commonwealth have grown faster than its exports. Its imports from developed countries, developing countries and LDCs have grown at 6 per cent or higher, with the highest growth from LDCs (Statista International, 2020a). A robust rate of growth

Table 7. Trends in India's merchandise exports to the CW

| Countries/Groupings | India's merchandise exports (US\$ billion) | | | | | Compound rate of growth of exports per annum |
|-------------------------------|--|------|------|------|------|--|
| | 2015 | 2016 | 2017 | 2018 | 2019 | |
| All Commonwealth countries | 57 | 50 | 61 | 66 | 64 | 4 |
| Developed | 15 | 14 | 16 | 17 | 16 | 2 |
| Developing | 42 | 36 | 45 | 49 | 48 | 4 |
| LDCs | 10 | 10 | 11 | 13 | 14 | 9 |
| SSA | 16 | 13 | 14 | 15 | 17 | 2 |
| India's GDP growth (annual%)* | 8 | 8.3 | 7 | 6.1 | 5 | 6.88 |

Source: ITC trade maps.

Note: * World Bank (n.d.) Development indicators: India <https://data.worldbank.org/country/india>

Table 8. Trends in India’s merchandise imports from the CW

| Country/Groupings | India’s merchandise imports (US\$ billion) | | | | | Compound rate of growth of imports |
|-------------------------------|--|------|------|------|------|------------------------------------|
| | 2015 | 2016 | 2017 | 2018 | 2019 | |
| All Commonwealth countries | 62 | 53 | 66 | 80 | 75 | 6 |
| Developed | 19 | 17 | 24 | 25 | 22 | 6 |
| Developing | 43 | 36 | 42 | 54 | 53 | 7 |
| LDCs | 3 | 3 | 4 | 4 | 4 | 8 |
| SSA | 23 | 18 | 23 | 26 | 24 | 3 |
| India's GDP growth (annual %) | 8 | 8.3 | 7 | 6.1 | 5 | 6.88 |

Source: ITC trade maps.

Note: * World Bank (n.d.) Development indicators: India <https://data.worldbank.org/country/india>

led to a strong demand for imports including from Commonwealth countries, among others. Annex 4 provides the detailed trend of export and import, together with the growth rates for each country.

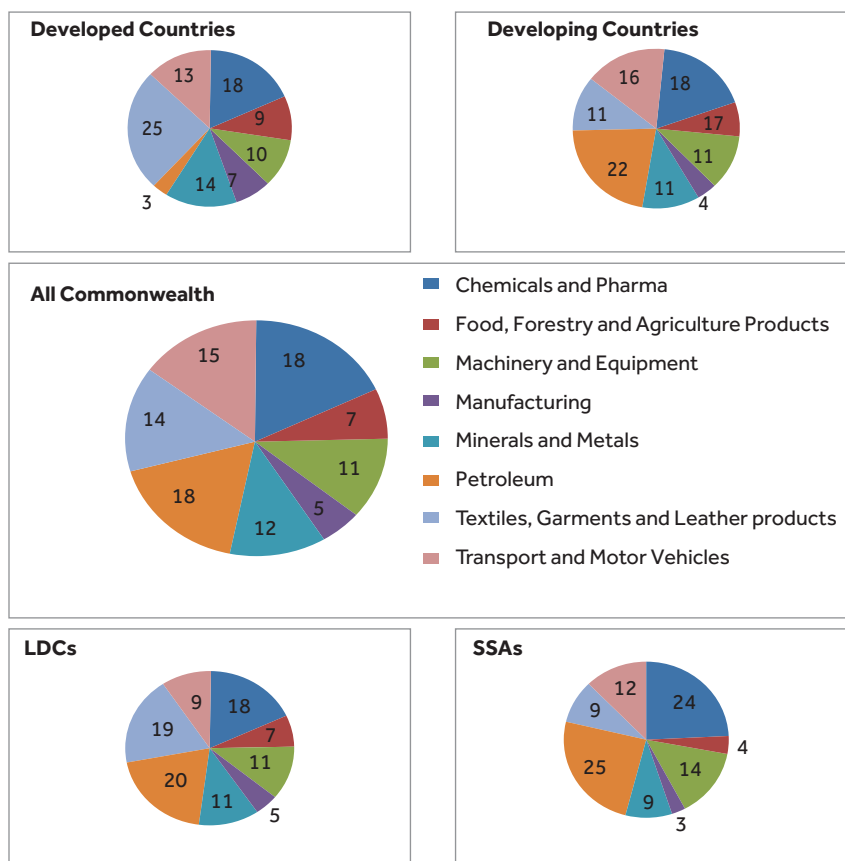
3.3 Product profile of India’s trade with the Commonwealth

As was shown earlier, around one quarter of India’s trade with Commonwealth members,

both in terms of exports and imports, is with the developed Commonwealth. Hence the impact of its slowdown will be magnified if the products most affected by the COVID crisis are precisely the products in which India trades with the developed Commonwealth. Figure 2 shows the product profile of India’s export of goods to the Commonwealth.

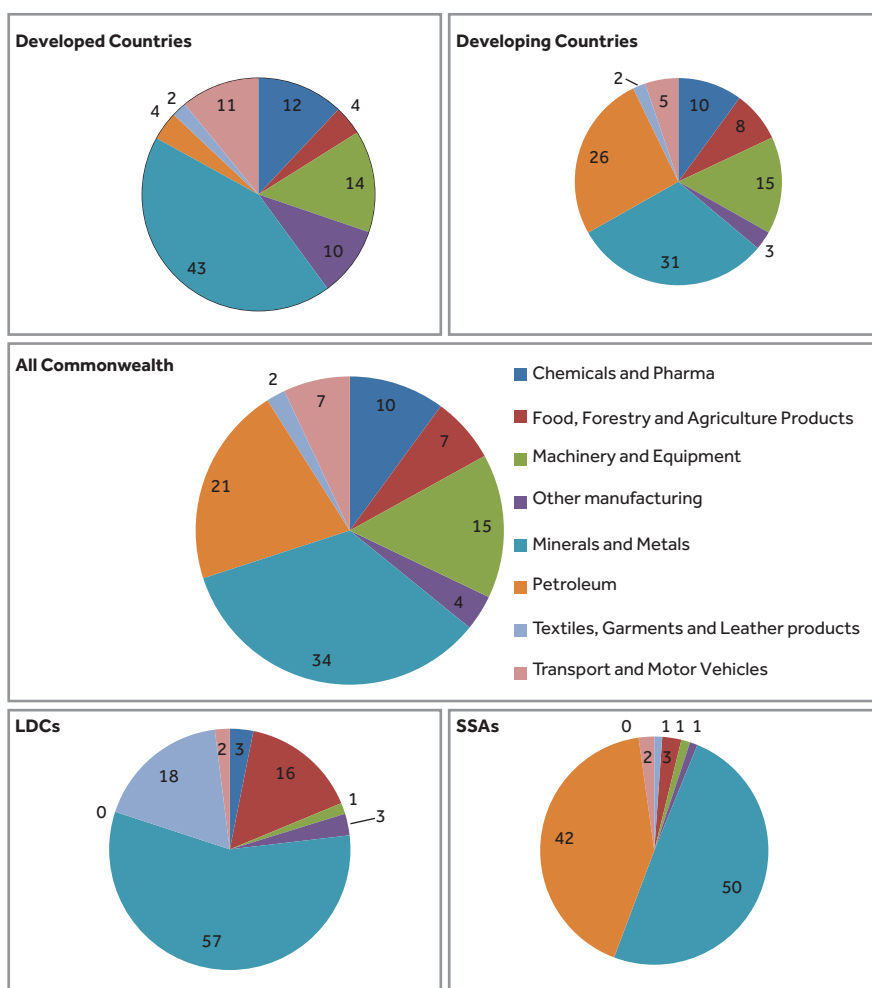
The group of developed Commonwealth countries is a very important export

Figure 2. Product profiles of India’s exports to CW groups in best case scenario (all figures in percentages)



Source: ITC trade maps.

Figure 3. Product profiles of India's imports from the Commonwealth



Source: ITC trade maps.

Table 9. Import dependence of CW groups on India in various sectors in 2019 (All figures in percentages)

| Sectors | India's share in global imports of CW | India's share in global imports of developed CW | India's share in global imports of developing CW | India's share in global imports of CW LDCs | India's share in global Imports of CW SSA |
|---|---------------------------------------|---|--|--|---|
| Petroleum | 4 | 2 | 8 | 12 | 8 |
| Chemicals and Pharma | 5 | 2 | 13 | 17 | 12 |
| Machinery and Equipment | 2 | 1 | 8 | 9 | 9 |
| Transport and Motor Vehicles | 2 | 1 | 14 | 20 | 13 |
| Minerals and Metals | 3 | 1 | 9 | 12 | 7 |
| Textiles, Garments and Leather products | 9 | 5 | 16 | 17 | 14 |
| Food, Forestry and Agriculture Products | 3 | 1 | 7 | 8 | 5 |
| Manufacturing | 3 | 1 | 10 | 17 | 8 |

Source: Based on Annex tables.

destination for India. Nearly 25 per cent of India's global exports of textiles, garments and leather products goes to this group. Hence with a decrease in exports in labour-intensive sectors of nearly 95 per cent from March to May 2020 (Livemint, 2020) India's export base to this group will shrink. Of all Indian products exported to the Commonwealth the share of chemicals and pharmaceutical products is very high across all groups of Commonwealth countries, especially sub-Saharan African ones. Indian exports of petroleum products to SSA are also high, but SSA and LDCs in particular are an important market for India for transport and motor vehicles. Hence if these markets are not available to India because of COVID-19, or if India's supply-side capacities diminish considerably because of the pandemic, there will be a substantial contraction in India's exports in these important sectors which together constitute nearly 30 per cent of Indian exports.

The dependence of Commonwealth SSA and LDCs countries on India is particularly marked in the chemicals and pharma sector, as well as the transport and motor vehicles sector. In textiles and garments too, these groups are dependent on India for around 14 per cent of their imports. The dependence of developed countries on Indian imports is minimal. Hence, they would not be much affected by the Indian slowdown. It is the poorer countries where the effects would be more marked, especially as Indian production of chemicals and pharmaceuticals decreases because of COVID.

In this background, it is worth noting the extent of export and import decline in April 2020 (Annex 10). The largest decline in exports was registered for gems and jewellery, textiles and clothing, leather products, petroleum products, engineering goods, ores and metals. Exports of these products would be particularly low from India to its various destinations, including Commonwealth countries.

Likewise, the largest import decline took place in April 2020 for gold, gems and jewellery, certain mineral and metals, leather products, electronic goods, machinery, petroleum and crude products, textiles and made-up articles.

These products are important in the import basket of India from the Commonwealth, hence trade has already been affected.

3.4 Indian investment flows from and to the Commonwealth

Foreign direct investment (FDI) from India to the Commonwealth makes up a large proportion of India's overall FDI. The trend rate of growth for both the outflow of FDI from India to Commonwealth countries and vice versa was on average declining from 2015 to 2019. However, FDI inflows from all Commonwealth members to India declined faster than the outflows from India to Commonwealth countries.

Despite a declining trend, Commonwealth countries account for around 37 per cent of India's global outflows of FDI. Developed Commonwealth members, accounting for 20 per cent of India's global outflows, declined at an average rate of 6.5 per cent over the period 2015–2019. The relatively higher declines in India's outflows to other Commonwealth groups are to LDCs and developing Commonwealth countries (accounting for about 18 per cent of the outward stock of India's FDI).

The same holds true for inward FDI from the Commonwealth, which has been declining at the rate of 13 per cent between 2015 and 2020. However inward investment from the Commonwealth, especially from developed and SSA Commonwealth members, declined on an average at a higher rate between 2015 and 2020. The Commonwealth contributed 4 per cent of the 13 per cent decline in global FDI inflows to India, accounting for nearly 30 per cent of the total decline in FDI. Hence FDI from Commonwealth countries is important for India.

The product profiles of outward and inward investment between the Commonwealth and India are very different from conventional outflows. India's outward investment in developed Commonwealth countries is the highest in services, including hotels and tourism, business services, software and IT and financial services. Among goods, India's investments are in its big ticket sectors such as automobiles, chemicals, pharmaceuticals and electronic components. FDI inflows from the developed Commonwealth have been the highest in the automobile sector, followed by services such as financial, communications, transportation and warehousing, real estate, business and software development.

For developing countries, too, services investment into India is most prominent. However, developing countries have also invested in real

Table 10. FDI outflows from India to the different CW country groups (US\$ million)

| CW Groups | 2015 | 2016 | 2017 | 2018 | 2019 | Total | India's share in global FDI outflows (%) | Rate of growth* |
|--------------|--------|--------|-------|--------|-------|--------|--|-----------------|
| CW total | 5,856 | 8,404 | 2,645 | 2,579 | 1,117 | 20,662 | 37.50% | -16 |
| Developed | 3,028 | 4,228 | 1,966 | 835 | 780 | 10,837 | 19.60% | -6.5 |
| Developing | 2,828 | 4,177 | 679 | 1,744 | 397 | 9,825 | 17.80% | -13.5 |
| LDCs | 1,590 | 3,216 | 57 | 515 | 13 | 5,391 | 9.80% | -30 |
| SSA | 394 | 1,182 | 359 | 756 | 216 | 2,906 | 5.30% | -9 |
| Global total | 12,946 | 15,830 | 9,070 | 10,236 | 7,073 | 55,155 | | -11.5 |

Source: Commonwealth Secretariat

Note: * This rate is calculated using the moving average rate of growth. The FDI figures are for greenfield investment.

estate and consumer goods in India. Investment from LDCs and SSA countries has been low. Annex 7 gives more detailed information on these developments.

In some sectors such as financial services, real estate, coal and gas and minerals Commonwealth countries account for nearly a third of all FDI in India. Nearly 77 per cent of the investment in the leisure and entertainment sector investment in India comes from the Commonwealth. In the same vein 45 per cent of the minerals investment into India comes from the Commonwealth (see Table 3 in Annex 7). Hence a slowdown will affect FDI inflows from the Commonwealth appreciably. Significantly, while overall investment from the Commonwealth has declined steadily over the five years in question, investment in some services sectors has grown. These include financial services, business process services and IT services. In the goods sector it is difficult to assess the trends as investment tends to be

lumpy. For example, there was a sudden spurt in investment in renewable energy in 2015. Subsequently, investment is likely to decline as the major machinery would have been installed in 2015, after which it will only need to be serviced over the years.

Data on investment mentioned in Tables 10 and 11 show only greenfield investment. Apart from that financial institutional investors and individuals also invest in India. It is estimated that nearly US\$16bn worth of foreign institutional investments left India in the first three months after restrictions following COVID were imposed.

3.5 Services trade between India and the Commonwealth

India is a large exporter of services. In the financial year 2019–2020, India exported US\$220 billion worth of services and its imports of services were around US\$140 billion (Business Standard, 2020). While recent disaggregated

Table 11. FDI inflows into India from Commonwealth country groups

| CW groups | 2015 | 2016 | 2017 | 2018 | 2019 | Total | India's share in global FDI outflows (%) | Rate of growth* (%) |
|--------------|--------|--------|--------|--------|--------|---------|--|---------------------|
| CW total | 15,321 | 17,167 | 4,055 | 6,598 | 2,871 | 46,011 | 19.9 | -20 |
| Developed | 10,767 | 10,849 | 3,022 | 1,613 | 1,412 | 27,663 | 12 | -22 |
| Developing | 4,554 | 6,318 | 1,032 | 4,984 | 1,460 | 18,348 | 7.9 | -16 |
| LDCs | | | 94 | 1,006 | | 1,100 | 0.5 | 300 |
| SSA | 44 | 153 | 68 | 413 | 2 | 679 | 0.3 | -22 |
| Global total | 61,958 | 61,197 | 26,303 | 52,601 | 29,328 | 231,387 | | -13 |

Source: Commonwealth Secretariat

Note: * This rate is calculated using the moving average rate of growth. The FDI figures are for greenfield investment.

Table 12. India's export of services to Commonwealth groups, 2019

| Sector | India's exports of services in 2019 (US\$ million) | | | | |
|---------------------------------------|--|-----------|------------|-------|---------|
| | All CW | Developed | Developing | LDCs | SSA |
| Total | 20,500.8 | 13,306.5 | 7,193.8 | 223.2 | 1,305.7 |
| Financial and insurance services | 12,904.8 | 8,231.7 | 4,672.8 | 146.1 | 838.5 |
| Information and communication | 3,394.3 | 2547 | 847.3 | 20.6 | 122 |
| Transport (incl. pipeline) | 1,720.8 | 1,107.1 | 613.8 | 26.6 | 151.6 |
| Trade and warehousing services | 938.2 | 461.9 | 476.2 | 8.5 | 82.5 |
| Accommodation and air transport | 435.6 | 336.6 | 99.6 | 8.4 | 46.1 |
| Water-related services | 336.9 | 99 | 237.9 | 1.1 | 8.6 |
| Health, education and social security | 307.8 | 203.9 | 103.8 | 4.8 | 29.4 |
| Recreation services | 277.5 | 182.7 | 94.5 | 2.4 | 12.9 |
| Real estate | 132.5 | 109.1 | 23.5 | 1.3 | 8.6 |
| Construction | 52.4 | 27.5 | 24.4 | 3.4 | 5.5 |

Source: GTAP database.

data on individual Commonwealth countries and sectors are not available from any single source, GTAP has aggregated data available from various sources and provided an estimate for 2019 on the trade flow of services. GTAP has data for 19 service sectors which have been aggregated to 10 services sectors in Tables 12 and 13. GTAP's data on services are limited to only 33 of the 53 Commonwealth countries (see Annex 6 for a detailed discussion of GTAP database and countries included). These 33 countries include all the major services traders from the Commonwealth, showing that the remaining 20 have minor trade in services with India (see in Shingal, 2020, Figure 3).

Of India's US\$220 billion services exports, Commonwealth countries account for a little over 9 per cent. However, if investment in services is included under Mode 3 services exports, the Commonwealth share in India's global services exports could increase by 2 to 4 percentage points (calculated from data in Annex 5). Among the services exported by India, the largest sectoral exports to the Commonwealth are in the financial and insurance sectors, including business services whose share in Indian global exports and that to the Commonwealth has been rising over the last five years. This is in harmony with India's outward investment flows where the financial sector is one of the largest recipients of Indian investment in Commonwealth countries. India's most significant trading partners for services are the developed Commonwealth countries, accounting for nearly 70 per cent of its total services exports.

LDCs are a small recipient of services exports from India but the SSA Commonwealth countries account for nearly 7 per cent of total Commonwealth services exports from India. The largest sectors are financial and insurance services as well as transport services for SSA Commonwealth countries. An important reason for this would be the historical links which Indian migrants and banks and insurance institutions had with Africa.

India's imports of services from the Commonwealth account for around 6–7 per cent of its global imports of services (US\$140 billion). As compared to trade in goods and investment, Commonwealth countries are not as important for India's services imports. As with exports, imports of services from developed Commonwealth countries account for over 60 per cent of India's total imports from Commonwealth countries. Financial services account for almost 60 per cent of India's import of services from the Commonwealth. It should be noted that business services have also been included in the financial and insurance services categorisation.

Information and communication consistently occupied around 10–20 per cent of all imports of services by India from the Commonwealth. The interesting category is Accommodation and air transport, where India registers a trade deficit with the developed and developing Commonwealth, but a trade surplus with LDCs and SSAs. This shows that many more Indian tourists, businesses and students go to developed and developing Commonwealth

Table 13. India's import of services from the Commonwealth groups

| Sector | India's Imports of Services in year 2019 (US\$ million) | | | | |
|---------------------------------------|---|-----------|------------|------|-------|
| | All CW | Developed | Developing | LDCs | SSA |
| Total | 8,197.1 | 4,794.5 | 3,402.6 | 35.3 | 223.7 |
| Financial and insurance services | 4,352.1 | 2,476.1 | 1,876 | 5.4 | 45.1 |
| Information and communication | 882.8 | 652.5 | 230.3 | 3.7 | 27.7 |
| Accommodation and air transport | 787.1 | 528.9 | 258.2 | 3.2 | 40.5 |
| Water-related services | 530.7 | 155.4 | 375.2 | 3.1 | 19.4 |
| Real estate | 465.6 | 282.8 | 182.8 | 0.7 | 6.9 |
| Trade and warehousing services | 309.4 | 194.2 | 115.2 | 4.1 | 15.8 |
| Health, education and social security | 266.7 | 205.7 | 61 | 3.2 | 20 |
| Recreation services | 254.9 | 165.1 | 89.8 | 2.5 | 17.3 |
| Transport (incl. pipeline) | 251 | 120.5 | 130.6 | 6.3 | 27.6 |
| Construction | 91.7 | 11.8 | 79.9 | 0.7 | 1 |
| Gas manufacturing | 5.1 | 1.5 | 3.6 | 2.4 | 2.4 |

Source: GTAP database.

countries, while many more tourists, businesses and students from Commonwealth SSA and LDC countries come to India. There is a serious trade deficit with the Commonwealth for India in real estate services, showing that many more foreign firms are offering their services in this

sector in India. By comparison fewer Indian firms are operating in the Commonwealth countries in real estate services. In construction services India's exports are far in excess of imports, showing that India is competitive in this service.

4. Impact of Indian slowdown on Commonwealth countries

Compared with the previous financial crisis, the complete lockdown of the Indian economy has had a much more severe impact on its economic activity and trade and investment relations with the Commonwealth. The product profile of India's exports to individual Commonwealth countries is provided in Annex 3. The impact of COVID on India's exports to Commonwealth countries was felt most sharply from March 2020 onwards. Table 14 shows that, compared to March 2019, India's exports to the Commonwealth decreased by almost 43 per cent, much more than India's exports to the world as a whole. The sharpest decrease was for exports to Commonwealth developing countries, followed by the Commonwealth developed countries. Relatively smaller, though still very large, decreases in exports were registered to Commonwealth LDCs and SSA countries.

The situation is somewhat different if changes are considered in terms of exports during the previous month (Table 15). In this situation, the largest decrease took place for Commonwealth developed countries, followed respectively by Commonwealth LDCs, developing countries, and SSA countries. It is interesting to note that the exports in March 2020 to SSA increased by 1 per cent, up from the sharp fall in February 2020. Thus, the immediate impact in comparison to the previous month was sharpest for Commonwealth developed countries.

Commodity-exporting developing countries have taken a two-pronged hit. The commodity prices have fallen by 21 per cent (Commodity Markets Outlook, 2020), and the value of their currencies has further fallen by 25 per cent (Airshare, 2020). This has increased their cost of foreign debt repayments and imports. The

Table 14. Year-on-year growth of India's monthly merchandise exports to CW, December 2019 to March 2020 (all figures in percentages)

| India's exports to: | December 2019 | January 2020 | February 2020 | March 2020 |
|---|---------------|--------------|---------------|------------|
| World | -2.77 | -2.2 | 2.91 | -34.57 |
| India's exports to CW countries: | | | | |
| All CW Countries | -13.62 | 3.43 | 7.21 | -42.48 |
| Developed Countries | -6.87 | 19.14 | 9.46 | -38.89 |
| Developing Countries | -15.76 | -3.39 | 5.49 | -43.18 |
| LDCs | 7.88 | 6.66 | 9.96 | -25.77 |
| Sub-Saharan Africa | 15.3 | 17.59 | 27.72 | -15.88 |

Source: Department of Commerce, Government of India.

specific GTAP sectors under which India trades with the Commonwealth are shown in Annex 4.

The World Tourism Organization (UNWTO) has forecast that tourism is likely to decrease between 20–30 per cent, compared with an estimated growth forecast of 3–4 per cent in January 2020. This means a loss of US\$30–50 billion in spending by international visitors. In comparison to all LDCs as a group, Commonwealth LDCs rely to a greater extent on tourism for their GDP and employment (Trade for Development News by EIF, 2020, esp. Figures 1 and 2 and analysis). Tourism receipts dominate the export earnings of some of them, reaching as much as 30 per cent and 75 per cent of export earnings for Uganda and Vanuatu respectively (Ibid.).

The impact of India's slowdown on the Commonwealth countries in 2020 was analysed using a GTAP model. Annex 11 provides a description of the GTAP model. The shocks used in the model are the GDP growth rates discussed in Section 1.

4.1 Results of the GTAP analysis

As explained in Section 1, in addition to the best case scenario, there are three scenarios relevant for examining the effects of India's slowdown on the Commonwealth economies. Figure 4 provides a quick look at the difference in the impact between the best (Indian GDP growth 4.2%, Table 19) and the worst case scenario (-5% growth, Table 16) for India's exports and imports, and outward and inward investment.

Developed countries see the largest decline in investment outflows from India in view of the latter's slowdown. Likewise their exports of goods and services to India (i.e., India's imports) would see the largest decline among Commonwealth groups. Indian goods exports to SSA decline the most when growth rate plunges in the COVID scenario, and they change the least for developed countries. The least affected in terms of their exports to India are Commonwealth sub-Saharan African countries. For services trade, Indian exports of services to LDCs would be most affected, and with

Table 15. Growth of India's monthly merchandise exports to CW, compared to previous month (all figures in percentages)

| India's exports to: | January 2020 | February 2020 | March 2020 |
|---|--------------|---------------|------------|
| World | -5 | 7 | -23 |
| India's exports to CW countries: | | | |
| All CW Countries | 3 | 3 | -25 |
| Developed Countries | 13.7 | -9.1 | -32.0 |
| Developing Countries | -2 | 8 | -21 |
| LDCs | -9 | 11 | -23 |
| Sub-Saharan Africa | 0 | -18 | 1 |

Source: Calculated from Table 3 in Annex 2.

Figure 4. Difference in effects in the best and worst case scenario



developing countries the least affected. The result for Indian exports to the Commonwealth suggests a diversion of the overall proportion of exports towards developed countries, away from specific groups of developing countries – SSA for goods and LDCs for services.

4.2 Best case scenario GDP growth of 4.2 per cent

The economic growth and decline scenarios are mirrors of each other. Investment grows the most to developed Commonwealth countries when GDP growth rates are positive for India, just as it declines the most when GDP growth rates are negative (Tables 16 to 19). Indian imports of goods and services show the highest growth from the Commonwealth developed countries, just as they showed the highest decline when GDP growth rates turn negative. This shows that the income elasticity of India's imports from developed Commonwealth members is relatively higher than other groups of countries, also signifying a diversified basket of products.

With India's GDP growth of 4.2 per cent, Indian exports of goods and services to

Commonwealth LDCs rise the most, while its imports from LDCs show the smallest growth. For trade with the Commonwealth developing countries there is a small growth in exports of goods and services but a relatively larger growth in imports. In all cases, apart from LDCs, import growth (particularly for services) far outweighs export growth.

