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The Impact of the COVID-19 Pandemic on Merchandise Trade in Commonwealth Countries

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The Commonwealth

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Abstract

This paper examines how the COVID-19 pandemic has impacted merchandise trade between and with Commonwealth countries. It uses bilateral trade data from Base Analytique du Commerce International (BACI) to (i) estimate trade losses, i.e. variations in intra- and extra-Commonwealth trade in goods from the pre-pandemic trend, and (ii) simulate the impact of the pandemic on potential trade flows of Commonwealth countries under three scenarios: Consensus, Pessimistic and Optimistic. The scenarios are based on macroeconomic forecasts released by the International Monetary Fund (IMF), the World Bank and the World Trade Organization (WTO) in the third and fourth quarters of 2020. The simulation results suggest that Commonwealth trade will be negatively affected, with developed Commonwealth countries being impacted more than developing countries. They also show that the adverse effects on trade will depend on the duration and severity of the disease. The analysis demonstrates the interconnected and fragile nature of the economies, and highlights the need for a coordinated response for recovery.

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Abbreviations and Acronyms

BACI	Base Analytique du Commerce International
CCSA	Committee for the Coordination of Statistical Activities
CEPII	Centre d'Etudes Prospectives et d'Informations Internationales
Comtrade	United Nations Commodities Trade Statistics Database
CW	Commonwealth
FDI	foreign direct investment
FIAS	Foreign Investment Advisory Service
FOB	free on board
GDP	gross domestic product
GVC	global value chain
HS	Harmonised System
IADB	Inter-American Development Bank
ILO	International Labour Organization
IMF	International Monetary Fund
ITC	International Trade Centre
LDC	least developed country
OECD	Organisation for Economic Co-operation and Development
ROW	rest of the world
SACU	Southern African Customs Union
SIDS	small Island developing state
SMEs	small and medium enterprises
UK	United Kingdom
UNCTAD	United Nations Conference on Trade and Development
UN DESA	United Nations Department of Economic and Social Affairs
UN ECLAC	United Nations Economic Commission for Latin America and Caribbean
US	United States
USA	United States of America
WTO	World Trade Organization

Executive summary

The COVID-19 pandemic led to an unprecedented collapse of the world economy following supply and demand disruptions. International trade in an interconnected global economy was adversely affected following a fall in commodity prices, reduced manufacturing output and disrupted operations in global value chains (GVCs). Estimates by multilateral institutions predict losses, though the economic impact varies across countries and regions. There is a growing body of academic literature investigating the macroeconomic effects of COVID-19 across countries and sectors. However, detailed contextualisation of how COVID-19 has affected trade with and between the Commonwealth group of countries across regions and product groups is missing.

The Commonwealth Secretariat commissioned this report to examine the impacts of the pandemic on merchandise trade between and with Commonwealth countries, given that around 70 per cent of Commonwealth trade is in goods. The main objectives of the report are to:

- Identify and establish trade rebound scenarios – Consensus, Optimistic and Pessimistic – by drawing on economic forecasts produced by multilateral organisations;
- Simulate the impact of the COVID-19 pandemic on potential trade flows under various rebound scenarios, estimate the potential loss in global and intra-Commonwealth goods trade flows of Commonwealth members and present results by economic sector, geographic region and country group;
- Examine the short- and medium-term trade prospects of Commonwealth members, for both global and intra-Commonwealth trade, for the three potential scenarios;
- Inform discussions on the effects of COVID-19 on Commonwealth merchandise trade including intra-Commonwealth trade flows and contribute to background work for the Commonwealth Trade Review 2021.

This report uses bilateral trade data from Base Analytique du Commerce International to, first, estimate trade losses – that is, variations in intra- and extra-Commonwealth trade in goods from the pre-pandemic trend; and, second, simulate the impact of the pandemic on potential trade flows of Commonwealth countries under three scenarios.

The scenarios simulated are Consensus, Pessimistic and Optimistic. These are based on macroeconomic forecasts released by the International Monetary Fund (IMF), the World Bank and the World Trade Organization in the third and fourth quarters of 2020.

The Consensus scenario assumes world trade will bounce back to 2019 levels in the second half of 2022. The Optimistic scenario considers a "V" shaped recovery in late 2021. The Pessimistic simulation considers the scenario of a double hit to the economy in 2021.

The results are disaggregated by geographical region, level of country development and products for the period 2021–2025.

The main findings are as follows:

Consensus scenario:
- The simulations predict negative growth of trade in 2020–2022. Trade volumes are predicted to recover during 2022 to the level of trade in 2018/19.
- The impact on the potential trade flows between and with Commonwealth countries varies across regions, countries and products.
  - According to the IMF (2020b), developed economies are expected to be more exposed than developing countries in 2020, as a result of more severe lockdowns. Developed Commonwealth countries are no exception and are more likely to be negatively affected than developing Commonwealth countries. This is particularly the case for European and North American Commonwealth members, given their reliance on and integration with other high-income countries through GVCs.
  - The magnitude of trade losses varies across regions. Asia and Africa are most affected and the Pacific region is least affected by the global crisis.
  - Agri-food, minerals and chemicals exports are predicted to exceed imports but this is not the case for manufactures.

- Intra-Commonwealth trade is expected to grow above 2018/19 pre-crisis levels over 2022–2025. Extra-Commonwealth exports are predicted to return to their pre-crisis level during 2022, while imports will remain sluggish. Commonwealth countries' exports to the Rest of the World (ROW) are predicted to be 13 per cent higher in 2025 compared with trade levels observed before the pandemic.

Optimistic scenario:

- Commonwealth trade is predicted to be negatively affected and to decline by 10.9 per cent in 2020. There are losses for both developed (−11.7 per cent) and developing (−10.2 per cent) members from the Commonwealth community.
- Trade losses are lower in the medium term. Trade recovers to the level observed before the pandemic at the end of 2021. By 2025, trade volumes are expected to be 13.2 per cent above their pre-crisis level, with faster recovery in developing than in developed countries. The recovery of trade presents regional variations. The Pacific region is less negatively affected compared with the European countries and Commonwealth Caribbean small island developing states.

Pessimistic scenario:

- World trade is predicted to be severely affected in the case of a double-hit scenario, with an adverse impact on intra-Commonwealth trade. Intra-Commonwealth trade will remain below its pre-crisis value until the end of 2023, and the developed economies are likely to see more impacts than the developing countries in the Commonwealth, given that these countries had larger domestic outbreaks and greater exposure to international spill-overs, particularly through exposure to global commodity and financial markets and GVCs (World Bank, 2020b).

- In 2025, intra-Commonwealth trade will be barely 5 per cent higher than the pre-COVID crisis level, with large variance across regions. Asia and the Pacific are expected to retain more dynamism than the other regions. Besides having closer ties with China – one of the few large economies not registering a deep recession – these countries have contained the spread of the disease by using a combination of stringent mobility restrictions, extensive testing-based strategies and information programmes to encourage precautionary behaviour (World Bank, 2020c).
- Extra-Commonwealth exports are less affected than imports. In 2025, extra-Commonwealth exports to ROW are predicted to be 5 per cent higher than pre-COVID crisis levels, whereas imports are expected to be just 2 per cent higher.

The analysis of how the COVID-19 pandemic has affected trade between and with Commonwealth countries demonstrates the interconnected and fragile nature of the economies and highlights the need for a coordinated response for recovery.

Two broad policy-related suggestions are proposed. First, it is important for the Commonwealth to have a comprehensive and coordinated cross-country policy response to the pandemic. Second, in light of growing participation of Commonwealth countries in world trade through value chains, restructuring GVCs and effective risk reduction strategies, including policies for diversification, are required.

1. Introduction

The COVID-19 pandemic has generated an unprecedented global shock, with a devastating effect on international trade (WTO, 2020a). The pandemic has been described as "a global shock 'like no other' and characterised by simultaneous supply and demand disruptions in an interconnected world economy" (Chudik et al., 2020). The impacts on international trade have been evident through the fall in commodity prices in the first quarter of 2020, reduced manufacturing output and disrupted operations in global value chains (GVCs). Trade in services has been significantly affected and remittances have plummeted (UNCTAD, 2020).

The World Trade Organization (WTO) estimates that the economic impact of the pandemic will vary across countries and regions, with a lasting effect on the world economy (WTO, 2020c). Global trade is estimated to remain below the pre-pandemic trade trend through 2021. The post-pandemic economic recovery is expected to be sluggish (IMF, 2020b), which may affect both domestic and foreign investment. The disruption of economic activity from the pandemic has the potential to be the most significant adverse macroeconomic shock in the past hundred years (Hevia and Neumeyer, 2020; World Bank, 2020a).

A detailed contextualisation of how COVID-19 has affected trade with and between the Commonwealth group of countries across different region and product groups is missing. This is an important area for research, given that around 70 per cent of Commonwealth countries' trade is in goods. The share of merchandise trade is higher for African (80 per cent) and Pacific members (83 per cent). Thus, the effect of COVID-19 on international trade may be devastating for Commonwealth countries, especially those that rely on specific commodities, for example agriculture and mineral commodities, since commodity prices declined in early 2020[1] with adverse impacts on trade and the macroeconomic situation of affected countries. Trade values are, however, likely to decline, given the largest recorded fall in global commodity prices in early 2020, which creates a challenge for developing countries through their reliance on commodity exports (CCSA, 2020).

The Commonwealth Secretariat commissioned a study to examine the impacts of the COVID-19 shock on merchandise trade in the Commonwealth countries. The broad aims of the commissioned study are to:

- Identify and establish trade rebound scenarios – Consensus, Optimistic and Pessimistic – by drawing on economic forecasts produced by multilateral organisations;
- Simulate the impact of the COVID-19 pandemic on potential trade flows under various rebound scenarios to estimate the potential loss in global and intra-Commonwealth goods trade flows of Commonwealth members and present results by economic sector, geographic region and country group;
- Examine the short- and medium-term trade prospects of Commonwealth members, for both global and intra-Commonwealth trade, for the three potential scenarios.

The findings are expected to inform discussions on the potential impact of COVID-19 on Commonwealth merchandise trade and intra-Commonwealth trade flows, and to feed into background work for the Commonwealth Trade Review 2021.

The predictions present three scenarios: Consensus, Pessimistic and Optimistic. The simulations for the scenarios are based on macroeconomic forecasts by the International Monetary Fund (IMF), the World Bank and the WTO in the third and fourth quarters of 2020. The Consensus forecast at country level is based on predictions made by the IMF in October 2020. The overall world forecasts are based on publications by the WTO. The scenarios were guided by projections published by the Organisation for Economic Co-operation and Development (OECD) under alternative hypotheses published in late 2020.

The predictions for falling trade between and within Commonwealth countries are based on trade volumes in US$ at constant 2018 prices. The model is demand-driven, and the starting point is the expected changes in the volume of imports from individual countries. These variations in demand, in turn, influence the volume of exports from trade partners. The main variable for the scenarios is the macroeconomic evolution of domestic demand for the Commonwealth and non-Commonwealth

importers, measured by gross domestic product (GDP) at constant prices. Because the income elasticity of demand varies from product to product, the variation in GDP affects products in different ways. Some products (e.g. foodstuff) are less sensitive to changes in income than others (e.g. electronics). While simulating the demand for imports, the supply side is also to be taken into consideration to distinguish between world imports and exports.

The simulations are based on the hypothesis that, first, the pandemic did not affect the capacity of trade partners to supply the products demanded by importing countries; and, second, trade policies in the importing and exporting countries as well as trade costs do not change in future. What is not modelled is whether the outcome of the crisis depends on the duration of the pandemic, on its impact on economic activity and on the effectiveness of the policy responses put in place by individual countries and the international community (IMF, 2020b). Thus, the results of the

simulations are not "forecasts" for trade but, on the contrary, are "predictions", and should be considered indicative of potential risks and opportunities.

This paper is organised as follows. Section 2 briefly surveys the existing literature on the effects of COVID-19 on merchandise trade flows. Section 3 discusses the data source for analysis and the main assumptions of the model. Section 4 presents the composition and geography of Commonwealth trade. Section 5 simulates the impact of the pandemic on potential trade flows under various rebound scenarios, estimates the potential loss in global and intra-Commonwealth goods trade flows and discusses results by economic sector, geographic region and country group. It also presents the short- and medium-term trade prospects of Commonwealth members, for both global and intra-Commonwealth trade, for the three potential scenarios – that is, Consensus, Optimistic and Pessimistic. Section 6 concludes and suggests policy recommendations to aid the recovery of Commonwealth trade.

2. Relevant literature

International organisations examine the impacts of COVID-19 on developing countries, including the effects on commodity sectors (IDB, 2020; OECD, 2020a, 2020b, 2020c; UN DESA, 2020; UN ECLAC, 2020a; IMF, 2020b) and all report a decline in trade. Trade in services also declined sharply in early 2020 (WTO, 2020a). Alongside the fall in goods and services, the largest capital outflows ($83 billion) from developing countries were reported since the start of the VCOVID crisis (IMF, 2020a). The United Nations Conference on Trade and Development (UNCTAD) and the IMF forecast a decline in foreign direct investment (FDI) of between 30 and 40 per cent for 2020 (IMF, 2020a; UNCTAD, 2020). Balchin (2020) highlights that FDI and trade are highly complementary, which explains why reduced FDI flows are likely to constrain intra- and extra-Commonwealth trade in the medium and long term.

The WTO (2020a) estimated that global trade would shrink between 13 and 32 per cent

in March 2020 (UNCTAD, 2020). The projections have since been revised. The revised WTO (2020c) estimates now forecast a 9.2 per cent decline in the volume of world merchandise trade for 2020, followed by a 7.2 per cent rise in 2021. World Bank (2020b) estimates project that the global economy will contract by 5.2 per cent in 2020 and suggest the fastest and steepest downgrade in Consensus growth projections among all global recessions. The IMF (2020b) also projects a decline in global growth, of 4.4 per cent, in 2020. The OECD (2020a) projects a deep recession in 2020 for all countries, followed by a slow and gradual recovery in 2021. The OECD's double-hit scenario projections released in June 2020 projected global GDP to decline by just under 7.8 per cent in 2020 before rising by around 2.8 per cent in 2021 (OECD, 2020a). These have since been revised to show that OECD economies will rebound, growing at 3.3 per cent in 2021 (OECD, 2020b), though a partial recovery is predicted following the deep recession in 2020.

