CHAPTER 1

EXTERNAL POSITIONS AND POLICIES

This overview chapter discusses the evolution of and outlook for global external positions and summarizes the IMF staff's external assessments for a globally representative set of economies in 2019, which are also detailed in Chapter 3, "2019 Individual Economy Assessments." These assessments are multilaterally consistent and draw on the latest vintage of the External Balance Assessment (EBA) methodology and consider a full set of external indicators, including current accounts, exchange rates, external balance sheets, capital flows, and international reserves. The assessments' objectives and concepts are summarized in Box 1.1. The chapter is organized as follows: the first section, "Global Imbalances before the COVID-19 Crisis," documents the evolution of current accounts, exchange rates, and international trade in 2019. It also presents IMF staff external sector assessments for 2019, providing a benchmark for assessing external positions as they were before the onset of the COVID-19 pandemic. The second section, "External Developments during the COVID-19 Crisis," discusses the evolution of exchange rates, international trade in goods and services, capital flows, and current account balances in 2020, drawing on both recent data and IMF staff forecasts. The third section, "Significant Risks to the External Outlook," discusses the elevated uncertainties and risks currently pertaining to the outlook. The final section, "Policy Priorities," discusses policy responses for addressing these risks and responding to the crisis as well as reforms to reduce excess imbalances over the medium term in a manner supportive of global growth.

Global Imbalances before the COVID-19 Crisis

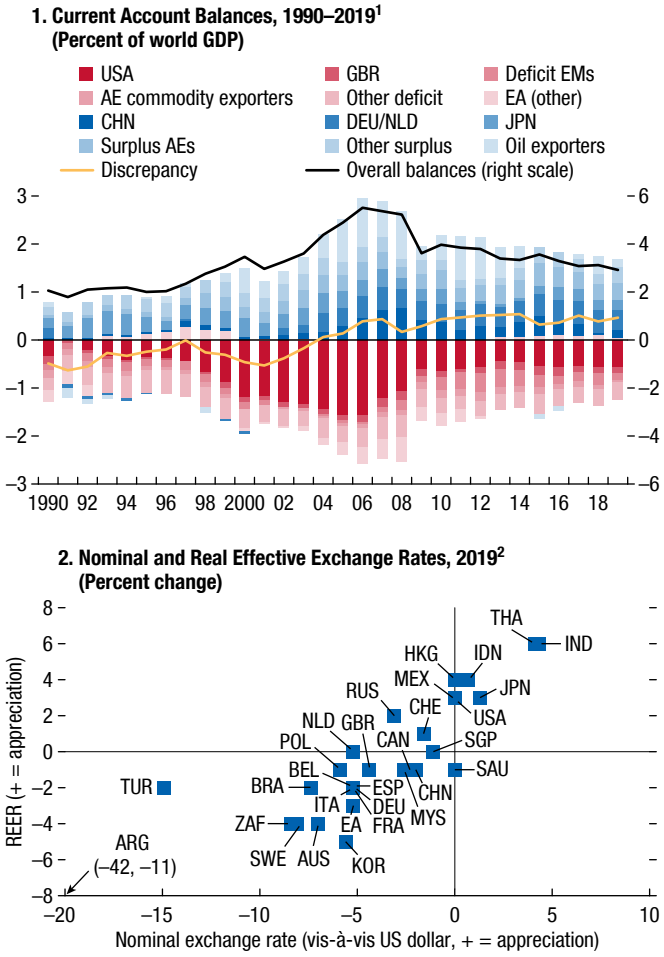
Current account surpluses and deficits narrowed modestly in the years preceding the coronavirus (COVID-19) crisis. In 2019 the global current account balance (the absolute sum of all surpluses and deficits) declined by 0.2 percentage point of world GDP, to 2.9 percent of world GDP (Figure 1.1; Table 1.1). Oil-exporting economies saw their current account surpluses decline, reflecting, on average, lower oil prices. The euro area surplus declined by 0.4 percentage point of GDP, to 2.7 percent of GDP, reflecting weaknesses in services and investment income balances. China's current account surplus rose by 0.8 percentage point of GDP to 1.0 percent of GDP, reflecting the economic slowdown, lower commodity and semiconductor import prices, and the import response to expected and realized tariff hikes, which lowered the trade balances in 2018, with an unwinding in 2019. Current account balances also rose toward surplus in some emerging market and developing economies (Argentina, South Africa, Turkey) in 2019 as a result of tighter financial conditions, lower domestic demand, or currency depreciation. Other systemic economies' external balances moved little. The US current account deficit decreased by 0.1 percentage point of GDP to 2.3 percent of GDP, and Japan's surplus remained at 3.6 percent of GDP.

Currency movements were generally modest, with a number of exceptions. The US dollar and the Japanese yen appreciated about 3 percent in 2019 in real effective terms, while the euro and the renminbi depreciated by 3 percent and 0.8 percent, respectively. Some emerging market and developing economies (India, Indonesia, Mexico, Thailand) saw their currencies appreciate by 3 percent to 6 percent in real effective terms, reflecting a partial rebound from sharp depreciations in 2018. A number of emerging market and developing economies with preexisting vulnerabilities experienced large currency depreciations. In Argentina, the peso depreciated almost 42 percent vis-à-vis the US dollar, although relatively high inflation limited the real effective depreciation to 11 percent. The currencies of Brazil, South Africa, and Turkey depreciated vis-à-vis the US dollar by 8 percent to 14 percent, also with smaller real effective depreciations.

Trade tensions contributed to currency and financial market fluctuations. US–China trade tensions escalated for much of 2019, with the average US tariff on Chinese imports increasing from 12.0 percent to 21.0 percent, and China's average tariff on US imports rising from 16.5 percent to 21.1 percent. The announcement and implementation of these trade policy changes during 2018 and 2019 triggered significant declines in equity prices and offsetting currency movements, with

Figure 1.1. Evolution of Current Account Balances and Exchange Rates

Global current account surpluses and deficits narrowed modestly in 2019, while currency movements were moderate for most major economies.



Sources: IMF, Information Notice System; IMF, *International Financial Statistics*; IMF, *World Economic Outlook* (WEO); and IMF staff calculations.
Note: AEs = advanced economies; EA = euro area; EMs = emerging markets; REER = real effective exchange rate. Data labels use International Organization for Standardization (ISO) country codes.
[1]Overall balance is the absolute sum of global surpluses and deficits. AE commodity exporters comprise Australia, Canada, and New Zealand; deficit EMs comprise Brazil, India, Indonesia, Mexico, South Africa, and Turkey; oil exporters comprise WEO definition plus Norway; surplus AEs comprise Hong Kong SAR, Korea, Singapore, Sweden, Switzerland, and Taiwan Province of China. Other deficit (surplus) comprise all other economies running current account deficits (surpluses).
[2]The panel shows the 2019 exchange rate average relative to the 2018 average.

much of the depreciation in the renminbi during this period driven by trade policy announcements (Box 1.2). In early 2020 the United States and China agreed to a "Phase One" economic and trade agreement, with a partial rollback of previously implemented tariffs and a truce on new tariffs. Trade tensions also deescalated on other fronts in late 2019 with the signing of the United States-Mexico-Canada Agreement, which went into effect on July 1, 2020.

Furthermore, the stocks of external assets and liabilities have reached historic highs, with attendant risks to both debtor and creditor economies. External assets and liabilities as a share of GDP more than tripled from the early 1990s to the years preceding the COVID-19 crisis (Figure 1.2). This sharp increase, both in gross and net terms, has raised questions regarding its sustainability, as well as the associated macroeconomic vulnerabilities. The widening stock positions reflect the persistence of the associated current account surpluses and deficits of the world's systemic economies. The United States has the largest net debtor position as a share of world GDP. The largest net creditor economies in percent of world GDP are China, Germany, and Japan (Table 1.2). In terms of currency exposures, most emerging market and developing economies went from having short positions in foreign currency in 1990 to long positions in 2017, reflecting a shift in foreign liabilities from foreign currency debt to equity financing and, in general, sustained accumulation of foreign exchange reserves. Most advanced economies were already long in foreign currency in 1990, and their net positions have continued to grow.

Normative Assessment of External Positions in 2019

IMF staff external sector assessments for 2019 provide a benchmark for assessing external positions as they were before the onset of the COVID-19 crisis. The assessment of external positions requires a multilateral approach that matches positive and negative excess external imbalances. The IMF's external assessment framework combines numerical inputs from the latest vintage of the EBA methodology with a series of external indicators and country-specific judgment (see Box 1.2 and Chapter 3). The EBA methodology produces multilaterally consistent estimates for current account and real exchange rate *norms* (or benchmarks), which depend on country fundamentals and desired policies.[1] The IMF staff estimates

[1]For instance, advanced economies with higher incomes, older populations, and lower growth prospects have positive current account norms. Conversely, current account norms are negative for most emerging market and developing economies, as they are expected to import capital to invest and exploit their higher growth potential.

Table 1.1. Selected Economies: Current Account Balance, 2017–20

	Billions of USD				Percent of World GDP				Percent of GDP			
	2017	2018	2019	2020 Projection	2017	2018	2019	2020 Projection	2017	2018	2019	2020 Projection
Advanced Economies												
Australia	–35	–29	8	15	0.0	0.0	0.0	0.0	–2.6	–2.0	0.6	1.2
Belgium	6	–8	–7	–3	0.0	0.0	0.0	0.0	1.2	–1.4	–1.2	–0.6
Canada	–46	–43	–35	–57	–0.1	–0.1	0.0	–0.1	–2.8	–2.5	–2.0	–3.7
France	–20	–16	–18	–12	0.0	0.0	0.0	0.0	–0.8	–0.6	–0.7	–0.5
Germany	287	292	275	199	0.4	0.3	0.3	0.2	7.8	7.4	7.1	5.6
Hong Kong SAR	16	14	23	21	0.0	0.0	0.0	0.0	4.6	3.7	6.2	5.9
Italy	50	52	59	61	0.1	0.1	0.1	0.1	2.6	2.5	3.0	3.6
Japan	203	177	184	157	0.3	0.2	0.2	0.2	4.2	3.6	3.6	3.2
Korea	75	77	60	51	0.1	0.1	0.1	0.1	4.6	4.5	3.6	3.4
Netherlands	90	99	93	66	0.1	0.1	0.1	0.1	10.8	10.9	10.2	8.0
Singapore	56	64	63	44	0.1	0.1	0.1	0.1	16.3	17.2	17.0	13.0
Spain	35	28	28	22	0.0	0.0	0.0	0.0	2.7	1.9	2.0	1.8
Sweden	17	14	22	14	0.0	0.0	0.0	0.0	3.1	2.5	4.2	2.8
Switzerland	44	58	81	57	0.1	0.1	0.1	0.1	9.8	9.8	11.5	8.5
United Kingdom	–93	–111	–107	–88	–0.1	–0.1	–0.1	–0.1	–3.5	–3.9	–3.8	–3.5
United States	–440	–491	–498	–402	–0.5	–0.6	–0.6	–0.5	–2.3	–2.4	–2.3	–2.0
Emerging Market and Developing Economies												
Argentina	–31	–27	–3	…	0.0	0.0	0.0	…	–4.8	–5.2	–0.8	…
Brazil	–15	–42	–49	–22	0.0	0.0	–0.1	0.0	–0.7	–2.2	–2.7	–1.7
China	195	25	141	195	0.2	0.0	0.2	0.2	1.6	0.2	1.0	1.3
India[1]	–49	–57	–27	–9	–0.1	–0.1	0.0	0.0	–1.8	–2.1	–0.9	–0.3
Indonesia	–16	–31	–30	–18	0.0	0.0	0.0	0.0	–1.6	–2.9	–2.7	–1.6
Malaysia	9	8	12	2	0.0	0.0	0.0	0.0	2.8	2.2	3.4	0.5
Mexico	–20	–25	–4	–2	0.0	0.0	0.0	0.0	–1.8	–2.1	–0.3	–0.2
Poland	0	–6	3	9	0.0	0.0	0.0	0.0	0.0	–1.0	0.5	1.5
Russia	32	114	65	–2	0.0	0.1	0.1	0.0	2.1	6.8	3.8	–0.1
Saudi Arabia	10	72	47	–32	0.0	0.1	0.1	0.0	1.5	9.2	5.9	–4.9
South Africa	–9	–13	–11	–5	0.0	0.0	0.0	0.0	–2.5	–3.5	–3.0	–1.8
Thailand	44	28	38	25	0.1	0.0	0.0	0.0	9.6	5.6	7.0	4.9
Turkey	–41	–21	9	0.1	–0.1	0.0	0.0	0.0	–4.8	–2.7	1.2	0.0
Memorandum item:[2]												
Euro Area	393	426	359	274	0.5	0.5	0.4	0.3	3.1	3.1	2.7	2.3
Statistical Discrepancy	394	315	387	39	0.5	0.4	0.4	0.0	…	…	…	…
Overall Surpluses	1,439	1,495	1,465	1,078	1.8	1.7	1.7	1.3	…	…	…	…
Of which: Advanced Economies	1,038	1,074	1,042	824	1.3	1.3	1.2	1.0	…	…	…	…
Overall Deficits	–1,045	–1,180	–1,078	–1,039	–1.3	–1.4	–1.2	–1.3	…	…	…	…
Of which: Advanced Economies	–650	–721	–721	–607	–0.8	–0.8	–0.8	–0.7	…	…	…	…