With a 4.2 per cent GDP growth rate, investment inflows into India were a little over 3 per cent (see Annex 11). The GTAP model shows a non-linear though positive relationship between GDP growth and investment inflows into India. The model has two rates of return: current and expected. The former rate is based on the actual current rate of return to capital, while the latter is based on the empirically derived level of responsiveness of expectations in the rate of return to changes in total capital stock. In other words, when the capital stock is high to begin with, expected rate of return may be low. The wedge between expected and actual rates of return drives investment. This in turn implies that investment can increase or decrease to the extent not directly or linearly driven by economic growth overall. If

Table 16. Effects on Commonwealth when India's GDP grows by 4.2% in 2020

| Country groups | Investment by India in the CW | | Merchandise exports by India to the CW | | Merchandise imports by India from the CW | | Services exports by India to the CW | | Services imports by India from the CW | |
|----------------|-------------------------------|-------------|--|-------------|--|-------------|-------------------------------------|-------------|---------------------------------------|-------------|
| | Change in value (US\$ mn) | Change in % | Change in value (US\$ mn) | Change in % | Change in value (US\$ mn) | Change in % | Change in value (US\$ mn) | Change in % | Change in value (US\$ mn) | Change in % |
| All CW | 402,28 | 1.6 | 2,635 | 3.1 | 3,876 | 4.8 | 74 | 0.9 | 752 | 3.6 |
| Developed | 25,050 | 1.8 | 805 | 2.5 | 1,740 | 6.1 | 58 | 1.2 | 549 | 4.1 |
| Developing | 15,178 | 1.3 | 1,830 | 3.4 | 2,136 | 4.1 | 16 | 0.5 | 203 | 2.7 |
| LDCs | 9,097 | 1.3 | 695 | 5.7 | 88 | 3.6 | 1 | 2.8 | 5 | 2.2 |
| SSA | 3,357 | 1.4 | 765 | 3.5 | 1,142 | 4 | 4 | 1.7 | 30 | 2.4 |

Source: Model results.

the expected rates of return are lower than the actual rate of return, investment can fall and if they are higher, it can rise. Thus, as the Indian economy emerges from a post-COVID situation, the expected rates of return are likely to be higher than in a normal situation and investment inflows into India would be proportionately higher.

4.3 The worst case situation (GDP growth of –5% in 2020)

(a) **Investment:** Surprisingly, in this situation, the changes for investment outflow from India are very minor (Table 17). There are small increases showing some capital flight from India and some outward greenfield investment. It appears that Investors in India assess that their investments in other countries may either yield marginally higher returns or be safer. Judging by the results, investment outflows from India appear to be negatively correlated to India's GDP growth. However, the picture would change somewhat if the model took account of the global slowdown, i.e. a slowdown in all Commonwealth countries as well. That impact is not examined in the model, as it requires a much larger exercise.

The GTAP analysis shows that investment inflow into India from the Commonwealth would be significantly negatively affected by India's worst case scenario. When growth in GDP in India falls by 5 per cent, investment by the Commonwealth into India falls by almost double that level, i.e. 9.8 per cent (see GTAP results in Annex 11). Overall, foreign investors withdrew over US\$16 billion from India in the first quarter of 2020, showing the

impact of COVID (Congressional Research Services, 2020).

(b) **Exports of goods:** Overall GDP exports to Commonwealth countries fall by over three times the decline in GDP. The high rate of export decline in 2020 will have a depressing effect on India's growth that will also flow into economic performance in the subsequent period. The largest decline in merchandise exports is to the Commonwealth sub-Saharan countries, followed by LDCs and developing countries. The least affected (though still significant) will be the developed Commonwealth members. The large decline in LDCs and SSA countries shows some trade diversion from poorer to richer countries even in a period of growth slowdown (see Annex 11 for country-specific impact). Nonetheless, the reduction in exports to individual countries across different groups is quite significant. Furthermore, the largest decline within each country group takes place for exports to countries which account for a large part of the exports to the group as a whole.

Barring Cyprus and Malta, to which Indian exports decline by around 5 per cent (Annex 11), exports to all other developed countries decline by double-digit figures. Among the Commonwealth developed countries, as expected, the largest decline in exports (around 20%) is to the UK and Australia, which are India's largest export markets among the Commonwealth developed countries. Among the developing countries the greatest declines in exports are to South Asian countries, Malaysia, Singapore, Uganda, Namibia, South Africa, Ghana and Kenya. These are among

Table 17. Impact on Commonwealth when India's GDP growth is –5% in 2020

| Country groups | Investment by India in the CW | | Merchandise exports by India to the CW | | Merchandise imports by India from the CW | | Services exports by India to the CW | | Services imports by India from the CW | |
|----------------|-------------------------------|-------------|--|-------------|--|-------------|-------------------------------------|-------------|---------------------------------------|-------------|
| | Change in value (US\$ mn) | Change in % | Change in value (US\$ mn) | Change in % | Change in value (US\$ mn) | Change in % | Change in value (US\$ mn) | Change in % | Change in value (US\$ mn) | Change in % |
| All CW | 8220 | 0.4 | -14212 | -16.5 | -8569 | -10.6 | -1059 | -12.8 | -3115 | -15 |
| Developed | 6592 | 0.5 | -3785 | -11.9 | -3725 | -13 | -646 | -13.4 | -2041 | -15.3 |
| Developing | 1628 | 0.3 | -10427 | -19.2 | -4844 | -9.3 | -413 | -11.8 | -1074 | -14.4 |
| LDCs | 189 | 0.3 | -1844 | -19.4 | -190 | -13.4 | -4 | -15.4 | -29 | -14.2 |
| SSA | 860 | 0.4 | -4772 | -21.8 | -1598 | -5.6 | -31 | -13.4 | -169 | -13.4 |

Source: Model results.

the largest Commonwealth developing country export markets of India. Among the LDCs, too, the sharpest decline is in exports to countries which account for about 90 per cent of India's exports to Commonwealth LDCs. The least affected Commonwealth countries are the Caribbean and Oceania islands which account for a very small share (less than 5%) of exports from India to the Commonwealth. Among the Commonwealth SSA members, some countries listed above will be affected by double-digit figures of around 20 per cent (see Annex 11). These SSA countries account for nearly 60–70 per cent of Indian exports to Commonwealth SSA members.

(c) Imports of goods by India: The picture changes for imports into India. The decline in merchandise imports is a few percentage points lower than the decline in exports. Given that India has a trade deficit with Commonwealth countries, the differential impact on exports and imports would increase this deficit. The lower reduction in imports seems logical because with a slowdown in domestic production, some of the domestic demand may be met by imports. Also, India's income elasticity of imports has been estimated to be lower than that of exports (UNCTAD, 2013). For example, the GTAP model shows that a decline in Indian imports from commodity exporters is relatively small as India will continue to be dependent on them for its food and industrial input needs. It should be noted that this study assumes that it is business as usual in other Commonwealth countries, while India slows down.

In the case of the decline in goods imports, the most affected are the Commonwealth LDCs and developed countries. The most affected LDCs are Bangladesh and Namibia, which have relatively large exports to India. Among the others, the Caribbean LDCs see a large decline in exports. However, as their exports to India are small, large percentage changes do not imply large absolute decreases in their exports. Imports from all developed countries decline significantly, with imports from the UK declining by nearly 20 per cent. Malta, Cyprus and Canada also show double-digit effects. However, imports from Australia show only a single-digit decline, demonstrating the low income elasticity of the products imported by India, significantly coal and other minerals. The actual decline in imports as shown in Table 5 has been higher than the GTAP model results.

This can be explained by the time period over which the model results are actualised. The GTAP model predicts the behaviour of the economy from one general equilibrium to another. Empirically it has been shown to take between one and half and three years to move from one general equilibrium to another (Petri and Hahn, 2002). Imports from developing countries are also sticky downwards. Among the SSA countries the largest effects are on Kenya, Mauritius and Namibia. Among the developing countries the largest decline in imports is from South Asian countries, though the decline in imports from Malaysia, Singapore, Mauritius, Kenya, and Jamaica are also significant at close to 20 per cent.

(d) Services exports from India: Trade in services provided through Modes 2, 3 and 4 would be lower due to COVID. Further, there would tend to be a shift over time in delivery of these services by Mode 1, i.e. through digital means.

The GTAP model shows that the largest decline in Indian services exports is to LDCs, followed by SSA countries and developed countries. The GDP decrease would result in a large fall in certain important services export segments for India, e.g. financial, insurance, and business services. Another reason for the decrease in India's services exports is the fall in tourism, as tourist travel into India fell by 65 per cent in the month of March itself due to COVID (Business Today, 2020). This figure is far higher than predicted by the GTAP. This is because the GTAP only models decline in growth rates but cannot take account of the lockdown effects of COVID.

An important result is that the rate of decline in services exports to Commonwealth developed countries is higher than the fall in exports of goods to these countries, signalling the importance of this group in India's trade in business services. COVID has put a strain on the call centres in India, with a complete shut-down of the call centres. With the lockdown following COVID, business services exports are likely to be strongly affected (NPR, 2020).

By contrast, for India's export to the LDCs and SSA, the fall in exports of goods far outweighs the fall in exports of services. For LDCs and SSA, the largest decrease in services exports would be in the tourism sector. The other services exports such as hospitality and entertainment services, which India exports to all these

Commonwealth groups, would also have been strongly affected by COVID. In fact, release of Indian films and serials as well as restaurant services has been delayed or reduced because of the COVID crisis.

(e) Services imports into India: The model shows that services imports by India are likely to decline at higher rates than the decline in goods imports from the Commonwealth countries. Services imports from developed Commonwealth countries will decrease most. The largest decline will be for accommodation and travel as all outward flights from India have been stopped. In the summer months when outward travel from India to developed countries and developing countries tends to increase, outgoing flights have been banned. Similarly, the use of foreign companies for water services, and services like education has gone down considerably. About 51 per cent of the non-STEM students from India who were planning to study abroad (notably in the UK, Canada and Australia from the Commonwealth countries) have dropped their plans of studying abroad because of the COVID lockdown (The Print, 2020).

4.4 Mildly pessimistic scenario (GDP growth of -1.5%)

(a) Investment: Investment outflow from India to the Commonwealth rises marginally to the developed countries and remains unchanged or shows near zero change for all other country groupings (Table 18). This is much more muted than the situation for the larger decline in India's GDP growth rate (-5%). The impact of growth rate on investment differs in two different ways for outward and inward investment. One, the relationship is asymmetric: outward investment may rise when GDP growth

declines, but inward investment declines with a fall in GDP growth. Two, the impact of growth on inward investment is much stronger than that on outward investment from India.

When India's GDP falls by 1.5 per cent, **inward investment into India from the Commonwealth countries** falls by 3.8 per cent (see Annex 11). For both the worst case situation (-5%) and GDP growth of -1.5% , inward investment into India from the Commonwealth falls by about double or more than the GDP decline. In part this would reflect sentiments similar to those that underlie hot money outflows, which react quickly to India's economic outlook.

(b) Trade of goods between India and Commonwealth: The decline in exports from India to the Commonwealth is somewhat more muted than in the case of a GDP growth of -5 per cent. However, the impact is largely proportional between the different country groups and their shares. This is significantly because of the comparatively static nature of the GTAP model used here, which is based on the current input output coefficients and does not take account of technology or structural changes in the Indian economy which could be brought about by these tectonic GDP changes.

An important difference, however, is that with a GDP growth of -1.5 per cent in the Indian economy, the differences between exports and imports are proportionately higher compared to the situation with -5 per cent growth rate. This is because when GDP declines by 5 per cent expectations of recovery become weaker and the economy adjusts to the 'new normal'. The decline in exports to the Commonwealth is almost double the decline in imports of goods. The largest absolute difference between export and import declines is for the

Table 18. Impact on CW when India's GDP decreases by 1.5% for the financial year 2020–2021 (all figures in percentages)

| Country groups | Investment by India in the CW | Merchandise exports by India to the CW | Merchandise imports by India from the CW | Services exports by India to the CW | Services imports by India from the CW |
|----------------|-------------------------------|--|--|-------------------------------------|---------------------------------------|
| All CW | 0.1 | -6.6 | -3.3 | -5.2 | -6.0 |
| Developed | 0.1 | -4.7 | -3.7 | -4.5 | -6.1 |
| Developing | 0 | -7.7 | -3.0 | -6.2 | -5.7 |
| LDCs | 0 | -7.8 | -4.5 | -7.7 | -5.9 |
| SSA | 0 | -8.7 | -1.8 | -8.2 | -5.4 |

Source: Model results.

Commonwealth SSA countries and the smallest for the developed Commonwealth members. One explanation would be export diversion from Commonwealth SSA to other groups of Commonwealth countries. India exports a large range of products to Commonwealth developing countries, particularly Malaysia, Singapore and South Asian countries.

India will continue to import key products from SSA as the composition of these imports has a low income elasticity. A similarly small decline could be expected in Indian imports from Commonwealth LDCs, but the major share of Bangladesh in India's total trade within Commonwealth LDCs distorts the picture. The GTAP results show a large decline for both exports and imports from Bangladesh. The picture for Commonwealth developing countries is weighted heavily by Malaysia, Singapore and South Asian countries. India imports many intermediate inputs from these countries and most of these are typically income inelastic.

Part of the reason for the difference in the effects on Commonwealth countries between the scenarios with -1.5 per cent and -5 per cent growth rates has to do with expectations. With a smaller decline, there is an expectation that the economy will turn around quickly, hence investment and imports do not drastically change.

(c) **Trade in services between India and the Commonwealth:** The picture changes somewhat in the case of India's services trade with all Commonwealth members. Here, import decline is marginally higher than export decline compared to goods. This anomaly could be explained by the large share of developed Commonwealth nations in total Commonwealth services trade. The higher

import decline suggests that some domestic substitution for imports from Commonwealth developed countries is possible. For the other Commonwealth groups, export decline is higher than import decline, suggesting the possibility of trade diversion to premium markets.

4.5 Optimistic scenario (2% GDP growth)

With a GDP growth of 2 per cent, **outward investment by India into the Commonwealth** declines, with the highest decline in investment to developed Commonwealth countries and the lowest to Commonwealth LDCs. This is in keeping with the share of Commonwealth groups in India's outward investment (see Section 3). As explained earlier, when growth opportunities are available within India, the outward flow of investment is diverted inwards.

When India's GDP grows by 2 per cent, **investment inflows into India** increase by about 2.6 per cent (see Annex 11). This also shows an asymmetric though positively correlated response of investment inflows to India's growth rate. Though investment into India grows when GDP rises, the relationship is non-linear.

When India grows at 2 per cent, there is a minor growth in its **exports of goods and services** to Commonwealth markets. This suggests that with a relatively low growth rate, export orientation is low. However, India's **imports growth** is higher, suggesting an income elasticity of imports close to 1. The highest import growth is from Commonwealth developed countries, showing that for some products imported from these countries, India may be less competitive. However, all growth figures are too low to signify any major outcomes or interpretations.

Table 19. Impact on CW when India's GDP increases by 2% in the financial year 2020–2021 (all figures in percentages)

| Country groups | Investment by India in the CW | Merchandise exports by India to the CW groups | Merchandise imports by India from CW groups | Services exports by India to the CW | Services imports by India from the CW |
|----------------|-------------------------------|---|---|-------------------------------------|---------------------------------------|
| All CW | -0.9 | 0.2 | 1.9 | 0.1 | 2.3 |
| Developed | -1.1 | 0.1 | 2.4 | 0.1 | 2.6 |
| Developing | -0.7 | 0.3 | 1.6 | 0.1 | 1.7 |
| LDCs | -0.6 | 0.5 | 1.5 | 0.0 | 1.5 |
| SSA | -0.8 | 0.3 | 1.6 | 0.4 | 1.5 |

Source: Model results.

5. The counterfactual

In the period with COVID, the focus of Indian policy is on addressing the immediate needs while implementing reform that would have a longer-term effect. Growth predictions for 2020 are so pessimistic that little thought is being given to the pre-COVID slowdown. It is necessary for India to move into a post-COVID situation where growth rates prior to slowdown could be achieved. A starting point for this would be to estimate the GDP that was expected pre-slowdown and that which has resulted from a combination of slowdown and COVID.

For estimating the effects on the Commonwealth groups, two scenarios have been established for modelling purposes. The first is the growth rates predicted for India by the World Bank in January 2019 for the financial years 2019, 2020 and 2021, i.e. before the slowdown in 2019. This is called the baseline scenario, with India's GDP growth rates of 5.8 per cent, 6.1 per cent and 6.2 per cent respectively for 2019–2020, 2020–2021 and 2021–2022. The second scenario is the COVID situation, and is described by the actual growth rate of 4.2 per cent for 2019–2020, and the predicted growth rates (World Bank, June 2020) of –3.2 per cent and 3.1 per cent for 2020–2021 and 2021–2022.¹⁶

The model used in this exercise is the dynamic GTAP model (see Annex 12 for a full explanation). Hence the baseline keeps shifting. In this model, the baseline GDP for 2020–2021 incorporates the change occurring in 2019–2020, and the baseline for 2020–2021 incorporates the changes from 2020 to 2021. A simple example will illustrate this point. Assume the GDP in 2018–2019 is 100. Hence the baseline for 2019–2020 given a growth rate of 4.2 will be 104.2. This will be the GDP level which falls

by 3.2, and the new baseline will become 100.9 for 2020–2021. The GTAP model is presaged on three kinds of changes or shocks. First, the supply-side shocks generated through input output linkages when GDP growth declines. Second, the demand-side shock generated by consumer behaviour when GDP goes down. The third is related to expectations of future growth which works its way through investment and capital flows.

The difference in the trade effects of these two scenarios is shown in Tables 20 and 21. This combines trade in goods and services. As expected, exports from India to the Commonwealth groups would decline significantly because of the slowdown. Further, export loss will continue beyond the immediate effects of COVID. Figure 5 shows the loss in exports if the slowdown had not occurred. As the actual effects of any shock take some time to process, the effects of a 2020 slowdown will be felt till 2023 when the growth shock would have worked its way through input output linkages and a new market clearing equilibrium would have been established. Hence the trade effects of the different scenarios will be felt until 2025.

The largest loss for Indian exports is to LDCs, and the smallest loss is for Indian exports to the developed Commonwealth group. This holds for all the three periods. The effect of the COVID shock will correct itself relatively quickly in exports of India to developed Commonwealth countries. However, the loss in exports to LDC Commonwealth members will take longer to resurrect. This could be partially explained by the logic that as Indian exporters seek to re-establish growth after a sharp decline, they will divert exports to premium developed country markets where export earnings are likely to be higher. Not surprisingly, the loss of exports is

Figure 5. GDP before and after COVID for 2019, 2020, 2021

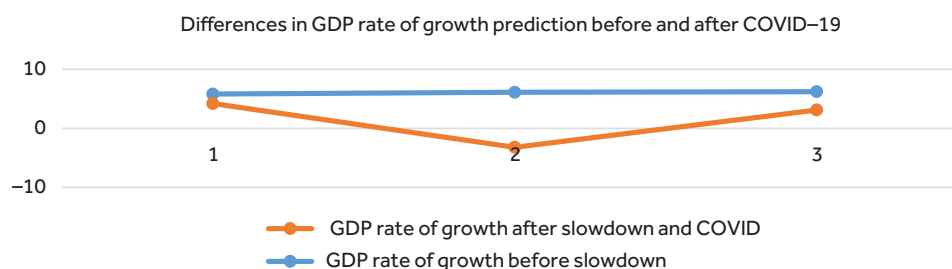
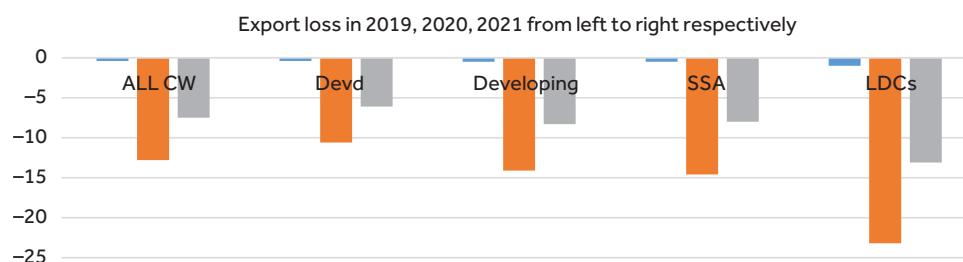


Figure 6. Loss in exports from India to the Commonwealth (all figures in percentages)



Source: Calculated from GTAP model results (see Tables 20 and 21).

the lowest to developed Commonwealth members. When India's growth rate turns positive in 2021–2022, the GDP takes a large leap of over 6 per cent growth and in that phase the recovery of export to Commonwealth developed countries is faster. The changes are minimal in 2019 as the slowdown before COVID resulted in only a 1 per cent fall in projected growth rate.

The situation with imports is very different from exports. Trade loss due to India's slowdown and COVID will be felt most by the developed Commonwealth and least by poorer Commonwealth groups such as SSA countries and LDCs. As in the case of exports from India, the impact on developing Commonwealth countries lies between these groups. Table 20 shows more detail on the three scenarios (i.e. 2019, 2020 and 2020) with and without the slowdown as described above. The sharpest decline in exports because of COVID in 2020 is in LDCs and the smallest in developed Commonwealth countries.

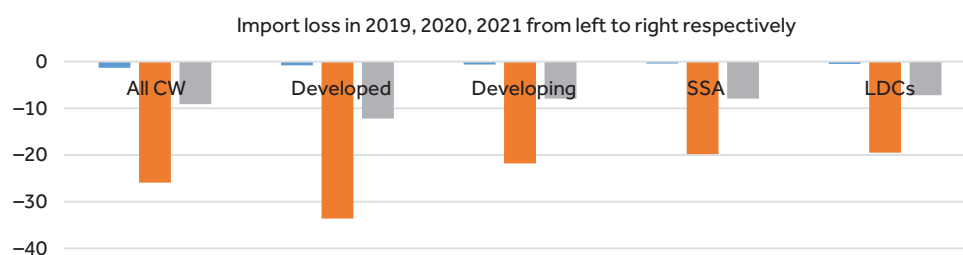
Empirical evidence from March 2020 shows that of the '30 major items in India's export and import baskets, 29 export and import goods witnessed contraction in March, signalling the severity of the slump in global demand and the lockdowns enforced in multiple countries. Only iron ore exports (58.4%) and import of transport equipment (11.9%) registered positive growth during the month' (The Wire, 2020).

The disproportionate difference between exports and imports decline due to COVID can be partly attributed to the model design, which has only factored in India's slowdown and not that of Commonwealth. If that were to be factored in, then it is likely that Indian exports would see a higher decline. Among the Commonwealth groups the largest losses would likely be borne by LDCs. Indian imports from Bangladesh include textile fibres, mineral fuels, salt, cement, paper yarn, fish, and apparel (Infodrive India, n.d.).

With COVID and the lockdown, as well as the income sensitivity of these products, a large decline in imports is to be expected. In the case of LDCs, export and import decline are more or less in balance. As it is a neighbouring country, the contagion effect of India's slowdown would already be very evident in Bangladesh, especially in the informal channels of border trade. The largest declines in imports are from developed countries, among which Australia and the UK are the major traders. Major Australian exports to India included coal, education-related travel and vegetables (Asialink Business, 2017).

With COVID restrictions these imports would fall as Indian industry slows down, and services imports would decline, including, as was pointed out earlier, non-STEM students postponing their studies abroad. India imports

Figure 7. Loss in imports from Commonwealth to India (all figures in percentages)



Source: Calculated from GTAP results (see Table 21).

Table 20. Export growth from India to CW groups with and without the slowdown

| Groupings | Scenarios | Initial exports (US\$ mn) | | | Absolute change (US\$ mn) | | | % Change in exports | | |
|------------|-----------|---------------------------|--------|--------|---------------------------|-------|--------|---------------------|------|------|
| | | | | | From the previous year* | | | | | |
| | | 2019 | 2020 | 2021 | 2019 | 2020 | 2021 | 2019 | 2020 | 2021 |
| All CW | Baseline | 86,112 | 89,124 | 95,851 | 3,012 | 6,727 | 11,840 | 3.5 | 7.5 | 12.4 |
| | COVID | 86,112 | 75,811 | 87,872 | -10,301 | 1,761 | 4,713 | 3.1 | -5.3 | 4.9 |
| Developed | Baseline | 31,922 | 32,842 | 34,877 | 920 | 2,035 | 3,512 | 2.9 | 6.2 | 10.1 |
| | COVID | 31,922 | 28,127 | 32,459 | -3,795 | | 1,440 | 2.5 | -4.4 | 4 |
| Developing | Baseline | 54,190 | 56,282 | 60,974 | 2,092 | 4,692 | 8,328 | 3.9 | 8.3 | 13.7 |
| | COVID | 54,190 | 47,684 | 55,413 | -6,506 | 1,223 | 3,273 | 3.4 | -5.8 | 5.4 |
| LDCs | Baseline | 12,281 | 13,075 | 14,886 | 795 | 1,811 | 3,313 | 6.5 | 13.9 | 22.3 |
| | COVID | 12,281 | 10,559 | 12,745 | -1,721 | 465 | 1,244 | 5.5 | -9.3 | 9.2 |
| SSA | Baseline | 21,866 | 22,740 | 24,679 | 874 | 1,939 | 3,368 | 4 | 8.5 | 13.6 |
| | COVID | 21,866 | 20,195 | 22,377 | -1,671 | 511 | 1,367 | 3.5 | -6.1 | 5.6 |

Note: * Please note that export figures for 2020 include the US\$ absolute changes in 2020 from 2019. Figures for the financial year 2018–2019 are not shown here.

several intermediate inputs for its gems and jewellery sector, industrial machinery and services sector such as education. With the expected slowdown in these sectors, there would be a decline leading to a fall in imports.

Recent estimates suggest that the actual decline in India's GDP growth rate may be closer to -5 per cent in the financial year 2020–2021 (see Section 4 above). The counterfactual was established taking these estimates as well. In this case too, the direction of change is the same as in the case of a 3.2 per cent decline in GDP growth, though the effects are magnified. Exports to LDCs and SSA countries would

decline the most while imports from developed countries would suffer the most.¹⁷

There is one major difference between the -3.2 per cent and -5 per cent GDP decline scenarios. Unlike the -3.2 per cent GDP decline scenario, the loss in imports for LDCs is much more than for SSA countries. This implies that demand-side pressures would result in a major fall in imports of garments, minerals and metals, and agricultural products from Commonwealth LDCs. This is because with lower rates of growth, India may focus on substituting these imports with domestic production.

Table 21. Import growth from the CW groups with and without the slowdown

| Groupings | Scenarios | Initial imports (US\$ mn) | | | Absolute change (US\$ mn) | | | % Change in imports | | |
|------------|-----------|---------------------------|--------|--------|---------------------------|-------|--------|---------------------|-------|------|
| | | 2020 | 2021 | 2022 | 2020 | 2021 | 2022 | 2020 | 2021 | 2022 |
| All CW | Baseline | 85,095 | 90,024 | 95,338 | 4,429 | 9,358 | 14,672 | 5.5 | 11.6 | 18.2 |
| | COVID | 80,666 | 64,554 | 83,255 | -16,112 | 2,589 | 6,931 | 4.8 | -14.3 | 9.1 |
| Developed | Baseline | 30,637 | 32,850 | 35,235 | 1,988 | 4,201 | 6,586 | 6.9 | 14.7 | 23 |
| | COVID | 28,649 | 24,100 | 29,811 | -4,549 | 1,162 | 3,111 | 6.1 | -18.9 | 11.8 |
| Developing | Baseline | 54,458 | 57,174 | 60,103 | 2,441 | 5,157 | 8,086 | 4.7 | 9.9 | 15.5 |
| | COVID | 52,017 | 40,454 | 53,444 | -11,563 | 1,427 | 3,820 | 4.1 | -11.7 | 7.6 |
| LDCs | Baseline | 2,566 | 2,678 | 2,798 | 100 | 212 | 332 | 4.2 | 8.9 | 14 |
| | COVID | 2,466 | 1,977 | 2,525 | -489 | 59 | 157 | 3.7 | -10.5 | 6.8 |
| SSA | Baseline | 30,009 | 31,460 | 33,026 | 1,305 | 2,756 | 4,322 | 4.5 | 9.6 | 15.1 |
| | COVID | 28,704 | 21,740 | 29,466 | -6,964 | 763 | 2,042 | 4 | -10.2 | 7.2 |

Source: GTAP model results for Tables 20 and 21.