The report also finds that the contribution of Europe and North America to global growth will be small compared with their weight in the world economy. It also projects that the second and third waves of the pandemic could lead the global economy to grow 4.2 per cent in 2021 and ease to 3.7 per cent in 2022. The caveat is that predictions depend on the severity of the pandemic.

All estimates are subject to an unusually high degree of uncertainty since these depend on the evolution of the pandemic and the government response across countries. While estimates of the potential impact of COVID-19 on global and regional trade have changed over the past months, all estimates suggest the outcome will be the worst ever economic crisis, with long-lasting effects. Studies examining the impact of the crisis on employment report that trade shocks will have a large and extensive impact (ILO, 2020a, 2020b). The estimated impacts vary considerably across sectors, however, depending on countries' reliance on imported intermediate inputs and exposure to falling consumer demand as a result of lockdown measures (ILO, 2020b).

There is a growing body of academic literature investigating the macroeconomic effects of COVID-19 across countries and sectors. For instance, Chudik et al. (2020) have built a multi-country econometric model augmented with global volatility threshold variables to capture the effects of the pandemic through interconnectedness between countries and markets. Maliszewska et al. (2020) use a computable general equilibrium model to illustrate the transmission channels and impact of COVID-19 on output and trade. They find that a baseline global pandemic scenario would see GDP decline by 2 per cent below the benchmark for the world, which is 2.5 per cent lower for developing countries and 1.8 per cent lower for industrial countries. Several studies examine the impact of COVID-19 on the US economy. For example, Pagano et al. (2020) and Capelle-Blancard and Desroziers (2020) examine the impact of the pandemic on the US stock market and find that different sectors of the economy will be affected differently. Ludvigson et al. (2020) quantify the macroeconomic impact using a vector autogression framework. Baqaee and Farhi (2020) quantify the effects using disaggregated US economic data. McKibbin and Fernando (2020) explore the global macroeconomic effects of alternative scenarios and highlight the role of spill-overs for the USA.

A few studies focus on the effects of COVID-19 on Commonwealth countries. For example, Adam et al. (2020a, 2020b) calibrate a dynamic general equilibrium model for Uganda to examine the macroeconomic shock of the pandemic in sub-Saharan Africa. The study finds that the recovery will depend on how the public finances are restored and recommends seeking external support. Escaith et al. (2020) examine the implications of the supply chain contagion from COVID-19 on Commonwealth countries' national incomes. Others examine how the supply chain contagion led to shutdowns of garment factories in Bangladesh (Anner, 2020; ILO, 2020c). The restrictions on air cargo and the devastating impact on GVCs, especially of perishable horticultural goods, such as cut flowers and fruits and vegetables from Kenya to the Eurpean UnionEU market, have also been examined (Fleming, 2020).

Literature also identifies the microeconomic impact of COVID-19. Studies suggest that the impact of the crisis is likely to be severe for small and medium enterprises (SMEs), as these exist primarily in the hardest-hit sectors, such as hotels, food services, wholesale and retail services (OECD, 2020b). SMEs have been highly vulnerable to lockdown measures and the negative impact has been magnified as a result of their limited access to commercial financing (WTO, 2020b). High- and medium-income developed and developing countries have put in place counter-cyclical monetary and fiscal policies but such policies have been beyond most low-income developing countries with limited public finances. Women-owned firms are highly vulnerable and characterised by adverse sectoral specialisation, occupational characteristics and financial resources. Women may also suffer disproportionately because the sectors in which they are economically active are among those that have been the worst affected by the crisis (e.g. apparel and footwear, tourism and other commercial services). The COVID-19 pandemic has also affected least developed countries (LDCs) and Commonwealth small island developing states (SIDS) (see Box 1). The fall in tourism revenues and remittances from migrant workers has also dried up critical sources of finance for low-income and developing countries (WTO, 2020a).

> ### Box 1. COVID-19 and services exports: The case of tourism in the Caribbean region
>
> The great lockdown induced by the coronavirus pandemic has paralysed several key sectors of many small island economies. Given their small size and geographic isolation, small islands are particularly dependent on international transportation by sea or by air. The crisis is particularly significant for the economies, such as those in the Caribbean region, that are highly reliant on tourism as their main source of services exports and employment. In 2019, tourism accounted for 42 per cent of total exports (goods and services) in the Caribbean (UN ECLAC, 2020b). The World Tourism Organization estimates that international tourist arrivals globally could drop by between 58 and 78 per cent in 2020.
>
> Closed borders and restrictions adopted by governments on passenger flights and vessels are among the strict measures that have affected Caribbean economies and specifically the travel and tourism industries in the region. According to González (2020), tourism in the Caribbean is expected to decline by between 60 and 70 per cent from April to December 2020 compared with the previous year. The results of the United Nations Economic Commission for Latin America and the Caribbean (UN ECLAC) (2020b) simulation model under three scenarios ("optimistic", "base", "pessimistic") suggest that tourism's net contributions to GDP will decline by 52 per cent, 67 per cent and 72 per cent in 2020. The Bahamas, Dominica and Grenada will be the most affected countries, with negative GDP contributions from tourism of between 12.4 and 14.9 percentage points from full-year GDP growth under the pessimistic shock scenario. Unfortunately, it is probable that the gloomy option is now the most realistic, as this most pessimistic version of the UN ECLAC model expected the lockdown to be relaxed in September 2020 but travel restrictions would last until December 2020.
>
> **Source:** Authors, based on UN ECLAC (2020b) and González (2020).

3. The data and the model

Bilateral trade data for the analysis is taken from Base Analytique du Commerce International (BACI), managed by the Centre d'Etudes Prospectives et d'Informations Internationales (CEPII) database; the latest year for which data are available is 2018. Goods in BACI are classified at a 6-digit level of the HS nomenclature and based on United Nations Commodities Trade Statistics Database (Comtrade) data. The difference between Comtrade and BACI is that the latter reconciles trade flows reported by the exporting and importing countries, and data are expressed on a free on board (FOB) basis in US$ thousands.[2]

The database used for the analysis in this study (for 2018) includes 8,000,275 bilateral flows and more than 5,000 different products at the HS 6-digit level, with observations indicating the exporter, importer, product code, value and quantity.

Using the import growth forecasts, the volume of expected bilateral trade in 2021 and 2022 has been computed, at constant 2018/2019 prices. The 2020–2025 results are analysed in terms of variations with respect to a base year (2018/19), rather than in terms of US$ value.

A global and regional analysis has been conducted. This provides information on expected exports from Commonwealth countries to other Commonwealth members and to the Rest of the World (ROW).

Countries and products have been aggregated for ease of analysis. Countries are classified into three groups: Commonwealth countries; other countries of the G20 group; and all other countries termed "ROW". Thus, the list of trade reporters includes 68 countries (of which 54 are Commonwealth members, see Table 1 and Note). In addition, a ROW region presents aggregate trade data for the remaining countries.

A geographical disaggregation and a distinction between developed/developing countries have been made. Disaggregation into LDCs and small states is not possible because trade data for these countries are patchy and growth forecasts approximate.

Products are grouped in six categories: agriculture and food products; minerals and chemicals; articles made of basic material; textiles and apparel; manufactures; and other products not elsewhere classified (antiques, works of art, etc.). Annex 3 provides a detailed list of products with their correspondence in the HS (21 sections). Each product category is assigned an import demand elasticity based on Ghodsi et al. (2016).

Annex 2 presents a detailed note on the methodology explaining the approach used for analysis.

Table 1. Commonwealth countries by region and development status

Country	ISO3	Country	ISO3
Africa		**Asia**	
Cameroon	CMR	Bangladesh	BGD
The Gambia	GMB	Brunei Darussalam	BRN
Ghana	GHA	Sri Lanka	LKA
Kenya	KEN	Malaysia	MYS
Malawi	MWI	Pakistan	PAK
Mauritius	MUS	India	IND
Mozambique	MOZ	Singapore	SGP
Nigeria	NGA	Maldives	MDV
Rwanda	RWA		
Seychelles	SYC	**Europe**	
Sierra Leone	SLE	Cyprus*	CYP
Southern African Customs Union**	ZAF	Malta*	MLT
Uganda	UGA	United Kingdom*	GBR
Tanzania	TZA		
Caribbean and Americas		**Pacific**	
Antigua and Barbuda	ATG	Australia*	AUS
The Bahamas	BHS	Solomon Islands	SLB
Barbados	BRB	Fiji	FJI
Belize	BLZ	Kiribati	KIR
Canada*	CAN	Nauru	NRU
Dominica	DMA	Vanuatu	VUT
Grenada	GRD	New Zealand*	NZL
Guyana	GUY	Papua New Guinea	PNG
Jamaica	JAM	Tonga	TON
Saint Lucia	LCA	Tuvalu	TUV
St Kitts and Nevis	KNA	Samoa	WSM
St Vincent and the Grenadines	VCT		
Trinidad and Tobago	TTO		

Note: * Developed country; ** Botswana, Eswatini (formerly Swaziland), Lesotho, Namibia and South Africa.

4. The composition and geography of Commonwealth trade before COVID-19

4.1. Composition of Commonwealth imports and exports

An examination of the composition of intra- and extra-Commonwealth trade flows based on 2018 data shows that the main exports are minerals and chemicals (34 per cent), followed by manufactures (28 per cent) and articles of basic materials (21 per cent). The pattern of imports shows manufactures (40 per cent) dominate, followed by minerals and chemicals (28 per

cent). Further analysis of trade data shows that Commonwealth exports (18 per cent) are more relevant than imports (16 per cent).

Table 2 presents intra- and extra-Commonwealth trade patterns for 2018. The most important items of merchandise trade are agriculture and food, minerals and chemicals, articles made of basic material, and textiles and apparel. Agri-food products imports and exports are important at 21 per cent and 18 per

Figure 1. Composition of Commonwealth imports and exports, 2018 (%)
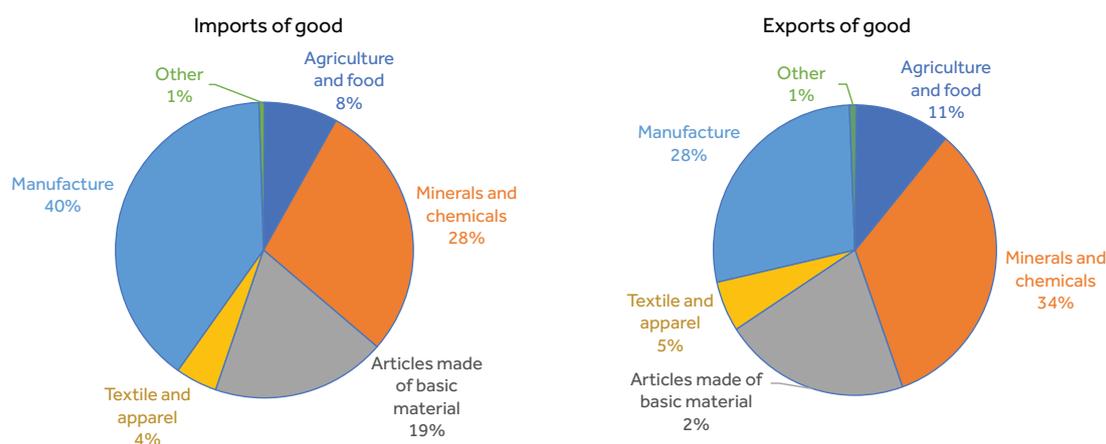
Source: Authors, based on BACI.

cent, respectively. Manufactures stand out, as the difference between exports and imports is large given Commonwealth countries import 90 per cent of manufactures from the ROW and export 15 per cent to Commonwealth partners. The findings on the share of Commonwealth trade with other countries are consistent with those of an earlier study (see Khorana and Escaith, 2020) examining the importance of intra-Commonwealth trade in GVCs. This report finds that large countries (e.g. Singapore and the UK) present evidence of lower reliance on the Commonwealth, unlike the smaller economies, which show orientation to partner Commonwealth countries. For example, countries such as Guyana, Tanzania, Mozambique and Eswatini rely on imported inputs from Commonwealth countries, and the value of inputs from Commonwealth countries ranges from 13 to 16 per cent, whereas the average reliance ranges between 4 and 8 per cent for other Commonwealth countries.

Table 3 presents an analysis of the overall trade balance, and shows a negative trade

Table 2. Intra- and extra-Commonwealth imports and exports by product category, 2018 (US$ million and %)

Products	Imports	Of which intra-trade	
Agriculture and food	221,722	46,183	20.8%
Minerals and chemicals	782,636	157,145	20.1%
Articles made of basic material	514,449	100,329	19.5%
Textiles and apparel	125,309	25,871	20.6%
Manufactures	1,089,199	99,073	9.1%
Other	18,309	2,596	14.2%
Total	2,751,625	431,196	15.7%
Products	**Exports**	**Of which intra-trade**	
Agriculture and food	258,731	46,183	17.8%
Minerals and chemicals	804,847	157,145	19.5%
Articles made of basic material	514,852	100,329	19.5%
Textiles and apparel	134,070	25,871	19.3%
Manufactures	665,231	99,073	14.9%
Other	15,039	2,596	17.3%
Total	2,392,770	431,196	18.0%

Note: Product aggregation based on the HS classification (see Annex 3).
Source: Authors, based on BACI.