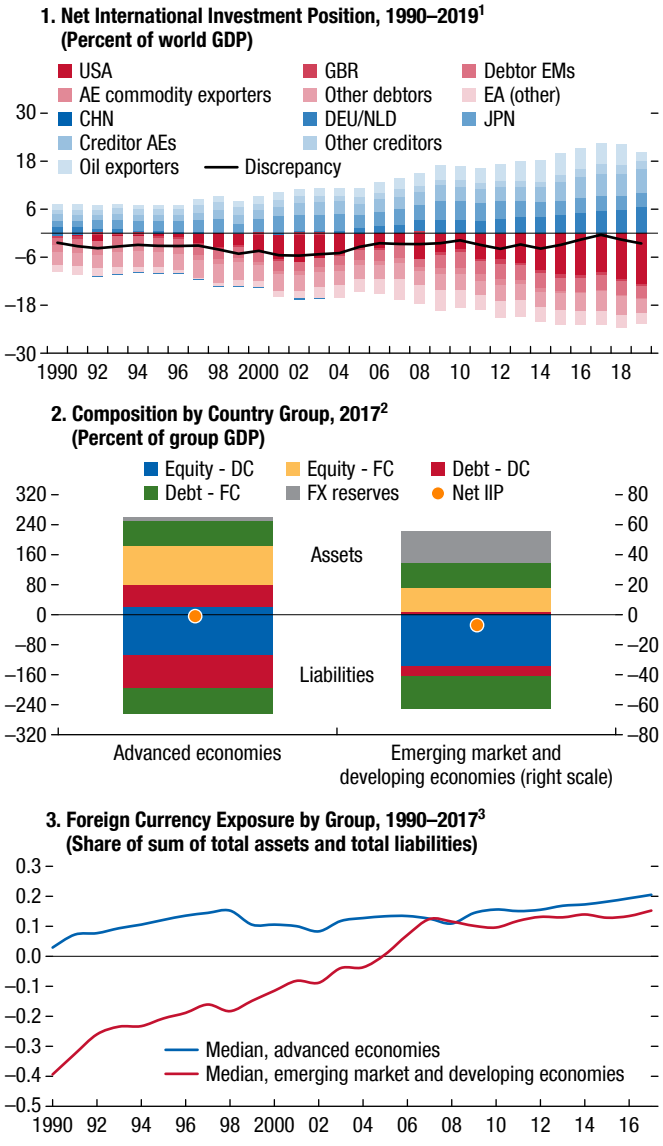
Sources: IMF, *World Economic Outlook;* and IMF staff calculations.

[1]For India, data are presented on a fiscal year basis.

[2]Overall surpluses and deficits (and the of which advanced economies) include non-*External Sector Report* countries.

Figure 1.2. External Assets and Liabilities, 1990–2019

Net creditor and debtor positions have increased three times since 1990. In emerging market and developing economies, foreign exchange reserves are about 40 of external assets, while foreign-currency-denominated debt is about 79 percent of total external debt. Emerging markets' foreign exchange positions turned long in the mid-2000s and have continued to increase since the global financial crisis.



Sources: Bénétrix and others (2019); External Wealth of Nations database; IMF, *World Economic Outlook* (WEO); and IMF staff estimates.
Note: AEs = advanced economies; DC = domestic currency; EA = euro area; EMs = emerging markets; FC = foreign currency; FX = foreign exchange; IIP = international investment position. Data labels use International Organization for Standardization (ISO) country codes.
[1]Creditor AEs comprise Hong Kong SAR, Korea, Singapore, Sweden, Switzerland, Taiwan Province of China; AE commodity exporters comprise Australia, Canada, New Zealand; deficit EMs comprise Brazil, India, Indonesia, Mexico, South Africa, Turkey; oil exporters comprise WEO definition plus Norway.
[2]Comprises 50 countries which are part of the IMF External Balance Assessment model and/or *External Sector Report*, except Costa Rica and Saudi Arabia.
[3]Aggregate foreign currency exposure is defined as net foreign assets denominated in foreign currency as a share of total assets and total liabilities.

current account and real effective exchange rate *gaps* by comparing actual current accounts (stripped of temporary components) and real effective exchange rates with their staff-assessed norms, using judgment and country-specific insights where appropriate. The IMF staff arrives at a holistic overall *external sector assessment* for the world's 30 largest economies based on the estimated gaps as well as consideration of other external sector indicators, such as the net international investment position, capital flows, and foreign exchange reserves.

For most of the 30 economies, overall external position assessments for 2019 remained broadly similar to those for 2018. About one-third of economy assessments changed categories in 2019 (Tables 1.4 and 1.5). Economies with estimated excess current account surpluses (deficits) generally also had an undervalued (overvalued) real effective exchange rate, according to IMF staff estimates (Figures 1.3 and 1.4).[2] The configuration of overall external positions compared with their estimated desirable levels was as follows.

- *Stronger than the level consistent with medium-term fundamentals and desirable policies:* The 10 economies with such positions were the euro area, Germany, Malaysia, the Netherlands, Singapore, and Thailand, as well as Poland, Sweden, Switzerland, and Turkey, which entered this category in 2019, driven by increases in their current account balances.[3]
- *Weaker than the level consistent with medium-term fundamentals and desirable policies:* The nine economies with such positions were Belgium, Canada, the United Kingdom, the United States, and a number of emerging market and developing economies (Argentina, South Africa), as well as commodity

[2]Figure 1.5 reports the ranges for staff-assessed current account gaps as well as the EBA model-based current account gap estimates. As reported in Table 1.5, the EBA and staff-assessed current account gaps differ in a number of cases, reflecting the use of country-specific judgment. Figure 1.5 also reports the staff real effective exchange rate (REER) gaps, which are arrived at using multiple inputs that vary across countries, including (1) estimates derived from mapping IMF staff views on the current account gap using country-specific trade elasticities; (2) estimates from the EBA REER index and level models; and (3) other indicators, including unit-labor-cost-based exchange rates. As reported in Table 1.7, the overall staff-assessed REER gaps thus differ from these individual inputs.

[3]For Turkey, the "moderately stronger" external position assessment reflects the lagged adjustment of external balances following the sharp depreciation of the real exchange rate in 2018.

Table 1.2. Selected Economies: Net International Investment Position, 2016–19

	Billions of USD				Percent of World GDP				Percent of GDP			
	2016	2017	2018	2019	2016	2017	2018	2019	2016	2017	2018	2019
Advanced Economies												
Australia	–712	–752	–731	–632	–0.9	–0.9	–0.9	–0.7	–56.2	–54.2	–51.4	–45.6
Belgium	249	293	199	199	0.3	0.4	0.2	0.2	52.4	58.1	36.7	37.6
Canada	306	576	575	767	0.4	0.7	0.7	0.9	20.0	34.9	33.5	44.2
France	–306	–547	–506	–507	–0.4	–0.7	–0.6	–0.6	–12.4	–21.1	–18.1	–18.7
Germany	1,697	2,162	2,381	2,718	2.2	2.7	2.8	3.1	48.9	59.0	60.3	70.7
Hong Kong SAR	1,154	1,421	1,283	1,563	1.5	1.8	1.5	1.8	359.6	416.5	354.6	427.4
Italy	–213	–158	–100	–33	–0.3	–0.2	–0.1	0.0	–11.4	–8.1	–4.8	–1.6
Japan	2,902	2,915	3,033	3,393	3.8	3.6	3.5	3.9	58.9	59.9	61.2	66.8
Korea	281	262	436	501	0.4	0.3	0.5	0.6	18.7	16.1	25.3	30.4
Netherlands	458	519	623	809	0.6	0.6	0.7	0.9	58.5	62.3	68.1	89.0
Singapore	754	867	770	896	1.0	1.1	0.9	1.0	236.7	253.7	206.3	240.8
Spain	–1,004	–1,176	–1,098	–1,024	–1.3	–1.5	–1.3	–1.2	–81.5	–89.6	–77.3	–73.5
Sweden	–9	8	43	112	0.0	0.0	0.1	0.1	–1.7	1.4	7.8	21.0
Switzerland	811	857	883	826	1.1	1.1	1.0	0.9	120.7	126.0	125.2	117.4
United Kingdom	9	–268	–368	–713	0.0	–0.3	–0.4	–0.8	0.3	–10.0	–12.8	–25.2
United States	–8,192	–7,743	–9,555	–10,991	–10.8	–9.6	–11.2	–12.6	–43.8	–39.7	–46.4	–51.3
Emerging Market and Developing Economies												
Argentina	48	17	65	118	0.1	0.0	0.1	0.1	8.6	2.7	12.6	26.2
Brazil	–567	–645	–594	–732	–0.7	–0.8	–0.7	–0.8	–31.6	–31.3	–31.5	–39.8
China	1,950	2,101	2,146	2,124	2.6	2.6	2.5	2.4	17.4	17.1	15.5	14.4
India	–394	–424	–437	–455	–0.5	–0.5	–0.5	–0.5	–17.2	–16.0	–16.1	–15.0
Indonesia	–334	–323	–318	–350	–0.4	–0.4	–0.4	–0.4	–35.8	–31.8	–30.5	–31.2
Malaysia	16	–8	–18	–5	0.0	0.0	0.0	0.0	5.2	–2.4	–4.9	–1.5
Mexico	–532	–556	–591	–655	–0.7	–0.7	–0.7	–0.7	–49.4	–48.0	–48.4	–52.1
Poland	–274	–350	–314	–298	–0.4	–0.4	–0.4	–0.3	–58.1	–66.4	–53.4	–50.3
Russia	220	281	374	357	0.3	0.3	0.4	0.4	17.2	17.8	22.4	21.0
Saudi Arabia	597	624	632	683	0.8	0.8	0.7	0.8	92.6	90.6	80.3	86.1
South Africa	22	35	45	29	0.0	0.0	0.1	0.0	7.5	9.9	12.3	8.0
Thailand	–33	–36	–11	–10	0.0	0.0	0.0	0.0	–7.9	–8.0	–2.2	–1.8
Turkey	–368	–463	–371	–345	–0.5	–0.6	–0.4	–0.4	–42.6	–54.2	–48.2	–45.8
Memorandum item:												
Euro Area	–984	–1,044	–607	–70	–1.3	–1.3	–0.7	–0.1	–8.2	–8.3	–4.4	–0.5
Statistical Discrepancy	–1,733	–912	–2,020	–1,979	–2.3	–1.1	–2.4	–2.3	…	…	…	…
Overall Creditors	14,085	15,817	16,432	18,316	18.6	19.6	19.2	20.9	…	…	…	…
Of which: Advanced Economies	10,797	12,325	12,732	14,568	14.2	15.3	14.9	16.7	…	…	…	…
Overall Debtors	–15,818	–16,729	–18,453	–20,295	–20.9	–20.8	–21.6	–23.2	…	…	…	…
Of which: Advanced Economies	–11,715	–12,102	–13,870	–15,426	–15.5	–15.0	–16.2	–17.6	…	…	…	…

Sources: Bureau of Economic Analysis; IMF, *World Economic Outlook*; and IMF staff calculations.
[1]Overall creditors and debtors (and the "of which" advanced economies) include non-*External Sector Report* economies.

Table 1.3. Selected Economies: Foreign Reserves, 2017–19[1]

	Gross Official Reserves[2]						IMF Staff Estimated Change in Official Reserves[3]				
	Billions of USD			Percent of World GDP			Percent of GDP			Gross Official Reserves in Percent of ARA metric (2019)[4]	FXI Data Publication
	2017	2018	2019	2017	2018	2019	2017	2018	2019		
Advanced Economies											
Australia	67	54	59	4.8	3.8	4.2	–0.1	0.1	0.5	. . .	Yes/Daily
Canada	87	84	85	5.3	4.9	4.9	0.0	–0.1	–0.1	. . .	Yes/Monthly
Euro Area	803	823	914	6.3	6.0	6.9	0.0	0.2	0.0	. . .	Yes/Quarterly
Hong Kong SAR	431	425	441	126.4	117.4	120.7	9.3	0.6	–0.7	. . .	Yes/Daily
Japan	1,264	1,270	1,322	26.0	25.7	26.0	0.3	0.5	0.3	. . .	Yes/Monthly
Korea	389	403	409	23.9	23.4	24.8	0.7	0.1	0.0	110	Yes/Quarterly
Singapore	285	293	285	83.4	78.4	79.0	14.7	5.0	–1.7	. . .	Yes/Semiannually
Sweden	62	61	56	11.5	10.9	10.5	0.0	–0.1	–1.2	. . .	No
Switzerland	811	787	855	119.3	111.6	114.0	9.1	2.0	2.5	. . .	Yes/Annually
United Kingdom	151	173	174	5.7	6.0	6.1	0.4	0.8	–0.1	. . .	Yes/Monthly
United States	451	450	517	2.3	2.2	2.4	0.0	0.1	0.0	. . .	Yes/Quarterly
Emerging Market and Developing Economies											
Argentina	55	66	45	8.6	12.7	10.0	2.3	–3.3	–8.4	45	Yes/Daily
Brazil	374	375	357	18.1	19.9	19.4	0.3	–2.2	–0.6	154	Yes/Daily
China	3,236	3,168	3,223	26.4	22.9	21.9	1.1	0.1	0.1	133	No
India	413	399	492	15.6	14.7	16.2	2.6	–1.3	2.3	163	Yes/Monthly
Indonesia	130	121	129	12.8	11.6	11.5	1.7	–1.4	0.7	119	No
Malaysia	102	101	104	32.1	28.3	28.4	0.7	–2.5	2.9	116	No
Mexico	175	176	183	15.1	14.4	14.5	–0.4	0.0	0.2	117	Yes/Monthly
Poland	113	117	128	21.5	19.9	21.7	–1.4	1.2	1.7	144	No
Russia	433	469	555	27.5	28.1	32.6	1.7	2.0	3.9	310	Yes/Daily
Saudi Arabia	509	509	500	74.0	64.8	63.0	–5.8	0.1	0.5	375	No
South Africa	51	52	55	14.5	14.0	15.7	0.4	–0.1	0.4	76	No
Thailand	203	206	224	44.4	40.6	41.3	8.1	0.8	2.4	221	No
Turkey	108	93	106	12.6	12.1	14.0	–1.1	–1.5	–1.3	85	Yes/Daily
Memorandum item:											
Aggregate[5]	10,703	10,674	11,216	13.3	12.5	12.8	0.5	0.1	0.2	. . .	. . .
AEs	4,801	4,821	5,117	6.0	5.6	5.8	0.2	0.2	0.0	. . .	. . .
EMDEs	5,902	5,852	6,099	7.3	6.8	7.0	0.3	–0.1	0.2	. . .	. . .