6. Conclusions

This study reports on the effects on Commonwealth when there is a slowdown of the Indian economy. As there have been a range of GDP growth estimates and these are revised downwards continuously, it was difficult to work with a single number. The ranges of estimates for the COVID situation used in this report are 2 per cent, -1.5 per cent and -5 per cent. There is in addition a scenario of business as usual which relies on the growth rate estimates of 2019–2020 of the IMF and the World Bank of 4.2 per cent. As the estimates are constantly evolving, the best available data on growth forecasts in June 2020 were used.

Past experience provides little guidance on what is to be expected in the COVID scenario. India bounced back quickly from the financial shock of 2008–2009, and belied IMF and World Bank expectations of a slow recovery. However, the lockdown has been very severe in India and the effects on the industry and the core sectors, as shown in Section 2, have been serious.

The share of India's trade with the developing Commonwealth is the highest of all Commonwealth groups. The Commonwealth as a whole and almost all Commonwealth groups considered in this study are a very important market for India, accounting for 20 per cent of its total value of exports. Within this group the share of Commonwealth sub-Saharan African countries is the highest. Over half of the total goods exported by India to the Commonwealth are in petroleum products, chemicals and pharma, machinery and equipment, and transport goods. India's imports are mostly raw materials, intermediate products and some sophisticated textiles and machinery. Among the Commonwealth groups SSA and LDCs are most reliant on India, as around 15 per cent or more of their imports come from India in five of the seven GTAP sectors studied here. Developing LDCs rely significantly on India for about four of the seven GTAP sectors. Developed Commonwealth countries are not reliant on India as, for most products, imports from India are insignificant in relation to their overall imports.

As far as investment is concerned, FDI by the Commonwealth into India far exceeds FDI by India into the Commonwealth. However, India provides about 40 per cent of the global

FDI inflow into Commonwealth countries other than India, while the share of the Commonwealth in India's FDI inflows is around 20 per cent. While both investment inflows and outflows from India have been slowing down over the past five years, India's outflows to the Commonwealth have been higher than inflows from Commonwealth countries to India. As expected, India's largest share (50%) of outward FDI goes to the developed Commonwealth and 60 per cent of FDI inflows come from the developed Commonwealth. The trend rate of decrease of investment inflows into India from the Commonwealth during the last five years has been highest from the developed Commonwealth. For FDI outflows from India to the Commonwealth, the largest decline has been to Commonwealth LDCs.

As far as services trade is concerned, the developed Commonwealth countries occupy the highest share of India's exports to the Commonwealth and LDCs the lowest. The largest exports to all Commonwealth groups are for financial, insurance and business services. The other important categories of services exports from India are transport, and information and communications. Trade and warehousing services are another important category of exports across the various country groups for India. Unlike goods, India's import of services from the Commonwealth is far lower than its exports. Unlike exports, tourism is an important sector for import of services across all country groups, especially for SSA.

For estimating the impact of India's GDP decline on Commonwealth country groups in 2020, four scenarios were considered. The first is the business-as-usual scenario where it is assumed that the Indian economy would continue to grow at the same rate it did in 2019–2020. In this scenario, the impact is positive for investment, goods and services. There are very small changes in investments showing the role of expectations. The worst case scenario is considered next (GDP growth -5%). In this situation, the most affected countries in terms of percentage change will be developed Commonwealth countries (for India's imports) and Commonwealth LDCs (for India's exports). India's export of goods to all the Commonwealth countries will decline more than imports from these countries. The picture is, however, reversed

in the case of services where India's exports will decline less than its imports. For services the most affected country group will be developed Commonwealth countries and the least affected will be SSA countries. Investment into India from the Commonwealth will decline at about double the rate of decline of GDP growth. Investment outflows from India are positive but small, signifying that expectations of returns are higher outside than inside India.

When GDP declines by a smaller percentage of -1.5 per cent, the direction of changes and the country groups are more or less the same, though the magnitude of effects is much smaller. For trade in goods, the most affected Commonwealth group would be LDCs and the least affected would be the SSA countries. However, Indian exports to SSA would also decline by the largest percentage, resulting in welfare losses for SSA. For services trade, developed countries stand to lose the most, as their exports to India would decline the most. India's export decrease would be almost double the import decline in trade in goods. Investment outflows are not likely to change much, though investment inflow into India will decline by about twice the rate of growth.

Even if the Indian economy sees a small positive GDP growth of 2 per cent in the COVID period (2020), muted expectations will dampen trade and investment recovery. Paradoxically outward investment falls, and inward investment rises by one and a half times the growth rate. There is minor growth in the country's exports and imports of goods and services and at this rate of growth imports grow at a higher rate than exports. The maximum benefits will go to the developed Commonwealth countries and the minimum benefits would accrue to LDCs and SSA. India's exports at this level of growth would only show minimal changes. In fact, these gains could be wiped out altogether with a small currency depreciation.

The loss in trade due to India's slowdown would be felt across the Commonwealth groups.

With COVID, Indian exports to LDCs decline the most, and those to developed countries decline the least. Given the high dependence of LDCs on imports from India, they would face a strong adverse situation. With the large base of India's exports to developed countries and the small base to SSA, it is likely that the decline of exports to the developed Commonwealth would hit the Indian economy much more. Post-COVID recovery will be the slowest in exports to SSA and LDCs and quickest in the case of exports to developed countries. India's imports from the developed Commonwealth would decrease the most and those from LDCs the least. Recovery would also be quicker in the latter group than the former.

Asymmetric responses are expected in the positive and negative growth scenarios. When the positive growth rate of 4.2 per cent is considered, then the impact on trade is relatively smaller than the decline in trade with a negative growth rate of -3.25. Further, the recovery of India's exports to the developed Commonwealth will be relatively quick, but the recovery of imports from developed countries would be slower. It cannot be emphasised enough that all these changes relate only to an Indian slowdown. While India is slowing down, so are the others. Hence supply and demand bottlenecks will be encountered in the whole Commonwealth, which will change the outcomes considerably. However, modelling these changes is beyond the scope of this paper, which is focused on the effects of India's slowdown on the Commonwealth members.

To alleviate the trade and investment declines especially for Commonwealth LDCs and SSA, transparency of trade restrictive measures should be requested for all Commonwealth countries. In addition export credit should be eased and transport restrictions lifted, with proper precautions. Policies to encourage high value, low volume tourism should be encouraged. The rules of business have changed structurally and the Commonwealth has to adapt to this changed environment.

Notes

- 1 For a detailed discussion, see Center for International Development, 2019.
- 2 See Google mobility indicator, in particular the Global CSV index at Google, 2020.
- 3 The index was much lower at end-March and April.

- 4 For India, though the value of the impact of a reduction in China's trade in intermediate products is relatively small, the scope of the impact is very wide. The affected sectors include textiles and apparel, leather products, wood products, chemicals, automotive

- sector, metals and metal products, electrical and non-electrical machinery, plastics products, and precision instruments. See UNCTAD, 2020.
- 5 See for example, IMF 2020e for forecasts for sub-Saharan Africa; for the general global picture, see Table 1 in IMF 2020d; and for several CW countries in the Asia and Pacific, see Table 1 of Asian Development Bank, 2020.
 - 6 These are Singapore, Australia, Nigeria, Malaysia, the UK, South Africa, Canada, Ghana, Bangladesh and Sri Lanka.
 - 7 These are Mozambique, Tanzania, Botswana, Zambia, Brunei Darussalam, New Zealand, Cyprus, Cameroon, Pakistan and Kenya.
 - 8 India's imports from Australia in March 2020 for agricultural products were higher for items including live animals, edible vegetables, edible fruits and nuts, residues and waste from the food industry, and prepared animal fodder.
 - 9 India's imports from Bangladesh in March 2020 for agricultural products were higher for items including certain fish, vegetable oils and fats, bread and similar products, flavoured waters, oilseeds and oleaginous fruits, and sauces and mixed seasonings.
 - 10 India's imports from Tanzania in March 2020 for agricultural products were higher for items including certain beans, dried and shelled oleaginous fruits, spices, bran, cotton, and other textile fibre.
 - 11 India's imports from Brunei Darussalam in March 2020 for non-agricultural products were higher for petroleum oils and oils obtained from other bituminous minerals crude.
 - 12 India's imports from South Africa in March 2020 for non-agricultural products were higher for items including certain plastering material, lime and cement, mineral fuels, oils and products thereof, pulp of wood, waste and scrap of paper, cotton and certain other fibres, metals and articles thereof, certain machinery and parts, certain light vessels fire-floats and dredgers.
 - 13 India's imports from Zambia in March 2020 for non-agricultural products were higher for items including certain ores and metals and articles thereof, semi-precious and precious stones.
 - 14 The firms include both those which have a lead firm position in India and those which could become lead firms with specific focus on this aspect. The names of the companies are examples of current or potential lead firms, not a comprehensive list; nor are the names provided in terms of greatest importance in the sector in India.
 - 15 See Annex 1 for further details.
 - 16 The years follow the World Bank protocol which refers to the financial years 2019–2020, 2020–2021, and 2021 and 2022.
 - 17 These results are subject to a caveat. The loss in trade is calculated on the basis of two GTAP model results. One is a GTAP dynamic model and the other is a GTAP comparative static model. The results of the two are not strictly comparable but nevertheless the direction and magnitude of trade loss is unlikely to vary much. These calculations are based on GTAP comparative losses shown in Table 17 and gains through World Bank growth estimates shown in Tables 20 and 21. Merchandise goods and services trade have been weighted by the actual trade values for 2019 as shown in Tables 7, 8, 12, and 13.

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Annex 1: Post-COVID-19 GDP growth indicators in India

Table 1. India: Quarterly growth, year-on-year, fiscal 2019–2020 (%)

| | April–June 2019 | July–September 2019 | October–Dec. 2019 | January–March 2020 |
|-------------|-----------------|---------------------|-------------------|--------------------|
| Agriculture | 3 | 3.5 | 3.6 | 5.9 |
| Industry | 4.2 | 0.5 | −0.3 | −0.6 |
| Services | 5.5 | 6.5 | 5.7 | 4.4 |

Source: Chart 3 in CRISIL, 2020.

Table 2. Year-on-year performance of macroeconomic indicators: 2020 compared to 2019

| | | JAN 2020 | FEB 2020 | MAR 2020 | APR 2020 |
|-------------------------|--|----------|----------|----------|----------|
| Supply | Food-grain stock (lakh tonnes) | 847.2 | 840.8 | 872.3 | |
| | IIP manufacturing growth (%) | 1.6 | 3.1 | −20.6 | |
| | Eight core industries growth (%) | 1.4 | 7.1 | −6.5 | |
| | PMI-manufacturing (index) | 55.3 | 54.5 | 51.8 | 27.4 |
| | PMI-services (index) | 55.5 | 57.5 | 49.3 | 5.4 |
| | Merchandise exports growth (%) | −1.7 | 2.9 | −34.6 | −60.3 |
| | Merchandise imports growth (%) | −0.7 | 2.5 | −28.7 | −58.7 |
| Demand | Electricity generation growth | 3.1 | 11.4 | −8.2 | −29.9 |
| | Petroleum products consumption growth | 0.1 | 4.5 | −17.8 | −45.8 |
| | Domestic sales growth of passenger cars | −8.1 | −8.8 | −53.3 | |
| | Domestic sales growth of commercial vehicles | −14.0 | −32.9 | −88.1 | |
| | Domestic sales growth of tractors | 4.8 | 21.3 | −49.9 | |
| | Fertiliser sales growth | 28.7 | 29.8 | −1.6 | 53.4 |
| External Balance | FOREX Reserves (US\$ billion) | 471.3 | 481.3 | 477.8 | 481.1 |
| | Net FDI (US\$ billion) | 5.8 | 2.0 | 2.9 | |

Source: Government of India, Department of Economic Affairs, Ministry of Finance (2020) 'Macroeconomic Report, May 2020, Economic Division', p. 4'. https://dea.gov.in/sites/default/files/April_2020.pdf

| | | | | | |
|--|-----------|--|-------------|--|---------------|
| | No change | | Improvement | | Deterioration |
|--|-----------|--|-------------|--|---------------|

1. Key messages from NCAER Business Confidence Survey for 2019–20:

‘Overall, sentiments regarding production, domestic sales, expectations about exports and imports of raw materials and pre-tax profits **remained muted in April over January 2019** with variations seen across firm groups.’¹

‘Firms were clearly more optimistic about future business prospects, specifically on better overall economic conditions and the healthier financial positions of firms, as reflected in the marked improvement of 5.5 and 4.7 percentage points, respectively, in these parameters. The

percentage of positive responses to ‘the present investment climate is positive’ component rose **from 44.2 per cent in April 2019 to 48.8 per cent in July 2019**.²

‘The numbers suggest a deep and all-pervasive worsening of business sentiments. ... The steepest decline was for the component “the overall economic conditions will improve in the next six months”, where the share of positive responses **fell from 58.9 per cent in July 2019 to 46.3 per cent in October 2019**. The percentage of respondents expecting that “the financial position of firms will improve in the next six

months” decreased from 48.8 per cent in July 2019 to 39.3 per cent in October 2019.³

‘Business sentiments, which were already weak to start with, **worsened further in the fourth quarter of 2019–20**. The N-BCI fell from 111.2 in Q3: 2019–20 to 77.3 in Q4: 2019–20, declining by 30.4 per cent on a quarter-on-quarter (q-o-q) basis and by 32.9 per cent on a year-on-year (y-o-y) basis. This was the lowest level of BCI recorded since the 25th Round of the BES in 1998, coinciding with the Asian Financial Crisis of 1997–98, when it had fallen to 68.3.⁴

2. Excerpt from the statement by the Governor of the Reserve Bank of India, 22 May 2020⁵:

‘The combined impact of demand compression and supply disruption will depress economic activity in the first half of the year. Assuming that economic activity gets restored in a phased manner, especially in the second half of this year, and taking into consideration favourable base effects, **it is expected that the combination of fiscal, monetary and administrative measures being currently undertaken would create conditions for a gradual revival in activity in the second half of 2020–21**. Nonetheless, downside risks to this assessment are significant and contingent upon the containment of the pandemic and quick

phasing out of social distancing/lockdowns. **Given all these uncertainties, GDP growth in 2020–21 is estimated to remain in negative territory, with some pick-up in growth impulses from H2: 2020–21 onwards.**’ (emphasis added)

3. Excerpt from a statement by the Ministry of Finance, Government of India:

‘IMF has projected India’s GDP growth at 1.9 per cent in FY 2020–21 but Government is cognizant of the relative severity of lockdown on economic activity in the country and is cautiously optimistic about the signals ... These are still early days in FY 2020–21 and COVID-19 is yet to abate in India. The country’s actual GDP growth in FY 2020–21 will be contingent upon the intensity, spread and duration of the COVID-19 pandemic within national territory. On the external front, downside risks to India’s growth emerge from the high possibility of global slowdown deepening and supply chain disruptions getting exacerbated due to prolonged spread of COVID-19 and lockdowns across countries.’⁶

4. Weblinks which provide the sources for India’s growth forecasts in different periods mentioned in Table 2, Section 1 main report:

| | |
|------------------------|---|
| World Bank | The World Bank, ‘Global Economic Prospects, January 2020’, Table 1.1. https://openknowledge.worldbank.org/bitstream/handle/10986/33044/211469-Ch01.pdf ; Table 2.2 of The World Bank, ‘South Asia Economic Focus, Spring 2020: The Cursed Blessing of Public Banks’. https://openknowledge.worldbank.org/handle/10986/33478 ; https://openknowledge.worldbank.org/bitstream/handle/10986/33748/211553-Ch01.pdf?sequence=16&isAllowed=y |
| IMF | https://www.imf.org/en/Publications/WEO/Issues/2020/01/20/weo-update-january2020 ; IMF, ‘World Economic Outlook, April 2020: The Great Lockdown’, Chapter 1, Table 1.1. https://www.imf.org/en/Publications/WEO/Issues/2020/04/14/weo-april-2020 https://www.imf.org/en/Publications/WEO/Issues/2020/06/24/WEOUpdateJune2020 |
| Asian Development Bank | https://www.adb.org/publications/ado-supplement-december-2019 ; https://www.adb.org/sites/default/files/publication/575626/ado2020.pdf ; Appendix 3 in ‘An Updated Assessment of the Economic Impact of COVID-19—Online Appendix’, at https://aric.adb.org/pdf/covid-gtap-annex.pdf https://www.adb.org/sites/default/files/publication/612261/ado-supplement-june-2020.pdf |
| Reserve Bank of India | https://www.rbi.org.in/scripts/PublicationsView.aspx?Id=19416 ; https://www.rbi.org.in/scripts/PublicationsView.aspx?Id=19457 |
| State Bank of India | https://sbi.co.in/documents/13958/14472/280120-Ecowrap_20200107.pdf/a468bb21-095e-0d70-a556-591c4ad282b4?t=1580207186386 ; https://sbi.co.in/documents/13958/3312806/1604201655-Ecowrap_20200416.pdf/70f9ad1c-3844-613f-ab92-abfc4d37ab05?t=1587036342088 ; https://sbi.co.in/documents/13958/3312806/2605201152-Ecowrap_20200526.pdf/491c89f8-21c2-76be-07e9-5477db06efb9?t=1590474178349 |

| | |
|---------------|--|
| Moody | <p>https://www.livemint.com/news/india/moody-s-cuts-india-s-gdp-growth-forecast-to-5-6-for-2019-11576253728999.html;</p> <p>https://economictimes.indiatimes.com/news/economy/indicators/moodys-slashes-india-growth-forecast-to-0-2-per-cent-for-2020/articleshow/75432876.cms?from=mdr;</p> <p>https://www.moody's.com/research/Moodys-downgrades-Indias-ratings-to-Baa3-maintains-negative-outlook--PR_424605;</p> <p>https://www.thehindubusinessline.com/economy/moodys-investors-service-sees-indias-economic-growth-at-zero-in-fy21/article31532688.ece;</p> <p>https://indianexpress.com/article/business/economy/moodys-lowers-india-rating-citing-low-growth-prospects-6438029/</p> |
| CRISIL | <p>https://www.crisil.com/en/home/our-analysis/reports/2020/02/a-quiver-of-arrows.html;</p> <p>https://www.business-standard.com/article/economy-policy/crisil-cuts-india-s-fy21-growth-forecast-to-3-5-amid-coronavirus-outbreak-120032601766_1.html;</p> <p>https://economictimes.indiatimes.com/news/economy/indicators/crisil-downgrades-india-growth-forecast-by-half-to-1-8/articleshow/75412692.cms;</p> <p>Page 2 of CRISIL, Sinking Deeper. Lockdown and Restrictions Have Hit Harder Than Expected, 1 June 2020.</p> <p>https://www.crisil.com/en/home/our-analysis/views-and-commentaries/2020/06/crisil-economy-first-cut-sinking-deeper.html;</p> <p>https://www.crisil.com/content/dam/crisil/our-analysis/reports/Research/documents/2020/05/minus-five.pdf</p> |
| ICRA | <p>https://www.icraresearch.in/research/ViewResearchReport/2754;</p> <p>https://inc42.com/buzz/covid-19-expected-to-bring-gdp-growth-rate-down-to-2-in-2020-21/;</p> <p>https://www.icra.in/Media/OpenMedia?Key=f6e20fc9-0ba4-4d92-bf89-5cfab4947ae4;</p> <p>https://www.businesstoday.in/current/economy-politics/coronavirus-effect-india-gdp-may-slip-to-1-fy21-icra/story/400985.html;</p> <p>https://www.moneycontrol.com/news/business/covid-19-lockdown-extension-indias-fy21-gdp-may-contract-to-1-in-fy21-icra-5143791.html;</p> <p>https://economictimes.indiatimes.com/news/economy/indicators/icra-expects-gdp-to-contract-by-20-pc-in-june-quarter-2-pc-fall-in-fy21/articleshow/75533999.cms;</p> <p>https://www.freepressjournal.in/business/economy-likely-to-contract-by-5-in-fy21-icra</p> |
| Goldman Sachs | <p>https://www.cnbc.com/2019/12/03/goldman-sachs-says-india-gdp-economic-growth-will-pick-up-in-2020.html,</p> <p>https://www.youtube.com/watch?v=q3Hj54sCv7A;</p> <p>https://www.cnbc.com/2020/05/22/coronavirus-goldman-sachs-on-india-growth-gdp-forecast.html</p> |
| Nomura | <p>https://www.nomuraconnects.com/focused-thinking-posts/global-economic-outlook-2020-on-shaky-foundations/;</p> <p>https://www.business-standard.com/article/economy-policy/indian-economy-can-contract-2-6-us-over-11-in-worst-case-in-2020-nomura-120033000469_1.html</p> |
| HSBC | <p>https://economictimes.indiatimes.com/news/economy/indicators/economy-to-shrink-despite-stimulus-economists/articleshow/75805515.cms</p> |
| Others | <p>https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/publication/WESP2020_FullReport_web.pdf;</p> <p>https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/publication/WESP2020_MYU_Forecast-sheet.pdf;</p> <p>https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/publication/WESP2020_MYU_Forecast-sheet.pdf;</p> <p>https://economictimes.indiatimes.com/news/economy/indicators/india-may-see-first-contraction-in-40-years-on-lockdown-extension/articleshow/75158559.cms;</p> <p>https://www.business-standard.com/article/economy-policy/q4fy20-gdp-growth-expectation-how-bad-will-covid-19-impact-the-economy-120052800802_1.html;</p> <p>https://www.cnbctv18.com/economy/coronavirus-impact-fitch-cuts-indias-fy21-gdp-growth-forecast-to-08-5790031.htm;</p> <p>https://www.telegraphindia.com/business/india-s-economic-growth-prospects-recede/cid/1750468;</p> <p>https://www.financialexpress.com/economy/coronavirus-covid19-pandemic-indias-growth-rate-projected-to-slow-to-1-2-in-2020-un-report/1958261/;</p> <p>https://www.india.com/business/indias-gdp-growth-rate-dips-to-1-2-for-fy-2020-21-still-better-than-us-uk-or-japan-un-report-4028401/;</p> <p>https://www.dnaindia.com/business/report-rbi-survey-axes-india-s-gdp-growth-by-15-in-2020-21-2826996</p> |

Annex 2: Post-COVID-19 growth in merchandise trade and services

Table 1. India's merchandise exports: Growth in March, year-on-year: number of 2-digit HS categories

| Year-on-year decrease in March | Number of 4-digit HS categories | Percentage of total 4-digit categories | Exports in March 2020 (US\$ million) | Share of exports March 2020 (%) |
|--------------------------------|---------------------------------|--|--------------------------------------|---------------------------------|
| More than 90% | 42 | 3.4% | 113.42 | 0.5% |
| 80% to 90% | 29 | 2.4% | 38.22 | 0.2% |
| 70% to 80% | 32 | 2.6% | 127.52 | 0.6% |
| 60% to 70% | 55 | 4.5% | 173.48 | 0.8% |
| 50% to 60% | 89 | 7.3% | 722.04 | 3.4% |
| 40% and 50% | 130 | 10.7% | 2,349.37 | 11.0% |
| 30% and 40% | 215 | 17.7% | 7,527.31 | 35.2% |
| 20% and 30% | 143 | 11.7% | 4,476.37 | 20.9% |
| 10% and 20% | 102 | 8.4% | 2,611.78 | 12.2% |
| 0.5% and 10% | 76 | 6.2% | 1,283.89 | 6.0% |
| Increase in Exports | 209 | 17.2% | 1,974.04 | 9.2% |
| No trade | 96 | 7.9% | | |
| TOTAL OF ABOVE | 1,218 | 100.0% | 21,397.44 | 100.0% |

Source: Department of commerce, Government of India.

Note: Percentage estimates rounded up to single decimal point.

Table 2. Number of HS 4-digit products covered by different product groups

| Product category | Number of 4-digit HS categories | Share in number of HS 4-digit categories |
|--|---------------------------------|--|
| Food, Forestry and Agriculture Products | 201 | 16.5% |
| Mineral and Metals | 267 | 21.9% |
| Textiles, Garments, and Leather Products | 176 | 14.4% |
| Machinery and Equipment | 180 | 14.8% |
| Chemicals and Pharmaceuticals | 215 | 17.7% |
| Transport and Motor Vehicles | 38 | 3.1% |
| Other manufacturing | 134 | 11.0% |
| Petroleum | 7 | 0.6% |
| TOTAL | 1,218 | 100.0% |

Source: Data from Department of Commerce, Government of India.

Note: (a) The product categories are made in concordance with the GTAP exercise. (b) HS categories 98 and 99 are not included.

Table 3. India's merchandise exports: Product groups registering export decline/increase in March 2020, year-on-year (at HS 4-digit category level)

| Year-on-year decrease in March | Product categories |
|--------------------------------|---|
| Decline more than 90% | Food, Forestry and Agriculture Products, Minerals and Metals, Textiles, Garments, and Leather Products, Chemicals and Pharmaceuticals, Machinery and Equipment, Transport and Motor Vehicles, Other Manufacturing |
| Decline 80% to 90% | Food, Forestry and Agriculture Products, Mineral and Metals, Textiles, Garments, and Leather Products, Machinery and Equipment, Chemicals and Pharmaceuticals, Transport and Motor Vehicles, Other Manufacturing |
| Decline 70% to 80% | Food, Forestry and Agriculture Products, Mineral and Metals, Textiles, Garments, and Leather Products, Machinery and Equipment Chemicals and Pharmaceuticals, Transport and Motor Vehicles, Other Manufacturing, Petroleum (HS 2713) |
| Decline 60% to 70% | Food, Forestry and Agriculture Products, Mineral and Metals, Textiles, Garments, and Leather Products, Machinery and Equipment, Chemicals and Pharmaceuticals, Other Manufacturing, Petroleum (HS 2706) |
| Decline 50% to 60% | Food, Forestry and Agriculture Products, Mineral and Metals, Textiles, Garments, and Leather Products, Machinery and Equipment, Chemicals and Pharmaceuticals, Transport and Motor Vehicles, Other Manufacturing |
| Increase in exports | Food, Forestry and Agriculture Products, Mineral and Metals, Textiles, Garments, and Leather Products, Machinery and Equipment, Chemicals and Pharmaceuticals, Transport and Motor Vehicles, Other Manufacturing, Petroleum (HS 2704, 2714) |

Source: Data from the Department of Commerce, Government of India.

Note: Percentage estimates rounded up to single decimal point.