Table 3. Commonwealth countries: trade balance by product category, 2018 (US$ million and %)

Products	Balance (X-M)	(X-M)/(X+M)
Agriculture and food	37,009	7.7%
Minerals and chemicals	22,211	1.4%
Articles made of basic material	403	0.0%
Textile and apparel	8,761	3.4%
Manufacture	−423,969	−24.2%
Others	−3,270	−9.8%
Total	**−358.855**	**−7.0%**

Note: Imports (M) and exports (X) include intra- and extra-Commonwealth trade flows; trade balance is not affected by excluding intra-Commonwealth trade from both imports and exports.
Source: Authors, based on BACI.

balance in goods (US$359 billion), which constitutes 7 per cent of total trade. This reflects an imbalance in extra-Commonwealth trade, as the intra-Commonwealth exports equal imports by definition.[3] Table 3 shows that Commonwealth countries' trade deficit is mainly in manufactures, where the imbalance is as high as 24 per cent between export and import flows. Commonwealth countries, however, enjoy a surplus in three products – agriculture and food products ($37 billion, or 8 per cent of corresponding trade flows), textiles and apparel ($8 billion, 3 per cent) and mineral and chemical products ($22 billion, or above 1 per cent).

4.2. The geography of Commonwealth trade

Table 4 presents the value of trade and geographical distribution for intra- and extra-Commonwealth countries. This shows that Commonwealth countries in Africa and in the Caribbean and Americas region enjoy a small surplus in trade with ROW because the weight of imports from non-Commonwealth countries (penultimate row of the table) is higher than that for exports (penultimate column). Among the Commonwealth countries, Asia is in lead position in total trade and Africa is at the tail end.

Table 5 presents intra- and extra-Commonwealth trade in goods as a percentage of exports and imports. Trade between African Commonwealth countries is high, with as much as 30 per cent exports and 24 per cent imports from within the Commonwealth community. Africa sources 10 per cent of its imports from Commonwealth countries in the region but exports 14 per cent to the Commonwealth members in Asia. Commonwealth countries in the Caribbean and Americas region export 93 per cent of goods to, and import 95 per cent from, non-Commonwealth countries. Similarly, the three Commonwealth members in Europe trade mostly with non-Commonwealth countries – that is, they export 91 per cent of goods to non-Commonwealth countries and import a similar proportion of goods from these countries.

Table 6 presents the distribution of trade by product groups, as a proportion of regional exports (the sum of each line equals 100 per cent). The shaded cells indicate instances where

Table 4. Intra- and extra-Commonwealth trade in goods, 2018 (US$ million)

	Africa	Asia	Caribbean & Americas	Europe	Pacific	ROW	Total exports
Africa (19)	23,567	34,886	1,093	13,882	1,770	174,670	249,868
Asia (8)	20,149	122 694	8,459	20,631	30,508	732,152	934,594
Caribbean & Americas (13)	2,083	7,150	1,526	18,808	2,169	412,049	443,784
Europe (3)	6,134	18,572	7,703	1,798	7,080	418,550	459,837
Pacific (11)	2,907	29,425	2,261	4,919	17,127	248,048	304,687
ROW	170,586	945,016	382,421	628,145	218,156	*13,624,444	15,968,769
Total imports	225,425	1 157 743	403,463	688,183	276,811	15,609,914	18,361,538

Notes: In parenthesis, number of countries included (see Table 1). ROW = about 170 non-Commonwealth countries.* Value of world trade when neither the exporter nor the importer belongs to the Commonwealth.
Source: Authors, based on BACI.

Table 5. Intra- and extra-Commonwealth trade in goods, 2018 (% exports and imports)

	Africa	Asia	Caribbean & Americas	Europe	Pacific	ROW	Total
Exports							
Africa	**9.4%**	14.0%	0.4%	5.6%	0.7%	69.9%	100.0%
Asia	2.2%	**13.1%**	0.9%	2.2%	3.3%	78.3%	100.0%
Caribbean & Americas	0.5%	1.6%	**0.3%**	4.2%	0.5%	92.8%	100.0%
Europe	1.3%	4.0%	1.7%	**0.4%**	1.5%	91.0%	100.0%
Pacific	1.0%	9.7%	0.7%	1.6%	**5.6%**	81.4%	100.0%
ROW	1.1%	5.9%	2.4%	3.9%	1.4%	**85.3%**	100.0%
Total Exports	1.2%	6.3%	2.2%	3.7%	1.5%	85.0%	100.0%
Imports							
Africa	**10.5%**	3.0%	0.3%	2.0%	0.6%	1.1%	1.4%
Asia	8.9%	**10.6%**	2.1%	3.0%	11.0%	4.7%	5.1%
Caribbean & Americas	0.9%	0.6%	**0.4%**	2.7%	0.8%	2.6%	2.4%
Europe	2.7%	1.6%	1.9%	**0.3%**	2.6%	2.7%	2.5%
Pacific	1.3%	2.5%	0.6%	0.7%	**6.2%**	1.6%	1.7%
ROW	75.7%	81.6%	94.8%	91.3%	78.8%	**87.3%**	87.0%
Total Imports	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Note: Based on Table 4. In bold: intra sub-regional trade.

Table 6. Intra- and extra-Commonwealth trade by product group, 2018 (% of exports)

Product	Agriculture and Food					
Regions	Africa	Asia	Caribbean & America	Europe	Pacific	Rest of Wld
Africa	**11.5%**	8.6%	1.0%	6.8%	0.8%	71.4%
Asia	3.0%	**12.7%**	1.1%	1.6%	2.6%	79.0%
Caribbean & America	1.4%	2.2%	**0.3%**	1.3%	0.5%	94.2%
Europe	1.8%	3.4%	1.5%	**1.0%**	2.2%	90.1%
Pacific	1.0%	7.2%	1.6%	2.4%	**8.5%**	79.4%
Rest of Wld	1.3%	3.4%	2.8%	4.8%	1.0%	**86.8%**
Market Share	1.5%	4.1%	2.5%	4.3%	1.4%	86.1%
Product	Minerals and Chemicals %					
Regions	**Africa**	**Asia**	**Caribbean & America**	**Europe**	**Pacific**	**Rest of Wld**
Africa	**9.5%**	19.3%	0.3%	3.7%	0.7%	66.5%
Asia	2.7%	**18.4%**	0.5%	1.0%	6.3%	71.1%
Caribbean & America	0.1%	1.7%	**0.5%**	1.2%	0.3%	96.1%
Europe	1.4%	2.3%	1.9%	**0.2%**	1.1%	93.2%
Pacific	1.0%	11.0%	0.4%	0.4%	**2.0%**	85.2%
Rest of Wld	1.3%	8.5%	2.2%	3.7%	1.1%	**83.2%**
Market Share	1.5%	9.1%	1.9%	3.2%	1.4%	82.9%
Product	Articles made of basic material					
Regions	**Africa**	**Asia**	**Caribbean & America**	**Europe**	**Pacific**	**Rest of Wld**
Africa	**6.2%**	13.0%	0.4%	7.0%	0.2%	73.2%
Asia	1.7%	**11.2%**	0.8%	1.7%	1.9%	82.6%
Caribbean & America	0.6%	1.8%	**0.5%**	13.8%	0.3%	83.0%
Europe	0.7%	5.7%	0.7%	**0.2%**	0.7%	92.0%

Continued

Table 6 *Continued*

Regions	Africa	Asia	Caribbean & America	Europe	Pacific	Rest of Wld
Pacific	0.5%	8.7%	0.3%	3.7%	**9.2%**	77.6%
Rest of Wld	1.0%	6.7%	2.4%	3.8%	1.2%	**84.9%**
Market Share	1.2%	7.0%	2.1%	4.0%	1.3%	84.5%
Product	**Textile and apparel**					
Regions	**Africa**	**Asia**	**Caribbean & America**	**Europe**	**Pacific**	**Rest of Wld**
Africa	**18.0%**	5.1%	0.8%	4.1%	1.1%	70.9%
Asia	1.5%	**6.5%**	2.0%	7.3%	1.7%	81.0%
Caribbean & America	1.6%	1.2%	**0.1%**	1.2%	0.6%	95.2%
Europe	2.0%	2.1%	0.7%	**1.0%**	1.1%	93.2%
Pacific	0.4%	10.2%	0.2%	1.5%	**7.4%**	80.3%
Rest of Wld	1.2%	3.8%	1.8%	4.1%	1.5%	**87.5%**
Market Share	1.3%	4.1%	1.8%	4.4%	1.5%	86.8%
Product	**Manufacture**					
Regions	**Africa**	**Asia**	**Caribbean & America**	**Europe**	**Pacific**	**Rest of Wld**
Africa	**18.0%**	2.6%	0.5%	5.8%	2.4%	70.6%
Asia	1.9%	**12.0%**	0.9%	1.9%	1.9%	81.4%
Caribbean & America	0.4%	1.1%	**0.0%**	1.2%	0.8%	96.4%
Europe	1.4%	4.6%	2.1%	**0.4%**	2.0%	89.4%
Pacific	2.4%	8.4%	2.2%	4.4%	**18.2%**	64.5%
Rest of Wld	0.9%	5.0%	2.5%	3.9%	1.6%	**86.1%**
Market Share	1.0%	5.2%	2.4%	3.7%	1.7%	86.1%
Product	**Others**					
Regions	**Africa**	**Asia**	**Caribbean & America**	**Europe**	**Pacific**	**Rest of Wld**
Africa	**21.8%**	0.6%	0.4%	30.2%	10.7%	36.2%
Asia	5.6%	**12.1%**	0.8%	4.4%	4.3%	72.8%
Caribbean & America	0.1%	0.4%	**0.1%**	1.5%	3.3%	94.6%
Europe	1.7%	3.2%	1.4%	**0.3%**	3.4%	90.0%
Pacific	1.0%	4.3%	2.4%	7.7%	**39.3%**	45.3%
Rest of Wld	1.4%	3.1%	2.9%	7.7%	1.5%	**83.4%**
Market Share	1.6%	3.3%	2.7%	7.1%	2.0%	83.4%

Source: Authors, based on BACI.

the share of exports to a region is larger than the weight of a region in the world market. A large difference indicates a strong attraction, as suggested by the gravity model (see Annex 2). Trade by products presents the same pattern as observed for total trade (in Table 5). Commonwealth countries from the Caribbean and Americas region as well as Europe have a different distribution of trade, which owes to an asymmetric distribution of larger Commonwealth economies (such as Canada or the UK) and small island states in the region. Moreover, these countries are geographically close to large markets (the USA and continental Europe, respectively), which attract a high proportion of exports. Commonwealth countries in Asia and Europe are important export markets for Commonwealth countries in Africa.

However, Europe is slightly underweighted in exports of textiles and apparel from Africa and manufactures from Asia. The Commonwealth countries are over-represented (30 per cent against an expected gravity-free share of 7 per cent) for "other products" exported to Europe. The analysis shows that Commonwealth countries in Asia export mostly to Africa, Asia and Pacific Commonwealth countries. Canada (in the Caribbean and Americas region of the Commonwealth) and Europe are important markets for textiles and apparel exports from LDCs in Asia given the preferential duty-free, quota-free market access allowed into developed countries' markets under WTO rules.[4] The Commonwealth countries in the Pacific region trade more within the region and with Asia.

5. Simulation results: Impact of the COVID-19 pandemic on potential trade flows

5.1. Overall world trade outlook: 2014–2025

This section presents projections for total imports of goods at constant prices for individual countries for 2020–2025. For the Consensus scenario, we build on the macroeconomic forecasts in the IMF Outlook released in October 2020. This scenario expects global growth to rebound in 2021 after a severe contraction in 2020. Global economic growth is expected by the IMF to gradually slow to about 3.5 per cent into the medium term. Under this scenario, world trade is projected to bounce back to its 2019 level in the second half of 2022.

The Optimistic scenario builds on a "V" shaped recovery in late 2021. The Pessimistic scenario considers the possibility of a double hit, suggesting that the pandemic may not be controlled in the fourth quarter and it will take longer to have medical measures implemented in 2021 (OECD, 2020a).

Figure 2 provides a snapshot of the predicted evolution of world trade for goods under the three scenarios. Trade increased between 2014 and 2017 and started slowing in 2019 before the COVID-19 crisis as a result of increased bilateral trade tensions and slowing economic growth (IMF, 2020b). Thus, world merchandise trade registered a slight decline of − 0.1 per cent in volume terms in 2019.

Both the Consensus and the Optimistic scenarios predict that the volume of trade in goods will decline by about 9 per cent in 2020, as a result of economic activity rebounding in the third and fourth quarters of 2020. The Optimistic scenario, however, assumes that the volume of world trade will fully recover in 2025 – that is, the expected level will be attained as if the COVID-19 crisis had not altered the 2014–2019 trend.