Sources: IMF, Assessing Reserve Adequacy data set; IMF, International Reserves and Foreign Currency Liquidity (IRFCL); IMF, *International Financial Statistics* (IFS); IMF, *World Economic Outlook* (WEO); and IMF staff calculations.

Note: AEs = advanced economies; ARA = assessment of reserve adequacy; EMDEs = emerging market and developing economies; FX = foreign exchange; FXI = foreign exchange intervention.

[1]Sample includes *External Sector Report* economies excluding individual euro area economies. Euro area is reported as aggregate.

[2]Total reserves from IFS, includes gold reserves valued at market prices.

[3]This item is not necessarily equal to actual FXI, but it is used as an FXI proxy in External Balance Assessment model estimates. The estimated change in official reserves is equivalent to the change in reserve assets in the financial account series from the WEO (which excludes valuation effects, but includes interest income on official reserves) plus the change in off-balance-sheet holdings (short and long FX derivative positions, and other memorandum items) from IRFCL minus net credit and loans from the IMF.

[4]The ARA metric reflects potential balance of payments FX liquidity needs in adverse circumstances and is used to assess the adequacy of FX reserves against potential FX liquidity drains (see IMF 2015). The ARA metric is estimated only for selected EMDEs and Korea, and includes adjustments for capital controls for China. Additional adjusted figures are available in the Individual Country Pages in Chapter 3.

[5]The aggregate is calculated as the sum of *External Sector Report* economies only. The percent of GDP is calculated relative to total world GDP.

Table 1.4. External Sector Report Economies: Summary of External Assessment Indicators, 2019

		Current Account (Percent of GDP)		Staff CA Gap (Percent of GDP)		Staff REER Gap (Percent		International Investment Position (Percent of GDP)[1]			CA NFA Stabilizing (Percent of GDP)[2]	SE of CA Norm (Percent)[3]
Economy	Overall Assessment	Actual	Cycl. Adj.	Midpoint	Range	Midpoint	Range	Net	Liabilities	Assets		
Argentina	Weaker	–0.8	–1.7	–2.0	+/–1	–1.5	+/–5	26	63	89	0.6	0.8
Australia	Broadly in line	0.6	0.3	0.8	+/–0.5	–4.0	+/–2.5	–46	197	151	–2.3	1.0
Belgium	Weaker	–1.2	–1.1	–3.5	+/–1	8.5	+/–2.5	38	387	425	1.3	0.5
Brazil	Moderately weaker	–2.7	–3.7	–1.2	+/–0.5	3.5	+/–7.5	–40	88	49	–1.4	0.9
Canada	Moderately weaker	–2.0	–1.9	–1.8	+/–1.5	7.1	+/–5.6	44	209	253	1.7	0.9
China	Broadly in line	1.0	0.8	1.0	+/–1.5	–2.0	+/–10	14	38	52	1.1	1.5
Euro Area[4]	Moderately stronger	2.7	2.7	1.2	+/–0.8	–2.8	+/–2.9	–1	244	243	–0.3	0.8
France	Moderately weaker	–0.7	–0.5	–1.1	+/–0.5	4.1	+/–1.9	–19	318	299	–0.7	0.5
Germany	Substantially stronger	7.1	7.3	4.3	+/–1	–11.0	+/–5	71	203	273	2.1	0.8
Hong Kong SAR	Broadly in line	6.2	. . .	0.8	+/–1.5	–2.5	+/–5	427	1,109	1,537	. . .	. . .
India	Broadly in line	–0.9	–1.4	1.0	+/–1	–5.6	+/–5.5	–15	40	25	–2.4	1.3
Indonesia	Broadly in line	–2.7	–2.7	–1.0	+/–1.5	3.9	+/–5.1	–31	64	33	–2.2	1.3
Italy	Broadly in line	3.0	2.7	0.0	+/–1	4.0	+/–4	–2	165	163	–0.3	0.8
Japan	Broadly in line	3.6	3.5	0.0	+/–1.2	0.0	+/–9	67	132	198	3.6	1.2
Korea	Broadly in line	3.6	3.3	0.0	+/–1	0.0	+/–3	30	73	103	1.2	0.8
Malaysia	Stronger	3.4	3.5	3.3	+/–1	–7.2	+/–2	–1	113	111	–0.4	0.7
Mexico	Broadly in line	–0.3	–0.7	0.9	+/–1.1	–7.0	+/–8	–52	100	48	–1.9	1.1
Netherlands	Substantially stronger	10.2	10.5	4.9	+/–2	–7.0	+/–2.9	89	1,037	1,126	2.5	0.9
Poland	Stronger	0.5	0.6	2.7	+/–1	–6.0	+/–2	–50	99	49	–2.8	0.6
Russia	Broadly in line	3.8	3.8	0.1	+/–1	–0.4	+/–5	21	68	89	0.9	1.6
Saudi Arabia	Weaker	5.9	. . .	–3.0	+/–1.2	13.0	+/–3	86	60	146	. . .	. . .
Singapore	Substantially stronger	17.0	. . .	4.0	+/–3	–8.0	+/–6	241	894	1,135	. . .	. . .
South Africa	Moderately weaker	–3.0	–3.2	–1.5	+/–1.1	5.7	+/–4	8	129	137	0.4	1.2
Spain	Broadly in line	2.0	2.2	0.2	+/–1	–0.9	+/–4	–73	250	176	–3.0	0.8
Sweden	Stronger	4.2	4.5	3.2	+/–1.5	–10.0	+/–5	21	263	284	0.3	1.1
Switzerland	Moderately stronger	11.5	11.5	1.8	+/–2	–3.5	+/–3.9	117	644	761	8.7	1.3
Thailand	Substantially stronger	7.0	6.6	6.1	+/–1.5	–9.5	+/–2.5	–2	99	98	–0.2	1.6
Turkey	Moderately stronger	1.2	0.8	1.6	+/–1.8	–15.0	+/–8	–46	79	34	–3.1	1.8
United Kingdom	Weaker	–3.8	–3.8	–2.9	+/–2	7.5	+/–7.5	–25	534	509	–0.5	0.7
United States	Moderately weaker	–2.3	–2.0	–1.3	+/–0.5	11.0	+/–3	–51	188	137	–0.8	1.0

Sources: Bureau of Economic Analysis; IMF, *World Economic Outlook* (WEO); IMF, *International Financial Statistics*; and IMF staff assessments.
Note: CA = current account; NFA = net foreign assets; NIIP = net international investment position; REER = real effective exchange rate; SE = standard error.
[1]The NIIP estimates come from the WEO and the Bureau of Economic Analysis.
[2]The current account balance that would stabilize the ratio of NFA to GDP at the benchmark NFA/GDP level.
[3]The standard error of the 2019 estimated current account norms.
[4]The staff-assessed euro area CA gap is calculated as the GDP-weighted averages of IMF staff-assessed CA gaps for the 11 largest euro area economies.

Table 1.5. External Sector Report Economies: Summary of IMF Staff–Assessed Current Account Gaps and Staff Adjustments, 2019

(Percent of GDP)

Economy	Assessment 2019	Actual CA Balance [A]	Cycl. Adj. CA Balance [B]	EBA CA Norm [C]	EBA CA Gap[1] [D=B–C]	Staff-Assessed CA Gap[2] [E]	Staff Adjustments[3] Total [F=G–H]	CA [G]	Norm [H]	Comments
Argentina	Weaker	–0.8	–1.7	–1.2	–0.5	–2.0	–1.5	0.0	1.5	NIIP/financing risks considerations
Australia	Broadly in line	0.6	0.3	–0.1	0.5	0.8	0.3	–0.7	–1.0	Terms of trade (CA); large investment needs (Norm)
Belgium	Weaker	–1.2	–1.1	2.3	–3.5	–3.5	0.0	0.0	0.0	
Brazil	Moderately weaker	–2.7	–3.7	–2.5	–1.2	–1.2	0.0	0.0	0.0	
Canada	Moderately weaker	–2.0	–1.9	2.2	–4.1	–1.8	2.3	2.0	–0.3	Measurement biases and terms of trade (CA); demographics (Norm)
China	Broadly in line	1.0	0.8	–0.4	1.2	1.0	–0.2	–0.2	0.0	Impact of trade tensions
Euro Area[4]	Moderately stronger	2.7	2.7	1.4	1.3	1.2	–0.1	0.1	0.3	Country-specific adjustments
France	Moderately weaker	–0.7	–0.5	0.6	–1.1	–1.1	0.0	0.0	0.0	
Germany	Substantially stronger	7.1	7.3	2.5	4.7	4.3	–0.4	0.0	0.4	Demographics (uncertainty related to large and sudden immigration)
India	Broadly in line	–0.9	–1.4	–3.0	1.6	1.0	–0.6	0.0	0.6	NIIP/financing risks considerations
Indonesia	Broadly in line	–2.7	–2.7	–0.8	–1.9	–1.0	0.9	0.0	–0.9	Demographics (high mortality risk)
Italy	Broadly in line	3.0	2.7	2.6	0.0	0.0	0.0	0.0	0.0	
Japan	Broadly in line	3.6	3.5	3.5	0.0	0.0	0.0	0.0	0.0	
Korea	Broadly in line	3.6	3.3	3.3	0.0	0.0	0.0	0.0	0.0	
Malaysia	Stronger	3.4	3.5	–0.2	3.7	3.3	–0.4	–0.4	0.0	Postponement of large infrastructure projects with high import content
Mexico	Broadly in line	–0.3	–0.7	–2.2	1.5	0.9	0.6	0.6	0.0	Effects of trade diversion
Netherlands	Substantially stronger	10.2	10.5	3.3	7.2	4.9	–2.3	–2.3	0.0	Measurement biases
Poland	Stronger	0.5	0.6	–2.1	2.7	2.7	0.0	0.0	0.0	
Russia	Broadly in line	3.8	3.8	3.7	0.1	0.1	0.0	0.0	0.0	
South Africa	Moderately weaker	–3.0	–3.2	0.9	–4.0	–1.5	2.5	1.5	–1.0	SACU transfers and measurement biases (CA); demographics (high mortality risk, Norm)
Spain	Broadly in line	2.0	2.2	1.1	1.1	0.2	–0.9	0.0	0.9	NIIP/financing risks considerations
Sweden	Stronger	4.2	4.5	1.2	3.2	3.2	0.0	0.0	0.0	
Switzerland	Moderately stronger	11.5	11.5	6.3	5.3	1.8	–3.5	–3.5	0.0	Measurement biases
Thailand	Substantially stronger	7.0	6.6	0.4	6.1	6.1	0.0	0.0	0.0	
Turkey	Moderately stronger	1.2	0.8	–1.7	2.5	1.6	0.9	0.9	0.0	Temporarily large receipts from travel services
United Kingdom	Weaker	–3.8	–3.8	0.4	–4.2	–2.9	1.3	1.3	0.0	Measurement biases
United States	Moderately weaker	–2.3	–2.0	–0.7	–1.3	–1.3	0.0	0.0	0.0	
Hong Kong SAR	Broadly in line	6.2	. . .	. . .	. . .	0.8	. . .	. . .	. . .	. . .
Singapore	Substantially stronger	17.0	. . .	. . .	. . .	4.0	. . .	. . .	. . .	. . .
Saudi Arabia	Weaker	5.9	. . .	. . .	. . .	–3.0	. . .	. . .	. . .	. . .
Absolute sum of excess surpluses and deficits[5]						1.2				
Discrepancy[5]	. . .	. . .	. . .	. . .	. . .	. . .	**0.02**	. . .	. . .	. . .	. . .

Source: IMF staff estimates.

Note: CA = current account; EBA = external balance assessment; NIIP = net international investment position; SACU = Southern African Customs Union.

[1]Figures may not add up due to rounding effects.

[2]Refers to the midpoint of the staff-assessed CA gap.