Table 4. India's main imports from different CW countries, April 2019 to February 2020

| | India's main imports | Share in India's total imports – April 2019 to February 2020 (%) |
|-------------------|---|--|
| Antigua | Electrical machinery and equipment and parts thereof* | 0.0000 |
| Australia | Minerals and Metals | 2.0728 |
| Bahamas | Mineral fuels, mineral oils and products thereof | 0.0033 |
| Bangladesh PR | Marine products, animal or vegetable fats and oils and their cleavage products, beverages, spirits and vinegar, chemicals, plastics and articles thereof, vegetable textile fibres, apparel and clothing accessories, made-up textiles articles | 0.2646 |
| Barbados | Organic Chemical, plastics and articles thereof | 0.0003 |
| Belize | Residues and waste from food industries, prepared fodder | 0.0002 |
| Botswana | Pearls, semi-precious and precious stones and metals and articles thereof | 0.1503 |
| Brunei Darussalam | Mineral fuels and oils | 0.1603 |
| Cameroon | Mineral fuels and oils, cotton, wood and articles thereof | 0.1527 |
| Canada | Mineral fuels and oils, fertiliser, edible vegetables and roots and tubers, ores, slag and ash, pulp of wood or of other fibrous materials, metals and articles thereof, machinery and mechanical appliances | 0.8307 |
| Cyprus | Mineral fuels and oils | 0.0165 |
| Dominica | Pearls, semi-precious and precious stones and metals and articles thereof | 0.0001 |

(continued)

Table 4. India's main imports from different CW countries, April 2019 to February 2020 (continued)

| | India's main imports | Share in India's total imports – April 2019 to February 2020 (%) |
|--------------|--|--|
| Fiji Is | Copper and articles thereof | 0.0001 |
| Gambia | Fruits and nuts, metals and articles thereof | 0.0090 |
| Ghana | Pearls, semi-precious and precious stones and metals and articles thereof, fruits and nuts, oilseeds, industrial or medicinal plants, cocoa and cocoa preparations, mineral fuels and oils, wood and articles of wood, electrical machinery and equipment or parts thereof | 0.3872 |
| Grenada | Coffee, tea, mate and spices, electrical machinery and equipment or parts thereof | 0.0001 |
| Guyana | Wood and articles thereof | 0.0016 |
| Jamaica | Electrical machinery and equipment or parts thereof | 0.0006 |
| Kenya | Chemicals, coffee, tea, mate and spices, metals and articles thereof, cotton, machinery and mechanical appliances and parts thereof | 0.0189 |
| Kiribati Rep | Plastics and articles thereof | 0.0000 |
| Lesotho | Oilseeds, medicinal plants, straw and fodder | 0.0000 |
| Malawi | Edible vegetable, roots and tubers, oilseeds, medicinal plants, straw and fodder | 0.0071 |
| Malaysia | Animal vegetable fats and oils and their cleavage products, mineral fuels and mineral oils, chemicals, wood and articles thereof, plastics and rubber and articles thereof, glass and glassware, metals and articles thereof, machinery, equipment and parts thereof, optical | 2.1005 |
| Maldives | Metals and articles thereof | 0.0013 |
| Malta | Organic chemicals, pulp of wood or other fibrous cellulosic material, machinery and parts, metals and articles thereof, ships, boats and floating structure | 0.0267 |
| Mauritania | Electrical machinery and equipment and parts, metals and articles thereof | 0.0022 |
| Mozambique | Mineral fuels and oils and products thereof, edibles vegetables and certain roots and tubers, ores, slag and ash | 0.1759 |
| Namibia | Electrical machinery and equipment and parts, pearls, semi-precious and precious stones and metals and articles thereof, metals and articles thereof | 0.0063 |
| Nauru Rp | Machinery and mechanical appliance and parts, products of base metals | 0.0000 |
| New Zealand | Wood, articles of wood, wood charcoal, mineral fuels and oils and products of their distillation, edible fruits and nuts, pulp of wood and other fibrous cellulosic material, metals and articles thereof, paper and paperboard, wool, measuring, checking precision medical or surgical instruments | 0.1105 |
| Nigeria | Mineral fuels and oils and products of their distillation, edible fruits and nuts, oil seeds and olea fruits, industrial or medicinal plants, metals and articles thereof, raw hides and skins and leather, wood, articles of wood, wood charcoal | 2.1044 |

(continued)

Table 4. India's main imports from different CW countries, April 2019 to February 2020 (continued)

| | India's main imports | Share in India's total imports – April 2019 to February 2020 (%) |
|----------------------|---|--|
| Pakistan IR | Edible fruits and nuts, Mineral fuels and oils and products of their distillation, raw hides and skins, leather, cotton, other made-up textiles articles, | 0.0031 |
| Papua New Guinea | Wood, articles of wood, wood charcoal, animal or vegetable fats and oils and their cleavage products | 0.0124 |
| Rwanda | Metals and article thereof, pearls, semi-precious and precious stones and metals and articles thereof | 0.0009 |
| Seychelles | Metals and article thereof, inorganic chemicals, chemical compounds of precious metals, rare earth etc. | 0.0010 |
| Sierra Leone | Ores, slag and ash, metals and articles thereof, Electrical machinery and equipment and parts thereof | 0.0052 |
| Singapore | Mineral fuels and oils and products of their distillation, organic chemicals, plastics and articles thereof, rubber and articles thereof, tanning and dyeing extracts, dyes, pigments and other colouring matters, nuclear reactors, boilers, machinery and mechanical appliances and parts thereof, electrical machinery and equipment and parts thereof, ships, boats and floating structure, optical, photographic cinematographic measuring and checking precision, medical and surgical instruments and apparatus, animal or vegetable fats and oils and their cleavage products, pearls and articles thereof, semi-precious and precious stones and metals and articles thereof, metals and articles thereof, edible fruits and nuts, cocoa and cocoa preparations, wood, articles of wood, wood charcoal, pulp and paperboard, articles of paper, beverages, spirits and vinegar | 3.1114 |
| Solomon Is | Wood, articles of wood, wood charcoal | 0.0086 |
| South Africa | Mineral fuels and oils and products of their distillation, pearls, semi-precious and precious stones and metals and articles thereof, metals and articles thereof, ores, slag and ash, edible fruit and nuts, inorganic chemicals, chemical compounds of precious metals, rare earth etc., pulp of wood and other fibrous cellulosic materials, ships, boats and floating structures, arms and ammunition | 1.3740 |
| Sri Lanka DSR | Ships, boats and floating structures, coffee, mate and spices, edible fruits and nuts, furniture, bedding and mattresses, electrical machinery, equipment and parts thereof, textiles, apparel and clothing articles and accessories, pulp of wood and other fibrous cellulosic materials, rubber and articles thereof, residue from waste of food industries | 0.1937 |
| St Kitts and Nevis | | 0.0000 |
| St Lucia | Electrical machinery and equipment and parts thereof, nuclear reactors, boilers, machinery and mechanical appliances and parts thereof | 0.0001 |
| St Vincent | | 0.0000 |
| Eswatini (Swaziland) | Metals and articles thereof, pulp of wood or of other fibrous materials | 0.0015 |

(continued)

Table 4. India's main imports from different CW countries, April 2019 to February 2020 (continued)

| India's main imports | | Share in India's total imports – April 2019 to February 2020 (%) |
|----------------------|---|--|
| Tanzania Rep | Pearls, semi-precious and precious stones and metals and articles thereof, edible fruits and nuts, edible vegetables roots and tubers | 0.2055 |
| Tonga | | 0.0000 |
| Trinidad | Mineral fuels and oils and products of their distillation | 0.0147 |
| Tuvalu | | 0.0000 |
| Uganda | Cocoa and cocoa preparations | 0.0070 |
| UK | Pearls, semi-precious and precious stones and metals and articles thereof, nuclear reactors, boilers, machinery, mechanical appliance and parts thereof, metals and articles thereof, electrical machinery and equipment and parts thereof, optical, photographic and cinematographic measuring, checking precision, medical, surgical instruments and apparatus and parts thereof, aircrafts, spacecraft and parts thereof, beverages, spirits and vinegar | 1.4353 |
| Vanuatu | Animal or vegetable fats and oils and their cleavage products | 0.0001 |
| Samoa | Electrical machinery and equipment and parts thereof, plastics and articles thereof | 0.0006 |
| Zambia | Copper and articles thereof, pearls, semi-precious and precious stones and metals and articles thereof | 0.1719 |
| Total share | | 15.1512 |

Table 5. India's merchandise exports: Product groups with exports declining more than 50% export March 2020, year-on-year (at HS 4-digit category level)

| Product category | Decline more than 90% | Decline 80% to 90% | Decline 70% to 80% | Decline 60% to 70% | Decline 50% to 60% | Total for export decline above 50% | TOTAL 4-digit HS categories for product group |
|--|-----------------------|--------------------|--------------------|--------------------|--------------------|------------------------------------|---|
| Food, Forestry and Agriculture Products | 6 | 3 | 5 | 9 | 13 | 36 (17.9%) | 201 |
| Mineral and Metals | 11 | 5 | 7 | 13 | 23 | 59 (22.1%) | 267 |
| Textiles, Garments, and Leather Products | 4 | 2 | 2 | 8 | 12 | 28 (15.9%) | 176 |
| Machinery and Equipment | 5 | 7 | 6 | 14 | 13 | 45 (25%) | 180 |
| Chemicals and Pharmaceuticals | 5 | 5 | 6 | 6 | 20 | 42 (19.5%) | 215 |
| Transport and Motor Vehicles | 5 | 1 | 1 | 0 | 2 | 9 (23.7%) | 38 |
| Other Manufacturing | 5 | 6 | 3 | 4 | 6 | 24 (17.9%) | 134 |
| Petroleum | 0 | 0 | 1 | 1 | 0 | 2 (28.6%) | 7 |
| TOTAL | 41 | 29 | 31 | 55 | 89 | 245 | 1,218 |

Source: Data from the Department of Commerce, Government of India.

Notes: (1) HS 9826 is not included in the GTAP database, and is not included in the table. This HS category covers Biodiesel and mixture. It registered a 90% decrease in exports in March 2020.

(2) The percentages in parentheses are the share of HS 4-digit categories registering above 50% export decline for a product group in the total HS 4-digit categories covered by that product group.

Table 6. India's merchandise exports: Product groups with increased exports in March 2020, year-on-year (at HS 4-digit category level)

| Product category | Number of HS 4-digit categories | TOTAL 4-digit HS categories for product group | Share of Column 2 in Column 3 (Total) |
|--|---------------------------------|---|---------------------------------------|
| Food, Forestry and Agriculture Products | 41 | 201 | 20.4% |
| Mineral and Metals | 46 | 267 | 17.2% |
| Textiles, Garments, and Leather Products | 24 | 176 | 13.6% |
| Machinery and Equipment | 28 | 180 | 15.6% |
| Chemicals and Pharmaceuticals | 35 | 215 | 16.3% |
| Transport and Motor Vehicles | 6 | 38 | 15.8% |
| Other Manufacturing | 26 | 134 | 19.4% |
| Petroleum | 2 | 7 | 28.6% |
| TOTAL | 208 | 1,218 | 17.1% |

Source: Data from the Department of Commerce, Government of India.

Note: HS 9620 is not included in the GTAP database, and is not included in the table. This HS category covers monopods, bipods, tripods and similar articles.

Table 7. India's merchandise imports: Growth in March, year-on-year: number of 2-digit HS categories

| Year-on-year decrease in March | Number of 4-digit HS categories | Percentage of total 4-digit categories | Imports in March 2020 (US\$ million) | Share of imports March 2020 (%) |
|--------------------------------|---------------------------------|--|--------------------------------------|---------------------------------|
| More than 90% | 38 | 3.2% | 11.21 | 0.0% |
| 80% to 90% | 37 | 3.1% | 81.48 | 0.3% |
| 70% to 80% | 71 | 5.9% | 114.38 | 0.4% |
| 60% to 70% | 93 | 7.7% | 1,750.38 | 5.6% |
| 50% to 60% | 115 | 9.6% | 2,435.96 | 7.8% |
| 40% and 50% | 146 | 12.2% | 1,652.84 | 5.3% |
| 30% and 40% | 150 | 12.5% | 2,917.06 | 9.4% |
| 20% and 30% | 134 | 11.2% | 6,031.1 | 19.4% |
| 10% and 20% | 91 | 7.6% | 11,483.99 | 37.0% |
| 0.5% and 10% | 51 | 4.2% | 717 | 2.3% |
| Increase in exports | 184 | 15.3% | 3,863.68 | 12.4% |
| No trade | 91 | 7.6% | 2.95 | 0.0% |
| TOTAL OF ABOVE | 1,201 | 100.0% | 31,062.03 | 100.0% |

Source: Department of Commerce, Government of India.

Note: Percentage estimates rounded up to single decimal point.

Table 8. India's services exports and imports, 2018–19 (INR billion)

| | Credit (exports) | Debit (imports) |
|---|------------------|-----------------|
| TOTAL | 14,562.77 | 8,824.94 |
| Telecommunications, computer, and information services | 6,040.90 | 517.61 |
| Other business services | 2,736.44 | 2,828.15 |
| Travel | 1,991.42 | 1,514.85 |
| Others not included elsewhere (n.i.e.) | 1,418.18 | 1,074.62 |
| Transport | 1,361.00 | 1,436.89 |
| Financial services | 340.19 | 244.28 |
| Construction | 236.38 | 176.58 |
| Insurance and pension services | 186.34 | 125.43 |
| Personal, cultural, and recreational services | 129.43 | 179.93 |
| Charges for the use of intellectual property n.i.e. | 48.23 | 561.32 |
| Government goods and services n.i.e. | 42.60 | 77.95 |
| Manufacturing services on physical inputs owned by others | 18.41 | 2.93 |
| Maintenance and repair services n.i.e. | 13.25 | 84.41 |

Table 9. Percentage share of India's service sectors in services exports/imports, 2018–19

| | Share in credit (exports) | Share in debit (imports) |
|---|---------------------------|--------------------------|
| TOTAL | 100% | 100% |
| Telecommunications, computer, and information services | 41.5% | 5.9% |
| Other business services | 18.8% | 32.0% |
| Travel | 13.7% | 17.2% |
| Others not included elsewhere | 9.7% | 12.2% |
| Transport | 9.3% | 16.3% |
| Financial services | 2.3% | 2.8% |
| Construction | 1.6% | 2.0% |
| Insurance and pension services | 1.3% | 1.4% |
| Personal, cultural, and recreational services | 0.9% | 2.0% |
| Charges for the use of intellectual property n.i.e. | 0.3% | 6.4% |
| Government goods and services n.i.e. | 0.3% | 0.9% |
| Manufacturing services on physical inputs owned by others | 0.1% | 0.0% |
| Maintenance and repair services not included elsewhere n.i.e. | 0.1% | 1.0% |

Source: Reserve Bank of India.

Annex 3: India's trade with Commonwealth countries in 2019

Table 1. India's trade with all Commonwealth countries

| Economy | India's exports in 2019 (US\$mn) | India's imports in 2019 (US\$ mn) | India's share in overall imports in % | % share in India's total exports |
|------------------------------|----------------------------------|-----------------------------------|---------------------------------------|----------------------------------|
| Total | 63,755 | 75,357 | 2.9 | 19.778 |
| Singapore | 1,0728 | 15,028 | 2 | 3.32 |
| United Kingdom | 8,821 | 6,954 | 1 | 2.73 |
| Bangladesh | 8,272 | 1,212 | 16 | 2.56 |
| Malaysia | 6,140 | 10,528 | 3 | 1.9 |
| Sri Lanka | 4,279 | 1,011 | 21 | 1.33 |
| South Africa | 3,867 | 6,932 | 5 | 1.2 |
| Nigeria | 3,643 | 10,548 | 12 | 1.13 |
| Canada | 2,898 | 3,846 | 1 | 0.9 |
| Australia | 2,875 | 10,553 | 2 | 0.89 |
| Mozambique | 2,061 | 911 | 6 | 0.64 |
| Kenya | 1,943 | 96 | 11 | 0.6 |
| Tanzania, United Republic of | 1,642 | 837 | 14 | 0.51 |
| Pakistan | 1,301 | 98 | 3 | 0.4 |
| Mauritius | 826 | 27 | 14 | 0.26 |
| Uganda | 631 | 29 | 12 | 0.2 |
| Ghana | 590 | 2,748 | 6 | 0.18 |
| Cyprus | 445 | 404 | 1 | 0.14 |
| New Zealand | 382 | 554 | 1 | 0.12 |
| Zambia | 270 | 743 | 5 | 0.08 |
| Maldives | 223 | 6 | 10 | 0.07 |
| Cameroon | 218 | 379 | 4 | 0.07 |
| Botswana | 218 | 761 | 3 | 0.07 |
| Malta | 234 | 63 | 2 | 0.07 |
| Malawi | 191 | 36 | 9 | 0.06 |
| Gambia | 149 | 32 | 5 | 0.05 |
| Rwanda | 130 | 4 | 9 | 0.04 |
| Sierra Leone | 129 | 20 | 7 | 0.04 |
| Namibia | 139 | 21 | 3 | 0.04 |
| Trinidad and Tobago | 83 | 79 | 2 | 0.03 |
| Seychelles | 52 | 5 | 4 | 0.02 |
| Brunei Darussalam | 57 | 693 | 2 | 0.02 |
| Fiji | 56 | 1 | 2 | 0.02 |
| Jamaica | 55 | 5 | 1 | 0.02 |
| Papua New Guinea | 57 | 81 | 1 | 0.02 |
| Lesotho | 45 | 0 | 3 | 0.01 |
| Eswatini | 18 | 8 | 2 | 0.01 |
| Belize | 17 | 1 | 2 | 0.01 |
| Guyana | 24 | 6 | 1 | 0.01 |

(Continued)

Table 1. India's trade with all Commonwealth countries (Continued)

| Economy | India's exports in 2019 (US\$m) | India's imports in 2019 (US\$ mn) | India's share in overall imports in % | % share in India's total exports |
|----------------------------------|---------------------------------|-----------------------------------|---------------------------------------|----------------------------------|
| Barbados | 13 | 1 | 1 | 0.004 |
| Bahamas | 9 | 54 | 0 | 0.002 |
| Grenada | 4 | 1 | 1 | 0.001 |
| Samoa | 4 | 3 | 1 | 0.001 |
| Saint Kitts and Nevis | 2 | 0 | 1 | 0 |
| Kiribati | 0.4 | 0 | 1 | 0 |
| Vanuatu | 2 | 0 | 1 | 0 |
| Antigua and Barbuda | 2 | 0 | 0 | 0 |
| Dominica | 2 | 0 | 0 | 0 |
| Saint Lucia | 3 | 1 | 0 | 0 |
| Saint Vincent and the Grenadines | 1 | 0 | 0 | 0 |
| Nauru | 0 | 0 | 0 | 0 |
| Solomon Islands | 3 | 37 | 0 | 0 |
| Tonga | 1 | 0 | 0 | 0 |
| Tuvalu | 0.005 | 0 | 0 | 0 |

Source: ITC trade maps.

Annex 4: India's trade with Commonwealth countries over the past 5 years

Table 1. India's exports to the Commonwealth over 5 years

| Economy | India's merchandise exports (US\$ mn) | | | | | Compound RoG of exports |
|------------------------------|---------------------------------------|--------|--------|--------|--------|-------------------------|
| | 2015 | 2016 | 2017 | 2018 | 2019 | |
| Total | 56,694 | 50,353 | 60,647 | 65,693 | 63,755 | 4 |
| Singapore | 7,802 | 7,385 | 11,598 | 10,494 | 10,728 | 11 |
| United Kingdom | 8,890 | 8,564 | 8,957 | 9,767 | 8,821 | 0 |
| Bangladesh | 5,473 | 5,668 | 7,212 | 8,763 | 8,272 | 12 |
| Malaysia | 4,889 | 4,188 | 5,548 | 6,568 | 6,140 | 8 |
| Sri Lanka | 5,500 | 4,118 | 4,415 | 4,678 | 4,279 | -5 |
| South Africa | 3,811 | 3,243 | 4,074 | 4,028 | 3,867 | 1 |
| Nigeria | 2,286 | 1,743 | 2,064 | 2,752 | 3,643 | 15 |
| Canada | 2,082 | 1,970 | 2,317 | 2,799 | 2,898 | 9 |
| Australia | 3,254 | 2,950 | 3,877 | 3,742 | 2,875 | -1 |
| Mozambique | 1,476 | 874 | 1,053 | 811 | 2,061 | 28 |
| Kenya | 3,183 | 2,458 | 1,818 | 2,129 | 1,943 | -10 |
| Tanzania, United Republic of | 1,663 | 1,767 | 1,569 | 1,883 | 1,642 | 1 |
| Pakistan | 1,962 | 1,592 | 1,790 | 2,351 | 1,301 | -5 |

(Continued)

Table 1. India's exports to the Commonwealth over 5 years (Continued)

| Economy | India's merchandise exports (US\$ mn) | | | | | Compound RoG of exports |
|----------------------------------|---------------------------------------|------|------|------|------|-------------------------|
| | 2015 | 2016 | 2017 | 2018 | 2019 | |
| Mauritius | 760 | 557 | 766 | 980 | 826 | 6 |
| Uganda | 568 | 524 | 507 | 563 | 631 | 3 |
| Ghana | 642 | 712 | 637 | 731 | 590 | -1 |
| Cyprus | 60 | 72 | 96 | 65 | 445 | 151 |
| New Zealand | 314 | 309 | 329 | 380 | 382 | 5 |
| Zambia | 334 | 236 | 257 | 330 | 270 | -3 |
| Malta | 330 | 110 | 206 | 198 | 234 | 9 |
| Maldives | 167 | 180 | 213 | 221 | 223 | 8 |
| Cameroon | 213 | 154 | 192 | 165 | 218 | 4 |
| Botswana | 45 | 74 | 97 | 146 | 218 | 49 |
| Malawi | 178 | 173 | 223 | 180 | 191 | 3 |
| Gambia | 56 | 61 | 108 | 147 | 149 | 31 |
| Namibia | 69 | 72 | 68 | 48 | 139 | 40 |
| Rwanda | 124 | 87 | 91 | 133 | 130 | 5 |
| Sierra Leone | 95 | 81 | 99 | 106 | 129 | 9 |
| Trinidad and Tobago | 103 | 81 | 92 | 84 | 83 | -4 |
| Brunei Darussalam | 30 | 37 | 48 | 66 | 57 | 19 |
| Papua New Guinea | 39 | 39 | 37 | 47 | 57 | 11 |
| Fiji | 45 | 49 | 53 | 60 | 56 | 6 |
| Jamaica | 41 | 42 | 50 | 55 | 55 | 8 |
| Seychelles | 31 | 38 | 38 | 81 | 52 | 25 |
| Lesotho | 33 | 29 | 33 | 32 | 45 | 10 |
| Guyana | 25 | 19 | 23 | 32 | 24 | 3 |
| Eswatini | 67 | 39 | 33 | 22 | 18 | -27 |
| Belize | 16 | 15 | 15 | 14 | 17 | 2 |
| Barbados | 10 | 13 | 12 | 12 | 13 | 8 |
| Bahamas | 4 | 6 | 7 | 6 | 9 | 26 |
| Grenada | 2 | 3 | 3 | 3 | 4 | 21 |
| Samoa | 2 | 2 | 2 | 3 | 4 | 21 |
| Saint Lucia | 3 | 4 | 4 | 5 | 3 | 5 |
| Solomon Islands | 5 | 3 | 1 | 2 | 3 | 11 |
| Saint Kitts and Nevis | 2 | 3 | 3 | 2 | 2 | 4 |
| Vanuatu | 2 | 2 | 2 | 2 | 2 | 0 |
| Antigua and Barbuda | 3 | 2 | 2 | 3 | 2 | -4 |
| Dominica | 2 | 2 | 2 | 2 | 2 | 0 |
| Saint Vincent and the Grenadines | 1 | 1 | 1 | 1 | 1 | 0 |
| Tonga | 1 | 1 | 1 | 1 | 1 | 0 |
| Kiribati | 1 | 1 | 0 | 0 | 0 | |
| Nauru | 0 | 0 | 4 | 0 | 0 | |
| Tuvalu | 0 | 0 | 0 | 0 | 0 | 0 |

Source: ITC trade maps.

Table 2. India's imports from the Commonwealth

| Economy | India's merchandise imports (US\$ million) | | | | | Compound r.o.g. of imports |
|------------------------------|--|--------|--------|--------|--------|----------------------------|
| | 2015 | 2016 | 2017 | 2018 | 2019 | |
| Total | 62,416 | 52,784 | 66,394 | 79,811 | 75,357 | 6 |
| Singapore | 7,401 | 6,719 | 7,232 | 14,484 | 15,028 | 26 |
| Australia | 9,406 | 8,730 | 14,346 | 14,126 | 10,553 | 8 |
| Nigeria | 10,240 | 7,407 | 8,339 | 11,203 | 10,548 | 3 |
| Malaysia | 9,568 | 8,653 | 8,898 | 10,437 | 10,528 | 3 |
| United Kingdom | 5,379 | 3,864 | 4,342 | 7,077 | 6,954 | 11 |
| South Africa | 6,280 | 5,092 | 6,883 | 6,615 | 6,932 | 4 |
| Canada | 3,846 | 3,647 | 4,842 | 3,478 | 3,846 | 3 |
| Ghana | 3,222 | 1,449 | 2,762 | 3,572 | 2,748 | 10 |
| Bangladesh | 640 | 677 | 591 | 897 | 1,212 | 20 |
| Sri Lanka | 849 | 632 | 663 | 1,329 | 1,011 | 14 |
| Mozambique | 363 | 408 | 982 | 1,042 | 911 | 37 |
| Tanzania, United Republic of | 1,005 | 831 | 1,112 | 1,006 | 837 | -2 |
| Botswana | 565 | 1,001 | 1,745 | 1,093 | 761 | 21 |
| Zambia | 407 | 723 | 951 | 640 | 743 | 23 |
| Brunei Darussalam | 608 | 462 | 595 | 435 | 693 | 9 |
| New Zealand | 550 | 509 | 611 | 635 | 554 | 1 |
| Cyprus | 50 | 67 | 12 | 29 | 404 | 347 |
| Cameroon | 745 | 429 | 212 | 304 | 379 | -6 |
| Pakistan | 457 | 461 | 469 | 549 | 98 | -16 |
| Kenya | 112 | 126 | 72 | 133 | 96 | 7 |
| Papua New Guinea | 189 | 98 | 159 | 112 | 81 | -11 |
| Trinidad and Tobago | 84 | 154 | 103 | 184 | 79 | 18 |
| Malta | 26 | 28 | 16 | 18 | 63 | 57 |
| Bahamas | 80 | 257 | 40 | 7 | 54 | 181 |
| Solomon Islands | 69 | 61 | 55 | 67 | 37 | -11 |
| Malawi | 68 | 42 | 19 | 20 | 36 | -2 |
| Gambia | 32 | 43 | 57 | 45 | 32 | 4 |
| Uganda | 37 | 68 | 60 | 30 | 29 | 5 |
| Mauritius | 20 | 19 | 18 | 76 | 27 | 62 |
| Namibia | 12 | 35 | 60 | 68 | 21 | 52 |
| Sierra Leone | 20 | 13 | 21 | 14 | 20 | 9 |
| Eswatini | 42 | 30 | 26 | 10 | 8 | -31 |
| Maldives | 5 | 6 | 8 | 21 | 6 | 36 |
| Guyana | 17 | 16 | 9 | 7 | 6 | -22 |
| Seychelles | 1 | 1 | 1 | 5 | 5 | 100 |
| Jamaica | 1 | 1 | 4 | 4 | 5 | 81 |
| Rwanda | 2 | 1 | 4 | 7 | 4 | 71 |
| Samoa | 1 | 8 | 0 | 3 | 3 | |
| Fiji | 1 | 1 | 0 | 1 | 1 | |
| Belize | 0 | 0 | 1 | 1 | 1 | |
| Barbados | 0 | 0 | 0 | 1 | 1 | |
| Grenada | 0 | 0 | 0 | 0 | 1 | |
| Saint Lucia | 0 | 0 | 0 | 1 | 1 | |

(Continued)

Table 2. India's imports from the Commonwealth (Continued)

| Economy | India's merchandise imports (US\$ million) | | | | | Compound r.o.g. of imports |
|----------------------------------|--|------|------|------|------|----------------------------|
| | 2015 | 2016 | 2017 | 2018 | 2019 | |
| Lesotho | 5 | 14 | 74 | 25 | 0 | 111 |
| Saint Kitts and Nevis | 0 | 0 | 0 | 0 | 0 | 0 |
| Kiribati | 0 | 0 | 0 | 0 | 0 | 0 |
| Vanuatu | 0 | 0 | 0 | 0 | 0 | 0 |
| Antigua and Barbuda | 0 | 0 | 0 | 0 | 0 | 0 |
| Dominica | 0 | 1 | 0 | 0 | 0 | |
| Saint Vincent and the Grenadines | 0 | 0 | 0 | 0 | 0 | 0 |
| Nauru | 11 | 0 | 0 | 0 | 0 | |
| Tonga | 0 | 0 | 0 | 0 | 0 | 0 |
| Tuvalu | 0 | 0 | 0 | 0 | 0 | 0 |

Source: ITC trade maps.