Under the Pessimistic scenario, world trade drops by about 12 per cent in 2020 and is not expected to recover to pre-crisis levels before the end of 2023. This differs from the Consensus scenario, where a slow convergence in the trend is expected if world trade is shocked by a double hit, and, in this case, trade remains below the levels extrapolated from the 2014–2019 trend.
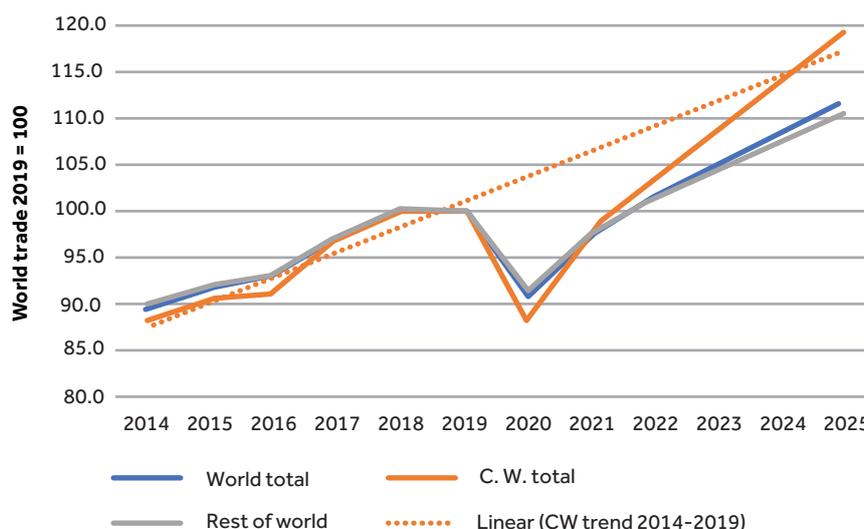
Figure 2. Evolution of world trade, 2014–2025 (goods only, constant price)
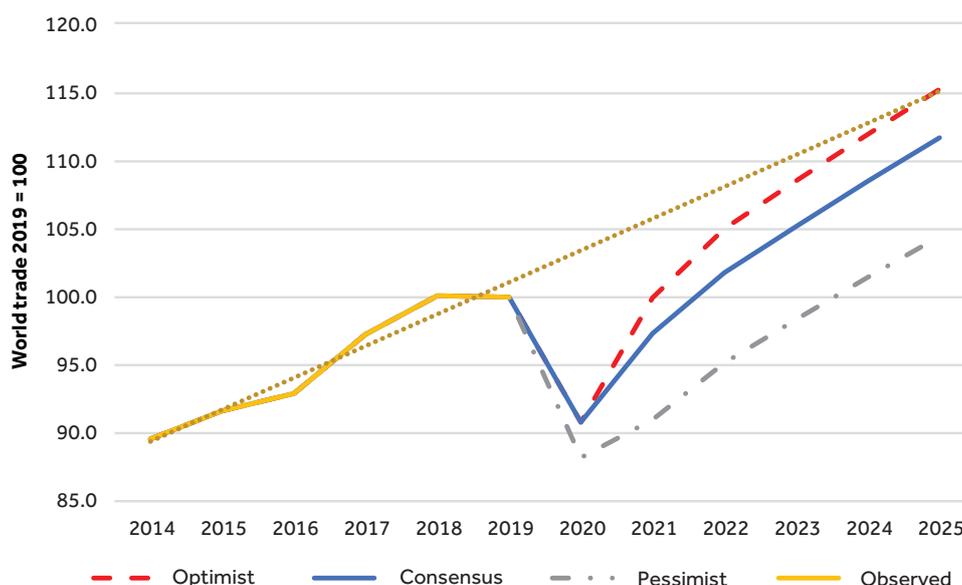
Note: 2014–2019 are actual data, based on WTO data. 2020–2025 results are from model simulations.
Source: Authors.

Figure 3. Evolution of Commonwealth and world imports, 2014–2025 (goods only, constant price)

Note: 2014–2019 are actual data, based on IMF and WTO. 2020–2025 results are from IMF forecasts. ROW includes all non-Commonwealth countries.
Source: Authors, based on BACI, IMF and WTO data.

The IMF outlook projects a steep decline in trade for Commonwealth and non-Commonwealth countries in 2020, and forecasts that the rebound in trade is faster in the post-crisis period for the former (see Figure 3). Commonwealth imports are expected to return to pre-crisis levels between 2021 and 2022. In 2024, the imports are expected to recover and grow at a sustained pace. Our own simulations based on BACI data show that trade among Commonwealth countries is more in line with the world average.[5]

5.2. Commonwealth trade under the Consensus scenario

The Consensus scenario is based on IMF and WTO forecasts in October–November 2020 and presents the expected trade outcome by examining the anticipated evolution of annual trade flows by region and country development level. This also assesses expected variations in the geographical distribution of exports and imports for 2025.

5.2.1. Expected annual trade growth: Intra- and extra-Commonwealth

Table 7 presents total Commonwealth trade predictions. Results show that trade between Commonwealth countries is predicted to return to the base year volume (exports and imports, within or outside the Commonwealth)

during 2022. By the end of 2025, trade volumes are predicted to reach a level somewhat less than 10 per cent above their pre-COVID crisis value. Average growth, based on computerised bilateral imports and exports, is, however, less upbeat than the IMF forecasts (IMF, 2020c). In other words, the Consensus scenario is driven largely by demand from ROW and presents a conservative prediction for several Commonwealth countries even though the aggregate world trade results are in line with WTO forecasts. The results dissimulate heterogeneity according to the geographical location and the development status of countries.

Trade in developed Commonwealth economies is expected to be more adversely affected by the pandemic and a slow recovery is predicted. By 2025, the difference between developed and developing Commonwealth countries is expected to be 1.7 percentage points, up from 1.4 in 2020. The Pacific region is comparatively less affected. This owes in part to the region's trade with China, which is expected to avoid a recession in 2020. The Caribbean region suffers significantly; this is linked to its dependency on services and tourism exports. Trade in African and Asian Commonwealth countries is expected to grow slightly above the group average. The European Commonwealth countries and Canada are likely to stay below the trend. Trade growth is expected to remain negative

Table 7. Consensus scenario: Commonwealth global trade, expected accumulated growth by region and development status, 2020–2025 (% of base year 2018/19)

Accumulated growth to:	2020	2021	2022	2025
Africa*	−8.7%	−2.1%	2.5%	12.6%
Asia*	−10.5%	−4.0%	0.4%	10.2%
Caribbean & Americas*	−16.6%	−10.3%	−6.1%	3.3%
Caribbean & Americas**	−11.3%	−4.9%	−0.5%	9.3%
Europe**	−15.0%	−8.8%	−4.7%	4.6%
Pacific*	3.1%	10.6%	15.7%	27.0%
Pacific**	−5.2%	1.8%	6.6%	17.2%
Total	−10.9%	−4.4%	0.0%	9.8%
−− of which developed	−11.6%	−5.2%	−0.8%	8.9%
−− of which developing	−10.2%	−3.7%	0.8%	10.7%

Notes: Based on simulations; growth rates measure the accumulated variation from base year 2018/19, at constant 2018 prices. * Developing Commonwealth countries; ** developed Commonwealth countries.
Source: Authors.

during 2020–2022, just slightly higher than predicted for total trade (in Table 7).

Intra-Commonwealth trade (see Table 8) is measured by the average of imports and exports, which is predicted to decline by about 2 percentage points more than for the developing Commonwealth countries in 2020–2021. The slow growth of intra-Commonwealth trade owes mainly to a predicted drop in developed Commonwealth economies. The gap between the developed and developing Commonwealth countries is expected to increase, which will

Table 8. Consensus scenario: Intra-Commonwealth trade, expected growth by region and development status 2020–2025 (US$ 000s and % of base year 2018/19)

Exports from:	2018/19	2020	2021	2022	2025
	Value	Accumulated growth rates			
Exports					
Africa	75,197,585	−14.7%	−8.3%	−4.0%	5.6%
Asia	202,441,402	−9.3%	−2.6%	1.9%	12.1%
Caribbean & Americas	31,735,191	−16.1%	−10.2%	−6.2%	2.9%
Europe	41,286,793	−9.4%	−3.1%	1.2%	10.8%
Pacific	56,639,168	−10.9%	−4.2%	0.4%	10.6%
Total	407,300,139	−11.0%	−4.5%	−0.1%	9.8%
Imports					
Africa	54,839,320	−6.6%	0.2%	4.9%	15.2%
Asia	212,726,971	−11.7%	−5.2%	−0.8%	9.2%
Caribbean & Americas	21,041,300	−13.1%	−6.8%	−2.4%	7.3%
Europe	60,038,111	−18.8%	−13.0%	−9.0%	−0.2%
Pacific	58,654,437	−4.1%	3.0%	7.8%	18.5%
Total	407,300,139	−11.0%	−4.5%	−0.1%	9.8%
Total trade (average imports and exports)					
Total developed	128,490,004	−12.3%	−5.9%	−1.6%	8.1%
Total developing	278,810,135	−10.5%	−3.9%	0.6%	10.6%

Note: Based on simulations; growth rates measure the accumulated variation from base year 2018/−2019, at constant 2018 prices.
Source: Authors.

Table 9. Consensus scenario: Extra-Commonwealth trade, expected growth by region and development status 2020–2025 (US$ 000s and % of base year 2018/19)

	2018/19	2020	2021	2022	2025
	Value	Accumulated growth rates			
Exports to ROW					
Africa	174,670,094	−8.1%	−1.3%	3.3%	13.6%
Asia	732,152,198	−8.3%	−1.6%	2.9%	13.1%
Caribbean & Americas	412,049,127	−9.7%	−3.0%	1.5%	11.5%
Europe	418,550,422	−9.1%	−2.5%	2.0%	11.9%
Pacific	248,047,868	−3.8%	3.4%	8.4%	19.4%
Total	1 985,469,709	−8.2%	−1.4%	3.1%	13.3%
Imports from ROW					
Africa	170,585,557	−7.5%	−0.8%	3.7%	13.8%
Asia	945,015,979	−12.2%	−6.0%	−1.7%	7.9%
Caribbean & Americas	382,421,428	−13.0%	−6.8%	−2.5%	7.0%
Europe	628,145,253	−18.9%	−13.0%	−9.0%	−0.2%
Pacific	218,156,434	−4.9%	1.9%	6.6%	17.0%
Total	2,344,324,651	−13.1%	−6.9%	−2.6%	6.9%
Total trade					
Total developed	2,263,682,952	−11.5%	−5.1%	−0.7%	9.0%
Total developing	2,066,111,408	−10.1%	−3.6%	0.8%	10.7%

Note: Based on BACI database and authors' simulations; growth rates measure the accumulated variation from base year 2018/19, at constant 2018 prices.
Source: Authors.

result in an accumulated difference of over 2.5 percentage points between the developed and developing Commonwealth countries in 2025. But the overall intra-Commonwealth trade is expected to grow in line with total trade during 2023–2025 as a result of strong import demand forecast post-2022.

The lacklustre performance of developed economies is attributed to countries, such as Canada, Cyprus, Malta and the UK, where trade is not expected to recover in 2025 in line with intra-Commonwealth trade in 2019 (5 per cent and 4 per cent above the 2019 value and volume, respectively). Australia and New Zealand in the Pacific region are expected to trade 13 per cent more than the 2019 value but this is substantially lower (30 per cent) than trade between developing countries from the region. The predictions also show that the Commonwealth Pacific SIDS will register the highest growth in intra-Commonwealth trade (almost 30 per cent considering both imports and exports), unlike the Caribbean, where trade is expected to improve by only 4 per cent compared with 2019 levels (6 per cent for exports and 2 per cent for imports).

In 2025, exports by Commonwealth countries to ROW (Table 9) are predicted to double compared with extra-Commonwealth imports (13 per cent vs. 7 per cent, respectively). The Pacific region is expected to register exports and imports growth in 2021. In contrast, imports of extra-Commonwealth goods from EU countries are expected to remain negative until 2025. This predicted evolution mimics projections of intra-Commonwealth trade.

Extra-Commonwealth imports are likely to grow slowly in all other regions compared with trade between Commonwealth countries. As a result, Commonwealth trade, which registered a deficit of 8 per cent in 2018/19 with respect to ROW, would be reduced to 5 per cent in 2025. Exceptions are Africa and the Pacific SIDS that had a surplus in 2018/19 but these countries will see the margins reduced according to the simulation.

5.2.2. Expected composition and geography of Commonwealth trade: 2025

The hypothesis in the simulation exercise – that is, stickiness of prices and constant supply-side conditions – does not provide for swings in the

Table 10. Consensus scenario: Extra-Commonwealth trade, expected trade balance by region and development status 2020–2025 (% of total respective trade flows)

	2018/19	2020	2021	2022	2025
Africa*	1.2%	0.9%	1.0%	1.0%	1.1%
Asia*	−12.7%	−10.5%	−10.5%	−10.4%	−10.4%
Caribbean & Americas*	−26.9%	−21.2%	−20.9%	−20.8%	−20.5%
Caribbean & Americas**	5.0%	6.7%	6.8%	6.8%	6.9%
Europe**	−20.0%	−14.5%	−14.5%	−14.5%	−14.5%
Pacific*	30.5%	24.0%	24.1%	24.2%	24.3%
Pacific**	5.8%	6.5%	6.7%	6.8%	7.0%
Total	−8.3%	−5.5%	−5.5%	−5.4%	−5.4%

Note: Trade balances are expressed as the ratio (Exports-Imports)/(Exports+Imports) at constant 2018 prices.
   *Developing Commonwealth countries; **developing Commonwealth countries.
Source: Table 9.

overall structure of trade in the medium term when we consider aggregate Commonwealth trade. Larger shifts can be observed when simulations are disaggregated by sub-region or individual country.[6]

Exports of agri-food and minerals and chemicals are expected to exceed imports by 1 percentage point annually. As a result, the Commonwealth trade surplus observed in the pre-COVID period is expected to increase (Table 12). However, the deficit in the trade of manufactures is predicted to decrease, given that annual average exports increased by almost 2 per cent compared with 1.2 per cent in imports.

The overall trade deficit of the Commonwealth countries with ROW is expected to decrease, from US$359 billion to $255 billion at 2018 constant prices. This is the result of low demand for imports from the European Commonwealth countries, according to the Consensus forecasts for the simulation.

Table 11. Consensus scenario: Intra- and extra-Commonwealth imports and exports by product category, 2018/19 and 2025 (US$ million and %)

Products	2018/19	Of which intra (%)	2025	Of which intra (%)	Average annual growth 2019–2025
Imports					
Agriculture and food	221,722	20.8%	237,537	21.7%	1.2%
Minerals and chemicals	782,636	20.1%	850,010	20.7%	1.4%
Articles made of basic material	514,449	19.5%	540,165	19.7%	0.8%
Textiles and apparel	125,309	20.6%	135,311	20.8%	1.3%
Manufactures	1,089,199	9.1%	1,170,180	9.4%	1.2%
Other	18,309	14.2%	19,208	14.9%	0.8%
Total	2,751,625	15.7%	2,952,409	16.1%	1.2%
Exports					
Agriculture and food	258,731	17.8%	290,627	17.7%	2.0%
Minerals and chemicals	804,847	19.5%	925,635	19.0%	2.4%
Articles made of basic material	514,852	19.5%	572,271	18.6%	1.8%
Textiles and apparel	134,070	19.3%	149,639	18.8%	1.8%
Manufactures	665,231	14.9%	743,022	14.8%	1.9%
Other	15,039	17.3%	16,547	17.2%	1.6%
Total	2,392,770	18.0%	2,697,741	17.6%	2.0%

Note: Growth rates measure the average annual variation from base year 2018/19, at constant 2018 prices.
Source: Based on BACI database and authors' simulations.