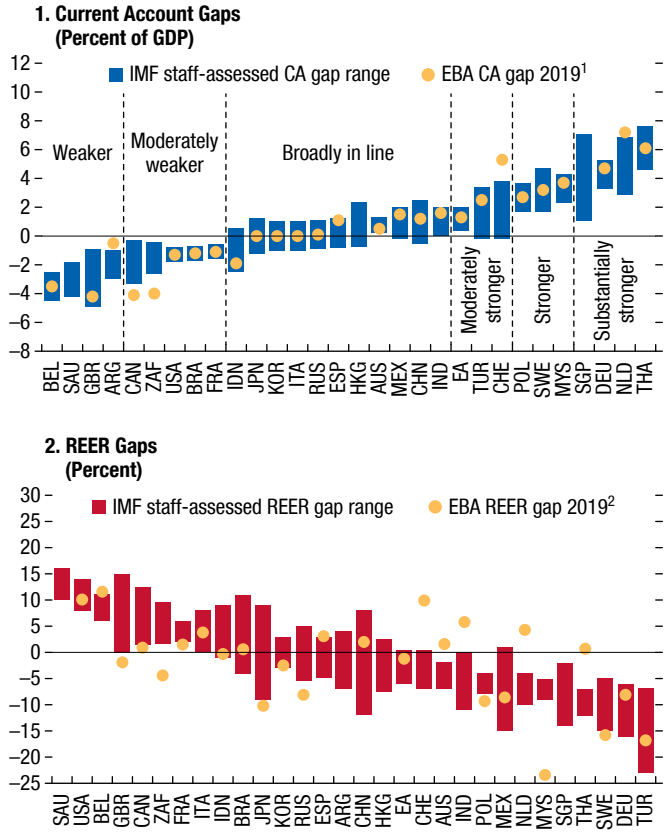
[3]Total staff adjustments include rounding in some cases. The breakdown between the norm and other factors (which affect the underlying CA) is tentative.

[4]The EBA euro area current account norm is calculated as the GDP-weighted average of norms for the 11 largest euro area economies, adjusted for reporting discrepancies in intra-area transactions (which were equivalent to 0.43 percent of GDP in 2019). The staff-assessed CA gap is calculated as the GDP-weighted average of staff-assessed gaps for the 11 largest euro area economies.

[5]GDP-weighted average sum of staff-assessed CA gaps in percent of world GDP.

Figure 1.3. IMF Staff-Assessed and External Balance Assessment Estimated Current Account and Real Effective Exchange Rate Gaps, 2019

The IMF staff combines the numerical inputs from the EBA methodology with country-specific judgment and other indicators to arrive at multilaterally consistent assessments of the 29 largest systemically important economies and the euro area.



Source: IMF staff assessments.
Note: CA = current account; EBA = IMF External Balance Assessment model; REER = real effective exchange rate. Data labels use International Organization for Standardization (ISO) country codes.
[1]Hong Kong SAR, Saudi Arabia, and Singapore do not have EBA estimates.
[2]EBA REER gap is defined as the average gap from REER-index, REER-level, and REER gap implied from staff CA gap using estimated elasticities (see details in Cubeddu and others 2019).

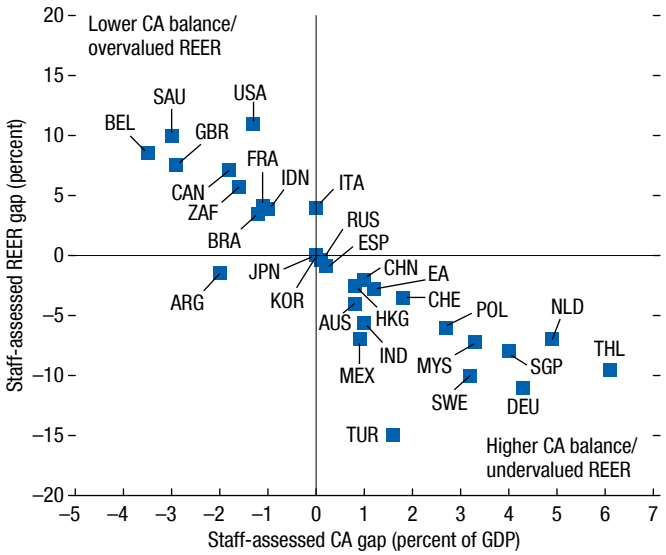
exporters (Brazil, Saudi Arabia) and France, which entered this category in 2019.[4]

- *Broadly in line with the level consistent with medium-term fundamentals and desirable policies:* The 11 economies with such positions were, as in the previous year, Australia, China, Hong Kong SAR, India, Italy, Japan, and Mexico, as well as Indonesia, Korea, Russia, and Spain, which entered this category in 2019.

[4]The change in the assessment for Brazil between 2018 and 2019 is primarily due to statistical revisions.

Figure 1.4. IMF Staff-Assessed Current Account and Real Effective Exchange Rate Gaps, 2019

Countries with estimated excess CA surpluses (deficits) generally also had an undervalued (overvalued) REER, according to IMF staff estimates.



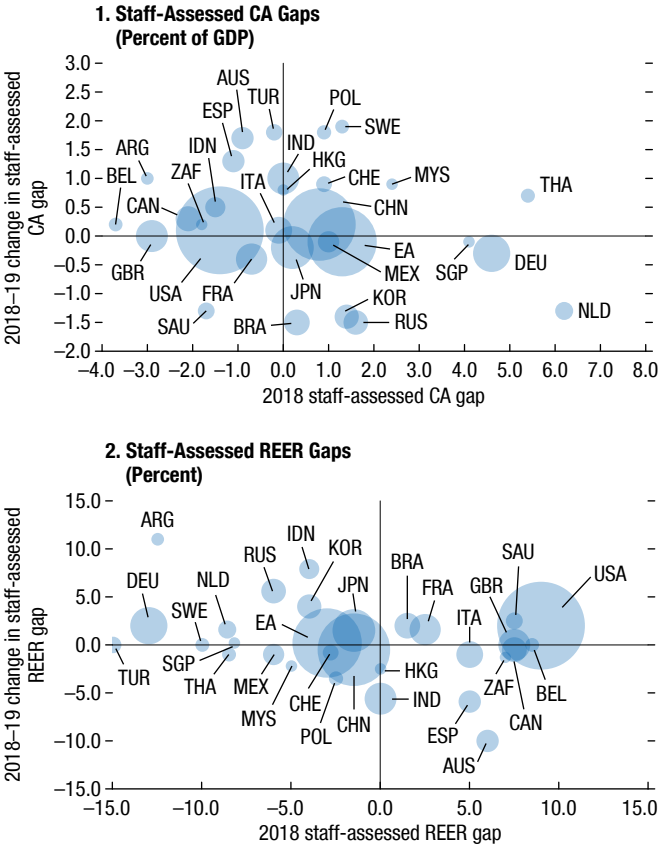
Source: IMF staff calculations.
Note: REER gap is based on 2019 average REER. CA = current account; REER = real effective exchange rate. Data labels use International Organization for Standardization (ISO) country codes.

Global excess imbalances (the sum of absolute excess surpluses and deficits) represented about 1.2 percent of world GDP in 2019, about 40 percent of overall current account surpluses and deficits, only slightly less than in 2018. Addressing underlying structural distortions has been challenging, resulting in persistent excess global imbalances. IMF staff–assessed current account gaps moved down (smaller excess surpluses or larger deficits) for commodity exporters, such as Brazil, Russia, and Saudi Arabia, as well as for euro area economies, such as the Netherlands (Figure 1.5). These changes largely mirrored increased current account gaps for emerging market and developing economies, such as Argentina and Turkey, and, to a lesser extent, emerging market and developing economies in Asia. IMF staff–assessed real effective exchange rate gaps generally moved consistently with current account gaps (Figure 1.5, panel 2).

Overall, the combination of persistent excess global imbalances and stocks of assets and liabilities at historically high levels implied vulnerabilities and remaining policy challenges on the eve of the pandemic.

Figure 1.5. Evolution of IMF Staff-Assessed Current Account and Real Effective Exchange Rate Gaps, 2018–19

Staff-assessed CA gaps narrowed for some economies in 2019, but the global sum of excess imbalances in percent of world GDP was broadly unchanged. Staff-assessed REER gaps generally moved consistently with the CA gaps.



Source: IMF staff estimates.
Note: Bubble sizes are proportional to US dollar GDP. A positive (negative) REER gap denotes overvaluation (undervaluation). CA = current account; REER = real effective exchange rate. Data labels use International Organization for Standardization (ISO) country codes.

External Developments during the COVID-19 Crisis

The crisis constitutes an intense shock, with a sharp decline in global trade, lower commodity prices, tighter external financing conditions, and with implications for current account balances and currencies varying widely. With limited available balance of payments data for 2020, only a partial assessment of external sector developments is feasible, and significant uncertainty surrounds the outlook. In addition, changes in macroeconomic fundamentals compared with 2019 may affect not only observed current account balances and real effective exchange rates but also their equilibrium values. For instance, worse commodity terms of trade may come with a depreciated equilibrium exchange rate. Overall, the path of excess imbalances in 2020 cannot be inferred from recent developments and more data are needed for a holistic assessment.

A Sharp Contraction in Trade

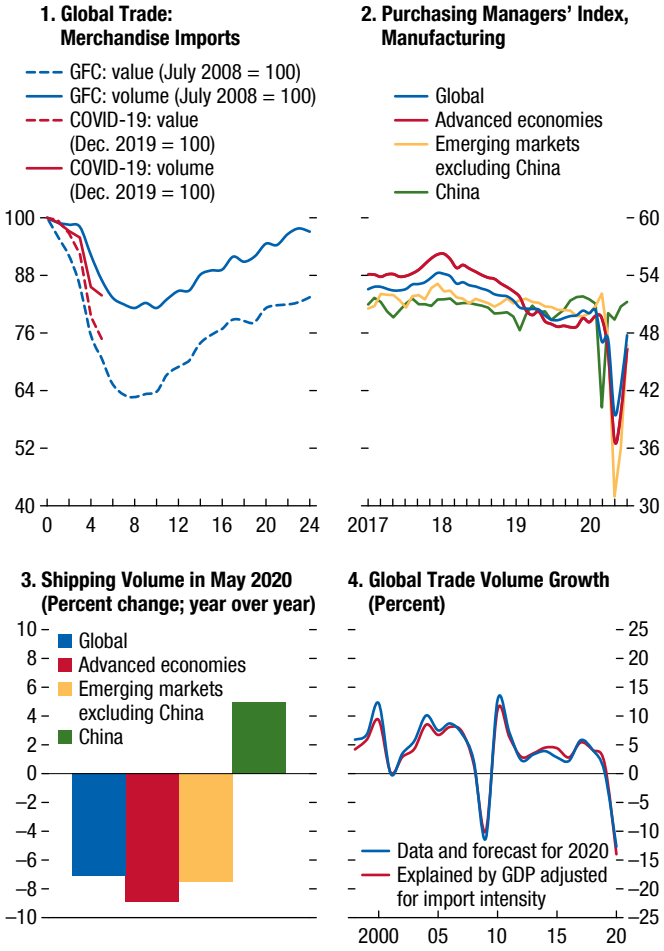
The global volume of goods trade in the first five months of 2020 was about 20 percent lower than in 2019—a more abrupt contraction than in the first five months of the global financial crisis. China's recent trade growth rebound is an exception that reflects the earlier end of lockdown policies (Figure 1.6). For 2020 as a whole, the June 2020 *World Economic Outlook* (WEO) *Update* forecast for goods and services trade volume is a contraction of about 12 percent. Falling output appears to be the main driver of the trade contraction. The historical relationship between trade and the components of GDP fully explains the expected global decline in trade of goods and services, given current forecasts for these GDP components in 2020 (Box 1.3). Part of the impact of lower economic activity on trade is expected to involve transmission through global value chains. By contrast, in the years following the global financial crisis, trade in goods and services was weaker than could be explained by the fall in economic activity alone, with the residual reflecting the role of additional factors, such as rising protectionism (see the October 2016 WEO). For services trade, the expected contraction in 2020 is more severe than could be expected based on the prospective fall in aggregate demand, suggesting a strong role for special factors, such as travel restrictions. Overall, the current and prospective weakness in trade appears to reflect primarily the effects of COVID-19 and associated mitigation measures as well as the effects of production disruptions and lower demand associated with lost jobs and income.

Tighter Financial Conditions

Financial market sentiment deteriorated sharply in mid- to late February and in March as concerns about the global spread of COVID-19 and its economic fallout grew. Equity markets sold off sharply, and expected equity price volatility, as measured by the Chicago Board Options Exchange Volatility Index, reached

Figure 1.6. Global Trade

High-frequency data and projections for 2020 suggest a sharp decline in global trade. Weakness in economic activity is the main driver.



Sources: Shipping volumes from Cerdeiro and others (2020), with AIS data collected by MarineTraffic; CPB World Trade Monitor; national authorities; Haver Analytics; IMF, *World Economic Outlook* (WEO); and IMF staff estimates.
Note: Trade growth based on growth in volume of imports calculated as the weighted average of country-specific import growth, where nominal import shares are the weights used. See Box 1.3 for derivation of trade growth explained by GDP adjusted for import intensity. For aggregate manufacturing purchasing managers' index (panel 2), nominal manufacturing value-added at market exchange rates are the weights used.

levels last seen during the peak of the global financial crisis. Amid the general rebalancing of portfolios toward cash and safe assets, corporate and emerging market and developing economy sovereign spreads widened significantly.