Table 3. India's monthly exports to Commonwealth countries, December 2019 to March 2020 (US\$ million)

| India's exports to: | December 2019 | January 2020 | February 2020 | March 2020 |
|---|---------------|--------------|---------------|------------|
| World | 27,087.32 | 25,827.99 | 27,646.83 | 21,405.96 |
| India's exports to Commonwealth countries: | | | | |
| All Commonwealth countries | 5,092.50 | 5,253.86 | 5,395.54 | 4,071.53 |
| Developed countries | 1,342.17 | 1,525.55 | 1,386.52 | 942.43 |
| Developing countries | 3,791.60 | 3,723.50 | 4,035.05 | 3,175.27 |
| LDCs | 1,237.51 | 1,131.89 | 1,252.89 | 962.72 |
| Sub-Saharan Africa | 1,419.49 | 1,419.38 | 1,161.94 | 1,178.71 |

Source: Department of Commerce, Government of India.

Annex 5: GTAP sector mapping

Table 1. Description of GTAP sectors

| Sectors | GTAP sectors | Sub-sectors |
|---|--------------|--------------------|
| Textiles, Garments and Leather products | 27 | Textiles |
| | 28 | Wearing apparel |
| | 29 | Leather products |
| | 7 | Plant-based fibres |
| Food, Forestry and Agriculture Products | 5 | Oil seeds |
| | 13 | Forestry |
| | 14 | Fishing |
| | 23 | Processed rice |
| | 25 | Food products nec |

(Continued)

Table 1. Description of GTAP sectors (Continued)

| Sectors | GTAP sectors | Sub-sectors |
|------------------------------|--------------|-----------------------------------|
| | 26 | Beverages and tobacco products |
| | 4 | Vegetables, fruit, nuts |
| | 8 | Crops nec |
| | 22 | Dairy products |
| | 21 | Vegetable oils and fats |
| | 24 | Sugar |
| | 3 | Cereal grains nec |
| | 6 | Sugar cane, sugar beet |
| | 2 | Wheat |
| | 10 | Animal products nec |
| | 9 | Cattle, sheep, goats, horses |
| | 20 | Meat products nec |
| | 19 | Meat: cattle, sheep, goats, horse |
| | 12 | Wool, silk-worm cocoons |
| Minerals and Metals | 37 | Metal products |
| | 35 | Ferrous metals |
| | 34 | Mineral products nec |
| | 18 | Minerals nec |
| | 36 | Metals nec |
| | 15 | Coal |
| | 17 | Gas |
| Chemicals and Pharma | 33 | Chemical, rubber, plastic prods |
| Transport and Motor Vehicles | 39 | Transport equipment nec |
| | 38 | Motor vehicles and parts |
| Machinery and Equipment | 41 | Machinery and equipment nec |
| | 40 | Electronic equipment |
| Petroleum | 32 | Petroleum, coal products |
| | 16 | Oil |
| Manufacturing | 42 | Manufactures nec |
| | 43 | Electricity |
| | 44 | Gas manufacture, distribution |
| | 31 | Paper products, publishing |

Source: GTAP mapping as shown in Table 2.

Table 2. GTAP data bases: GTAP 10 data base sectors

| Number | Code | Description (Detailed Sector Breakdown) |
|--------|------|---|
| 1 | pdr | Paddy rice |
| 2 | wht | Wheat |
| 3 | gro | Cereal grains nec |
| 4 | v_f | Vegetables, fruit, nuts |
| 5 | osd | Oil seeds |
| 6 | c_b | Sugar cane, sugar beet |
| 7 | pfb | Plant-based fibers |
| 8 | ocr | Crops nec |

(Continued)

Table 2. GTAP data bases: GTAP 10 data base sectors (Continued)

| Number | Code | Description (Detailed Sector Breakdown) |
|--------|------|--|
| 9 | ctl | Bovine cattle, sheep and goats, horses |
| 10 | oap | Animal products nec |
| 11 | rmk | Raw milk |
| 12 | wol | Wool, silk-worm cocoons |
| 13 | frs | Forestry |
| 14 | fsh | Fishing |
| 15 | coa | Coal |
| 16 | oil | Oil |
| 17 | gas | Gas |
| 18 | oxt | Other Extraction (formerly omn Minerals nec) |
| 19 | cmt | Bovine meat products |
| 20 | omt | Meat products nec |
| 21 | vol | Vegetable oils and fats |
| 22 | mil | Dairy products |
| 23 | pcr | Processed rice |
| 24 | sgr | Sugar |
| 25 | ofd | Food products nec |
| 26 | b_t | Beverages and tobacco products |
| 27 | tex | Textiles |
| 28 | wap | Wearing apparel |
| 29 | lea | Leather products |
| 30 | lum | Wood products |
| 31 | ppp | Paper products, publishing |
| 32 | p_c | Petroleum, coal products |
| 33 | chm | Chemical products |
| 34 | bph | Basic pharmaceutical products |
| 35 | rpp | Rubber and plastic products |
| 36 | nmm | Mineral products nec |
| 37 | i_s | Ferrous metals |
| 38 | nfm | Metals nec |
| 39 | fmp | Metal products |
| 40 | ele | Computer, electronic and optical products |
| 41 | eeq | Electrical equipment |
| 42 | ome | Machinery and equipment nec |
| 43 | mvh | Motor vehicles and parts |
| 44 | otn | Transport equipment nec |
| 45 | omf | Manufactures nec |
| 46 | ely | Electricity |
| 47 | gdt | Gas manufacture, distribution |
| 48 | wtr | Water |
| 49 | cns | Construction |
| 50 | trd | Trade |
| 51 | afs | Accommodation, Food and service activities |
| 52 | otp | Transport nec |
| 53 | wtp | Water transport |
| 54 | atp | Air transport |

(Continued)

Table 2. GTAP data bases: GTAP 10 data base sectors (Continued)

| Number | Code | Description (Detailed Sector Breakdown) |
|--------|------|---|
| 55 | whs | Warehousing and support activities |
| 56 | cmn | Communication |
| 57 | ofi | Financial services nec |
| 58 | ins | Insurance (formerly isr) |
| 59 | rsa | Real estate activities |
| 60 | obs | Business services nec |
| 61 | ros | Recreational and other services |
| 62 | osg | Public Administration and defence |
| 63 | edu | Education |
| 64 | hht | Human health and social work activities |
| 65 | dwe | Dwellings |

Source: https://www.gtap.agecon.purdue.edu/databases/v10/v10_sectors.aspx#Sector65

Annex 6: Detailed product profile of India's trade with the Commonwealth at the sectoral level

Table 1. India's sectoral trade with the CW (in US\$ 000 for 2019)

| Sectors | India's exports to all CW countries | India's imports from all CW countries | % share of CW in India's global exports | % share of India in CW's global imports |
|---|-------------------------------------|---------------------------------------|---|---|
| Chemicals and Pharma | 10327627 | 5325582 | 18 | 5 |
| Petroleum | 10097747 | 11870721 | 18 | 4 |
| Transport and Motor Vehicles | 9156090 | 3633080 | 16 | 2 |
| Textiles, Garments and Leather products | 8721278 | 1320754 | 15 | 9 |
| Machinery and Equipment | 6378831 | 8176554 | 11 | 2 |
| Minerals and Metals | 6005882 | 9909750 | 10 | 3 |
| Food, Forestry and Agriculture Products | 3720503 | 2299948 | 6 | 3 |
| Other manufacturing | 2774426 | 2057618 | 5 | 3 |

Source: ITC trade maps.

Table 2. India's sectoral trade with developing CW (US\$ 000 for 2019)

| Sectors | India's exports to all developing CW | India's Imports from all developing CW | % share of developing CW in Indian global exports | % share of India in developing CW's global imports |
|---|--------------------------------------|--|---|--|
| Petroleum | 9625768 | 11499628 | 23 | 8 |
| Chemicals and Pharma | 7485784 | 3824433 | 18 | 13 |
| Transport and Motor Vehicles | 7172858 | 2274927 | 17 | 14 |
| Machinery and Equipment | 4753573 | 6412489 | 11 | 8 |
| Textiles, Garments and Leather products | 4794694 | 1085338 | 11 | 16 |
| Minerals and Metals | 3851870 | 14544619 | 9 | 9 |
| Food, Forestry and Agriculture Products | 2370439 | 1802521 | 6 | 7 |
| Other manufacturing | 1651944 | 807157 | 4 | 10 |

Source: ITC trade maps.

Table 3. India's sectoral trade with CW LDCs (US\$ 000 for 2019)

| Sectors | India's exports to CW LDCs | India's imports from CW LDCs | % share of CW LDCs in India's global exports | % share of India in CW LDCs global imports |
|---|----------------------------|------------------------------|--|--|
| Petroleum | 2645778 | 40 | 20 | 12 |
| Textiles, Garments and Leather products | 2559534 | 716302 | 19 | 17 |
| Chemicals and Pharma | 2476871 | 96742 | 18 | 17 |
| Machinery and Equipment | 1447913 | 30002 | 11 | 9 |
| Minerals and Metals | 1470203 | 2184403 | 11 | 12 |
| Transport and Motor Vehicles | 1274902 | 94686 | 9 | 20 |
| Food, Forestry and Agriculture Products | 925660 | 604273 | 7 | 8 |
| Other manufacturing | 712046 | 96360 | 5 | 17 |

Source: ITC trade maps.

Table 4. India's sectoral trade with CW SSA (US\$ 000 for 2019)

| Sectors | India's exports to CW SSA | India's imports from CW SSA | % share of CW SSA in India's global exports | % share of India in CW SSA's global imports |
|---|---------------------------|-----------------------------|---|---|
| Petroleum | 4171387 | 10106219 | 25 | 8 |
| Chemicals and Pharma | 3998951 | 242817 | 24 | 12 |
| Machinery and Equipment | 2331899 | 204399 | 14 | 9 |
| Transport and Motor Vehicles | 2113180 | 372229 | 12 | 13 |
| Minerals and Metals | 1499596 | 11999549 | 9 | 7 |
| Textiles, Garments and Leather products | 1530495 | 106848 | 9 | 14 |
| Food, Forestry and Agriculture Products | 659568 | 809857 | 4 | 5 |
| Other manufacturing | 453102 | 292020 | 3 | 8 |

Source: ITC trade maps.

Table 5. India's sectoral trade with developed Commonwealth countries (US\$ 000)

| Sectors | India's exports to developed countries | India's Imports from developed countries | % share of developed CW in India's global exports | % share of India in developed CW's global imports |
|---|--|--|---|---|
| Textiles, Garments and Leather products | 3926584 | 235416 | 25 | 5 |
| Chemicals and Pharma | 2841843 | 1501149 | 18 | 2 |
| Minerals and Metals | 2154012 | 5365131 | 14 | 1 |
| Transport and Motor Vehicles | 1983232 | 1358153 | 13 | 1 |
| Machinery and Equipment | 1625258 | 1764065 | 10 | 1 |
| Food, Forestry and Agriculture Products | 1350064 | 497427 | 9 | 1 |
| Other manufacturing | 1122482 | 1250461 | 7 | 1 |
| Petroleum | 471979 | 371093 | 3 | 2 |

Source: Based on data from ITC trade maps.

Annex 7: Investment inflows and outflows between India and the Commonwealth

Table 1. FDI Inflows in India by groups of CW by sectors as of 2019 (all figures are in US\$ million)

| Sectors | Developed | Developing | LDCs | SSA | Grand total | Share of total FDI inflows (%) |
|------------------------------|-----------|------------|------|-----|-------------|--------------------------------|
| Aerospace | 57 | | | | 57 | 30 |
| Automotive OEM | 370 | | | | 370 | 2 |
| Building materials | 0 | | | | 0 | 13 |
| Business services | 147 | 199 | | | 346 | 4 |
| Ceramics & glass | 64 | | | | 64 | 9 |
| Coal, oil & gas | 20 | | | | 20 | 5 |
| Communications | 83 | 18 | | | 102 | 2 |
| Consumer products | | 78 | | | 78 | 2 |
| Electronic components | | 171 | | | 171 | 3 |
| Financial services | 198 | 518 | | | 716 | 4 |
| Food & Beverages | 36 | | | | 36 | 9 |
| Hotels & tourism | 3 | | | | 3 | 6 |
| Industrial equipment | 161 | | | | 161 | 5 |
| Non-automotive transport OEM | 11 | | | | 11 | 12 |
| Plastics | 1 | | | | 1 | 39 |
| Real estate | 21 | 290 | | | 311 | 5 |
| Software & IT services | 189 | 184 | | 2 | 374 | 2 |
| Transportation & Warehousing | 52 | | | | 52 | 5 |
| Grand total | 1412 | 1458 | | 2 | 2871 | 9 |

Source: Greenfield Commonwealth investment data.

Table 2. FDI outflows by sectors as of 2019 (all figures are in US\$ million)

| Sectors | Developed | Developing | LDCs | SSA | Total | % of Total FDI outflows |
|------------------------------|-----------|------------|------|-----|-------|-------------------------|
| Automotive OEM | 65 | 76 | | 76 | 217 | 63 |
| Biotechnology | 3 | | | | 3 | 49 |
| Business services | 42 | 36 | 8 | 23 | 109 | 56 |
| Chemicals | 19 | | | | 19 | 8 |
| Coal, oil & gas | 6 | | | | 6 | 22 |
| Consumer products | 0 | 62 | | | 62 | 60 |
| Electronic components | 22 | | | | 22 | 49 |
| Financial services | 52 | 68 | | | 120 | 60 |
| Food & Beverages | | 4 | 4 | 4 | 12 | 2 |
| Hotels & tourism | 175 | | | | 175 | 16 |
| Industrial equipment | 10 | | | | 10 | 30 |
| Metals | 0 | 4 | 1 | 4 | 9 | 5 |
| Non-automotive transport OEM | 0 | 73 | | 73 | 145 | 94 |
| Pharmaceuticals | 28 | | | | 28 | 7 |
| Plastics | | 29 | | 29 | 57 | 19 |
| Real estate | | 2 | | 2 | 4 | 16 |
| Software & IT services | 358 | 36 | | 5 | 399 | 21 |
| Grand total | 780 | 388 | 13 | 216 | 1397 | 19 |

Source: Greenfield Commonwealth investment data.

Table 3. FDI inflows into India from all CW (US\$ million)

| Sectors | 2015 | 2016 | 2017 | 2018 | 2019 | CW total | Global total | Share |
|------------------------------|------|------|------|------|------|----------|--------------|-------|
| Financial services | 236 | 885 | 545 | 771 | 716 | 3154 | 10000 | 32% |
| Software & IT services | 175 | 264 | 398 | 501 | 376 | 1714 | 14997 | 11% |
| Automotive OEM | | | | 23 | 370 | 393 | 11676 | 3% |
| Business services | 294 | 150 | 112 | 325 | 346 | 1228 | 5843 | 21% |
| Real estate | 2083 | 1566 | 1206 | 2653 | 311 | 7818 | 24066 | 32% |
| Electronic components | 3 | 3914 | 103 | 136 | 171 | 4326 | 16393 | 26% |
| Industrial equipment | 90 | 100 | 23 | 49 | 161 | 423 | 6941 | 6% |
| Communications | 501 | 708 | 188 | 608 | 102 | 2107 | 12801 | 16% |
| Consumer products | | 158 | 9 | 5 | 78 | 249 | 7735 | 3% |
| Ceramics & glass | | | | | 64 | 64 | 1163 | 6% |
| Aerospace | 244 | | 604 | 52 | 57 | 956 | 3046 | 31% |
| Transportation & Warehousing | 440 | 202 | 276 | 108 | 52 | 1077 | 9811 | 11% |
| Food & Beverages | 49 | 362 | 55 | 83 | 36 | 585 | 4394 | 13% |
| Coal, oil & gas | 3701 | 2886 | | 1912 | 20 | 8520 | 23420 | 36% |
| Non-automotive transport OEM | 13 | 52 | | | 11 | 77 | 2555 | 3% |
| Hotels & tourism | 93 | 91 | 95 | 3 | 3 | 286 | 2492 | 11% |
| Plastics | 13 | 50 | 3 | 55 | 1 | 121 | 1236 | 10% |
| Building materials | | 134 | | | 0 | 135 | 3599 | 4% |
| Renewable energy | 4486 | 1614 | 289 | 16 | | 6405 | 28242 | 23% |
| Metals | 2243 | 2469 | | 561 | | 5274 | 16871 | 31% |
| Chemicals | 244 | 1512 | 53 | | | 1809 | 6288 | 29% |

(Continued)

Table 3. FDI inflows into India from all CW (US\$ million) (Continued)

| Sectors | 2015 | 2016 | 2017 | 2018 | 2019 | CW total | Global total | Share |
|-------------------------------|------|------|------|------|------|----------|--------------|-------|
| Automotive components | 41 | 119 | 40 | 40 | | 239 | 4347 | 5% |
| Healthcare | 163 | 16 | 41 | | | 219 | 768 | 29% |
| Leisure & entertainment | 172 | 6 | | 13 | | 192 | 247 | 77% |
| Pharmaceuticals | 3 | | 77 | 39 | | 119 | 940 | 13% |
| Space & defence | | 21 | 77 | | | 99 | 922 | 11% |
| Textiles | 34 | | 13 | 17 | | 63 | 771 | 8% |
| Engines & turbines | | | | 46 | | 46 | 2524 | 2% |
| Business machines & equipment | 19 | 19 | | | | 37 | 649 | 6% |
| Minerals | 25 | 10 | | | | 35 | 77 | 45% |
| Paper, printing & packaging | | 9 | | | | 9 | 414 | 2% |
| Wood products | | | 7 | | | 7 | 89 | 8% |
| Semiconductors | | | 4 | 1 | | 4 | 2635 | 0% |

Source: Tables 3–6 have been derived from CW data on greenfield investment.

Table 4. FDI inflows into India from developed CW figures are in US\$ million)

| Sectors | 2015 | 2016 | 2017 | 2018 | 2019 |
|-------------------------------|------|------|------|------|------|
| Automotive OEM | | | | | 370 |
| Financial services | 189 | 285 | 164 | 111 | 198 |
| Software & IT services | 112 | 136 | 176 | 307 | 189 |
| Industrial equipment | 90 | 100 | 23 | 21 | 161 |
| Business services | 255 | 130 | 112 | 63 | 147 |
| Communications | 501 | 625 | 105 | 192 | 83 |
| Ceramics & glass | | | | | 64 |
| Aerospace | 244 | | 604 | 52 | 57 |
| Transportation & Warehousing | 131 | 129 | 206 | 5 | 52 |
| Food & Beverages | 49 | 218 | 19 | 71 | 36 |
| Real estate | 21 | 295 | 1202 | 62 | 21 |
| Coal, oil & gas | 1712 | 1381 | | 6 | 20 |
| Non-automotive transport OEM | 13 | 52 | | | 11 |
| Hotels & tourism | 93 | 1 | 95 | 3 | 3 |
| Plastics | 13 | 50 | 3 | 28 | 1 |
| Building materials | | 134 | | | 0 |
| Automotive components | 41 | 119 | 40 | | |
| Business machines & equipment | 19 | 19 | | | |
| Chemicals | 214 | 12 | 3 | | |
| Consumer products | | 157 | 9 | 5 | |
| Electronic components | 3 | 3914 | 103 | 10 | |
| Healthcare | 163 | 16 | | | |
| Leisure & entertainment | 172 | 6 | | 13 | |
| Metals | 2243 | 2469 | | 561 | |
| Pharmaceuticals | 3 | | 77 | 39 | |
| Renewable energy | 4486 | 579 | | 16 | |
| Semiconductors | | | | 4 | 1 |
| Space & defence | | | 21 | 77 | |
| Textiles | 2 | | | 2 | 2 |

Table 5. FDI inflows into India from developing CW (US\$ million)

| Sectors | 2015 | 2016 | 2017 | 2018 | 2019 |
|------------------------------|------|------|------|------|------|
| Financial services | 47 | 512 | 288 | 377 | 518 |
| Real estate | 2062 | 1271 | 4 | 2591 | 290 |
| Business services | 40 | 21 | | 262 | 199 |
| Software & IT services | 53 | 68 | 160 | 109 | 186 |
| Electronic components | | | | 106 | 171 |
| Consumer products | | 1 | | | 78 |
| Communications | | 83 | 83 | 416 | 18 |
| Automotive components | | | | 40 | |
| Automotive OEM | | | | 11 | |
| Chemicals | 30 | 1500 | 50 | | |
| Coal, oil & gas | 1984 | 1506 | | 953 | |
| Food & Beverages | | 144 | 36 | 11 | |
| Healthcare | | | 41 | | |
| Hotels & tourism | | 91 | | | |
| Industrial equipment | | | | 28 | |
| Minerals | 13 | 5 | | | |
| Paper, printing & packaging | | 9 | | | |
| Plastics | | | | 13 | |
| Renewable energy | | 1035 | 289 | | |
| Textiles | 16 | | 5 | 15 | |
| Transportation & Warehousing | 309 | 73 | 70 | 52 | |
| Wood products | | | 7 | | |

Table 6. FDI inflows into India from LDCs CW (US\$ million)

| Sectors | 2015 | 2016 | 2017 | 2018 | 2019 |
|------------------------------|------|------|------|------|------|
| Coal, oil & gas | | | | 953 | |
| Financial services | | | 94 | | |
| Plastics | | | | 1 | |
| Transportation & Warehousing | | | | 52 | |

Table 7. FDI inflows into India from SSA CW (US\$ million)

| Sectors | 2015 | 2016 | 2017 | 2018 | 2019 |
|------------------------|------|------|------|------|------|
| Software & IT services | 10 | 60 | 62 | 86 | 2 |
| Automotive OEM | | | | 11 | |
| Coal, oil & gas | 6 | | | | |
| Electronic components | | | | 20 | |
| Financial services | | 88 | | 283 | |
| Hotels & tourism | | | | | |
| Minerals | 13 | 5 | | | |
| Plastics | | | | 13 | |
| Textiles | 16 | | 5 | | |

Annex 8: Services trade between India and the Commonwealth

Table 1. Services included in the sectors classified

| S. No. | GTAP No. | Sectors | Services |
|--------|----------|---------------------------------------|---|
| 1 | 48 | Water related Services | Water supply; sewerage, waste management and remediation activities |
| | 53 | | Water transport |
| 2 | 57 | Financial and Insurance Services | Other Financial Intermediation: includes auxiliary activities but not insurance and pension funding |
| | 58 | | Insurance (formerly isr): includes pension funding, except compulsory social security |
| | 60 | | Other Business Services |
| 3 | 62 | Health, education and Social Security | Other Services (Government): public administration and defence; compulsory social security, activities of membership organizations n.e.c., extra-territorial organizations and bodies |
| | 63 | | Education |
| | 64 | | Human health and social work |
| 4 | 51 | Accommodation and Air Transport | Accommodation, Food and service activities |
| | 54 | | |
| 5 | 50 | Trade and Warehousing services | Wholesale and retail trade; repair of motor vehicles and motorcycles |
| | 55 | | Warehousing and support activities |

Table 2. Exports of services to developed countries in US\$ million in 2019

| Services sectors | India's services exports to the developed countries | | | | | | Total |
|---------------------------------------|---|--------|-----------|--------|-------------|-------|--------|
| | United Kingdom | Canada | Australia | Cyprus | New Zealand | Malta | |
| Water related Services | 37.8 | 31.3 | 8.7 | 13.8 | 7.1 | 0.1 | 99 |
| Financial and Insurance Services | 5742.6 | 1523.8 | 691.9 | 29.5 | 111 | 132.8 | 8231.7 |
| Health, education and Social Security | 124.8 | 32 | 38.1 | 2.8 | 5.5 | 0.8 | 203.9 |
| Accommodation and Air Transport | 209.6 | 48.5 | 64.3 | 3.4 | 8.2 | 2.7 | 336.6 |
| Trade and Warehousing services | 300.9 | 68.3 | 73.7 | 6.5 | 10.2 | 2.2 | 461.9 |
| Construction | 20.2 | 4.5 | 0.8 | 0.2 | 1.8 | 0 | 27.5 |
| Transport | 678.5 | 175.1 | 203.4 | 15 | 31.1 | 4 | 1107.1 |
| Information and communication | 1597.8 | 589.4 | 262.6 | 22.5 | 56.9 | 17.8 | 2547 |
| Real estate | 94.8 | 5.7 | 5.9 | 0.4 | 2.1 | 0.2 | 109.1 |
| Recreation Services | 48.9 | 73.9 | 55.1 | 1.9 | 2.2 | 0.7 | 182.7 |

Table 3. Exports of services to LDCs in US\$ million in 2019

| Services sectors | India's services exports to all LDCs | | | | | | | |
|---------------------------------------|--------------------------------------|------------|----------|--------|--------|--------|--------|-------|
| | Bangladesh | Mozambique | Tanzania | Uganda | Zambia | Malawi | Rwanda | Total |
| Water related Services | 0.1 | 0.7 | 0.2 | 0.1 | 0 | 0 | 0 | 1.1 |
| Financial and Insurance Services | 32.3 | 74.9 | 3.1 | 21.4 | 2.5 | 2.8 | 9.2 | 146.1 |
| Health, education and Social Security | 1 | 1.2 | 1.7 | 0.6 | 0.2 | 0.2 | 0.2 | 4.8 |
| Accommodation and Air Transport | 5.1 | 1.3 | 1.1 | 0.3 | 0.1 | 0.3 | 0.1 | 8.4 |
| Trade and Warehousing services | 1.2 | 2.1 | 2.9 | 1 | 0.3 | 0.4 | 0.6 | 8.5 |
| Construction | 0.1 | 3.2 | 0 | 0 | 0 | 0 | 0 | 3.4 |
| Transport | 3.6 | 6.6 | 9.4 | 3.1 | 2.1 | 0.9 | 0.9 | 26.6 |
| Information and communication | 1.6 | 9.4 | 0.5 | 7.2 | 0.2 | 1.4 | 0.4 | 20.6 |
| Real estate | 0.4 | 0.3 | 0.2 | 0.1 | 0 | 0.1 | 0.2 | 1.3 |
| Recreation Services | 0.1 | 0.2 | 0.2 | 0.2 | 1.4 | 0.3 | 0 | 2.4 |