Table 12. Consensus scenario: Commonwealth trade balance by product category, 2018/2019 and 2025 (US$ million and %)

	2018/19		2025	
	Value	*(X-M)/(X+M)*	*Value*	*(X-M)/(X+M)*
Agriculture and food	37,009	7.7%	53,090	10.1%
Minerals and chemicals	22,211	1.4%	75,625	4.3%
Articles made of basic material	403	0.0%	32,107	2.9%
Textiles and apparel	8,761	3.4%	14,329	5.0%
Manufactures	−423,969	−24.2%	−427,158	−22.3%
Other	−3,270	−9.8%	−2,661	−7.4%
Total	−358,855	−7.0%	−254,668	−4.5%

Note: Imports (M) and exports (X) include intra- and extra-Commonwealth trade flows; trade balance is not affected by excluding intra-Commonwealth trade from both imports and exports.
Source: Authors' simulations based on BACI database.

Table 13 presents the outcome in terms of geographical distribution of trade for 2025. If we compare the expected situation with the pre-COVID period (see Table 4), we see that ROW is expected to become an important market for Commonwealth exporters in Africa (+1.5 percentage points), mainly because of lower exports to Commonwealth Asia (−1.3 percentage points). The Pacific members increase the weight of extra-Commonwealth exports (+1.1 percentage points), but the exports to Commonwealth Asia are low (−0.8 percentage points). The European Commonwealth countries also contribute but by −0.4 percentage points.

5.3. Commonwealth trade under the Optimistic scenario

Table 14 shows that trade is predicted to be negatively affected and will decline by 10.9 per cent in 2021. Both developed (−11.7 per cent) and developing (−10.2 per cent) Commonwealth community members show losses. The losses in 2022 are lower.

Trade recovers in 2022 and by 2025 trade volumes are expected to be 13.2 per cent above pre-crisis levels, with developing countries bouncing back more than developed countries. There is, however, a small difference in outcomes between regions or development status, the Pacific region being slightly better served

Table 13. Consensus scenario: Intra- and extra-Commonwealth trade in goods, 2025 (US$ million and %)

	Africa	Asia	Caribbean & Americas	Europe	Pacific	ROW	Total	Variation w/r pre-crisis
Africa	27,156	35,230	1,172	13,793	2,086	198,452	277,889	11.2%
Asia	23,379	137,566	9,098	20,551	36,291	827,730	1,054,614	12.8%
Caribbean & Americas	2,319	7,554	1,591	18,665	2,525	459,580	492,234	10.9%
Europe	6,979	20,213	8,268	2,052	8,237	468,407	514,156	11.8%
Pacific	3,320	31,641	2,439	4,879	20,370	296,198	358,847	17.8%
ROW	194,126	1,019,438	409,203	627,129	255,137	15,313,889	17,818,923	11.6%
Total	257,279	1,251,643	431,772	687,069	324,646	17,564,255	20,516,664	11.7%
Variation w/r pre-crisis	14.1%	8.1%	7.0%	−0.2%	17.3%	12.5%	11.7%	…

Note: Based on simulations; growth rates measure the accumulated variation from base year 2018/19, at constant 2018 prices.
Source: Authors' simulations based on BACI database.

Table 14. Optimistic scenario: Commonwealth total trade, expected growth by region and development status, 2020–2025 (% of base year 2018/19)

Accumulated growth to:	2020	2021	2022	2025
Africa*	−8.8%	2.4%	5.7%	16.1%
Asia*	−10.6%	0.3%	3.5%	13.7%
Caribbean & Americas*	−16.7%	−6.2%	−3.2%	6.5%
Caribbean & Americas**	−11.4%	0.1%	2.6%	12.7%
Europe**	−15.0%	−4.6%	−1.7%	7.9%
Pacific*	3.0%	15.4%	19.2%	30.9%
Pacific**	−5.3%	6.9%	9.9%	20.9%
Total	−10.9%	0.1%	3.1%	13.2%
−- of which developed	−11.7%	−0.5%	2.3%	12.3%
−- of which developing	−10.2%	0.7%	3.9%	14.1%

Notes: Based on simulations; growth rates measure the accumulated variation from base year 2018/2019, at constant 2018 prices. * Developing countries; ** developed countries.
Source: Authors.

than the average, while the three European member countries and the Commonwealth Caribbean SIDS are slightly below.

The simulation results for 2025 represent a 3.4 percentage point improvement compared to the Consensus scenario.

Analysis of intra-Commonwealth trade (Table 15) presents the variation between the Optimistic and the Consensus scenarios. Results are evenly distributed across regions, starting at below 2.5 percentage points but improving at the end of 2021 and eventually increasing to about 3.5 percentage points in 2025. The main difference is on the imports side. Imports from the Pacific region increase more than the average (by 3.7 percentage points, against 3.3 percentage points) while Europe shows a lower increase (3.0 percentage points only).

Commonwealth exports to ROW are expected to be 17 per cent above pre-COVID levels in 2025, compared with 13 per cent in the Consensus scenario (Table 16). The 3.6 percentage point gap with the Consensus scenario is almost identical across regions and development status. It is estimated at only 2.7 percentage points in 2021, indicating a gradual improvement between 2021 and 2025.

Extra-regional imports are expected to be 10 per cent above the pre-crisis baseline in 2025, compared with only 7 per cent in the Consensus scenario.

As for intra-regional trade, the imports from the Pacific region are expected to increase growth by a higher percentage than the average (3.5 and 4.1 percentage points for the developed and developing Pacific countries, respectively, against 3.2 on average).

The European Commonwealth countries and Caribbean SIDS show a small improvement of 3 percentage points. As a result, trade balances are expected to be the same as what is expected under the Consensus scenario (see Table 10).

5.4. Comparison between the Optimistic, Pessimistic and Consensus scenarios

The Optimistic scenario predicts that trade will grow in 2021 by 4.5 percentage points above the Consensus scenario (see Annex 1 for more details). The difference between the Consensus and the Optimistic scenarios remains positive even if trade growth decreases to more or less 3 percentage points in the following years. For the Optimistic scenario, the accumulated intra-Commonwealth trade growth in 2025 is 13 per cent above the pre-COVID crisis situation, which represents an improvement of 3.4 percentage points compared with the Consensus scenario. Thus, the only difference between the two scenarios is that the recovery in the Optimistic scenario is more resilient and quicker.

The results between regions and development status of countries present little difference. Commonwealth countries in the Pacific fare relatively better than the rest of the Commonwealth group. The European and Caribbean Commonwealth countries are below the average intra-Commonwealth trade levels. Extra-Commonwealth trade – that is, exports

Table 15. Optimistic scenario: Intra-Commonwealth trade, expected growth by region and development status 2020–2025 (US$ '000s and % of base year 2018/19)

Exports from:	2018/19	2020	2021	2022	2025
	Value	Accumulated growth rates			
Exports					
Africa	75,197,585	−14.8%	−6.0%	−1.1%	8.8%
Asia	202,441,402	−9.4%	−0.1%	5.1%	15.5%
Caribbean & Americas	31,735,191	−16.2%	−7.9%	−3.3%	6.0%
Europe	41,286,793	−9.6%	−0.6%	4.3%	14.2%
Pacific	56,639,168	−11.0%	−1.7%	3.5%	14.0%
Total	407,300,139	−11.2%	−2.1%	3.0%	13.2%
Imports					
Africa	54,839,320	−6.8%	2.7%	8.0%	18.7%
Asia	212,726,971	−11.8%	−2.8%	2.3%	12.5%
Caribbean & Americas	21,041,300	−13.3%	−4.4%	0.6%	10.5%
Europe	60,038,111	−18.9%	−10.8%	−6.3%	2.9%
Pacific	58,654,437	−4.2%	5.7%	11.2%	22.2%
Total	407,300,139	−11.2%	−2.1%	3.0%	13.2%
Total trade (average imports and exports)					
Total developed	128,490,004	−12.4%	−3.5%	1.5%	11.4%
Total developing	278,810,135	−10.6%	−1.4%	3.7%	14.0%

Note: Based on simulations; growth rates measure the accumulated variation from base year 2018/19, at constant 2018 prices.
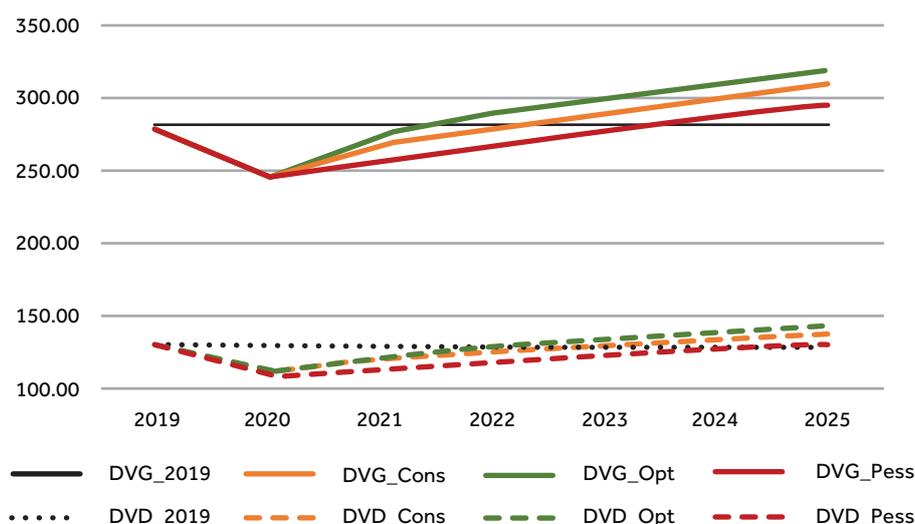**Source:** Authors.

Table 16. Optimistic scenario: Extra-Commonwealth trade, expected growth by region and development status, 2020–2025 (US$ '000s and % of base year 2018/19)

	2018/19	2020	2021	2022	2025
	Value	Accumulated growth rates			
Exports to ROW					
Africa	174,670,094	−8.0%	1.4%	6.7%	17.3%
Asia	732,152,198	−8.3%	1.1%	6.3%	16.7%
Caribbean & Americas	412,049,127	−9.8%	−0.5%	4.6%	15.0%
Europe	418,550,422	−9.0%	0.2%	5.2%	15.5%
Pacific	248,047,868	−3.8%	6.3%	11.9%	23.2%
Total	1,985,469,709	−8.2%	1.2%	6.4%	17.0%
Imports from ROW					
Africa	170,585,557	−7.6%	1.7%	6.8%	17.3%
Asia	945,015,979	−12.4%	−3.6%	1.3%	11.2%
Caribbean & Americas	382,421,428	−13.2%	−4.4%	0.5%	10.3%
Europe	628,145,253	−19.0%	−10.8%	−6.3%	2.9%
Pacific	218,156,434	−5.0%	4.6%	9.8%	20.5%
Total	2,344,324,651	−13.2%	−4.5%	0.3%	10.1%
Total trade					
Total developed	2,263,682,952	−11.6%	−0.2%	2.4%	12.4%
Total developing	2,066,111,408	−10.1%	1.3%	4.0%	14.2%

Note: Based on simulations; growth rates measure the accumulated variation from base year 2018/19, at constant 2018 prices.
Source: Authors.

Figure 4. Evolution of Intra-Commonwealth trade under three scenarios, 2019–2025

Notes: Based on simulations at constant 2018 prices; trade value is the average of imports. DVD: developed countries; DVG: developing countries; Cons, Opt and Pes: Consensus, Optimist and Pessimist scenarios.
Source: Authors.

to and imports from ROW – are expected to be above pre-COVID crisis levels in 2025 by 17 per cent and 10 per cent, respectively, compared with 13 per cent and 7 per cent, respectively, predicted in the Consensus scenario.

The Pessimistic option contemplates a double-hit scenario, and assumes that the world economy will continue to be severely affected during most of 2021. Under this scenario, intra-Commonwealth trade remains below its 2018 pre-crisis value until the end of 2023. Within the Commonwealth community, our estimates show that developed members are likely to be more affected than developing ones, especially given that developed countries are affected by wider outbreaks and negative impacts on the economy. The simulations predict 2 per cent accumulated growth in trade for the developed Commonwealth countries

in 2025, down by 6 percentage points compared with the Consensus predictions, against growth of 6 per cent, down by 5 percentage points, for developing Commonwealth countries.

Figure 4 compares the evolution of intra-Commonwealth trade for the two groups of countries under various scenarios. Under the Pessimistic scenario, intra-Commonwealth trade (in average of imports and exports) is expected to barely surpass the 2018 pre-crisis trade value for the group of developed economies. The value of intra-Commonwealth trade is much lower for developed members because only 10 per cent of total trade was with other Commonwealth trade partners. The proportion of trade with other Commonwealth countries increases to 21 per cent for developing members (see Tables 8 and 9).

6. Conclusion and recommendations

This report has looked at the impact of COVID-19 on global trade and the subsequent impact on Commonwealth countries, with an emphasis on the implications for economic recovery. The simulations predict that the pandemic will have a negative impact on Commonwealth trade. The downturn will affect all countries adversely.

Though many Commonwealth countries have resumed economic activity, the potential negative effects of the pandemic are far from over. Given the uncertainty and new waves of infections, it is essential that, first, policy-makers remain vigilant and continue to devise policies that protect economies against worsening

conditions. As part of these measures, effective and cooperative trade policies are essential to rebuild a resilient global economy. Second, the restructuring of GVCs and effective risk reduction and diversification strategies are required in light of the growing participation of Commonwealth countries.