Since late March many risky asset prices have rebounded with an overall easing in global financial conditions, on the back of strong policy actions, as discussed in the June 2020 *Global Financial Stability Report* (GFSR) *Update*. The swift response of central banks, with policy rate cuts, liquidity support, and asset purchase programs—and swap lines by the US Federal Reserve extended to additional foreign central banks—has, by most measures, been stronger than during the global financial crisis. The expansion in fiscal policy has also, in many cases, been stronger. The policy response has contributed to an easing in global financial conditions since late March. Capital flows and currency movements generally reflected these swings in global risk sentiment.

Capital Flow Reversals

Emerging market and developing economies experienced sudden capital flow reversals in late February and March, followed by a stabilization in flows in most cases and modest inflows in selected economies (June 2020 GFSR *Update*). Available high-frequency data on portfolio flows indicate outflows that exceed those during the early stages of the global financial crisis in US dollar terms. The outflow is more comparable across the two crisis episodes when expressed in percent of initial stock positions and outflows have varied widely across economies. Following the significant policy easing by central banks, portfolio flows stabilized in April and May, with some emerging market economies able to fully regain access to sovereign debt markets.

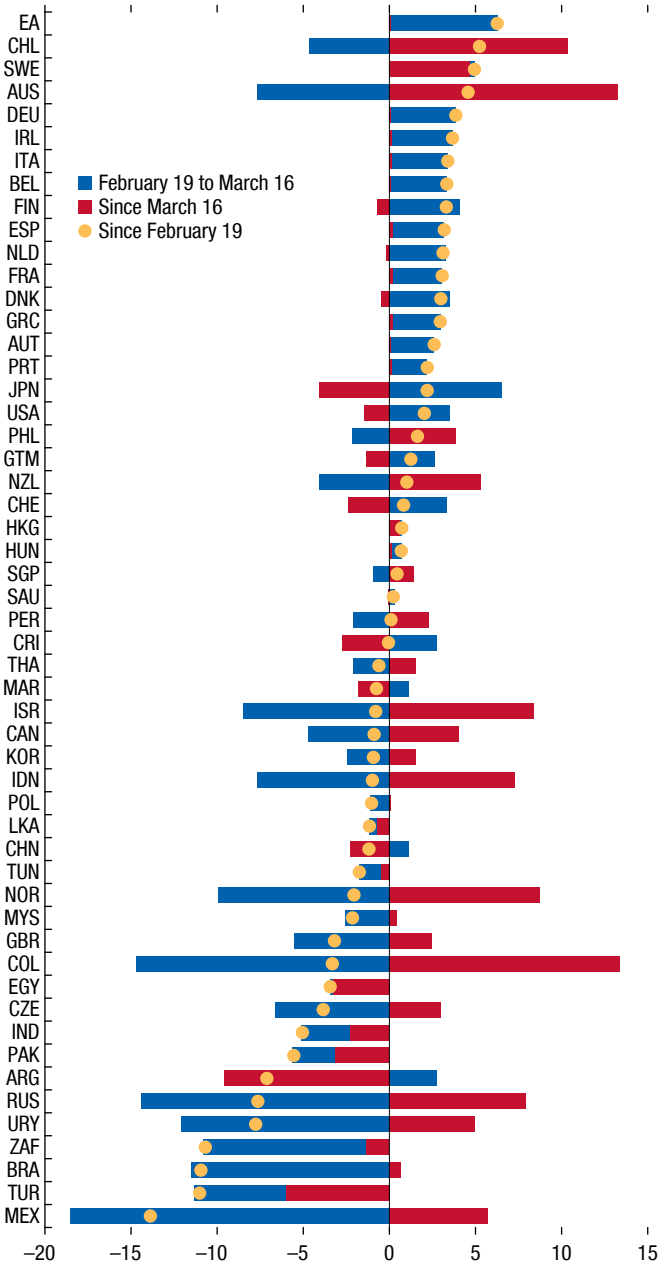
Country-specific characteristics have played a role in determining the degree of capital outflow across economies (Box 1.4). Factors include dependence on commodity exports, the strength of reserve buffers, initial current account balances, and access to swap lines from the US Federal Reserve. While some emerging market and developing economies have adjusted inflow capital flow management measures, the use of outflow capital flow management measures has thus far been rare. Following the decline in equity prices since the beginning of the COVID-19 pandemic, however, a few countries have tightened screening and approval procedures for foreign direct investment. While this trend began before the pandemic, motivations broadened to protecting the health care sector and preventing the takeover of undervalued domestic companies.

Currency Movements

Exchange rates experienced large swings as global financial conditions tightened through late March

Figure 1.7. Currency Movements: Nominal Effective Exchange Rate
(Percent change)

During mid-February to mid-March, as global financial volatility increased, advanced economy currencies generally appreciated, and emerging market and developing economy currencies generally depreciated. With the improvement in global financial sentiment since late March, these currency movements have, in many cases, unwound.



Sources: IMF, Global Data Source; and IMF staff calculations.
Note: Data labels use International Organization for Standardization (ISO) country codes.

and eased thereafter (Figure 1.7).[5] As investor sentiment worsened, global reserve currencies appreciated, reflecting their safe haven role in times of financial stress, as was the case during the global financial crisis. Since late March these initial currency shifts have partly unwound. Emerging market and developing economy currencies generally saw sharp depreciations as investor sentiment worsened and exchange rates worked as shock absorbers, although with substantial variation across economies. The currencies of commodity exporters with flexible exchange rates fell especially sharply in value, reflecting the fall in oil prices (Figure 1.8). Emerging market and developing economies that entered the crisis with stronger economic and financial fundamentals—or stronger perceived institutional quality—have generally experienced smaller depreciations and stronger rebounds in the value of their currencies more recently (Figure 1.8; Box 1.5). In some cases, such as Egypt and Turkey, the significant decline of foreign exchange reserves points to strong underlying depreciation pressures. By contrast, when global investor sentiment worsened, the sharp initial currency depreciations in Colombia, Indonesia, Mexico, South Africa, and Russia occurred with a more limited change in foreign currency reserves and currency movements allowed by the authorities to more fully reflect market pressure (Figure 1.8).

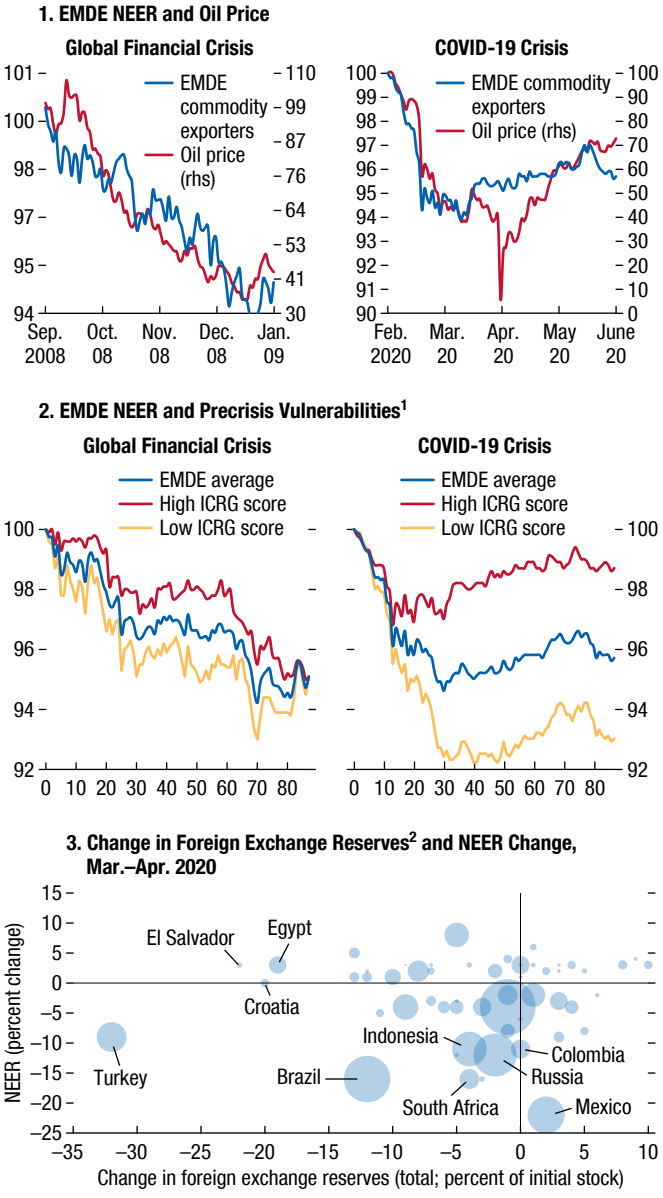
Outlook for Current Account Balances

The outlook for current account balances remains highly uncertain, given the limited balance of payments data currently available for 2020, but recent data and the latest IMF staff forecasts point to a modest narrowing in current account surpluses and deficits on average, although with high uncertainty and substantial cross-country variation. Central channels affecting the evolution of current account balances in 2020 include the aforementioned contraction in economic activity and tightening in global financial conditions as well as lower commodity prices, the

[5]Global equity prices declined sharply after February 19 (the precrisis peak of the S&P 500), with volatility indices and other financial and commodity market indicators, including global financial conditions indices, worsening greatly thereafter. For the purposes of the analysis of the COVID-19 crisis, figures report changes since February 19. Expected equity price volatility (as measured by the Chicago Board Options Exchange Volatility Index) peaked on March 16, after which global financial market sentiment improved.

Figure 1.8. Currency Movements and Country Characteristics

Variation across EMDE currency movements during the COVID-19 crisis has reflected dependence on commodity exports and precrisis vulnerabilities, as was also the case during the global financial crisis.



Sources: IMF, Global Data Source; IMF, Information Notice System; IMF, *International Financial Statistics; International Country Risk Guide*; and IMF staff calculations.
Note: EMDE = emerging market and developing economies; ICRG = *International Country Risk Guide*; NEER = nominal effective exchange rate; rhs = right scale.
[1]The figure is based on the *International Country Risk Guide* composite risk score for the year before the crisis based on three subcategories of risk: political, financial, and economic. The indicator is based in part on expert opinions. "High (low) ICRG score" denotes average NEER change for economies with a precrisis composite score above (below) the EMDE sample median, where a higher score indicates a more favorable risk rating.
[2]The change in foreign exchange reserves is based on the change in the stock of reserves, adjusted for valuation changes and reserve income flows, and operations with foreign exchange derivatives.

contraction in tourism, and the decline in remittances. This section offers a perspective on the latter three factors and reports the latest IMF staff forecasts for 2020–21.

Impact on Commodity Trade Balances

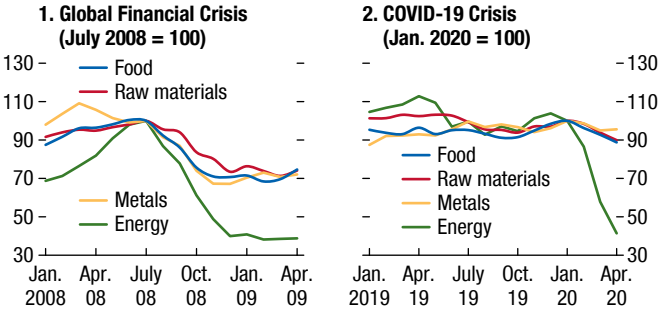
The price of crude oil has fluctuated in recent months and is expected to be 41 percent lower in 2020 than in 2019. The prices of metals, food, and raw materials are also expected to decline, but by significantly less than the price of oil. The decline in the volume of oil imports in economies affected by the pandemic has also been substantial, with global oil demand expected to be about 8 percent lower in 2020 than in 2019. The overall estimated direct impact on oil trade balances ranges widely across economies—from –7 percent to 3 percent of GDP—reflecting differences in dependence on oil exports and imports (Figure 1.9). Estimated trade balance losses are concentrated among economies with significant net oil exports, including Norway, Russia, and Saudi Arabia, where they are expected to exceed 3 percent of GDP. Positive effects on trade balances are spread more evenly across net oil importers, although they are expected to exceed 2 percent of GDP for Thailand and Turkey.