Table 4. Exports of services to SSA in US\$ million in 2019

| Sectors | South Africa | Nigeria | Kenya | Mauritius | Ghana | Cameroon | Botswana | Namibia | Bangladesh | Mozambique | Tanzania | Uganda | Zambia | Malawi | Rwanda | Total |
|---------------------------------------|--------------|---------|-------|-----------|-------|----------|----------|---------|------------|------------|----------|--------|--------|--------|--------|-------|
| Water related Services | 1.2 | 1.4 | 0.2 | 4 | 0.2 | 0.4 | 0.1 | 0 | 0.1 | 0.7 | 0.2 | 0.1 | 0 | 0 | 0 | 8.6 |
| Financial and Insurance Services | 27.3 | 492.8 | 34.4 | 47.1 | 1.4 | 49.1 | 28.4 | 12 | 32.3 | 74.9 | 3.1 | 21.4 | 2.5 | 2.8 | 9.2 | 838.5 |
| Health, education and Social Security | 5.5 | 13.5 | 0.8 | 0.9 | 2.2 | 0.8 | 0.6 | 0.4 | 1 | 1.2 | 1.7 | 0.6 | 0.2 | 0.2 | 0.2 | 29.4 |
| Accommodation and Air Transport | 20.7 | 12 | 0.7 | 1.2 | 1 | 1.6 | 0.3 | 0.2 | 5.1 | 1.3 | 1.1 | 0.3 | 0.1 | 0.3 | 0.1 | 46.1 |
| Trade and Warehousing services | 40 | 19.9 | 2 | 2.7 | 3.3 | 4.5 | 1 | 0.6 | 1.2 | 2.1 | 2.9 | 1 | 0.3 | 0.4 | 0.6 | 82.5 |
| Construction | 0.1 | 1.3 | 0 | 0 | 0 | 0.2 | 0.2 | 0.2 | 0.1 | 3.2 | 0 | 0 | 0 | 0 | 0 | 5.5 |
| Transport | 30.7 | 62.8 | 4.5 | 6.4 | 10.7 | 4.8 | 3.2 | 1.9 | 3.6 | 6.6 | 9.4 | 3.1 | 2.1 | 0.9 | 0.9 | 151.6 |
| Information and communication | 9.8 | 51.2 | 27.7 | 1.4 | 0.5 | 1.9 | 6.7 | 2.4 | 1.6 | 9.4 | 0.5 | 7.2 | 0.2 | 1.4 | 0.4 | 122 |
| Real estate | 0.8 | 3.4 | 0.2 | 1.6 | 0.3 | 0.4 | 0.6 | 0.1 | 0.4 | 0.3 | 0.2 | 0.1 | 0 | 0.1 | 0.2 | 8.6 |
| Recreation Services | 5.9 | 3.9 | 0.1 | 0.2 | 0.2 | 0.1 | 0.1 | 0 | 0.1 | 0.2 | 0.2 | 0.2 | 1.4 | 0.3 | 0 | 12.9 |

Table 5. Exports of services to developing countries in US\$ million in 2019

| Sectors | Singapore | Bangladesh | Sri Lanka | Pakistan | Trinidad and Tobago | Brunei Darussalam | Botswana | South Africa | Nigeria | Kenya | Mauritius | Ghana | Cameroon | Namibia | Mozambique | Tanzania | Uganda | Zambia | Malawi | Rwanda | Total |
|---------------------------------------|-----------|------------|-----------|----------|---------------------|-------------------|----------|--------------|---------|-------|-----------|-------|----------|---------|------------|----------|--------|--------|--------|--------|-------|
| Water related Services | 1.2 | 1.4 | 0.2 | 4 | 0.2 | 0.4 | 0 | 0.1 | 0 | 0.7 | 0.2 | 0.1 | 0 | 0 | 216 | 1.2 | 1.4 | 0.2 | 4 | 0.2 | 216 |
| Financial and Insurance Services | 27.3 | 492.8 | 34.4 | 47.1 | 1.4 | 49.1 | 2.8 | 28.4 | 12 | 74.9 | 3.1 | 21.4 | 2.5 | 9.2 | 3985 | 27.3 | 492.8 | 34.4 | 47.1 | 1.4 | 3,985 |
| Health, education and Social Security | 5.5 | 13.5 | 0.8 | 0.9 | 2.2 | 0.8 | 0.2 | 0.6 | 0.4 | 1.2 | 1.7 | 0.6 | 0.2 | 0.2 | 90 | 5.5 | 13.5 | 0.8 | 0.9 | 2.2 | 90 |
| Accommodation and Air Transport | 20.7 | 12 | 0.7 | 1.2 | 1 | 1.6 | 0.3 | 0.3 | 0.2 | 1.3 | 1.1 | 0.3 | 0.1 | 0.1 | 92 | 20.7 | 12 | 0.7 | 1.2 | 1 | 92 |
| Trade and Warehousing services | 40 | 19.9 | 2 | 2.7 | 3.3 | 4.5 | 0.4 | 1 | 0.6 | 2.1 | 2.9 | 1 | 0.3 | 0.6 | 452 | 40 | 19.9 | 2 | 2.7 | 3.3 | 452 |
| Construction | 0.1 | 1.3 | 0 | 0 | 0 | 0.2 | 0 | 0.2 | 0.2 | 3.2 | 0 | 0 | 0 | 0 | 24 | 0.1 | 1.3 | 0 | 0 | 0 | 24 |
| Transport | 30.7 | 62.8 | 4.5 | 6.4 | 10.7 | 4.8 | 0.9 | 3.2 | 1.9 | 6.6 | 9.4 | 3.1 | 2.1 | 0.9 | 538 | 30.7 | 62.8 | 4.5 | 6.4 | 10.7 | 538 |
| Information and communication | 9.8 | 51.2 | 27.7 | 1.4 | 0.5 | 1.9 | 1.4 | 6.7 | 2.4 | 9.4 | 0.5 | 7.2 | 0.2 | 0.4 | 578 | 9.8 | 51.2 | 27.7 | 1.4 | 0.5 | 578 |
| Real estate | 0.8 | 3.4 | 0.2 | 1.6 | 0.3 | 0.4 | 0.1 | 0.6 | 0.1 | 0.3 | 0.2 | 0.1 | 0 | 0.2 | 21 | 0.8 | 3.4 | 0.2 | 1.6 | 0.3 | 21 |
| Recreation Services | 5.9 | 3.9 | 0.1 | 0.2 | 0.2 | 0.1 | 0.3 | 0.1 | 0 | 0.2 | 0.2 | 0.2 | 1.4 | 0 | 48 | 5.9 | 3.9 | 0.1 | 0.2 | 0.2 | 48 |

Table 6. Exports of services to all Commonwealth countries in US\$ million in 2019

| Sectors | Bangladesh | Pakistan | Sri Lanka | Brunei Darussalam | Singapore | Canada | Cyprus | Malta | United Kingdom | Cameroon | Ghana | Nigeria | Kenya | Malawi | Mauritius | Mozambique | Rwanda | Tanzania | Uganda | Zambia | Botswana | Namibia | South Africa | Australia | New Zealand | Trinidad and Tobago | Total |
|---------------------------------------|------------|----------|-----------|-------------------|-----------|--------|--------|-------|----------------|----------|-------|---------|-------|--------|-----------|------------|--------|----------|--------|--------|----------|---------|--------------|-----------|-------------|---------------------|-------|
| Water-related Services | 0.1 | 0.3 | 5.7 | 1.3 | 198.7 | 31.3 | 13.8 | 0.1 | 37.8 | 0.4 | 0.2 | 1.4 | 0.2 | 0 | 4 | 0.7 | 0 | 0.2 | 0.1 | 0 | 0.1 | 0 | 1.2 | 8.7 | 7.1 | 1.9 | 315 |
| Financial and Insurance Services | 32.3 | 239.1 | 47.5 | 30.8 | 2801.7 | 1523.8 | 29.5 | 132.8 | 5742.6 | 49.1 | 1.4 | 492.8 | 34.4 | 2.8 | 47.1 | 74.9 | 9.2 | 3.1 | 21.4 | 2.5 | 28.4 | 12 | 27.3 | 691.9 | 111 | 27.1 | 12217 |
| Health, education and Social Security | 1 | 2.5 | 0.9 | 1.1 | 55.2 | 32 | 2.8 | 0.8 | 124.8 | 0.8 | 2.2 | 13.5 | 0.8 | 0.2 | 0.9 | 1.2 | 0.2 | 1.7 | 0.6 | 0.2 | 0.6 | 0.4 | 5.5 | 38.1 | 5.5 | 1.3 | 294 |
| Accommodation and Air Transport | 5.1 | 1.3 | 0.5 | 1.5 | 40 | 48.5 | 3.4 | 2.7 | 209.6 | 1.6 | 1 | 12 | 0.7 | 0.3 | 1.2 | 1.3 | 0.1 | 1.1 | 0.3 | 0.1 | 0.3 | 0.2 | 20.7 | 64.3 | 8.2 | 2.4 | 428 |
| Trade and Warehousing services | 1.2 | 4.2 | 1.5 | 2.1 | 359.7 | 68.3 | 6.5 | 2.2 | 300.9 | 4.5 | 3.3 | 19.9 | 2 | 0.4 | 2.7 | 2.1 | 0.6 | 2.9 | 1 | 0.3 | 1 | 0.6 | 40 | 73.7 | 10.2 | 1.8 | 914 |
| Construction | 0.1 | 0.1 | 0 | 0 | 18.6 | 4.5 | 0.2 | 0 | 20.2 | 0.2 | 0 | 1.3 | 0 | 0 | 0 | 3.2 | 0 | 0 | 0 | 0 | 0.2 | 0.2 | 0.1 | 0.8 | 1.8 | 0 | 52 |
| Transport (inc. pipeline) | 3.6 | 12.6 | 4.8 | 5.6 | 356.8 | 175.1 | 15 | 4 | 678.5 | 4.8 | 10.7 | 62.8 | 4.5 | 0.9 | 6.4 | 6.6 | 0.9 | 9.4 | 3.1 | 2.1 | 3.2 | 1.9 | 30.7 | 203.4 | 31.1 | 6.4 | 1645 |
| Information and communication | 1.6 | 18.7 | 7.4 | 7.1 | 421.7 | 589.4 | 22.5 | 17.8 | 1597.8 | 1.9 | 0.5 | 51.2 | 27.7 | 1.4 | 1.4 | 9.4 | 0.4 | 0.5 | 7.2 | 0.2 | 6.7 | 2.4 | 9.8 | 262.6 | 56.9 | 1.3 | 3125 |
| Real estate | 0.4 | 0.4 | 0.6 | 0.2 | 10.6 | 5.7 | 0.4 | 0.2 | 94.8 | 0.4 | 0.3 | 3.4 | 0.2 | 0.1 | 1.6 | 0.3 | 0.2 | 0.2 | 0.1 | 0 | 0.6 | 0.1 | 0.8 | 5.9 | 2.1 | 0.3 | 130 |
| Recreation Services | 0.1 | 0.2 | 0.1 | 0.3 | 33.8 | 73.9 | 1.9 | 0.7 | 48.9 | 0.1 | 0.2 | 3.9 | 0.1 | 0.3 | 0.2 | 0.2 | 0 | 0.2 | 0.2 | 1.4 | 0.1 | 0 | 5.9 | 55.1 | 2.2 | 0.9 | 231 |

Table 7. Imports of services from developed countries in US\$ million in 2019

| Sectors | United Kingdom | Canada | Australia | Cyprus | New Zealand | Malta | Total |
|---------------------------------------|----------------|--------|-----------|--------|-------------|-------|--------|
| Water related Services | 42.5 | 71.5 | 6 | 25.9 | 8.4 | 1 | 155.3 |
| Financial and Insurance Services | 1661.9 | 568.3 | 161.3 | 32.1 | 23.9 | 28.6 | 2476.1 |
| Health, education and Social Security | 129.2 | 16.4 | 37.1 | 7 | 14.5 | 1.6 | 205.7 |
| Accommodation and Air Transport | 364.1 | 36.2 | 62.5 | 27.8 | 26.3 | 12.1 | 528.9 |
| Trade and Warehousing services | 117.2 | 22.8 | 23.6 | 9 | 16.1 | 5.6 | 194.2 |
| Gas Manufacturing | 0.5 | 0.8 | 0.2 | 0 | 0 | 0 | 1.5 |
| Construction | 8.3 | 2.2 | 0.3 | 0.8 | 0.1 | 0 | 11.8 |
| Transport | 67 | 11.7 | 22.2 | 4.6 | 10.7 | 4.4 | 120.5 |
| Information and communication | 436.7 | 144.9 | 42.9 | 8.9 | 13.2 | 6 | 652.5 |
| Real estate | 199.3 | 44.7 | 20.9 | 4.7 | 7.7 | 5.5 | 282.8 |
| Recreation Services | 82.9 | 21.1 | 24.7 | 8.7 | 19.6 | 8.1 | 165.1 |

Table 8. Imports of services from LDCs in US\$ million in 2019

| Sectors | Bangladesh | Mozambique | Tanzania | Uganda | Zambia | Malawi | Rwanda | Total |
|---------------------------------------|------------|------------|----------|--------|--------|--------|--------|-------|
| Water related Services | 0 | 2 | 0.4 | 0.7 | 0 | 0 | 0 | 3.1 |
| Financial and Insurance Services | 0 | 1.5 | 1.3 | 2.4 | 0.1 | 0.1 | 0.1 | 5.4 |
| Health, education and Social Security | 0.1 | 0.1 | 0.6 | 1.9 | 0.1 | 0 | 0.4 | 3.2 |
| Accommodation and Air Transport | 0.2 | 0.6 | 1.9 | 0.1 | 0.1 | 0.3 | 0.1 | 3.2 |
| Trade and Warehousing services | 0.3 | 0.3 | 2.7 | 0.5 | 0.1 | 0.1 | 0.1 | 4.1 |
| Gas Manufacturing | 0 | 0.2 | 0 | 1.5 | 0 | 0.3 | 0.4 | 2.4 |
| Construction | 0 | 0.2 | 0.2 | 0.2 | 0 | 0 | 0 | 0.7 |
| Transport | 0.2 | 1.2 | 1.8 | 2.1 | 0.1 | 0.1 | 0.8 | 6.3 |
| Information and communication | 0 | 0.7 | 0.2 | 2.4 | 0 | 0.2 | 0.1 | 3.7 |
| Real estate | 0 | 0.1 | 0.2 | 0.3 | 0 | 0 | 0 | 0.7 |
| Recreation Services | 0 | 0.1 | 1.2 | 1 | 0.1 | 0.1 | 0 | 2.5 |

Table 9. Imports of services from SSA in US\$ million in 2019

| Sectors | South Africa | Nigeria | Kenya | Mauritius | Ghana | Cameroon | Botswana | Namibia | Bangladesh | Mozambique | Tanzania | Uganda | Zambia | Malawi | Rwanda | Total |
|---------------------------------------|--------------|---------|-------|-----------|-------|----------|----------|---------|------------|------------|----------|--------|--------|--------|--------|-------|
| Water related Services | 3 | 4.5 | 6.6 | 0.6 | 0.2 | 1.1 | 0.1 | 0.2 | 0 | 2 | 0.4 | 0.7 | 0 | 0 | 0 | 19.4 |
| Financial and Insurance Services | 15 | 0.9 | 1.6 | 8.4 | 0.3 | 8.7 | 4.4 | 0.5 | 0 | 1.5 | 1.3 | 2.4 | 0.1 | 0.1 | 0.1 | 45.1 |
| Health, education and Social Security | 6.7 | 1.8 | 4.2 | 1.4 | 1.4 | 0.2 | 0.8 | 0.3 | 0.1 | 0.1 | 0.6 | 1.9 | 0.1 | 0 | 0.4 | 20 |
| Accommodation and Air Transport | 11.5 | 2.5 | 13.7 | 7.7 | 0.3 | 1 | 0.4 | 0.2 | 0.2 | 0.6 | 1.9 | 0.1 | 0.1 | 0.3 | 0.1 | 40.5 |
| Trade and Warehousing services | 3.4 | 1.1 | 0.6 | 4.3 | 0.4 | 0.9 | 0.5 | 0.3 | 0.3 | 0.3 | 2.7 | 0.5 | 0.1 | 0.1 | 0.1 | 15.8 |
| Gas Manufacturing | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.2 | 0 | 1.5 | 0 | 0.3 | 0.4 | 2.4 |
| Construction | 0.1 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0 | 0 | 0.2 | 0.2 | 0.2 | 0 | 0 | 0 | 1 |
| Transport | 10.3 | 1.7 | 1.4 | 2.2 | 2.2 | 1.2 | 1.6 | 0.8 | 0.2 | 1.2 | 1.8 | 2.1 | 0.1 | 0.1 | 0.8 | 27.6 |
| Information and communication | 7.4 | 0.8 | 11.4 | 1.4 | 0.3 | 1.4 | 0.7 | 0.6 | 0 | 0.7 | 0.2 | 2.4 | 0 | 0.2 | 0.1 | 27.7 |
| Real estate | 3.2 | 0.1 | 0.2 | 1.5 | 0 | 0.5 | 0.6 | 0 | 0 | 0.1 | 0.2 | 0.3 | 0 | 0 | 0 | 6.9 |
| Recreation Services | 10.2 | 0.3 | 0 | 0.6 | 1.1 | 0.2 | 0.6 | 1.8 | 0 | 0.1 | 1.2 | 1 | 0.1 | 0.1 | 0 | 17.3 |

Table 10. Imports of services from developing countries in US\$ million in 2019

| Sectors | Singapore | Bangladesh | Sri Lanka | Pakistan | Trinidad and Tobago | Brunei Darussalam | South Africa | Uganda | Nigeria | Kenya | Mauritius | Ghana | Cameroon | Botswana | Namibia | Mozambique | Tanzania | Zambia | Malawi | Rwanda | Malaysia | Total |
|---------------------------------------|-----------|------------|-----------|----------|---------------------|-------------------|--------------|--------|---------|-------|-----------|-------|----------|----------|---------|------------|----------|--------|--------|--------|----------|-------|
| Water related Services | 280.1 | 0 | 32.6 | 5.4 | 1.1 | 0.5 | 3 | 0.7 | 4.5 | 6.6 | 0.6 | 0.2 | 1.1 | 0.1 | 0.2 | 2 | 0.4 | 0 | 0 | 0 | 36.1 | 375.2 |
| Financial and Insurance Services | 1671.1 | 0 | 25.2 | 0.8 | 6.3 | 1.7 | 15 | 2.4 | 0.9 | 1.6 | 8.4 | 0.3 | 8.7 | 4.4 | 0.5 | 1.5 | 1.3 | 0.1 | 0.1 | 0.1 | 125.9 | 1876 |
| Health, education and Social Security | 19 | 0.1 | 0.6 | 8.7 | 0.4 | 0.2 | 6.7 | 1.9 | 1.8 | 4.2 | 1.4 | 1.4 | 0.2 | 0.8 | 0.3 | 0.1 | 0.6 | 0.1 | 0 | 0.4 | 12.2 | 61 |
| Accommodation and Air Transport | 105.7 | 0.2 | 0.8 | 14.2 | 3.3 | 0.7 | 11.5 | 0.1 | 2.5 | 13.7 | 7.7 | 0.3 | 1 | 0.4 | 0.2 | 0.6 | 1.9 | 0.1 | 0.3 | 0.1 | 93 | 258.2 |
| Trade and Warehousing services | 76 | 0.3 | 0.8 | 1.4 | 1 | 0.4 | 3.4 | 0.5 | 1.1 | 0.6 | 4.3 | 0.4 | 0.9 | 0.5 | 0.3 | 0.3 | 2.7 | 0.1 | 0.1 | 0.1 | 19.8 | 115.2 |
| Gas Manufacturing | 0 | 0 | 0 | 0 | 0 | 0.2 | 0 | 1.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.2 | 0 | 0 | 0.3 | 0.4 | 0.9 | 3.6 |
| Construction | 67.5 | 0 | 0.1 | 0 | 0 | 0 | 0.1 | 0.2 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0 | 0.2 | 0.2 | 0 | 0 | 0 | 11.2 | 79.9 |
| Transport | 75.8 | 0.2 | 5.5 | 2.4 | 3 | 0.2 | 10.3 | 2.1 | 1.7 | 1.4 | 2.2 | 2.2 | 1.2 | 1.6 | 0.8 | 1.2 | 1.8 | 0.1 | 0.1 | 0.8 | 16 | 130.5 |
| Information and communication | 143.7 | 0 | 6.4 | 4.1 | 1.3 | 0.4 | 7.4 | 2.4 | 0.8 | 11.4 | 1.4 | 0.3 | 1.4 | 0.7 | 0.6 | 0.7 | 0.2 | 0 | 0.2 | 0.1 | 46.8 | 230.3 |
| Real estate | 155.8 | 0 | 2 | 0.1 | 0.2 | 0.2 | 3.2 | 0.3 | 0.1 | 0.2 | 1.5 | 0 | 0.5 | 0.6 | 0 | 0.1 | 0.2 | 0 | 0 | 0 | 17.7 | 182.8 |
| Recreation Services | 55.9 | 0 | 2.2 | 0.4 | 0.2 | 0 | 10.2 | 1 | 0.3 | 0 | 0.6 | 1.1 | 0.2 | 0.6 | 1.8 | 0.1 | 1.2 | 0.1 | 0.1 | 0 | 13.7 | 89.8 |

Table 1.1. Imports of services from all Commonwealth countries in US\$ million in 2019

| Sectors | Bangladesh | Pakistan | Sri Lanka | Brunei Darussalam | Singapore | Canada | Cyprus | Malta | United Kingdom | Cameroon | Ghana | Nigeria | Kenya | Malawi | Mauritius | Mozambique | Rwanda | Tanzania | Uganda | Zambia | Namibia | South Africa | Australia | New Zealand | Trinidad and Tobago P | Malaysia | Botswana | Total |
|---------------------------------------|------------|----------|-----------|-------------------|-----------|--------|--------|-------|----------------|----------|-------|---------|-------|--------|-----------|------------|--------|----------|--------|--------|---------|--------------|-----------|-------------|-----------------------|----------|----------|-------|
| Water related Services | 0 | 5.4 | 32.6 | 0.5 | 280.1 | 71.5 | 25.9 | 1 | 42.5 | 1.1 | 0.2 | 4.5 | 6.6 | 0 | 0.6 | 2 | 0 | 0.4 | 0.7 | 0 | 0.2 | 3 | 6 | 8.4 | 1.1 | 36.1 | 0.1 | 530.5 |
| Financial and Insurance Services | 0 | 0.8 | 25.2 | 1.7 | 1671.1 | 568.3 | 32.1 | 28.6 | 1661.9 | 8.7 | 0.3 | 0.9 | 1.6 | 0.1 | 8.4 | 1.5 | 0.1 | 1.3 | 2.4 | 0.1 | 0.5 | 15 | 161.3 | 23.9 | 6.3 | 125.9 | 4.4 | 4352 |
| Health, education and Social Security | 0.1 | 8.7 | 0.6 | 0.2 | 19 | 16.4 | 7 | 1.6 | 1292 | 0.2 | 1.4 | 1.8 | 4.2 | 0 | 1.4 | 0.1 | 0.4 | 0.6 | 1.9 | 0.1 | 0.3 | 6.7 | 37.1 | 14.5 | 0.4 | 12.2 | 0.8 | 266.7 |
| Accommodation and Air Transport | 0.2 | 14.2 | 0.8 | 0.7 | 105.7 | 36.2 | 27.8 | 12.1 | 364.1 | 1 | 0.3 | 2.5 | 13.7 | 0.3 | 7.7 | 0.6 | 0.1 | 1.9 | 0.1 | 0.1 | 0.2 | 11.5 | 62.5 | 26.3 | 3.3 | 93 | 0.4 | 787.1 |
| Trade and Warehousing services | 0.3 | 1.4 | 0.8 | 0.4 | 76 | 22.8 | 9 | 5.6 | 117.2 | 0.9 | 0.4 | 1.1 | 0.6 | 0.1 | 4.3 | 0.3 | 0.1 | 2.7 | 0.5 | 0.1 | 0.3 | 3.4 | 23.6 | 16.1 | 1 | 19.8 | 0.5 | 309.4 |
| Gas Manufacturing | 0 | 0 | 0 | 0.2 | 0 | 0.8 | 0 | 0 | 0.5 | 0 | 0 | 0 | 0 | 0.3 | 0 | 0.2 | 0.4 | 0 | 1.5 | 0 | 0 | 0 | 0.2 | 0 | 0 | 0.9 | 0 | 5.1 |
| Construction | 0 | 0 | 0.1 | 0 | 67.5 | 2.2 | 0.8 | 0 | 8.3 | 0 | 0 | 0 | 0 | 0 | 0 | 0.2 | 0 | 0.2 | 0.2 | 0 | 0 | 0.1 | 0.3 | 0.1 | 0 | 11.2 | 0.1 | 91.7 |
| Transport (inc. pipeline) | 0.2 | 2.4 | 5.5 | 0.2 | 75.8 | 11.7 | 4.6 | 4.4 | 67 | 1.2 | 2.2 | 1.7 | 1.4 | 0.1 | 2.2 | 1.2 | 0.8 | 1.8 | 2.1 | 0.1 | 0.8 | 10.3 | 22.2 | 10.7 | 3 | 16 | 1.6 | 251 |
| Information and communication | 0 | 4.1 | 6.4 | 0.4 | 143.7 | 144.9 | 8.9 | 6 | 436.7 | 1.4 | 0.3 | 0.8 | 11.4 | 0.2 | 1.4 | 0.7 | 0.1 | 0.2 | 2.4 | 0 | 0.6 | 7.4 | 42.9 | 13.2 | 1.3 | 46.8 | 0.7 | 882.8 |
| Real estate | 0 | 0.1 | 2 | 0.2 | 155.8 | 44.7 | 4.7 | 5.5 | 199.3 | 0.5 | 0 | 0.1 | 0.2 | 0 | 1.5 | 0.1 | 0 | 0.2 | 0.3 | 0 | 0 | 3.2 | 20.9 | 7.7 | 0.2 | 17.7 | 0.6 | 465.6 |
| Recreation Services | 0 | 0.4 | 2.2 | 0 | 55.9 | 21.1 | 8.7 | 8.1 | 82.9 | 0.2 | 1.1 | 0.3 | 0 | 0.1 | 0.6 | 0.1 | 0 | 1.2 | 1 | 0.1 | 1.8 | 10.2 | 24.7 | 19.6 | 0.2 | 13.7 | 0.6 | 254.9 |

Annex 9: Global value chains

Table 1. Backward and forward GVC participation by leading exporters of merchandise products, 2005 and 2015

| Global rank for merchandise exports, 2018 | Leading merchandise exporters, 2018 (global GDP rank in parentheses) | Global rank for goods and services exports, 2018 | Backward GVC participation, 2015 | Forward GVC participation, 2015 |
|---|--|--|----------------------------------|---------------------------------|
| 1 | China (2) | 1 | 17.3 | 17.5 |
| 2 | USA (1) | 2 | 9.5 | 22.2 |
| 3 | Germany (4) | 3 | 21 | 21.9 |
| 4 | Japan (3) | 4 | 13.2 | 24.4 |
| 5 | Netherlands (17) | 7 | 27.9 | 21.3 |
| 6 | South Korea (12) | 8 | 32.6 | 19.1 |
| 7 | France (7) | 5 | 21.4 | 21.2 |
| 8 | Hong Kong, China (34) | 9 | 26.6 | 15.7 |
| 9 | Italy (8) | 10 | 22.2 | 18.6 |
| 10 | United Kingdom (6) | 6 | 15.1 | 23.7 |
| 11 | Belgium (25) | 19 | 34.1 | 20.2 |
| 12 | Mexico (15) | 16 | 36.1 | 10.6 |
| 13 | Canada (10) | 12 | 21.2 | 15.3 |
| 14 | Russian Federation (11) | 14 | 10.8 | 30.5 |
| 15 | Singapore (36) | 11 | 40.9 | 20.9 |
| 16 | UAE (31) | 20 | Data unavailable | Data unavailable |
| 17 | Spain (13) | 15 | 22.7 | 17.6 |
| 18 | Taiwan (21) | 21 | 32.4 | 24.4 |
| 19 | India (5) | 13 | 19.1 | 14.9 |
| 20 | Switzerland (20) | 18 | 24.6 | 17.2 |
| 21 | Saudi Arabia (18) | 24 | 4.6 | 36.8 |
| 22 | Poland (22) | 23 | 26.6 | 21.5 |
| 23 | Australia (14) | 25 | 11.6 | 26.8 |
| 24 | Thailand (23) | 22 | 33.6 | 13.8 |
| 25 | Malaysia (35) | 30 | 36.9 | 18.7 |
| 26 | Vietnam (47) | 27 | 44.5 | 11.1 |
| 27 | Brazil (9) | 26 | 12.5 | 19.6 |
| 28 | Czech Republic (46) | 34 | 39.3 | 19.4 |
| 29 | Austria (27) | 29 | 26.5 | 21.3 |
| 30 | Indonesia (16) | 32 | 12.9 | 24.1 |
| 31 | Turkey (19) | 31 | 16.8 | 16.6 |
| 32 | Sweden (23) | 28 | 20.7 | 21.5 |
| 33 | Ireland (32) | 17 | 40.2 | 12.3 |
| 34 | Hungary (57) | 37 | 43.1 | 16.2 |
| 35 | Norway (29) | 35 | 13.9 | 32.1 |
| 36 | Denmark (38) | 33 | 29.3 | 18.1 |

Source: WTO, World Bank, and OECD, TiVA Database.