The report predicts the impact of the COVID-19 pandemic on Commonwealth trade in goods under three alternative scenarios – Consensus, Optimistic and Pessimistic. Note that our analysis provides predictions, and is likely to underestimate the potential economic costs of the pandemic given that we do not capture several channels, such as the uncertainty-driven contraction in demand and other real effects of a financial shock.

The predicted outlook for the Commonwealth economies is negative. The results of simulations for the Consensus scenario, based on forecasts by international organisations, predict the following:

- Trade volume between the Commonwealth countries is expected to fall by 11 per cent in 2020. The decline in Commonwealth trade is higher than the 9 per cent decline in world trade predicted by the WTO (2020b).
- The decline in trade for the developed Commonwealth countries is higher than that for the developing Commonwealth countries because developed countries are more negatively affected, in line with the IMF's 2020 economic projections.
- Intra-regional Commonwealth trade will be particularly affected by a decrease in demand by European Commonwealth countries. Trade volumes between Commonwealth countries are predicted to recover from 2022 and grow above 10 per cent of their pre-crisis level in 2025.
- Commonwealth countries' trade with ROW follows a similar pattern: in 2020, the decline in imports is higher (13 per cent) than that in exports (8 per cent), though this is expected to be positive in 2021. This is because low import demand by the European Commonwealth countries and the growing importance of China are leading to a gradual loss in intra-Commonwealth trade. Further, the 8 per cent trade deficit with ROW registered by the Commonwealth countries pre-COVID is expected to fall to 5 per cent in 2025.

The Optimistic scenario – that is, a "V"-shaped recovery scenario post-COVID – presents the following predictions:

- Trade is negatively affected and predicted to decline by 10.9 per cent in 2020. There are losses for both developed (−11.7 per cent) and developing (−10.2 per cent) Commonwealth community members.
- Trade recoups its losses in 2021 and returns to positive territory in 2022. By 2025, trade volumes are expected to be 13.2 per cent above pre-crisis levels, with quicker recovery in developing countries than in developed countries. There are regional variations in recovery. The Pacific region is less negatively affected than the European and Commonwealth Caribbean SIDS.
- The simulations for 2025 represent a 3.4 percentage point improvement compared with the Consensus scenario.

The Pessimistic scenario – that is, the double-hit scenario – predicts the following:

- World trade is expected to be severely affected, which will adversely affect intra-Commonwealth trade. Intra-Commonwealth trade will remain below its pre-crisis level up until the end of 2023. In 2025, intra-Commonwealth trade will be a mere 5 per cent higher compared with the pre-COVID crisis value. The import-demand shock will affect developed more than developing economies.
- Commonwealth exports to non-Commonwealth countries are less affected than imports. In 2025, extra-Commonwealth exports to ROW are predicted to be 5 per cent higher than pre-COVID crisis levels, compared with 2 per cent for imports.

The analysis of how COVID-19 has affected Commonwealth countries demonstrates the interconnected and fragile nature of the economies. Stronger international cooperation is needed to speed up the global economic recovery and to avoid harming the catch-up process of emerging market economies and developing countries (OECD, 2020b). This highlights the need for a coordinated response for recovery and the importance of a comprehensive cross-country policy response to the pandemic.

Cooperation between Commonwealth countries is needed for recovery. The predictions of the economic costs and the magnitude of estimated impacts demonstrate the need for a coordinated international response to the crisis to preserve the "Commonwealth Advantage". The Commonwealth countries share historical ties, and enjoy similar legal and administrative systems, a common language of operation (English) and large dynamic diasporas, which facilitate trade and investment. These benefits enable Commonwealth countries to trade up to 20 per cent more with each other, while bilateral trade costs are 21 per cent lower, on average. It is important to harness the growing per capita income and young population in developing countries (especially in Asia and Africa). Escaith et al. (2020) highlighted the risks of GVC disruption and comment that COVID-19 can be an opportunity to strengthen the Commonwealth Advantage through supply chain diversification and near shoring. In an uncertain geopolitical situation, plagued by increased trade tensions and the uncertainty created by Brexit, the post-COVID recovery is indeed an opportunity to leverage this Commonwealth Advantage.

For Commonwealth countries to bounce back, national trade policies and regulations can increase Commonwealth integration and re-energise multilateral economic initiatives. The International Trade Centre (ITC) (2011) highlights that trade policy is not limited to "border measures", which is particularly relevant when trade takes place within GVCs, with a strong "Trade-Investment" nexus and complementarity between the domestic value chains and international upstream and downstream segments of the GVC. ITC (2011) and Cattaneo et al. (2013) mention that the provision of competitive access to infrastructure (energy, communications, transport) and trade facilitation, including the provision of the "soft infrastructure" (normative services and adequate regulations) to ensure product compliance with quality and sanitary and phytosanitary standards, is important and must be adopted by the Commonwealth community.

Restructuring GVCs and effective risk reduction strategies are required. Falling exports from the downturn resulting from the COVID-19 pandemic is a fundamental challenge for developing countries, and this has led to discussions on possible restructuring of GVCs. Khorana and Escaith (2020) show that Commonwealth member countries' participation in GVCs has increased in the past decade, but this has been mainly through trade with non-Commonwealth countries. The study presents a case to foster strong intra-Commonwealth linkages and promote intra-GVC linkages. In particular, the Commonwealth community should support the efforts of its less developed members to promote export diversification and absorb new technologies.

Given the growing role of the Commonwealth community in GVCs, trade risk reduction and diversification strategies are relevant not just for lead firms in GVCs but also for manufacturing and supplier firms in countries that are highly export-dependent and reliant on very few sectors. Diversification into new sectors and new products and processes within established sectors is a defining objective of structural transformation, in which well-designed and well-managed sectoral strategies have historically played an important role. There must be an emphasis on the objectives of learning and knowledge accumulation in sectoral strategies to improve the prospects of late-developing countries, especially in a rapidly changing and highly uncertain global context.

Services play an important role in GVC trade, and typically represent more than one-third of the value of exports in manufacturing sectors. As a first step towards harnessing GVC participation, the World Bank's Foreign Investment Advisory Service (FIAS, 2007) recommends adopting a micro-to-macro approach that requires analysing "the costs of doing business through a specific product or industry lens". Thus, the value chain analysis, conducted at national level, facilitates the identification of binding constraints to production and competitiveness at both sectoral and economy-wide levels.

Notes

1 The IMF's primary commodity price index reflects two distinct phases: between February and April the index fell by 24 per cent as the pandemic intensified; and between April and August the index recovered by about 31 per cent, as many countries eased lockdown measures and economic activity resumed. The rebound, however, varied across commodities, depending on conditions in end-use sectors and regions affected by the outbreak and on the storability and supply elasticity of a commodity. Prices of energy and some agricultural raw materials rebounded later than metals' prices. Food prices were less affected, even though changes were widely dispersed across agricultural commodities.

2 CEPII has developed BACI as an attempt to reconcile declarations of importers and exporters in Comtrade. The BACI data exclude re-exports; this may, unfortunately, lower trade in manufactured goods produced within GVCs in Export Processing Zones. Because the processing of the data requires time and it is based on other primary sources, BACI is published with a time lag of one or two years.

3 In BACI, bilateral trade flows are symmetric: the exports reported by a country equal the corresponding imports for its trade partners. In addition, BACI records both imports and exports flows on an FOB basis.

4 Under the WTO Generalised System of Preferences, merchandise exports from LDCs benefit from duty-free, quota-free market access and from more favourable rules of origin. In the case of Canada, this covers 99 per cent of products, excluding dairy and other animal products, meat, meat preparations and cereal products. The EU and the UK schemes exclude only arms and ammunitions.

5 This result is consistent with the demand-driven methodology used in our model, because Commonwealth exports depend in a large measure (between 70 and 91 per cent, depending on the regions) on the demand for imports from ROW (see Table 5).

6 Considering the limitations of the simulation exercise and following an age-old adage – often attributed to Lord Keynes – that "it is better to be roughly right than precisely wrong", this report does not present results disaggregated at country level.

7 We use the same scaling for all countries, based on a simple average. In rigour, a series of differentiated weighted average centred on 1 should have been used in order to consider the specific product composition of each country.

8 The simulation relies only on the value of TRA_k^{ij} in [12].

9 A new iteration can be required to adjust the total exports estimated by the model to maintain consistency with the macroeconomic forecasts used to model the demand for imports.

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Annex 1. Pessimistic scenario: Simulations and predictions

The Pessimistic scenario for 2020 takes into consideration the possibility of a double-hit scenario, resulting from new variants of the virus in 2021 or delays in vaccinations or even a prolonged pandemic. It predicts a slightly lower trade level for the fourth quarter of 2020 with a difference in 2021 that grows with time. While total Commonwealth trade (intra- and extra-regional) under the Consensus scenario is expected to return to the base year trade volume (exports and imports, intra- or extra-Commonwealth) by the end of 2022, the Pessimistic scenario predicts that the gap with 2018/19 baseline trade within the Commonwealth will remain negative up until the end of 2023. In 2025, intra-Commonwealth trade is predicted to be only 5 per cent higher than its pre-crisis

value. Further, exports to non-Commonwealth countries are less affected than imports. In 2025, extra-Commonwealth exports to ROW are predicted to be 5 per cent higher than pre-COVID crisis levels, compared with 2 per cent for imports. Overall, world trade under this scenario is expected to be severely affected, with negative consequences for intra-Commonwealth trade.

The import-demand shock will affect developed economies more than developing ones (2 per cent accumulated growth in 2025, lower by 6 percentage points compared with the Consensus predictions, against growth of 6 per cent, down by 5 percentage points, for developing Commonwealth countries). In relative terms, countries in the Pacific region are most

Table A1. Intra- and extra-Commonwealth trade in goods in 2025 under alternative scenarios (US$ million and %)

Optimistic								
	Africa	Asia	Caribbean & Americas	Europe	Pacific	ROW	Total exports	Var w/r 2018/19
Africa	27,980	36,300	1,208	14,212	2,150	204,882	286,733	14.8%
Asia	24,089	141,744	9,374	21,175	37,442	854,556	1 088,380	16.5%
Caribbean & Americas	2,390	7,783	1,640	19,232	2,601	473,915	507,560	14.4%
Europe	7,191	20,827	8,519	2,114	8,483	483,465	530,599	15.4%
Pacific	3,421	32,602	2,513	5,027	20,990	305,712	370,266	21.5%
ROW	200,022	1,050,401	421,632	646,176	262,840	15,804,431	18,385,502	15.1%
Total imports	265,093	1,289,658	444,886	707,936	334,507	18,126,960	21,169,040	15.3%
Var w/r 2018/19	17.6%	27.0%	10.3%	2.9%	20.8%	16.1%	15.3%	
Africa	26,166	33,961	1,130	13,292	1,863	183,906	260,317	4.2%
Asia	22,549	132,721	8,773	19,779	32,616	771,520	987,957	5.7%
Caribbean & Americas	2,240	7,286	1,534	18,063	2,285	432,918	464,326	4.6%
Europe	6,736	19,512	7,972	1,895	7,431	436,072	479,619	4.3%
Pacific	3,197	30,490	2,350	4,712	18,827	272,643	332,218	9.0%
ROW	187,306	983,470	394,764	603,513	229,564	14,257,539	16,656,157	4.3%
Total imports	248,193	1,207,440	416,523	661,254	292,585	16,354,598	19,180,594	4.5%
Var w/r 2018/19	10.1%	4.3%	3.2%	−3.9%	5.7%	4.8%	4.5%	

Note: Based on simulations; growth rates measure the accumulated variation from base year 2018/19, at constant 2018 prices.
Source: Authors.

Table A2. Pessimistic scenario: Commonwealth total trade, expected growth by region and development status, 2020–2025 (% of base year 2018/19)

Accumulated growth to:	2020	2021	2022	2025
Africa*	−9.9%	−7.0%	−2.6%	7.0%
Asia*	−11.5%	−8.7%	−4.5%	4.9%
Caribbean & Americas*	−17.4%	−14.8%	−10.8%	−1.8%
Caribbean & Americas**	−12.1%	−9.3%	−5.1%	4.2%
Europe**	−16.1%	−13.4%	−9.5%	−0.6%
Pacific*	0.6%	3.9%	8.7%	19.3%
Pacific**	−10.0%	−7.1%	−2.7%	7.0%
Total	−12.3%	−9.5%	−5.3%	4.0%
−- of which developed	−13.4%	−10.7%	−6.6%	2.6%
−- of which developing	−11.2%	−8.3%	−4.1%	5.3%

Notes: Based on simulations; growth rates measure the accumulated variation from base year 2018/19, at constant 2018 prices. * Developing countries; **developed countries.
Source: Authors.

Table A3. Pessimistic scenario: Intra-Commonwealth trade, expected growth by region and development status, 2020–2025 (US$ '000s and % of base year 2018/19)

Exports from:	2018/19	2020	2021	2022	2025
	Value	**Accumulated growth rates**			
Exports					
Africa	75,197,585	−14.7%	−11.8%	−7.7%	1.6%
Asia	202,441,402	−10.1%	−7.1%	−2.8%	6.9%
Caribbean & Americas	31,735,191	−16.3%	−13.6%	−9.7%	−1.0%
Europe	41,286,793	−10.5%	−7.8%	−3.7%	5.5%
Pacific	56,639,168	−11.9%	−8.9%	−4.6%	5.2%
Total	407,300,139	−11.7%	−8.8%	−4.5%	4.9%
Imports					
Africa	54,839,320	−6.4%	−3.4%	1.1%	11.0%
Asia	212,726,971	−11.5%	−8.6%	−4.3%	5.3%
Caribbean & Americas	21,041,300	−12.9%	−10.1%	−5.9%	3.4%
Europe	60,038,111	−18.8%	−16.2%	−12.4%	−3.8%
Pacific	58,654,437	−9.6%	−6.6%	−2.3%	7.4%
Total	407,300,139	−11.7%	−8.8%	−4.5%	4.9%
Total trade (average imports and exports)					
Total developed	128,490,004	−13.8%	−11.1%	−6.9%	2.2%
Total developing	278,810,135	−10.7%	−7.8%	−3.4%	6.2%

Note: Based on simulations; growth rates measure the accumulated variation from base year 2018/19, at constant 2018 prices.
Source: Authors.