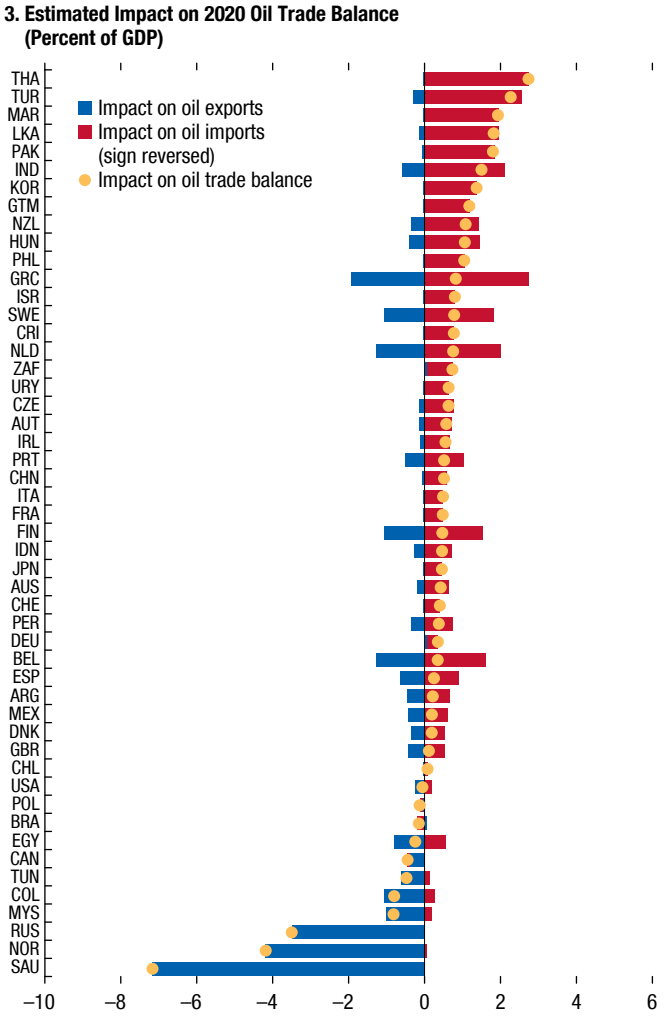
Impact on Tourism Trade Balances

International tourism has been among the hardest hit sectors during the COVID-19 crisis, reflecting travel restrictions, although discussions on measures for lifting restrictions are underway. During the first four months of 2020 international tourism arrivals were about 50 percent lower than over the same period in 2019, with deeper declines for related indicators, such as international flight arrivals and hotel reservations (Figure 1.10). The projected direct impact on tourism trade balances in 2020 will depend critically on the pace of tourism recovery, which is highly uncertain. A recent study (UN World Tourism Organization 2020) includes a scenario involving a gradual lifting of travel restrictions starting in September. This scenario implies tourism receipts 73 percent below their 2019 levels, with a direct impact on tourism trade balances ranging from –6 percent of GDP to 2 percent of GDP (Figure 1.10). Losses in tourism proceeds exceeding 2 percent of GDP are expected to be concentrated among large net tourism exporters, such as Costa Rica,

Figure 1.9. Evolution of Commodity Prices and Oil Trade Balances

Commodity prices declined in the spring of 2020, with oil prices falling sharply. The direct impact on current account balances of lower oil prices and lower oil consumption could be substantial for some oil-exporting economies.

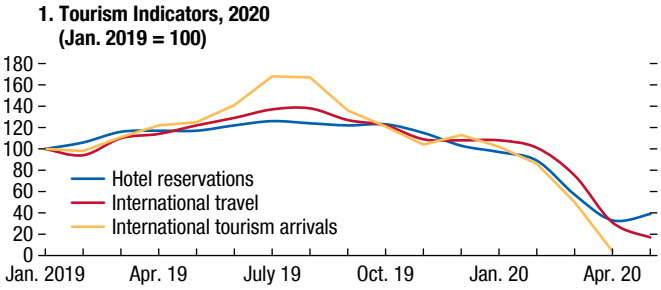


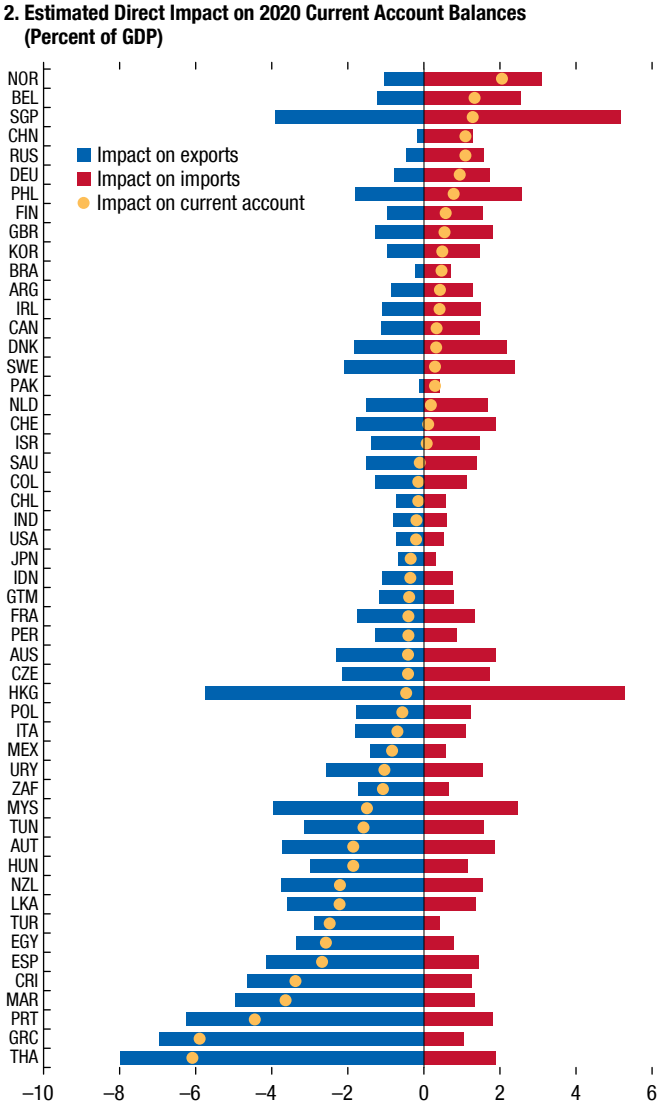


Sources: IMF, Global Data Source; IMF, Information Notice System; IMF, *World Economic Outlook* (WEO); *International Country Risk Guide*; and IMF staff calculations.
Note: The figure reports the impact on the 2020 oil trade balance based on the latest IMF staff forecast compared with the October 2019 WEO forecast for 2020. Data labels use International Organization for Standardization (ISO) country codes.

Figure 1.10. Tourism, Travel, and Direct Impact on Current Account Balances

Tourism declined sharply in the first few months of 2020. The direct impact on current account balances for some tourism exporting economies could exceed 2 percent of GDP.





Sources: FlightRadar24; STR Hospitality; United Nations World Tourism Organization; and IMF staff calculations.
Note: The figure reports the estimated impact on the current account based on the scenario in UNWTO (2020) involving gradual reopening in September 2020. Data labels use International Organization for Standardization (ISO) country codes.

Egypt, Greece, Morocco, New Zealand, Portugal, Spain, Sri Lanka, Thailand, and Turkey. The rise in tourism trade balances is expected to be spread more evenly across tourism services net importers. Although uncertainty is high, the effects on tourism may persist to some extent in 2021 and beyond. Forty percent of respondents to a UN World Tourism Organization survey (see UN World Tourism Organization 2020) expect international tourism demand to start recovering only in 2021, with professionals in the Americas being slightly more pessimistic.

Impact on Remittances Balances

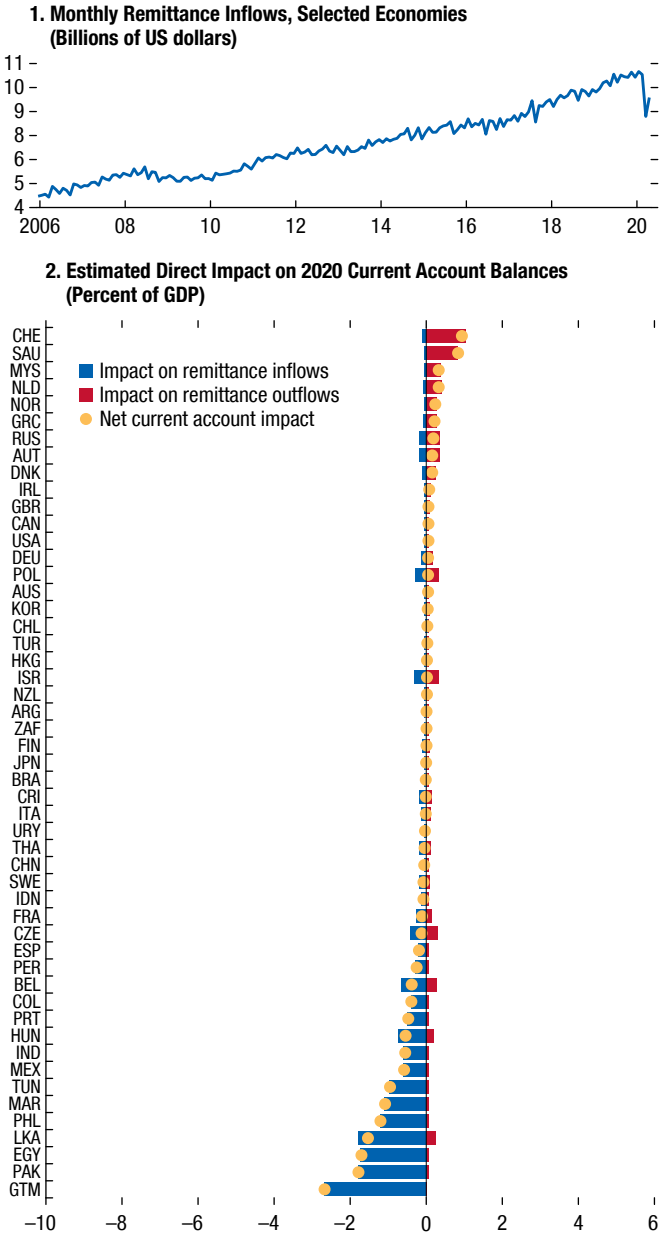
Remittances are highly vulnerable to the COVID-19 crisis because migrant workers are typically more exposed to the risk of unemployment and wage losses during recessions than are native workers. Migrant workers also work disproportionately in such sectors as food and hospitality, retail and wholesale, and tourism and transportation, which have taken a hit from the crisis. The decline in remittance inflows in percent of GDP is expected to be concentrated among a number of emerging market and developing economies. World Bank 2020 forecasts an average 20 percent fall in remittance flows in 2020, based on an empirical model that links remittance inflows to migrants' incomes proxied by the nominal per capita incomes of the migrants' economies of destination. For economies where remittance inflows represented more than 5 percent of GDP, such as Egypt, Guatemala, Pakistan, the Philippines, and Sri Lanka (Figure 1.11), the decline would imply significant hardship for many households and small businesses that rely on remittances, just as their domestic economies are hit by the synchronized nature of the COVID-19 crisis. While uncertainty is high, depending on the pace of economic recovery and risks of a second wave, effects on current account balances may persist, with remittances expected to rebound only partially (by 5 percent) in 2021 (World Bank 2020).

Current Account Forecasts

The latest IMF staff forecasts underpinning the June 2020 WEO *Update* imply a narrowing of global current account deficits and surpluses in 2020 both in percent of world GDP and on average in percent of domestic GDP, although with high uncertainty (Figure 1.12).

Figure 1.11. Remittances: Recent Developments and Direct Impact on Current Account Balances

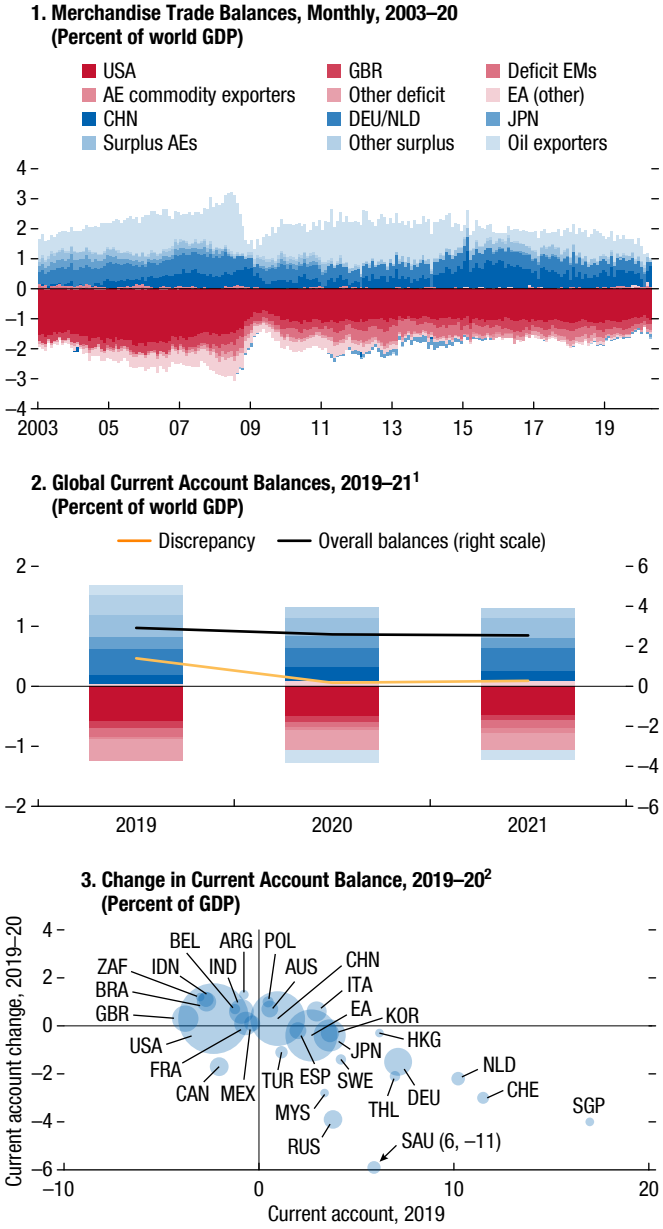
Remittances declined sharply in April 2020, before partially rebounding in May. The direct annual impact on current account balances for some economies could exceed 1 percent of GDP.