Note: The economies mentioned in this table cover the top 35 exporters of goods and services in 2018. Completing that list with the top exporters of merchandise meant taking up to 36 top exporters of merchandise in 2018. The 36th largest exporter in 2018 of goods and services was Luxembourg. It has not been included in the list of countries covered by the table.

Table 2. Annual average rate of growth of GVC participation 2005 to 2015 (%)

| Rank 2015 | Economy | Growth rate | Rank 2015 | Economy | Growth |
|-----------|-----------------------------|-------------------|-----------|----------------------------|--------|
| 1 | Vietnam | 16.5% | 30 | Costa Rica | 5.4% |
| 2 | Bulgaria | 10.9% | 31 | US | 4.9% |
| 3 | Philippines | 10.4% | 32 | Germany | 4.8% |
| 4 | China | 10.1% | 33 | Portugal | 4.7% |
| 5 | Luxembourg | 10% | 34 | Indonesia | 4.4% |
| 6 | India | 9.5% | 35 | Israel | 4.3% |
| 7 | Malta | 9.2% | 36 | Developed economies | 4.1% |
| 8 | Lithuania | 8.8% | 37 | Cyprus | 4.1% |
| 9 | Ireland | 8.7% | 38 | Hungary | 4.1% |
| 10 | Poland | 8.6% | 39 | Slovenia | 4% |
| 11 | Turkey | 8.4% | 40 | Netherlands | 3.9% |
| 12 | Romania | 8.4% | 41 | Russian Federation | 3.8% |
| 13 | Cambodia | 8.4% | 42 | Hong Kong, China | 3.7% |
| 14 | Slovak Republic | 8.1% | 43 | Austria | 3.7% |
| 15 | Estonia | 7.8% | 44 | Belgium | 3.6% |
| 16 | Colombia | 7.8% | 45 | South Africa | 3.6% |
| 17 | Singapore | 7.5% ⁴ | 46 | Spain | 3.6% |
| 18 | Czech Republic | 7% | 47 | New Zealand | 3.6% |
| 19 | Latvia | 6.9% | 48 | UK | 3.4% |
| 20 | Developing economies | 6.5% | 49 | Taiwan | 3.4% |
| 21 | Thailand | 6.5% | 50 | Kazakhstan | 3.2% |
| 22 | Mexico | 6.3% | 51 | Denmark | 3% |
| 23 | South Korea | 6.3% | 52 | France | 2.9% |
| 24 | Morocco | 6.1% | 53 | Brunei Darussalam | 2.8% |
| 25 | Iceland | 6% | 54 | Canada | 2.6% |
| 26 | Peru | 5.8% | 55 | Chile | 2.6% |
| 27 | Brazil | 5.8% | 56 | Malaysia | 2.3% |
| 28 | Australia | 5.6% | 57 | Italy | 2.3% |
| 29 | Switzerland | 5.5% | 58 | Greece | 2.3% |

Source: https://www.wto.org/english/res_e/statis_e/miwi_e/countryprofiles_e.htm

Notes: (1) The data are from a dataset for 64 economies. (2) Annual rates of growth below 2.3% not included in table.

Table 3. Total GVC participation for India and selected other comparator countries, 2015

| Country | GVC Participation | Country | GVC Participation | Country | GVC Participation |
|-------------------|-------------------|------------------|-------------------|---------------|-------------------|
| Singapore | 61.8 | Philippines | 44.4 | Canada | 36.5 |
| Taiwan | 56.8 | Chile | 44 | Israel | 36.5 |
| Malaysia | 55.6 | Morocco | 43.2 | China | 34.8 |
| Viet Nam | 55.6 | South Africa | 42.7 | India | 34 |
| Korea | 51.7 | Hong Kong, China | 42.3 | Colombia | 33.5 |
| Thailand | 47.4 | Saudi Arabia | 41.4 | Turkey | 33.4 |
| Brunei Darussalam | 46.5 | Australia | 38.4 | Brazil | 32.1 |
| Cambodia | 44.9 | Japan | 37.6 | United States | 31.7 |
| Mexico | 44.9 | Indonesia | 37 | Argentina | 23.5 |

Note: The GVC estimate is a sum of the backward and forward GVC participation rates estimated by OECD: https://stats.oecd.org/Index.aspx?DataSetCode=TIVA_2018_C1.

Annex 10: Decrease in exports and imports in April 2020

Table 1. Decrease in exports of major selected products, April 2020 (year-on-year, %)

| Product | Exports (US\$ mn) | Year-on-year % change |
|--|-------------------|-----------------------|
| | April 2020 | April 2020 |
| Gems & Jewellery | 36.06 | -98.74 |
| Leather and Leather products | 22.25 | -93.28 |
| Handicraft excluding handmade carpet | 11.53 | -91.84 |
| Carpet | 8.94 | -91.67 |
| RMG of all textiles | 126.31 | -91.04 |
| Jute manufacturing including floor covering | 2.08 | -90.61 |
| Man-made yarns/Fabrics/made-ups etc. | 61.76 | -84.11 |
| Cotton Yarn/Fabrics/Made-ups etc. | 148.11 | -82.46 |
| Ceramic Products & Glassware | 52.24 | -76.72 |
| Electronic goods | 207.05 | -71.04 |
| Tea | 20.19 | -68.89 |
| Tobacco | 25.39 | -68.47 |
| Cashew | 13.79 | -67.55 |
| Petroleum products | 1,242.52 | -66.22 |
| Engineering goods | 2354.5 | -64.76 |
| Oil Seeds | 35.82 | -62.33 |
| Mica, Coal & Other Ores, Minerals including processed minerals | 112.72 | -60.41 |
| Meat, dairy & and poultry products | 138.79 | -60.34 |
| Oil Meals | 31.54 | -50.6 |
| Cereal Preparations & misc. Processed Products | 59.95 | -48.28 |
| Coffee | 40.83 | -44.22 |
| Marine Products | 264.46 | -43.94 |
| Organic and Inorganic Chemicals | 1,198.4 | -41.93 |
| Other Cereals | 10.06 | -40.86 |
| Spices | 201.71 | -32.18 |
| Plastic & Linoleum | 478.47 | -23.35 |
| Fruits & Vegetables | 203.3 | -9.29 |
| Rice | 547.96 | -7.94 |
| Drugs and Pharmaceuticals | 1,531.06 | 0.25 |
| Iron Ore | 233.23 | 17.53 |
| Sub-total | 9,421.02 | -61.70 |
| Grand total | 10,356.12 | -60.28 |

Table 2. Decrease in exports of major selected products, April and May 2020 (year-on-year, %)

| Product | Exports (US\$ million) | |
|--|------------------------|---|
| | April and May 2020 | Year-on-year % change April and May 2020 |
| Leather and Leather products | 128.52 | -83.02 |
| Gems & Jewellery | 1,099.45 | -82.46 |
| Handicraft excl handmade carpet | 61.41 | -81.07 |
| RMG of all textiles | 642.94 | -78.11 |
| Jute mfg including floor covering | 12.01 | -76.5 |
| Man-made yarns/Fabrics/made-ups etc. | 228.6 | -71.13 |
| Petroleum products | 2,871.51 | -67.52 |
| Carpet | 75.79 | -67.26 |
| Cotton Yarn/Fabrics/Made-ups etc | 612.99 | -64.55 |
| Meat, dairy & and poultry products | 279.84 | -58.44 |
| Electronic goods | 705.08 | -56.64 |
| Ceramic Products & Glassware | 212.24 | -54.35 |
| Cashew | 41.99 | -50.3 |
| Tea | 69.87 | -47.43 |
| Mica, Coal & Other Ores, Minerals including processed minerals | 332.96 | -46.86 |
| Other Cereals | 19.72 | -45.45 |
| Engineering goods | 8,006 | -43.39 |
| Tobacco | 95.43 | -41 |
| Oil Seeds | 114.66 | -40.19 |
| Oil Meals | 94.26 | -35.01 |
| Cereal Prepns & misc. Processed Products | 167.88 | -31.93 |
| Marine Products | 694.4 | -30.35 |
| Organic and Inorganic Chemicals | 3,013.55 | -27.27 |
| Coffee | 112.8 | -24.56 |
| Plastic & Linoleum | 1,195.31 | -15.11 |
| Spices | 521.6 | -11.11 |
| Fruits & Vegetables | 394.75 | -5.59 |
| Rice | 1,233.15 | 0.58 |
| Drugs and Pharmaceuticals | 3,508.24 | 9.21 |
| Iron Ore | 690.4 | 62.91 |
| Sub-total | 27,237.23 | -48.64 |
| Grand total | 29,410.6 | -47.54 |

Table 3. Decrease in imports of major selected products, April 2020 (year-on-year, %)

| Product | Imports (US\$ mn) | Year-on-year % change |
|--|-------------------|-----------------------|
| | April 2020 | April 2020 |
| Gold | 2.83 | -99.93 |
| Pearls, precious & semi-precious stones | 2.06 | -99.9 |
| Sulphur & unroasted iron pyrites | 1.14 | -92.31 |
| Project goods | 53.82 | -67.11 |
| Leather & leather products | 27.91 | -65.08 |
| Electronic goods | 1,610.42 | -62.72 |
| Machine tools | 157.14 | -61.78 |
| Non-ferrous metals | 447.44 | -61.35 |
| Petroleum, crude & products | 4,661.44 | -59.03 |
| Silver | 103.75 | -58.5 |
| Professional instrument, optical goods, etc. | 178.92 | -57.55 |
| Cotton Raw & waste | 26.69 | -55.6 |
| Machinery, electrical & non-electrical | 1,422.47 | -53.91 |
| Textile yarn fabric, made-up articles | 68.41 | -52.85 |
| Iron & steel | 682.13 | -52.58 |
| Transport equipment | 536.77 | -50.27 |
| Wood & wood products | 251.03 | -48.92 |
| Coal, coke & briquettes, etc. | 1,195.08 | -48.83 |
| Metalliferous ores & other minerals | 264.4 | -44.7 |
| Pulp and waste paper | 63.83 | -44.04 |
| Dyeing/tanning, colouring materials | 154.8 | -43.66 |
| Artificial resins, plastic materials, etc. | 745.66 | -42.63 |
| Organic & inorganic chemicals | 1,297.24 | -35.1 |
| Fruits & vegetables | 127.19 | -30.19 |
| Newsprint | 42.94 | -25.13 |
| Chemical material & products | 481.79 | -23.19 |
| Medicinal & pharmaceutical products | 434.1 | -20.92 |
| Fertilisers, crude & manufactured | 349.52 | -17.8 |
| Vegetable Oil | 649 | -10.88 |
| Pulses | 95.17 | -7.85 |
| Sub-total | 16,138.09 | -59.43 |
| Grand total | 17,121.07 | -58.65 |

Table 4. Decrease in imports of major selected products, April and May 2020 (year-on-year, %)

| Products | Imports US\$ mn | Year-on-year growth (%) |
|--|--------------------|-------------------------|
| | April and May 2020 | April and May 2020 |
| Gold | 79.14 | -99.1 |
| Pearls, precious & semi-precious stones | 384.72 | -89.89 |
| Petroleum, crude & products | 8,148.16 | -65.79 |
| Cotton Raw & waste | 70.76 | -55.56 |
| Sulphur & unroasted iron pyrites | 9.11 | -54.24 |
| Machine tools | 389.05 | -53.01 |
| Leather & leather products | 80.47 | -52.87 |
| Electronic goods | 4,492.52 | -50.89 |
| Textile yarn fabric, made-up articles | 162.19 | -49.44 |
| Coal, coke & briquettes, etc. | 2,507.1 | -46.86 |
| Metalliferous ores & other minerals | 563.73 | -46.69 |
| Professional instrument, optical goods, etc. | 479.31 | -43.96 |
| Machinery, electrical & non-electrical | 3,662.25 | -43.65 |
| Transport equipment | 1,351.67 | -40.78 |
| Non-ferrous metals | 1,484.91 | -38.89 |
| Artificial resins, plastic materials, etc. | 1,719.76 | -36.76 |
| Iron & steel | 1,900.44 | -35.58 |
| Dyeing/tanning/colouring materials | 360.79 | -34.4 |
| Organic & inorganic chemicals | 2,746.6 | -34.07 |
| Newsprint | 90.72 | -33.98 |
| Fruits & vegetables | 258.61 | -33.18 |
| Project goods | 197.86 | -32.68 |
| Pulp and waste paper | 152.23 | -31.46 |
| Silver | 437.89 | -30.68 |
| Wood & wood products | 734.48 | -29.73 |
| Vegetable Oil | 1,223.05 | -20.6 |
| Chemical material & products | 1,078.65 | -20.3 |
| Fertilisers, crude & manufactured | 923.51 | -16.08 |
| Medicinal & pharmaceutical products | 1,024.76 | -12.72 |
| Pulses | 159.93 | -9.34 |
| Sub-total | 36,874.37 | -55.74 |
| Grand total | 39,322.75 | -54.67 |

Annex 11: Description of GTAP model and results

For estimating the effects of the slowdown and the predicted fall in trade in goods and services, the study used the Global Trade Analysis Project (GTAP). The GTAP model is a multi-sectoral and multi-regional economic model, which captures linkages between several industries in each country and across the world. It captures markets for supply and demand in households (consumers), firms, primary factors and products. Trade between a given industry and linkages across industries are captured based on an Input-Output (IO) table for every country covered by the data base. Bilateral exports and imports between different countries are captured, based on relative price differences arising from tax/subsidy policies and technological changes. The model also allows for global savings and investment flows to balance each other globally. Households receive income from the labour and capital that they own. Consumption shares are determined by Cobb-Douglas expenditure function with shares derived from IO tables.

The purpose of the GTAP model is to determine the effects of a change in GDP and trade flows on the endogenous variables of the model – prices, production, consumption, exports, imports and welfare. Introducing such changes in the model is known as a shock or a simulation; it represents what the economy would look like if the policy change or shock had occurred. The difference in the values of the endogenous variables in the base data and the simulation represents the effect of the change. The GTAP model will help analyse the potential course of growth in the Indian economy in the short, medium and long term and explore its linkages with Commonwealth countries.

The Global Trade Analysis Project (GTAP) model has been widely employed both in the academic and policy world to understand ex-ante economic impacts of global shocks under different scenarios. At the risk of simplification, the simulations generated from the model offer a picture of how the economies would look like when different shocks are administered. These models offer a convenient way to represent all the agents in an economy and their complex interactions with each other, thereby capturing the general equilibrium effects in the form of a mathematical system. When an economy

in equilibrium is disturbed by shocks, how do those effects play out and what is the direction and magnitude of such effects? It goes without saying that the reliability of the results is entirely dependent on the fundamental assumptions made in the scenarios.

We assume the aggregate GDP, captured by the variable $qgdp$, to be shocked to different extents, by swapping it with a technological shifter variable in the value-added part of the production ‘avareg’. The link here is through the complex connections between consumption and production. We keep the GDP variable ‘ $qgdp$ ’ endogenous and shock the variable $avareg$ based on our pre-simulation.

1. The following equation links nominal private consumption expenditure (yp) and private consumer price index ($ppriv$) with our variable of interest, up :

$$\begin{aligned} & (all,r,REG) \\ & GDP(r) * qgdp(r) = \text{sum}(i,TRAD_ \\ & \quad \text{COMM},VGA(i,r) * qg(i,r)) \\ & \quad + \text{sum}(i,TRAD_COMM, \\ & \quad \quad VPA(i,r) * qp(i,r)) \\ & \quad + REGINV(r) * qcgds(r) \\ & \quad + \text{sum}(i,TRAD_COMM, \text{sum}(s, \\ & \quad \quad REG, VXWD(i,r,s) * qxs(i,r,s))) \\ & \quad + \text{sum}(m,MARG_COMM, \\ & \quad \quad VST(m,r) * qst(m,r)) \\ & \quad - \text{sum}(i,TRAD_COMM, \text{sum}(s, \\ & \quad \quad REG, VIWS(i,s,r) * qxs(i,s,r))); \end{aligned}$$

2. The following equation connects the consumption price $ppriv$ (which affects qp above) with each of the different commodity prices:

$$ppriv(r) = \text{sum}(i,TRAD_COMM, \\ \text{CONSHR}(i,r) * pp(i,r));$$

3. The following expresses each of these prices as the weighted sum of domestic (ppd) and imported prices (ppm):

$$pp(i,s) = PMSHR(i,s) * ppm(i,s) \\ + [1 - PMSHR(i,s)] * ppd(i,s);$$

4. The following equation links the market price with the supply price, the only difference being the output tax (to), which remains unchanged in our simulations:

$$ps(i,r) = to(i,r) + pm(i,r);$$

5. The following equation links supply price with TFP, i.e. the variable ao , and other prices of intermediate inputs (pf), their associated productivity changes (af) as well as those of primary factors (pfe) and their associated productivity changes (afe and ava):
- $$ps(j,r)+ao(j,r) = \text{sum}(i, \text{ENDW_COMM}, \text{STC}(i,j,r) * [pfe(i,j,r) - afe(i,j,r) - ava(j,r)]) \\ + \text{sum}(i, \text{TRAD_COMM}, \text{STC}(i,j,r) * [pf(i,j,r) - af(i,j,r)]) \\ + \text{profitslack}(j,r);$$
6. Finally, the equation below shows how the total change in TFP may come from the sector-specific TFP $aosec$, TFP that is specific to a sector and region $avall$, and the region-specific TFP $avareg$, which is our swap variable for up:
- $$ava(j,r) = avasec(j) + avareg(r) + avall(j,r);$$

Table 1. GTAP results for business as usual (4.2% r.o.g of India's GDP) (all figures are in percentages)

| CW countries | Investment | Indian exports of goods To: | Indian imports of goods From: | Indian export of services To: | Indian imports of services From: |
|---------------------|------------|-----------------------------|-------------------------------|-------------------------------|----------------------------------|
| Other Oceania | 1.1 | 1.8 | 4.6 | 0.9 | 2.9 |
| CW Caribbean | 2.0 | 7.2 | 4.8 | 3.6 | 3.0 |
| CWSSA | -5.4 | 3.9 | 4.6 | 2.0 | 3.0 |
| India | 3.1 | | | | |
| Bangladesh | 1.4 | 7.9 | 2.9 | 3.9 | 1.8 |
| Pakistan | 1.0 | 6.1 | 3.8 | 3.0 | 2.3 |
| Sri Lanka | 1.1 | 0.9 | 3.1 | 0.4 | 1.9 |
| Brunei Darussalam | 1.5 | 4.4 | 3.2 | 2.2 | 2.0 |
| Malaysia | 0.8 | 4.3 | 4.1 | 2.1 | 2.6 |
| Singapore | 1.6 | 0.1 | 4.7 | 0.1 | 2.9 |
| Canada | 2.7 | 4.8 | 4.1 | 2.4 | 2.5 |
| Cyprus | 1.0 | 4.3 | 4.8 | 2.1 | 3.0 |
| Malta | 3.4 | 4.2 | 4.6 | 2.1 | 2.8 |
| UK | 1.3 | 1.0 | 7.8 | 0.5 | 4.8 |
| Cameroon | 1.5 | 5.2 | 3.8 | 2.6 | 2.3 |
| Ghana | 2.0 | 5.1 | 4.3 | 2.5 | 2.6 |
| Nigeria | 1.2 | 6.7 | 3.6 | 3.3 | 2.2 |
| Kenya | 2.0 | 1.6 | 3.7 | 0.8 | 2.3 |
| Malawi | 2.1 | 2.5 | 3.2 | 1.2 | 2.0 |
| Mauritius | 0.9 | 1.9 | 4.4 | 0.9 | 2.7 |
| Mozambique | 1.0 | 2.3 | 4.1 | 1.1 | 2.5 |
| Rwanda | 1.0 | 6.1 | 4.1 | 3.0 | 2.5 |
| Tanzania | 1.5 | 2.8 | 3.2 | 1.1 | 2.0 |
| Uganda | 1.0 | 3.3 | 3.9 | 1.6 | 2.4 |
| Zambia | 1.0 | 5.2 | 5.4 | 2.6 | 3.3 |
| Botswana | 1.4 | 3.6 | 4.5 | 1.8 | 2.8 |
| Namibia | 2.1 | 1.6 | 5.0 | 0.8 | 3.1 |
| South Africa | 1.5 | 3.2 | 4.8 | 1.6 | 2.9 |
| Australia | 1.5 | 5.5 | 5.6 | 2.7 | 3.5 |
| NZ | 1.8 | 6.5 | 3.9 | 3.2 | 2.4 |
| Jamaica | 2.6 | 1.1 | 4.6 | 0.6 | 2.9 |
| Trinidad and Tobago | 0 | 2.0 | 4.7 | 1.0 | 2.9 |

Table 2. GTAP results for the worst case scenario, best and intermediate case (GDP of India decreases by -5%, 2, and -1.5%) (investment changes)

| Countries and their GTAP code | % change in investments if India's GDP contracts by 5% | % change in investments if GDP grows by 2% | % change in investments if India's GDP contracts by 1.5% |
|-------------------------------|--|--|--|
| 1 OtherOceania | 0.2 | -0.5 | 0.04 |
| 7 CWLatinAm | 0.2 | -0.5 | 0.02 |
| 13 CWSSA | 0.4 | -0.89 | 0.11 |
| 15 India | -9.8 | 2.58 | -3.71 |
| 16 Bangladesh | 0.3 | -0.62 | 0.04 |
| 17 Pakistan | 0.3 | -0.66 | 0.07 |
| 18 Sri Lanka | 0.123 | -0.46 | -0.18 |
| 19 Brunei Darussalam | 0.282 | -0.53 | 0.1 |
| 20 Malaysia | 0.306 | -0.72 | 0.05 |
| 21 Singapore | 0.159 | -0.37 | 0.01 |
| 22 Canada | 0.358 | -0.78 | 0.12 |
| 23 Cyprus | 0.547 | -1.28 | 0.08 |
| 24 Malta | 0.17 | -0.46 | -0.04 |
| 25 UK | 0.701 | -1.6 | 0.13 |
| 26 Cameroon | 0.282 | -0.62 | 0.08 |
| 27 Ghana | 0.315 | -0.71 | -0.06 |
| 28 Nigeria | 0.442 | -0.93 | 0.1 |
| 29 Kenya | 0.133 | -0.57 | -0.31 |
| 30 Malawi | 0.354 | -0.97 | -0.13 |
| 31 Mauritius | 0.206 | -0.99 | -0.64 |
| 32 Mozambique | 0.166 | -0.43 | -0.04 |
| 33 Rwanda | 0.209 | -0.47 | 0.05 |
| 34 Tanzania | 0.13 | -0.48 | -0.26 |
| 35 Uganda | 0.314 | -0.72 | 0.05 |
| 36 Zambia | 0.201 | -0.46 | 0.04 |
| 37 Botswana | 0.315 | -0.47 | 0.04 |
| 38 Namibia | 0.233 | -0.66 | 0.01 |
| 39 South Africa | 0.409 | -0.98 | 0.04 |
| 40 Aus | 0.315 | -0.7 | 0.07 |
| 41 NZ | 0.303 | -0.69 | 0.07 |
| 42 Jamaica | 0.33 | -0.84 | 0.04 |
| 43 Trinidad and Tobago | 0.607 | -1.25 | 0.23 |

Table 3. Changes in exports of goods from India to the CW in the three scenarios

| CW countries and their GTAP codes | % change in exports if India's GDP contracts by 5% | % change in exports if GDP growth is 2% | % change in exports if India's GDP contracts by 1.5% |
|-----------------------------------|--|---|--|
| 1 Other Oceania | -7.0 | 0.1 | -2.8 |
| 7 CW Latin Am | -4.2 | 0.6 | -1.7 |
| 13 CWSSA | -7.9 | 0.3 | -3.2 |
| 15 India | | | |
| 16 Bangladesh | -19.0 | 0.6 | -7.6 |
| 17 Pakistan | -20.1 | 0.5 | -8.1 |
| 18 Sri Lanka | -14.7 | 0.1 | -5.9 |
| 19 Brunei Darussalam | -2.6 | 0.3 | -1.1 |
| 20 Malaysia | -24.1 | 0.3 | -9.6 |
| 21 Singapore | -14.1 | 0.01 | -5.6 |
| 22 Canada | -10.9 | 0.4 | -4.4 |
| 23 Cyprus | -7.6 | 0.3 | -3.0 |
| 24 Malta | -4.5 | -0.3 | -1.8 |
| 25 UK | -10.3 | -0.1 | -4.1 |
| 26 Cameroon | -15.5 | 0.4 | -6.2 |
| 27 Ghana | -25.7 | 0.4 | -10.3 |
| 28 Nigeria | -21.8 | 0.5 | -8.7 |
| 29 Kenya | -18.6 | 0.1 | -7.4 |
| 30 Malawi | -17.5 | 0.2 | -7.0 |
| 31 Mauritius | -9.8 | 0.1 | -4.0 |
| 32 Mozambique | -19.7 | 0.2 | -7.9 |
| 33 Rwanda | -15.1 | 0.5 | -6.0 |
| 34 Tanzania | -16.0 | 0.2 | -6.4 |
| 35 Uganda | -20.0 | 0.3 | -8.0 |
| 36 Zambia | -26.7 | 0.4 | -10.7 |
| 37 Botswana | -8.5 | 0.3 | -3.4 |
| 38 Namibia | -31.2 | 0.1 | -12.5 |
| 39 South Africa | -29.0 | 0.2 | -11.6 |
| 40 Aus | -19.9 | 0.4 | -8.0 |
| 41 NZ | -14.8 | 0.5 | -5.9 |
| 42 Jamaica | -2.0 | -0.1 | -0.8 |
| 43 TTO | -14.6 | 0.1 | -5.8 |

Source: GTAP exercise.