Table A4. Consensus scenario: Extra-Commonwealth trade, expected growth by region and development status, 2020–2025 (US$ '000s and % of base year 2018/19)

	2018/19	2020	2021	2022	2025
	Value	Accumulated growth rates			
Exports to ROW					
Africa	174,670,094	−11.4%	−8.5%	−4.3%	5.3%
Asia	732,152,198	−11.2%	−8.3%	−4.1%	5.4%
Caribbean & Americas	412,049,127	−11.5%	−8.7%	−4.4%	5.1%
Europe	418,550,422	−12.0%	−9.2%	−5.1%	4.2%
Pacific	248,047,868	−7.9%	−4.8%	−0.3%	9.9%
Total	1,985,469,709	−11.0%	−8.2%	−3.9%	5.6%
Imports from Rest of World					
Africa	170,585,557	−7.2%	−4.3%	0.1%	9.8%
Asia	945,015,979	−12.0%	−9.3%	−5.1%	4.1%
Caribbean & Americas	382,421,428	−12.8%	−10.1%	−5.9%	3.2%
Europe	628,145,253	−18.9%	−16.3%	−12.5%	−3.9%
Pacific	218,156,434	−11.1%	−8.3%	−4.1%	5.2%
Total	2,344,324,651	−13.6%	−10.8%	−6.8%	2.3%
Total trade					
Total developed	2,263,682,952	−13.4%	−10.6%	−6.5%	2.7%
Total developing	2,066,111,408	−11.3%	−8.5%	−4.3%	5.1%

Note: Based on simulations; growth rates measure the accumulated variation from base year 2018/19, at constant 2018 prices.
Source: Authors.

affected, mainly because under this scenario China's imports are likely to decrease compared with 2019 levels.

If we compare the results obtained for the Optimistic scenario in Table 14 for the pre-crisis base year with Table A1, there are changes in the destination of exports driven by the simulation methodology, resulting from variation in demand for imports.

Under the Optimistic scenario, Commonwealth countries in Asia are an important source of imports. This increases the weight of intra-Commonwealth imports from Africa by 1.3 percentage points and those from Asia 1.1 percentage points. ROW absorbs more imports from the Commonwealth region, in particular from Africa and the Pacific (the weights are expected to increase by 1.5 and 1.2 percentage points, respectively). On the contrary, European Commonwealth countries lose relevance as a source of imports, by 0.4 percentage points, as evident from the Commonwealth countries in Africa, which lose by 0.6 percentage points.

The Pessimistic scenario does not change the overall balance as far as the European Commonwealth countries are concerned. Though the value of trade falls, the geographical distribution of trade with other regions remains by and large the same.

While total Commonwealth trade (intra- and extra-regional) under the Consensus scenario is expected to return to the base year trade volume (exports and imports, within or outside the Commonwealth community) by the end of 2022, the Pessimistic scenario predicts that the gap with baseline 2018/19 trade within the Commonwealth will remain in negative territory up to the end of 2023 (Table A2). The shock will affect developed economies more than developing ones (an accumulated growth in 2025 lower by 6 percentage points compared with the Consensus predictions, against 5 percentage points for the developing Commonwealth countries). But in all cases, the trade shock under the double-hit scenario is expected to be severe, and, six years after the pandemic, trade within the Commonwealth community will be barely 4 per cent higher than its pre-crisis value.

In general, developed Commonwealth economies are more affected. Irrespective of the

development status of the country, the Pacific area is the most affected in relative terms: while the average gap with the Consensus forecast is 6 percentage points, the simulation suggests a 7 percentage point additional missing trade volume for developing Pacific countries, rising to 10 percentage points for developed ones.

Trade within the Commonwealth community is expected to be slightly less exposed to a double-hit scenario, but in 2025 it will overdo its pre-crisis volume by a meagre 5 per cent. In the case of the Caribbean and Americas region, it will even remain below by 1 per cent. The mediocre evolution of intra-Commonwealth trade owes mainly to a larger drop predicted for the sub-group of developed economies. Their intra-Commonwealth trade activity, measured by the average sum of their combined imports and exports, will drop during two years (2020 and 2021) by about 2 percentage points more than for the developing economies. This gap is expected to increase in further years, leading to an accumulated deficit in trade intensity of more than 2.5 percentage point in 2025.

This poor performance of developed economies is entirely attributable to Canada and the European countries, which will barely have recouped in 2025 the intra-Commonwealth trade activity they had in 2019 (5 per cent and 4 per cent above the 2019 values, in volume). The weak performance is partly explained by the much lower demand for imports emanating from the Pacific region. Indeed, their purchase of goods from other Commonwealth countries (including from the other Pacific Commonwealth countries) under a double-hit scenario is predicted to be 11 percentage points below the Consensus forecast. This said, their overall import performance will remain above average when considering the whole period of analysis (Table A3).

Under the double-hit scenario, exports remain less affected than imports, and in 2025 Commonwealth exports to ROW will be above their pre-crisis level by 5 per cent, compared with a paltry 2 per cent for imports.

The Pacific region will still be less affected, at least as far as its exports are concerned. Its medium-term imports growth will also remain above the Commonwealth average, but this owes mainly to the negative performance predicted for the European region. The three Commonwealth countries included in this category would still remain in negative territory for their imports in 2025, which are predicted to be 4 per cent below their pre-crisis level. Because the dynamism of imports reflects in good part the evolution of the domestic economy, this tends to show that a worsening of the crisis would affect mainly European countries and, more generally, developed Commonwealth economies more than developing ones.

Despite this drop in demand for imports under the Pessimistic scenario, the Commonwealth trade balance with ROW will deteriorate (almost -7 per cent of total imports and exports, compared with less than -5 per cent under the Consensus scenario, as shown in Table 10 in Section 5). The Pacific region shows a divergence between the developed and developing countries in this region. While the developing ones will see a reduction of their expected surplus from 24 per cent (Consensus) to 22 per cent, the developed ones will improve their positive balance by just over 1 percentage point, from 7 per cent to 8 per cent.

Annex 2. Methodological note

To differentiate between intra- and extra-Commonwealth (CW) trade flows and predict the respective evolution, the report takes into account bilateral trade flows between CW members, their main extra-CW trade partners and ROW. In order to simulate the impact of the COVID-19 crisis and the potential for bilateral trade flows under different economic scenarios, the simulation builds on the bilateral trade data observed before the crisis. At the time of writing this report, only 2018 data were available for all the countries. This should not create a difference, knowing that world trade in 2019 did not change much from its previous year. The simulation takes this pre-COVID situation (geographical and product distribution) as well as prices as the basic parameters on which simulations are constructed.

The model is mainly demand-driven, under the standard assumption that the production capacity does not change in the short term. The main variable for the simulation will be the macroeconomic evolution of domestic demand for imports for each CW and non-CW importer, as estimated by international organisations. Because the income elasticity of demand varies from product to product, the same variation in gross imports will affect products in different ways. Some products (e.g. foodstuff) are less sensitive to changes in income than others (e.g. electronics). While simulating demand for imports, the supply side will also be taken into consideration in order to maintain the identity between world imports and exports.

Modelling the demand for imports

The starting point is the standard decomposition of demand for imports from the national income perspective (Hummels and Lee, 2017).

$$\frac{M_j^{k,t}}{Y_j^t} = \frac{M_j^{k,t}}{E_j^{k,t}} \cdot \frac{E_j^{k,t}}{Y_j^t} \tag{1}$$

Where M stands for Imports, E for Expenditures (equal to domestic Consumption plus Investment) and Y for Gross Domestic Product, while subscript "j" refers to the importing country, subscript "k" to a commodity and "t"

to time. The yearly variation from "t-1" to "t" can be expressed as:

$$d\left(\frac{M_j^{k,t}}{Y_j^t}\right) = d\left(\frac{M_j^{k,t}}{E_j^{k,t}}\right) + d\left(\frac{E_j^{k,t}}{Y_j^t}\right) \tag{2}$$

In logarithmic form, the change in the share of expenditures on good "k" in GDP can be expressed as:

$$d\left(\frac{E_j^{k,t}}{Y_j^t}\right) = \log\left(\frac{\frac{E_j^{k,t}}{Y_j^t}}{\frac{E_j^{k,t-1}}{Y_j^{t-1}}}\right) = \varepsilon_j^k \tag{3}$$

Equation [4] is the income elasticity of expenditure on good "k" (ε_j^k), considered as invariant with time. If it is equal to 1, demand moves in proportion to income. If it is higher/lower than 1, demand varies more/less proportionally than income (superior/inferior goods). If it is close to 0, demand is considered "inelastic" (necessity goods).

If we consider that the share of imports in expenditures does not change from "t-1" to "t", [2] becomes:

$$d\left(\frac{M_j^{k,t}}{Y_j^t}\right) = \log\left(\frac{\frac{M_j^{k,t}}{Y_j^t}}{\frac{M_j^{k,t-1}}{Y_j^{t-1}}}\right) = \log\left(\frac{\frac{E_j^{k,t}}{Y_j^t}}{\frac{E_j^{k,t-1}}{Y_j^{t-1}}}\right) \tag{4}$$

In rigour, the elasticity formula for (ε_j^k) in equation [4] is valid for small changes in income (the continuous case). In the discrete case, (ε_j^k) can be approximated by:

$$\varepsilon_j^k \approx \left(\frac{\Delta E_j^{k,t}}{\Delta Y_j^t}\right) \tag{5}$$

From [5] and [4], we deduct an estimate $\tilde{E}_j^{k,t}$ of $E_j^{k,t}$:

$$\tilde{E}_j^{k,t} \approx E_j^{k,t-1} + \left[\left[\varepsilon_j^k \cdot \left(Y_j^t - Y_j^{t-1}\right)\right] \cdot \frac{E_j^{k,t-1}}{Y_j^{t-1}}\right] \tag{6}$$

The right-hand side components are obtained from national accounts, trade statistics and forecasts published by multilateral organisations.

The values of (ε_j^k) have been a subject of considerable research, and several estimates are available from the literature. Unfortunately, there is a large variation across time and income brackets. Results change also according to the estimation methodology used by the respective authors. Thus, the choice of (ε_j^k) remains largely arbitrary (more on this below).

In a last step, under the hypothesis of constant propensity to import, we deduct the imports of good "k" by country "j" from:

$$\tilde{M}_j^{k,t} = \tilde{E}_j^{k,t} \cdot \frac{M_j^{k,t-1}}{E_j^{k,t-1}} \qquad (7)$$

Under the hypothesis of constant propensity to import, the year-to-year variation is:

$$\frac{\tilde{M}_j^{k,t}}{M_j^{k,t-1}} = \frac{\tilde{E}_j^{k,t}}{E_j^{k,t-1}} \qquad (8)$$

Is income elasticity constant?

Trade income elasticity is not constant through time. Trade elasticity data indicate a reduction after a period of hyper globalisation between 1990 and 2005. Reviewing the abundant literature on this topic, Altuzarra et al. (2020) conclude that, apparently, the slowdown after the 2008/09 global crisis has little to do with the business cycle but rather with more long-term structural factors. Moreover, the short-term variations in case of crisis can be brutal: trade-income elasticity jumped to about 5 during the global crisis of 2008/09, overshooting its medium-run average (Escaith and Miroudot, 2015). But these short-term variations are outliers that cannot be forecasted with precision, especially at some degree of product disaggregation.

To solve this, we adopt a heuristic solution for this exercise. We use the forecasts made by multilateral organisations using macroeconomic modelling and experts' opinion to estimate a value for imports by product resulting from our trade-income elasticity. In a second iteration, we calibrate the parameters of our disaggregated model to provide world totals that are compatible with these macroeconomic forecasts.

We base the product elasticities using the income elasticity of imports calculated by Ghodsi et al., (2016) for products aggregated by industry. These elasticities are further centred

to have a mean of 1. This normalisation permits the sum of sectoral imports resulting from our simulations to mimic the above-mentioned total import forecasts.[7] The coefficients used in the model for "Agriculture and food" is 0.98 (demand for imports will vary less than proportionally than for total imports); 1.10 for "Minerals and chemicals"; 0.95 for "Articles made of basic material" and "Manufactures"; 1.02 for "Textiles and apparel"; and 0.90 for "Other products".

Modelling bilateral trade using the entropy approach

In order to estimate the export side in our demand-driven model as well as the geographical distribution of trade, we need to go one step further and estimate bilateral trade flows. Our approach takes as its starting point the gravity model of international trade, one of the working horses of international economics. Gravity "explains" bilateral trade flows based on the size of supply and demand in both countries, and the trade frictions existing between them. Trade frictions are the result of many parameters, such as distance and transportation costs, tariff and non-tariff barriers, the existence of a common border or cultural and historical considerations.

The model was first introduced in the economics world by Walter Isard in the mid-1950s and formalised in the early 1960s by Jan Tinbergen. Most recent approaches (Anderson, 2010; Head and Mayer, 2014) also include the influence of other trade partners in what are called structural gravity models. In structural gravity models, the incidence of bilateral trade cost on trade depends also on trade frictions or trade facilitation with other partners (called "multilateral resistance terms"; see Escaith and Miroudot, 2015).

Estimating the individual contribution of the various bilateral and multilateral components of the trade frictions is a complex econometric process that requires factoring in several geographical, economic and policy variables. Our objective here is simpler: to measure the overall resulting effect of these bilateral and multilateral factors affecting intra- and extra-CW trade and use it in the post-COVID modelling of intra- and extra-CW trade.