Sources: IMF, *World Economic Outlook*; national authorities; World Bank Global Knowledge Partnership on Migration and Development (KNOMAD); and IMF staff calculations.
Note: Selected economies with available monthly remittance data up to May 2020 (Mexico, Colombia, Guatemala, El Salvador, Dominican Republic, Pakistan, Bangladesh, Sri Lanka, Morocco, and Georgia) account for about 22 percent of world remittances. Underlying series are seasonally adjusted, and Pakistan series is adjusted for Ramadan. The second figure reports estimated direct impact on current account balances based on the World Bank (2020) projection of a 20 percent decline in remittance flows between 2019 and 2020. Actual changes may differ depending on other factors at play (for example, currency depreciation). Data labels use International Organization for Standardization (ISO) country codes.

Figure 1.12. Evolution of Trade and Current Account Balances
(Percent of GDP)

Recent data and IMF staff forecasts suggest a narrowing in global current account surpluses and deficits.



Sources: IMF, Information Notice System; IMF, *International Finance Statistics*; IMF, *World Economic Outlook* (WEO); national authorities (customs data); and IMF staff calculations.
Note: AE = advanced economy; EA = euro area; EM = emerging market. Data labels use International Organization for Standardization (ISO) country codes.
[1]Overall balance is the absolute sum of global surpluses and deficits. Surplus AEs comprise Hong Kong SAR, Korea, Singapore, Sweden, Switzerland, Taiwan Province of China; AE commodity exporters comprise Australia, Canada, New Zealand; deficit EMs comprise Brazil, India, Indonesia, Mexico, South Africa, Turkey; oil exporters comprise WEO definition plus Norway.
[2]Bubble size is relative to 2019 nominal GDP in US dollars. Sample includes IMF, *External Sector Report* sample economies. Change in trade balance is reported for Argentina.

Monthly trade data also suggest that trade balances are closer to zero in the first four months of 2020, with lower surpluses for oil exporters and narrower trade deficits for a number of emerging market and developing economies.

Changes in current account balances vary widely across economies. Among the five largest economies, the expected changes in current account balances in 2020 compared with 2019 are modest—below ½ percent of GDP. In the United States, the fiscal expansion in the wake of the COVID-19 crisis is expected to be offset by higher private sector saving. Higher net exports due to import compression are projected to offset a weaker income account, with the current account deficit narrowing by 0.3 percentage point of GDP to about 2.0 percent of GDP. In China, the current account surplus is expected to increase by 0.3 percentage point of GDP to 1.3 percent of GDP, reflecting the combined effects of the disruptions caused by the pandemic (including on tourism, with lower service imports reflecting international travel disruptions), weaker global demand (partly mitigated by increased demand for personal protective and medical equipment), lower commodity prices, and a higher income deficit. In the euro area, the current account surplus is projected to narrow by 0.4 percentage point of GDP to a surplus of 2.3 percent of GDP amid the decline in global trade and investment income. The current account deficit of the United Kingdom is projected to narrow by 0.3 percentage point of GDP to 3.5 percent of GDP. Japan's current account surplus is projected to narrow by 0.4 percentage point of GDP to 3.2 percent of GDP, with the pandemic significantly depressing both exports and imports and the income balance falling due to a reduction in net credit. The largest expected change in the current account balance is, in absolute terms, that for Saudi Arabia, with a decline of more than 10 percent of GDP to a deficit of 4.9 percent of GDP, reflecting the sharp decline in oil revenues.

At the global level, the latest IMF staff forecasts imply a modest narrowing in current account balances (the sum of absolute surpluses and deficits) by some ⅓ percent of world GDP, although subject to high uncertainty. This narrowing is smaller than the 1.4 percent of global GDP decline observed in 2009 during the global financial crisis. Factors that explain a more limited narrowing this time include the fact that initial global current account surpluses and deficits were significantly

smaller in 2019 (2.9 percent of world GDP in absolute value) than before the global financial crisis (5.8 percent of world GDP in 2006) (Figure 1.1). In addition, while larger reductions in public saving are expected in 2020 than in 2009, reflecting exceptional levels of fiscal support, these are, as a share of world GDP, concentrated among current account deficit economies and expected to be offset to a greater extent than in 2009 by increases in private saving, including precautionary saving, implying little net effect on global current account deficits and surpluses (Figure 1.13). Also, in 2009, lower investment by a large current account deficit economy—the United States—played a central role in narrowing global imbalances following the housing and asset price boom. In contrast, the broadly synchronized global downturn in 2020 from simultaneous lockdowns in economies affected by COVID-19 has resulted in a sharper decline in global GDP, with the fall in the ratio of investment to world GDP less concentrated among current account deficit economies.

Significant Uncertainty Surrounds the External Outlook

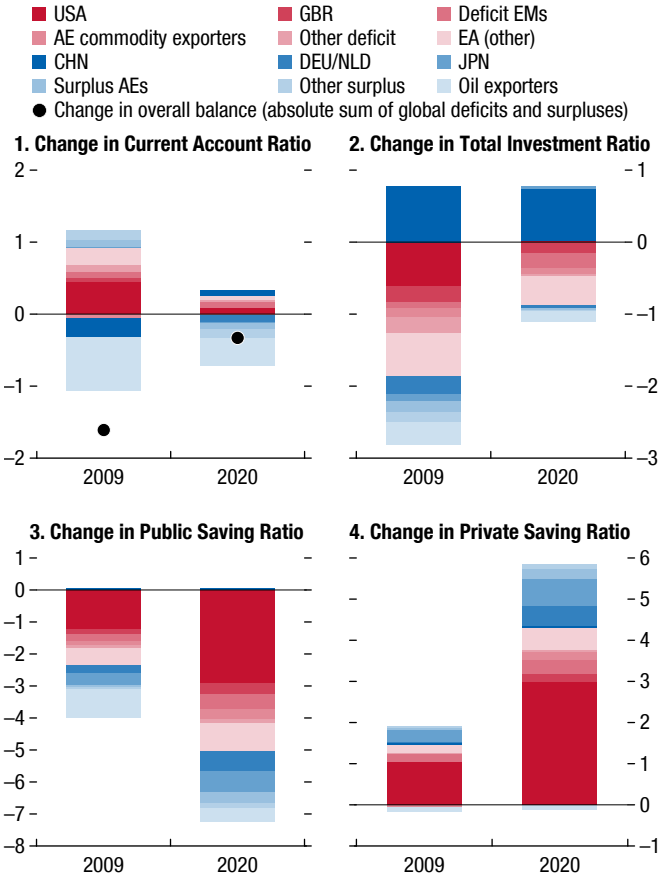
The outlook for trade, currencies, and current account balances is highly uncertain, with significant risks.

- *Near-term uncertainties:* If the fall in economic activity, global trade, and commodity prices is more persistent than currently assumed, the associated effects on current account balances, including through the effects on tourism, commodity balances, and remittances, could be larger. A more persistent tightening in global financial conditions would further strengthen global reserve currencies; for emerging market and developing economies, it would hinder a recovery in capital inflows and constrain the financing of current account deficits.
- *Medium-term uncertainties:* If the crisis hastens a lasting decline in global trade, including in global supply chains, the resultant weaker growth prospects for emerging market and developing economies may reduce investment demand and raise their current account balances toward surplus. A rise in precautionary saving, especially in economies where the pandemic has revealed limitations of existing social safety nets, could similarly contribute to raising current account balances. A rise in private saving, if widespread, would decrease global equilibrium interest rates, which have already declined in recent decades. At the same time, the large and necessary fiscal expansions, especially in advanced economies with greater access to financing, could, if not withdrawn at an appropriate pace, contribute to persistently higher debt and weaker current account balances in these economies.

Figure 1.13. Changes in Current Account, Saving, and Investment Ratios[1]

(Percent of world GDP)

Global current account deficits and surpluses are expected to decline more modestly in 2020 than in the aftermath of the global financial crisis in 2009. Larger reductions in public saving are expected in 2020 than in 2009 but with a larger offset from rising private saving as a share of world GDP. In 2009 lower investment by large current account deficit economies played a central role in narrowing global imbalances. In 2020, with the synchronized global downturn and a sharper fall in overall aggregate demand, the decline in the ratio of investment to world GDP is smaller and less concentrated among current account deficit economies.



Sources: IMF, *World Economic Outlook* (WEO); and IMF staff calculations.
Note: AEs = advanced economies; EA = euro area; EMs = emerging markets. Data labels use International Organization for Standardization (ISO) country codes.
[1]AE commodity exporters comprise Australia, Canada, and New Zealand; deficit EMs comprise Brazil, India, Indonesia, Mexico, South Africa, and Turkey; oil exporters comprise WEO definition plus Norway; surplus AEs comprise Hong Kong SAR, China, Korea, Singapore, Sweden, Switzerland, and Taiwan Province of China. Other deficit (surplus) comprise all other economies running current account deficits (surpluses).

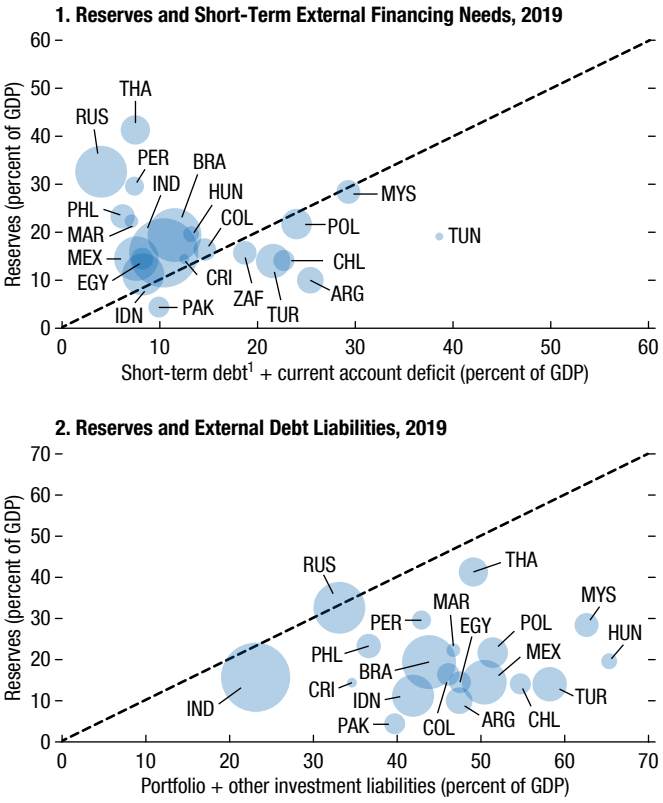
Which of these forces will prevail and how they will shape the outlook remains to be seen. The rest of this section focuses on two central uncertainties: the possibility of a second wave of the COVID-19 crisis and risks to cross-border trade integration.

External Implications of a Second Wave of the Crisis

As discussed in the June 2020 WEO *Update*, the pandemic could prove more persistent than assumed in the baseline. Specific risks to the outlook include a second wave of the pandemic and the attendant impact on trade, commodity prices, tourism, and remittances. Global financial conditions could again tighten, implying capital reversals and currency pressures for emerging market and developing economies, with differentiation across economies based on preexisting fundamentals (Figure 1.14). Conversely, the recovery from the lockdown measures implemented in the first half of 2020 could accelerate, with improving investor sentiment and an easing in global financial conditions. Box 1.6 considers scenarios that combine these aspects, based on simulations of the IMF's G20 Model. The results suggest that a second wave of the crisis could narrow the scope for running current account deficits for emerging market and developing economies, further reduce the current account balances of commodity exporters, and deepen the decline in global trade. Analysis in Chapter 2 suggests that such a rise in global financial stress could increase the risk of debt default, debt restructuring, or the need for more IMF financial support in economies with preexisting vulnerabilities. Rising default risks from nonfinancial corporations could further contribute to supply chain disruptions.

Figure 1.14. Precrisis External Vulnerabilities
(Percent of GDP)

Most emerging market and developing economies entered the COVID-19 crisis with sizable foreign exchange reserve buffers that exceeded the sum of short-term debt and the current account deficit in 2019. At the same time, cross-border portfolio and other investment liabilities exceeded reserves in 2019, implying a vulnerability to capital flow reversals.



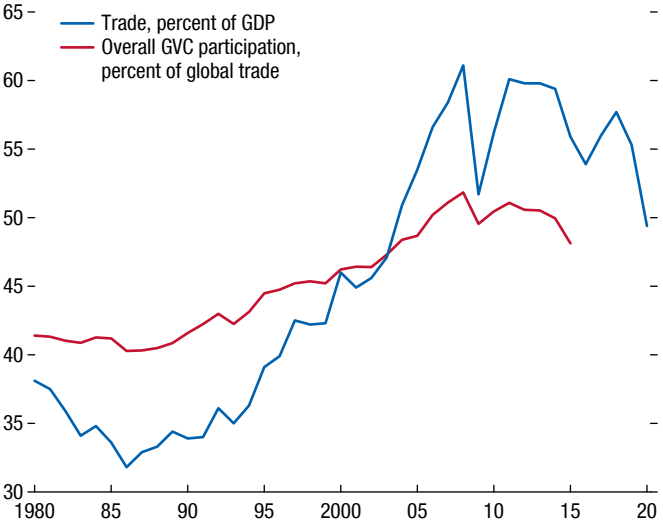
Sources: IMF, *International Financial Statistics*; IMF, *World Economic Outlook*; and IMF staff calculations.
Note: Bubble sizes are proportional to US dollar GDP. Data labels use International Organization for Standardization (ISO) country codes.
[1]Short-term debt on a residual maturity basis. 2018 portfolio positions are reported when 2019 data are unavailable.