Table 4. Changes in Indian imports from the 3 scenarios

| CW countries with their GTAP Codes | % change in imports if India's GDP contracts by 5% | % change in imports if GDP grows by 2% | % change in imports if India's GDP contracts by 1.5% |
|------------------------------------|--|--|--|
| 1 Other Oceania | -15.39 | 1.83 | -5.24 |
| 7 CW Latin Am | -13.64 | 1.9 | -4.59 |
| 13 CWSSA | -7.89 | 1.83 | -2.61 |
| 16 Bangladesh | -21.16 | 1.13 | -7.14 |
| 17 Pakistan | -16.77 | 1.48 | -5.52 |
| 18 Sri Lanka | -19.04 | 1.21 | -6.41 |
| 19 Brunei | -3.83 | 1.27 | -1.16 |
| 20 Malaysia | -14.44 | 1.64 | -4.73 |
| 21 Singapore | -13.53 | 1.85 | -4.37 |
| 22 Canada | -11.73 | 1.62 | -4.01 |
| 23 Cyprus | -13.84 | 1.91 | -4.52 |
| 24 Malta | -14.72 | 1.81 | -5.04 |
| 25 UK | -19.66 | 3.06 | -4.96 |
| 26 Cameroon | -5.55 | 1.48 | -1.75 |
| 27 Ghana | -9.5 | 1.68 | -3.15 |
| 28 Nigeria | -4.48 | 1.41 | -1.3 |
| 29 Kenya | -13.86 | 1.47 | -4.27 |
| 30 Malawi | -8.98 | 1.25 | -2.89 |
| 31 Mauritius | -19.02 | 1.75 | -6.18 |
| 32 Mozambique | -8.6 | 1.62 | -2.85 |
| 33 Rwanda | -5.72 | 1.63 | -1.77 |
| 34 Tanzania | -7.6 | 1.27 | -2.73 |
| 35 Uganda | -9.35 | 1.53 | -2.99 |
| 36 Zambia | -9.74 | 2.12 | -3.23 |
| 37 Botswana | -1.62 | 1.79 | -0.59 |
| 38 Namibia | -11.49 | 1.99 | -3.66 |
| 39 South Africa | -7.32 | 1.89 | -2.52 |
| 40 Australia | -8.13 | 2.23 | -2.57 |
| 41 NZ | -17.95 | 1.55 | -5.97 |
| 42 Jamaica | -15.88 | 1.83 | -5.36 |
| 43 TTO | -11.29 | 1.86 | -3.72 |

Source: GTAP exercise.

Table 5. Changes in India's export of services in the 3 scenarios

| CW countries and their GTAP code | % change when India's GDP contracts by 5% | % change when India's GDP grows by 2% | % change when India's GDP contracts by 1.5% |
|----------------------------------|---|---------------------------------------|---|
| 1 Other Oceania | -13.7 | 0.1 | -2.8 |
| 7 CW Latin Am | -13.5 | 0.8 | -1.7 |
| 13 CWSSA | -14.5 | 0.3 | -3.2 |
| 16 Bangladesh | -11.5 | 0.6 | -7.6 |
| 17 Pakistan | -11.2 | 0.7 | -8.1 |
| 18 Sri Lanka | -8.5 | 0.1 | -5.9 |
| 19 Brunei | -12.1 | 0.4 | -1.1 |
| 20 Malaysia | -12.1 | 0.3 | -9.6 |
| 21 Singapore | -11.7 | 0.01 | -5.6 |
| 22 Canada | -12.5 | 0.4 | -4.4 |
| 23 Cyprus | -10.9 | 0.3 | -3.0 |
| 24 Malta | -12.5 | -0.3 | -1.8 |
| 25 UK | -13.9 | -0.08 | -4.1 |
| 26 Cameroon | -12.2 | 0.4 | -6.2 |
| 27 Ghana | -15.9 | 0.4 | -10.3 |
| 28 Nigeria | -9.5 | 0.5 | -8.7 |
| 29 Kenya | -10.6 | 0.1 | -7.4 |
| 30 Malawi | -16.5 | 0.2 | -7.0 |
| 31 Mauritius | -14.7 | 0.2 | -4.0 |
| 32 Mozambique | -12.6 | 0.2 | -8.0 |
| 33 Rwanda | -17.2 | 0.5 | -6.1 |
| 34 Tanzania | -17.5 | 0.2 | -6.4 |
| 35 Uganda | -16.3 | 0.3 | -8.0 |
| 36 Zambia | -18.5 | 0.4 | -10.7 |
| 37 Botswana | -14.1 | 0.3 | -3.4 |
| 38 Namibia | -14.9 | 0.1 | -12.5 |
| 39 South Africa | -14.1 | 0.3 | -11.6 |
| 40 Australia | -13.3 | 0.4 | -8.0 |
| 41 NZ | -13.4 | 0.5 | -6.0 |
| 42 Jamaica | -13.0 | -0.1 | -0.8 |
| 43 TTO | -13.7 | 0.2 | -5.8 |

Source: GTAP exercise.

Table 6. Changes in India's imports of services in the three scenarios

| Services imports from CW countries to India | % change in imports if India's GDP contracts by 5% | % change in imports if GDP grows by 2% | % change in imports if India's GDP contracts by 1.5% |
|---|--|--|--|
| 1 Other Oceania | -17.8 | 1.8 | -7.1 |
| 7 CW Latin Am | -14.6 | 1.9 | -5.9 |
| 13 CWSSA | -16.4 | 1.8 | -6.6 |
| 16 Bangladesh | -13.8 | 1.1 | -5.5 |
| 17 Pakistan | -18.2 | 1.5 | -7.3 |
| 18 Sri Lanka | -11.6 | 1.2 | -4.6 |
| 19 Brunei | -12.8 | 1.3 | -5.1 |
| 20 Malaysia | -13.7 | 1.6 | -5.5 |
| 21 Singapore | -14.4 | 1.8 | -5.8 |
| 22 Canada | -14.4 | 1.6 | -5.8 |
| 23 Cyprus | -5.4 | 1.9 | -2.2 |
| 24 Malta | -18.3 | 1.8 | -7.3 |
| 25 UK | -16.5 | 3.1 | -6.6 |
| 26 Cameroon | -17.3 | 1.5 | -6.9 |
| 27 Ghana | 2.4 | 1.7 | 0.9 |
| 28 Nigeria | -15.3 | 1.4 | -6.1 |
| 29 Kenya | -6.2 | 1.5 | -2.5 |
| 30 Malawi | -9.8 | 1.3 | -3.9 |
| 31 Mauritius | -11.6 | 1.8 | -4.6 |
| 32 Mozambique | -14.9 | 1.6 | -6.0 |
| 33 Rwanda | -17.5 | 1.6 | -7.0 |
| 34 Tanzania | -3.1 | 1.3 | -1.2 |
| 35 Uganda | -14.4 | 1.5 | -5.8 |
| 36 Zambia | -10.0 | 2.1 | -4.0 |
| 37 Botswana | -14.7 | 1.8 | -5.9 |
| 38 Namibia | -14.3 | 2.0 | -5.7 |
| 39 South Africa | -9.4 | 1.9 | -3.7 |
| 40 Australia | -10.7 | 2.2 | -4.3 |
| 41 NZ | -9.8 | 1.6 | -3.9 |
| 42 Jamaica | -16.2 | 1.8 | -6.5 |
| 43 TTO | -12.7 | 1.9 | -5.1 |

Source: GTAP exercise.

Annex 12: Description of GTAP dynamic model

GTAP models: A new treatment for investment

The dynamic GTAP Model uses a disequilibrium approach for modelling international capital mobility. A disequilibrium approach is necessary in order to reconcile the theory of investment with observed reality. Economic theory states that saving is allocated across regions to those investments with the highest rate of return. With perfect capital mobility, rates of return must be equalized across regions. In the dynamic GTAP Model, perfect capital mobility occurs only in the very long run. Investment is determined by the gradual movement of rates of return to equality across regions. This is the first use of the disequilibrium approach.

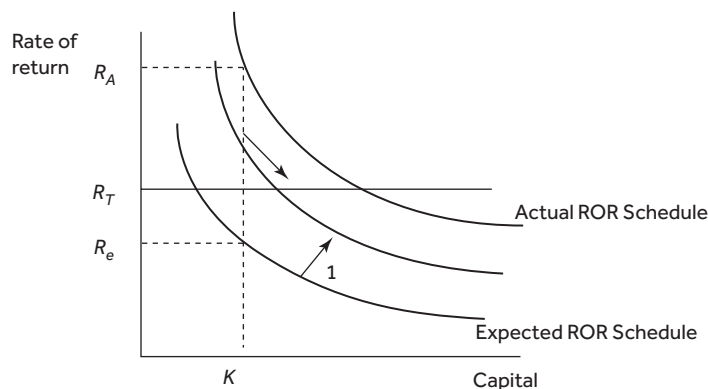
A corollary of the capital mobility theory is that if rates of return in a particular country are very low, investment will fall and vice versa. Implementation of this theory however leads to a dilemma. In many cases actual investment, as reported in the national statistics, does not correspond to that predicted by this theory. That is, observed rates of return are low but investment is high. This was the case in Southeast Asia prior to the financial crisis. Such discrepancies can be rectified in one of two ways: firstly, the data can be altered so that theory and data are consistent; or alternatively, the theory can be modified to more accurately reflect the world. In the dynamic GTAP Model the latter method has been used. This has been achieved

by incorporating errors in expectations about the actual rate of return. Thus investment is the result of the gradual movement of expected rates of return to equality across regions, but the expected rate of return may differ from the actual rate of return due to errors in expectations. This is the second use of the disequilibrium approach.

Determination of investment in the dynamic GTAP Model may be illustrated with the help of Figure 1, taken from Ianchovichina and McDougall (1999). The two curves in Figure 1 show the expected and actual rate of return schedules. The expected rate of return schedule depicts the relationship between the expected rate of return (r_E) and capital stock (K), while the actual rate of return schedule shows the relationship between the actual rate of return (r_A) and capital stock (K). These curves are downward sloping reflecting the belief that, as capital stocks increase, rates of return will fall, *ceteris paribus*. The difference between these two schedules represents the errors in expectations (i.e. the difference between observed data and the postulated theory). In any given year, there is a temporary equilibrium, global rate of return, r_T , that ensures that global savings equal investment. This is depicted by the horizontal bar in Figure 1.

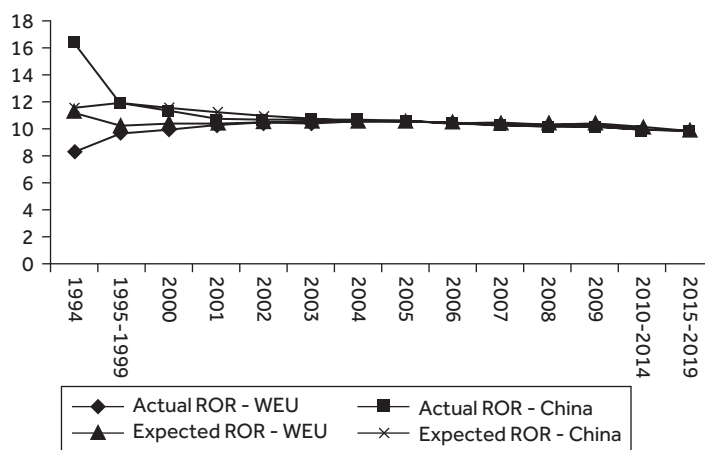
Investment in a particular year is determined by three mechanisms. The first is the desire to eliminate errors in expectations, which causes the expected rate of return to gradually move

Figure 1. Expected and actual rate of return schedules



Source: Adapted from Ianchovichina, McDougall and Hertel, 1999.

Figure 2. Base case actual and expected rates of return



Source: Walmsley and Hertel, 2000.

GTAP Dynamic description was taken from GTAP (2011) 'GTAP Models: A new treatment for investment' https://www.gtap.agecon.purdue.edu/models/Dynamic/dynamic_inv.asp.

towards the actual rate of return. This involves the movement of the expected rate of return schedule towards the actual rate of return schedule (arrow 1 in Figure 1). In the case of China, the expected rate of return must rise to match the higher actual rates of return. Secondly gradual equalization across regions of rates of return requires the movement of the expected rate of return towards the temporary equilibrium (r_T) (labeled 2 in Figure 1). With higher expected rates of return (as experienced in China) investment and capital stocks increase as the expected rate of return moves towards r_T . The third mechanism is the equalization of the

growth rates of capital over time, with all three rates of return converging on a long-run equilibrium rate of return, r^* .

Figure 2 illustrates how actual and expected rates of return are driven to equality in the long run in the base case simulation. In China expected rates of return rise towards the actual rate of return (assuming no unexpected shocks). At the same time China's actual and expected rates of return gradually fall towards the long run equilibrium rate of return. Rates of return in Western Europe and the other countries also move towards this long run equilibrium.

Table 1. India's exports of goods and services to the Commonwealth with pre-slowdown GDP growth of 5.8, 6.1 and 6.2%

| CW countries and their GTAP codes | % change in exports at India's GDP baseline growth of 5.8% in 2019 | Exports initial in beginning of 2020 (in US\$ million) | Absolute change in exports at India's GDP baseline growth of 5.8% in 2020 (in US\$ million) | % change in exports at India's GDP baseline growth of 6.1% in 2020 | Exports initial in the beginning of 2021 (in US\$ million) | Absolute change in exports at India's GDP baseline growth in 2021 (in US\$ million) | % change in exports at India's GDP baseline growth of 6.2% in 2021 |
|-----------------------------------|--|--|---|--|--|---|--|
| 1 Other Oceania | 2.0 | 369.4 | 7.5 | 4.3 | 376.9 | 16.2 | 6.7 |
| 7 CW Latin Am | 8.3 | 27.1 | 2.2 | 17.5 | 29.3 | 5.1 | 27.4 |
| 13 CWSSA | 4.5 | 91.7 | 4.1 | 9.5 | 95.7 | 9.1 | 14.9 |
| 15 India | | | | | | | |
| 16 Bangladesh | 9.0 | 6,945.1 | 624.4 | 19.0 | 7,569.5 | 1,437.7 | 29.8 |
| 17 Pakistan | 7.0 | 2,639.9 | 183.7 | 14.7 | 2,823.6 | 415.2 | 23.1 |
| 18 Sri Lanka | 1.0 | 7,748.5 | 78.7 | 2.1 | 7,827.2 | 167.9 | 3.4 |
| 19 Brunei | 5.9 | 99.1 | 5.0 | 10.7 | 104.2 | 11.2 | 16.8 |
| 20 Malaysia | 5.0 | 5,988.2 | 295.2 | 10.4 | 6,283.5 | 654.5 | 16.3 |
| 21 Singapore | 0.2 | 8,143.7 | 11.8 | 0.3 | 8,155.5 | 25.0 | 0.5 |
| 22 Canada | 5.5 | 5,919.4 | 326.2 | 11.6 | 6,245.6 | 727.1 | 18.3 |
| 23 Cyprus | 4.9 | 150.8 | 7.4 | 10.4 | 158.2 | 16.5 | 16.3 |
| 24 Malta | 4.8 | 294.5 | 14.1 | 10.1 | 308.5 | 31.2 | 15.9 |
| 25 UK | 1.2 | 20,274.0 | 235.2 | 2.5 | 20,509.2 | 502.6 | 3.8 |
| 26 Cameroon | 6.0 | 308.9 | 18.4 | 12.6 | 327.2 | 41.1 | 19.7 |
| 27 Ghana | 6.0 | 740.2 | 42.9 | 12.3 | 783.1 | 96.0 | 19.2 |
| 28 Nigeria | 7.7 | 4,080.5 | 313.6 | 16.2 | 4,394.0 | 713.4 | 25.5 |
| 29 Kenya | 1.9 | 3,750.8 | 70.7 | 4.0 | 3,821.5 | 152.2 | 6.2 |
| 30 Malawi | 3.0 | 274.9 | 8.0 | 6.1 | 282.8 | 17.3 | 9.6 |
| 31 Mauritius | 2.2 | 1,150.5 | 25.0 | 4.6 | 1,175.5 | 54.0 | 7.2 |
| 32 Mozambique | 2.6 | 986.2 | 25.7 | 5.5 | 1,012.0 | 55.8 | 8.7 |
| 33 Rwanda | 7.0 | 171.8 | 12.0 | 14.7 | 183.7 | 27.0 | 23.1 |
| 34 Tanzania | 2.6 | 2,794.6 | 73.0 | 5.5 | 2,867.5 | 158.1 | 8.7 |
| 35 Uganda | 3.8 | 646.5 | 24.4 | 8.0 | 670.9 | 53.4 | 12.5 |
| 36 Zambia | 6.0 | 461.6 | 27.4 | 12.6 | 489.1 | 61.4 | 19.7 |
| 37 Botswana | 4.1 | 112.4 | 4.6 | 8.6 | 117.0 | 10.0 | 13.5 |
| 38 Namibia | 1.9 | 194.8 | 3.7 | 4.0 | 198.5 | 7.9 | 6.2 |
| 39 South Africa | 3.6 | 6,192.4 | 224.5 | 7.7 | 6,416.9 | 491.5 | 12.0 |
| 40 Australia | 6.2 | 4,615.2 | 287.8 | 13.2 | 4,902.9 | 645.9 | 20.7 |
| 41 NZ | 7.4 | 667.9 | 49.4 | 15.6 | 717.3 | 112.1 | 24.5 |
| 42 Jamaica | 1.3 | 108.4 | 1.4 | 2.8 | 109.8 | 3.0 | 4.3 |
| 43 TTO | 2.3 | 163.4 | 3.8 | 4.9 | 167.1 | 8.2 | 7.7 |

Source: GTAP exercise.

Table 2. India's imports of goods and services from the Commonwealth with pre-slowdown growth rates of 5.8, 6.1 and 6.2%

| Imports from CW countries to India | % change in imports at India's GDP baseline growth of 5.8% in 2019 | % change in imports at India's GDP baseline growth of 6.1% in 2020 | % change in imports at India's GDP baseline growth of 6.2% |
|------------------------------------|--|--|--|
| 1 Other Oceania | 5.3 | 11.2 | 17.6 |
| 7 CW Latin Am | 5.5 | 11.7 | 18.3 |
| 13 CWSSA | 5.3 | 11.2 | 17.6 |
| 16 Bangladesh | 3.3 | 6.9 | 10.9 |
| 17 Pakistan | 4.3 | 9.1 | 14.2 |
| 18 Sri Lanka | 3.5 | 7.4 | 11.6 |
| 19 Brunei | 3.7 | 7.8 | 12.2 |
| 20 Malaysia | 4.6 | 10.1 | 15.8 |
| 21 Singapore | 5.4 | 11.3 | 17.8 |
| 22 Canada | 4.7 | 10.0 | 15.6 |
| 23 Cyprus | 5.5 | 11.7 | 18.4 |
| 24 Malta | 5.3 | 11.1 | 17.4 |
| 25 UK | 8.9 | 18.8 | 29.4 |
| 26 Cameroon | 4.3 | 9.1 | 14.2 |
| 27 Ghana | 4.8 | 10.3 | 16.1 |
| 28 Nigeria | 4.1 | 8.6 | 13.6 |
| 29 Kenya | 4.3 | 9.0 | 14.1 |
| 30 Malawi | 3.6 | 7.7 | 12.0 |
| 31 Mauritius | 5.1 | 10.7 | 16.8 |
| 32 Mozambique | 4.7 | 9.9 | 15.6 |
| 33 Rwanda | 4.7 | 10.0 | 15.7 |
| 34 Tanzania | 3.7 | 7.8 | 12.2 |
| 35 Uganda | 4.4 | 9.4 | 14.7 |
| 36 Zambia | 6.2 | 13.0 | 20.4 |
| 37 Botswana | 5.2 | 11.0 | 17.2 |
| 38 Namibia | 5.8 | 12.2 | 19.1 |
| 39 South Africa | 5.5 | 11.6 | 18.2 |
| 40 Aus | 6.5 | 13.7 | 21.4 |
| 41 NZ | 4.5 | 9.5 | 14.9 |
| 42 Jamaica | 5.3 | 11.2 | 17.6 |
| 43 TTO | 5.4 | 11.4 | 17.6 |

Source: GTAP exercise.

Table 3. India's import of goods and services from the Commonwealth with slowdown rates of 4.2, -3.2, and 3.1%

| Imports from CW countries to India | % change in imports at India's GDP growth of 4.2% in 2019 | % change in imports with India's GDP COVID scenario decline of -3.2% in 2020 | % change in imports with India's GDP COVID scenario growth of 3.1% in 2021 |
|------------------------------------|---|--|--|
| 1 OtherOceania | 4.6 | -16.2 | 9.8 |
| 7 CWLatinAm | 4.8 | -12.5 | 9.7 |
| 13 CWSSA | 4.6 | -14.5 | 9.6 |
| 16 Bangladesh | 2.9 | -3.9 | 5.3 |
| 17 Pakistan | 3.8 | -9.1 | 7.3 |
| 18 Sri Lanka | 3.1 | -10.9 | 6.1 |
| 19 Brunei Darussalam | 3.2 | -8.4 | 6.2 |
| 20 Malaysia | 4.2 | -12.2 | 8.3 |
| 21 Singapore | 4.7 | -17.8 | 10.1 |
| 22 Canada | 4.1 | -11.6 | 8.2 |
| 23 Cyprus | 4.9 | -15.0 | 10.0 |
| 24 Malta | 4.6 | -14.0 | 9.4 |
| 25 UK | 7.8 | -28.9 | 19.2 |
| 26 Cameroon | 3.8 | -9.9 | 7.3 |
| 27 Ghana | 4.3 | -12.0 | 8.5 |
| 28 Nigeria | 3.6 | -7.8 | 6.8 |
| 29 Kenya | 3.7 | -12.8 | 7.5 |
| 30 Malawi | 3.2 | -9.9 | 6.2 |
| 31 Mauritius | 4.4 | -15.3 | 9.2 |
| 32 Mozambique | 4.1 | -13.7 | 8.4 |
| 33 Rwanda | 4.1 | -10.6 | 8.1 |
| 34 Tanzania | 3.2 | -10.3 | 6.3 |
| 35 Uganda | 3.9 | -12.0 | 7.8 |
| 36 Zambia | 5.4 | -16.4 | 11.3 |
| 37 Botswana | 4.5 | -14.4 | 9.3 |
| 38 Namibia | 5.1 | -17.9 | 10.8 |
| 39 South Africa | 4.8 | -15.7 | 10.0 |
| 40 Aus | 5.7 | -17.3 | 12.0 |
| 41 NZ | 3.9 | -9.5 | 7.7 |
| 42 Jamaica | 4.6 | -16.8 | 9.8 |
| 43 TTO | 4.7 | -16.3 | 10.0 |

Table 4. India's Exports of Goods and Services in the three Modelling Scenarios

| CW countries and their GTAP code | % change in exports if India's GDP grows by 4.2% (COVID scenario) in 2019 | % change in exports if India's GDP declines by 3.2% (COVID scenario) in 2020 | % change in exports if India's GDP grows by 3.1% in 2021 |
|----------------------------------|---|--|--|
| 1 Other Oceania | 1.8 | -3.2 | 2.5 |
| 7 CW Latin Am | 7.2 | -12.9 | 12.5 |
| 13 CWSSA | 3.9 | -7.0 | 6.4 |
| 16 Bangladesh | 7.9 | -14.1 | 13.7 |
| 17 Pakistan | 61 | -10.9 | 10.3 |
| 18 Sri Lanka | 0.9 | -1.6 | 1.4 |
| 19 Brunei | 4.4 | -7.9 | 7.2 |
| 20 Malaysia | 4.3 | -7.7 | 7.0 |
| 21 Singapore | 0.1 | -0.2 | 0.2 |
| 22 Canada | 4.8 | -8.6 | 8.0 |
| 23 Cyprus | 4.3 | -7.7 | 7.0 |
| 24 Malta | 4.2 | -7.5 | 6.8 |
| 25 UK | 1.0 | -1.8 | 1.6 |
| 26 Cameroon | 5.2 | -9.3 | 8.6 |
| 27 Ghana | 5.1 | -9.1 | 8.4 |
| 28 Nigeria | 6.7 | -12.0 | 11.5 |
| 29 Kenya | 1.7 | -3.0 | 2.5 |
| 30 Malawi | 2.5 | -4.5 | 4.0 |
| 31 Mauritius | 1.9 | -3.4 | 3.0 |
| 32 Mozambique | 2.3 | -4.1 | 3.6 |
| 33 Rwanda | 6.1 | -10.9 | 10.2 |
| 34 Tanzania | 2.3 | -4.1 | 3.6 |
| 35 Uganda | 3.3 | -5.9 | 5.3 |
| 36 Zambia | 5.2 | -9.3 | 8.6 |
| 37 Botswana | 3.6 | -6.4 | 5.7 |
| 38 Namibia | 1.7 | -3.0 | 2.6 |
| 39 South Africa | 3.2 | -5.7 | 5.0 |
| 40 Australia | 5.5 | -9.8 | 9.1 |
| 41 NZ | 6.5 | -11.6 | 11.0 |
| 42 Jamaica | 1.15 | -2.0 | 1.8 |
| 43 TTO | 2.0 | -3.6 | 3.2 |

Annex Notes

- 1 NCAER (2019) 'NCAER's Business Confidence Index fell by 9.1% in the Fourth Quarter of 2018–19', press release 4 June <http://www.ncaer.org/uploads/photo-gallery/files/1559803161BES%20Press%20Release%20April%202019.pdf>
- 2 NCAER (2019) 'Business Confidence Index up 5.5% in Q1 2019–20: NCAER's Business Expectations Survey', press release 30 August <http://www.ncaer.org/uploads/photo-gallery/files/1567172582BES%20Press%20Release%20July%202019.pdf>
- 3 NCAER (2019) 'Business Confidence Index dips 15.3% in Q2 2019–20: NCAER's Business Expectations Survey', press release 11 November <http://www.ncaer.org/uploads/photo-gallery/files/1573483959BES%20Press%20Release%20Round%2011%20ver%207.pdf>
- 4 NCAER (2020) 'Business Confidence Index Decreased by 30.4% in Q4 of 2019–20: NCAER's Business Expectations Survey', press release 17 April <http://www.ncaer.org/uploads/photo-gallery/files/1587200179NCAER%20BES%20Press%20Release%20April%202020.pdf>
- 5 Paragraph 12 of the RBI Governor's Statement 22 May, 2020. <https://rbidocs.rbi.org.in/rdocs/Content/PDFs/GOVERNORSTA1BE078EC8D2F4F53A8C3A74AE98E4573.PDF>
- 6 Government of India, Department of Economic Affairs, Ministry of Finance (2020) 'Macroeconomic Report, May 2020, Economic Division', pp. 20, 21.