To do this, we use a statistical approach to gravity models based on the concept of entropy.

The guiding principle here is to compare the observed trade in goods with the hypothetical situation of maximum entropy where there are no trade costs. When entropy is maximum, all countries enter into a trade dialogue with others. Trade is disordered (the definition of maximum entropy) and depends on only the interaction of supply and demand, regardless of other considerations such as trade costs or trade policy. With reference to the gravity model, we call this frictionless situation "zero-gravity trade". Despite its apparent simplicity, this approach is also at the core of the measure of "Revealed Comparative Advantages" such as the Balassa Index.

Zero-gravity trade

Because our approach is demand-driven, let us specify the model from the import side. We assume a homogeneous commodity "k" that is randomly traded in a free trade world. Denoting country "i" total imports of product "k" by M_k^i and total world imports by M_k^w, and dropping for the time being the time index "t", the expected prior probability of observing that country "i" will import some product "k" is estimated by the marginal frequency (M_k^i/M_k^w):

$$\mu\left(M_k^i\right) = \left(\frac{M_k^i}{M_w^i}\right) \tag{9}$$

Where M_k^w represents the value of world imports of product "k".

A similar approach can be used for exports. Moving from probability to the value of expected gross trade flow, and observing that world imports (when measured FOB) are notionally equal to world exports,

$$M_k^w = X_k^w \quad \text{and} \quad M^w = X^w$$

We obtain the statistical expectation of the value of imports of "k" by "j" from "i" (equal to the exports of "k" product by country "i" to country "j") in the zero-gravity (also called neutral) situation:

$$E\left(M_k^{ji}\right) = E\left(X_k^{ij}\right) = \left(\frac{X_k^i}{X_k^w}\right) \cdot \left(\frac{M_k^i}{M_k^w}\right) \cdot M_k^w \tag{10}$$

From a formal perspective, the formula considers also the case $i = j$, when demand includes also domestic transactions. Yet it does not affect the simulation of trade in the present case, as we do not need the marginal distribution of

expected neutral trade to match the observed values.[8]

We can estimate for each product or group of products the strength of trade resistance/attraction (*TRA*) by comparing actual bilateral trade flows (measured here from the export side) with the "zero-gravity" situation as estimated in equation [3].

$$TRA_k^{ij} = X_k^{ij}/E\left(X_k^{ij}\right) \tag{11}$$

$E(X_k^{ij})$ takes only into consideration the strength of supply and demand, and *TRA* measures the actual trade frictions, independently of changes in bilateral supply and demand. *TRA* can be constructed for a single product or for a basket of products. It can also be calculated for exporting or for importing countries. Because some products are expected to be more sensitive to trade costs than others (e.g. perishable products), comparison between countries is best done for specific products.

Application to the estimation of post-COVID bilateral trade flows

Because *TRA* is independent of the strength of supply and demand, we can use its value calculated for a recent year to predict what should be expected for intra- and extra-Commonwealth trade in another period of time if the relative resistance (to extra- Commonwealth trade) and attraction (to intra-CW trade) remains constant, but supply or demand change. As our model is demand-driven, the exogenous factor will be the variation in demand, keeping potential supply constant in a first instance.

More formally, reordering equation [4], bilateral trade between countries "i" and "j" for product "k" at time "t", the hypothetical trade between countries "i" and "j" for product "k" at time "t" had trade gravity remained the same as in the initial period "t-1" can be expressed as:

$$\tilde{M}_{k,t}^{ji} = \tilde{X}_{k,t}^{ij} = TRA_{k,t-1}^{ij} \cdot E\left(\tilde{X}_{k,t}^{ij}\right)$$

with:

$$E\left(\tilde{M}_{k,t}^{ji}\right) = E\left(\tilde{X}_{k,t}^{ij}\right) = \left(\frac{X_{t-1}^i}{X_{t-1}^w}\right) \cdot \left(\frac{\tilde{M}_t^j}{\tilde{M}_t^w}\right) \tilde{M}_{k,t}^w \quad \text{and}$$

$$\tilde{M}_{k,t}^j = \sum_i \tilde{M}_{k,t}^{ij}; \ \tilde{M}_{k,t}^w = \sum_j \tilde{M}_{k,t}^j \tag{12}$$

Using growth forecasts to compute $\tilde{M}_{k,t}^j$ as per equation [7], [12] estimates the volume of

expected bilateral trade for $t = 2020, 2021, \ldots, 2025$ at constant 2019 prices. When required, a second iteration can be conducted by adjusting supply of exports to demand:[9]

$$\tilde{M}''^{ji}_{k,t} = \widetilde{X}''^{ij}_{k,t} = TRA^{ij}_{k,t-1}.E\left(\widetilde{X}''^{ij}_{k,t}\right)$$

with:

$$E\left(\widetilde{M}''^{ji}_{k,t}\right) = E\left(\widetilde{X}''^{ij}_{k,t}\right) = \left(\frac{\tilde{X}^i_t}{\tilde{X}^w_t}\right) \cdot \left(\frac{\tilde{M}^j_t}{\tilde{M}^w_t}\right) \tilde{M}^w_{k,t} \quad \text{and}$$

$$\tilde{X}^j_{k,t} = \sum_j \tilde{M}^{ij}_{k,t}; \ \ \tilde{X}^w_{k,t} = \sum_i \tilde{X}^i_{k,t}$$

$$(13)$$

Caveats

First, the model does not include trade in services. This is important for many small developing islands and for large Commonwealth countries such as India or the UK. Some aspects of trade in services may benefit from the crisis, especially the branch of business services related to informatics. Other categories, and particularly tourism, will be severely affected by the crisis. It is nevertheless expected that the macroeconomic impact of the variations in services exports has been taken into consideration by the forecasts published by the international organisations.

That trade costs and prices were not affected by the COVID-19 crisis is obviously a strong hypothesis. It is difficult at this stage to estimate the impact of international prices on supply and demand and would require complex (and mostly unreliable) econometric estimates. Thus, the pre-COVID situation will remain the basis for the simulation.

Because international supply chains may have been broken during the crisis, in particular because of the closure of firms and airports (this crisis has often been called "the great lockdown"), the working hypothesis that supply adjusts to changes in demand may be violated in some cases. There is no practical way to take this possibility into account. This may not be such an issue for goods: unlike services, intermediate inputs and final products can be stored. Moreover, the production of manufactures is flexible and adjusts rapidly to demand as long as there is idle capacity. Thus, as long as GVC disruption is not too long, the supply-side effect may be only temporary.

The income elasticity of trade during a deep crisis probably diverges from its long-run value. In particular, it is expected that demand will overshoot the long-term average when the recession is sudden. Therefore, we needed to calibrate the income elasticity of each product to replicate as closely as possible the global trade forecasts produced by the WTO and other multilateral organisations. The end effect may explain why the *ex-post* demand for imports from the Commonwealth countries is lower in our simulations than a simple extrapolation of the IMF benchmark would imply and is more in line with global trends.

Annex 3. Product aggregation based on the Harmonised System

Agriculture and Food

CodeHS	Description	CodeAgg
1	Animals; live	1
2	Meat and edible meat offal	1
3	Fish and crustaceans, molluscs and other aquatic invertebrates	1
4	Dairy produce; birds' eggs; natural honey; edible products of animal origin, not elsewhere specified or included	1
5	Animal originated products; not elsewhere specified or included	1
6	Trees and other plants, live; bulbs, roots and the like; cut flowers and ornamental foliage	1
7	Vegetables and certain roots and tubers; edible	1
8	Fruit and nuts, edible; peel of citrus fruit or melons	1
9	Coffee, tea, mate and spices	1
10	Cereals	1
11	Products of the milling industry; malt, starches, inulin, wheat gluten	1
12	Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit, industrial or medicinal plants; straw and fodder	1
13	Lac; gums, resins and other vegetable saps and extracts	1
14	Vegetable plaiting materials; vegetable products not elsewhere specified or included	1
15	Animal or vegetable fats and oils and their cleavage products; prepared animal fats; animal or vegetable waxes	1
16	Meat, fish or crustaceans, molluscs or other aquatic invertebrates; preparations thereof	1
17	Sugars and sugar confectionery	1
18	Cocoa and cocoa preparations	1
19	Preparations of cereals, flour, starch or milk; pastrycooks' products	1
20	Preparations of vegetables, fruit, nuts or other parts of plants	1
21	Miscellaneous edible preparations	1
22	Beverages, spirits and vinegar	1
23	Food industries, residues and wastes thereof; prepared animal fodder	1
24	Tobacco and manufactured tobacco substitutes	1

Articles made of basic material

CodeHS	Description	CodeAgg
39	Plastics and articles thereof	3
40	Rubber and articles thereof	3
41	Raw hides and skins (other than furskins) and leather	3
42	Articles of leather; saddlery and harness; travel goods, handbags and similar containers; articles of animal gut (other than silk-worm gut)	3
43	Furskins and artificial fur; manufactures thereof	3
44	Wood and articles of wood; wood charcoal	3
45	Cork and articles of cork	3
46	Manufactures of straw, esparto or other plaiting materials; basketware and wickerwork	3
47	Pulp of wood or other fibrous cellulosic material; recovered (waste and scrap) paper or paperboard	3
48	Paper and paperboard; articles of paper pulp, of paper or paperboard	3
68	Stone, plaster, cement, asbestos, mica or similar materials; articles thereof	3
69	Ceramic products	3
70	Glass and glassware	3
71	Natural, cultured pearls; precious, semi-precious stones; precious metals, metals clad with precious metal, and articles thereof; imitation jewellery; coin	3
72	Iron and steel	3
73	Iron or steel articles	3
74	Copper and articles thereof	3
75	Nickel and articles thereof	3
76	Aluminium and articles thereof	3
78	Lead and articles thereof	3
79	Zinc and articles thereof	3
80	Tin; articles thereof	3

Manufacture

CodeHS	Description	CodeAgg
37	Photographic or cinematographic goods	5
82	Tools, implements, cutlery, spoons and forks, of base metal; parts thereof, of base metal	5
84	Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	5
85	Electrical machinery and equipment and parts thereof; sound recorders and reproducers; television image and sound recorders and reproducers, parts and accessories of such articles	5
86	Railway, tramway locomotives, rolling-stock and parts thereof; railway or tramway track fixtures and fittings and parts thereof; mechanical (including electro-mechanical) traffic signalling equipment of all kinds	5
87	Vehicles; other than railway or tramway rolling stock, and parts and accessories thereof	5
88	Aircraft, spacecraft and parts thereof	5
89	Ships, boats and floating structures	5
90	Optical, photographic, cinematographic, measuring, checking, medical or surgical instruments and apparatus; parts and accessories	5
91	Clocks and watches and parts thereof	5
92	Musical instruments; parts and accessories of such articles	5
93	Arms and ammunition; parts and accessories thereof	5
94	Furniture; bedding, mattresses, mattress supports, cushions and similar stuffed furnishings; lamps and lighting fittings, n.e.c.; illuminated signs, illuminated name-plates and the like; prefabricated buildings	5
95	Toys, games and sports requisites; parts and accessories thereof	5

CodeHS Description	CodeAgg	CodeHS Description	CodeAgg	CodeHS Description — Other	CodeAgg
Minerals and Chemicals		**Textile and apparel**		**Other**	
25 Salt; sulphur; earths, stone; plastering materials, lime and cement	2	50 Silk	4	49 Printed books, newspapers, pictures and other products of the printing industry; manuscripts, typescripts and plans	6
26 Ores, slag and ash	2	51 Wool, fine or coarse animal hair, horsehair yarn and woven fabric	4	96 Miscellaneous manufactured articles	6
27 Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes	2	52 Cotton	4	97 Works of art; collectors' pieces and antiques	6
28 Inorganic chemicals; organic and inorganic compounds of precious metals; of rare earth metals, of radio-active elements and of isotopes	2	53 Vegetable textile fibres; paper yarn and woven fabrics of paper yarn	4	99 Commodities not specified according to kind	6
29 Organic chemicals	2	54 Man-made filaments; strip and the like of man-made textile materials	4		
30 Pharmaceutical products	2	55 Man-made staple fibres	4		
31 Fertilizers	2	56 Wadding, felt and nonwovens, special yarns; twine, cordage, ropes and cables and articles thereof	4		
32 Tanning or dyeing extracts; tannins and their derivatives; dyes, pigments and other colouring matter; paints, varnishes; putty, other mastics; inks	2	57 Carpets and other textile floor coverings	4		
33 Essential oils and resinoids; perfumery, cosmetic or toilet preparations	2	58 Fabrics; special woven fabrics, tufted textile fabrics, lace, tapestries, trimmings, embroidery	4		
34 Soap, organic surface-active agents; washing, lubricating, polishing or scouring preparations; artificial or prepared waxes, candles and similar articles, modelling pastes, dental waxes and dental preparations with a basis of plaster	2	59 Textile fabrics; impregnated, coated, covered or laminated; textile articles of a kind suitable for industrial use	4		
35 Albuminoidal substances; modified starches; glues; enzymes	2	60 Fabrics; knitted or crocheted	4		
36 Explosives; pyrotechnic products; matches; pyrophoric alloys; certain combustible preparations	2	61 Apparel and clothing accessories; knitted or crocheted	4		
38 Chemical products n.e.c.	2	62 Apparel and clothing accessories; not knitted or crocheted	4		
81 Metals; n.e.c., cermets and articles thereof	2	63 Textiles, made up articles; sets; worn clothing and worn textile articles; rags	4		
83 Metal; miscellaneous products of base metal	2	64 Footwear, gaiters and the like; parts of such articles	4		
		65 Headgear and parts thereof	4		
		66 Umbrellas, sun umbrellas, walking-sticks, seat sticks, whips, riding crops; and parts thereof	4		
		67 Feathers and down, prepared; and articles made of feather or of down; artificial flowers; articles of human hair	4		