Risks to Cross-Border Trade Integration

Global trade as a share of world GDP peaked in 2008 following decades of steady growth and has plateaued since then (Figure 1.15). The integration of global supply chains has declined since 2008. The pandemic could cause a further retreat from trade integration, with greater trade barriers and moves toward reshoring production. As of May, countries had imposed 120 new export restrictions in 2020 on a net basis, a significant rise over previous years, data from the Global Trade Alert suggest, with more than one-fifth imposed on pharmaceutical and medical products (Figure 1.16). The sectors most affected by these measures comprise about 10 percent of global trade, implying risks to the outlook for trade growth. Such new restrictions may in part reflect efforts to increase local availability of medical supplies during the pandemic. Some policymakers have also called for repatriation of international supply chains to reduce perceived vulnerabilities associated with reliance on foreign producers during pandemics. However, as a recent study (Bonadio and others 2020) concludes, renationalization of supply chains would not necessarily increase the resilience of GDP to pandemics, given that less reliance on foreign inputs increases reliance on domestic inputs, which are also subject to lockdowns during pandemics. Moreover, reshoring could endanger the efficiency gains of

Figure 1.15. Global Trade
(Percent)

Global trade integration peaked in 2008 and has plateaued off since then.



Sources: IMF, *World Economic Outlook*; and World Bank *World Development Report* 2020.
Note: Figure reports global goods and services trade, and global value chain (GVC) participation following the methodology in Borin and Mancini (2015, 2019).

international supply chain management and result in less foreign direct investment in emerging market and developing economies. Another round of escalating US–China trade tensions constitutes a further risk. Finally, a retreat from trade globalization could thwart efforts to agree on a more open, stable, and transparent rules-based international trade system.

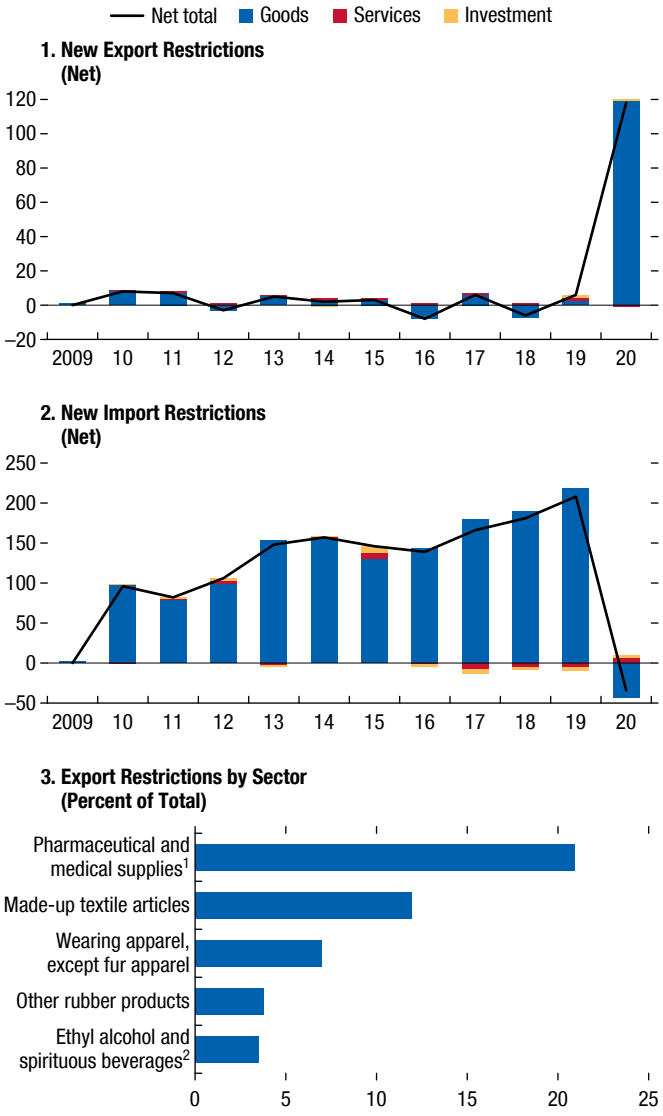
Policy Priorities

Providing Relief and Promoting Economic Recovery

In the near term, policies should focus on the health emergency and easing the burden of infection containment measures on households and firms. As of June 12, governments had put forward swift and significant emergency lifelines to protect people during the pandemic, with global fiscal support totaling about $10.7 trillion, or about 13 percent of global GDP. This necessary support should continue to include temporary and targeted policies, including cash transfers, wage subsidies, tax relief, and extension or postponement of debt repayments, to provide relief to businesses. Central banks have provided a significant expansion in liquidity, including through asset purchase programs, especially in advanced economies. These strong policy measures have contributed to an easing in global financial conditions.

Figure 1.16. New Trade Restrictions, 2009–20

The number of new export restrictions in 2020 was, as of May 2020, larger than at the same point in 2019. The most affected commercial flow has been trade in goods, with more than one-fifth imposed on pharmaceutical and medical products. The number of new import restrictions was lower as of May 2020 than at that point in 2019 but has increased in recent years.

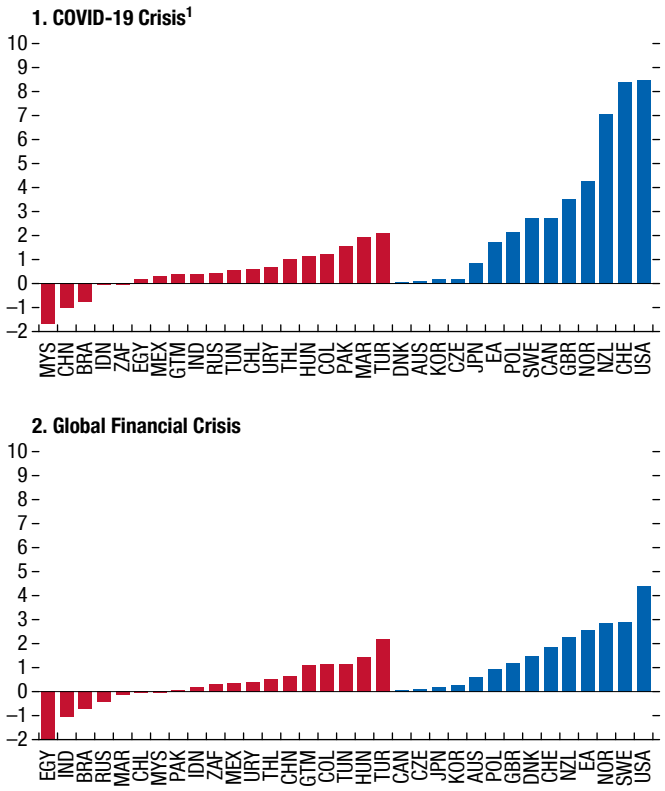


Source: Global Trade Alert (https://www.globaltradealert.org/).
Note: Net interventions is defined as the difference between harmful and liberalizing. Annual totals refer to numbers reported by May 25 each year.
[1]Comprises pharmaceutical products, medical and surgical equipment, and orthopaedic appliances.
[2]Comprises ethyl alcohol, spirits, liqueurs, and other spirituous beverages.

Monetary policy has also provided support in emerging market and developing economies, although liquidity provision has generally been more limited there amid currency depreciation pressures (Figure 1.17). Once the immediate health crisis has subsided and economies

Figure 1.17. Selected Economies: Monetary Base Expansion
(Change in first three months of the episode, in percent of previous year's GDP)

Central banks have provided a significant expansion in liquidity, including through asset purchase programs, especially in advanced economies where the expansion has been stronger than during the global financial crisis.



Sources: IMF, *International Financial Statistics*; and IMF staff calculations.
Note: AEs = advanced economies; EA = euro area; EMDEs = emerging market and developing economies. Data labels use International Organization for Standardization (ISO) country codes.
[1]The figure is based on available data for External Balance Assessment countries for the COVID-19 episode. Data are as of April 2020 for Brazil, Chile, China, Colombia, Guatemala, India, Japan, Malaysia, Morocco, New Zealand, Pakistan, South Africa, Switzerland, Thailand, Tunisia, Turkey, the United Kingdom, and the United States. Data are as of March 2020 for other countries.

gradually reopen, countries with fiscal space should adopt a front-loaded package that increases investment, including in infrastructure where appropriate, and support household consumption. Because the economic impact of the crisis is particularly acute in particular sectors, such as tourism and travel, substantial targeted fiscal and financial measures to help affected households and businesses are warranted. Similarly, to support countries vulnerable to a fall in remittance inflows, and their citizens living abroad, measures include supporting access to social services for migrants and their families; offering incentives (such as subsidies) to remittance service providers to reduce the cost of remittance services; and extending cash transfer programs to support international migrants, especially those who have lost their jobs.

Managing Capital Outflows and Currency Pressures

To adjust to external shocks, such as the fall in commodity prices or tourism, countries with flexible exchange rates should allow them to adjust as needed, where feasible. For economies with adequate reserves (Table 1.3), exchange rate intervention can be appropriate to alleviate disorderly market conditions and limit financial stress, particularly where there are large balance sheet mismatches. Foreign exchange funding facilities can also play a role in alleviating foreign currency funding pressures. For some currencies, such as the Swiss franc, foreign exchange intervention may be used to partially mitigate appreciation pressures that would otherwise push the economy toward deflation, particularly during periods of economic weakness or safe haven appreciation pressure, but should not preclude secular real appreciation. In imminent crisis circumstances, countries with limited reserves and facing reversals of external financing could use capital flow management measures on outflows as part of a broad package, provided they do not substitute for warranted macroeconomic and structural policy actions. In those cases, capital flow management measures would generally need to be broad based and tightly enforced to effectively reduce capital outflows. If introduced, such measures should be implemented in a transparent manner, clearly communicated to the public, be temporary, and be lifted once crisis conditions abate.

Addressing Risks of External Crisis

For emerging market and developing economies already experiencing disruptive balance of payments pressures and without access to private external financing, official financing will be essential, including to ensure that health care spending is not compromised. Effectively fighting the global pandemic requires strong multilateral cooperation to help countries facing twin health and external financing shocks. The IMF is actively supporting vulnerable countries through various lending facilities, including the Rapid Credit Facility and the Rapid Financing Instrument. Amid risks of a protracted global shock and ensuing tight financial conditions, the IMF has also expanded its available

precautionary credit lines for countries with strong fundamentals by creating the Short-Term Liquidity Line. The IMF managing director and the World Bank Group president also called on official bilateral creditors to suspend debt service payments from the poorest countries, a call heeded by the Group of Twenty in April, and IMF and World Bank staff are now providing technical support in the implementation of this initiative. A broader net of bilateral and multilateral swap lines would further strengthen the global financial safety net and reduce financing risks across emerging market and developing economies. For economies highly likely to face foreign currency liquidity shocks, prudent steps include (1) monitoring and containing further buildup of foreign-currency-denominated debt through targeted macroprudential policies; (2) encouraging a shift from foreign-currency-debt liabilities toward equity liabilities, including by ensuring equal treatment of domestic and foreign investors and encouraging more inward direct investment; (3) seizing opportunities to strengthen international reserve buffers, where needed, when they arise; and (4) deepening domestic financial markets.

Avoiding Trade Restrictions, Especially Regarding Critical Supplies

International supply chain trade can play an important role in supporting the production of essential medical equipment and the development of vaccines and medical tests. Policies that encourage companies to repatriate their supply chains could lead to retaliation in many countries across interlinked economic sectors and could slow economic recovery just as countries implement gradual reopening policies. Tariff and nontariff barriers to trade in medical equipment and supplies should therefore be avoided, and recent new restrictions on trade should be rolled back.

Treating undervalued currencies as a countervailable subsidy represents a significant risk to the multilateral trade and international monetary systems. The adoption of currency-based countervailing duties (C-CVDs) would be counterproductive to the country adopting such measures as it would, other things equal, further appreciate its currency. Moreover, C-CVDs could lead to retaliation and to other countries pursuing similar policies with their own standards and methodologies. The proliferation of C-CVDs would expand the use of trade restrictions and increase trade tensions. In addition, the threat of trade penalties could potentially impinge on desirable monetary policy decisions and discourage beneficial exchange rate flexibility in some instances. It could also complicate any effective dialogue and economic surveillance over the underlying macro-structural distortions affecting external positions.

More generally, policies that distort trade should be avoided. Countries should refrain from using tariffs to target bilateral trade balances, as they are costly for trade, investment, and growth, and are generally not effective for reducing excess external imbalances, which requires addressing underlying structural distortions. Tariff barriers should be rolled back, and trade and investment disagreements with other countries should be resolved in a manner that supports an open, stable, and transparent global trading system. Efforts should also focus on modernizing the multilateral rules-based trading system to capture the increasing importance of e-commerce and trade in services, strengthen rules in such areas as subsidies and technology transfer, and ensure continued enforceability of World Trade Organization (WTO) commitments through a well-functioning WTO dispute settlement system. To foster support for such initiatives, social safety net policies and policies to promote flexibility in adjustment can also play a role. There is limited evidence that trade integration itself—in particular greater import competition in external markets—drives economic inequality (see the October 2019 WEO) but it can cause job dislocations. A robust social safety net is thus important for facilitating regional adjustment and protecting particular regions and segments of the labor force. Place-based policies targeted at lagging regions may also play a role, but they must be carefully calibrated to ensure they help rather than hinder beneficial adjustment.

Avoiding Excess External Imbalances over the Medium Term

Distortions that affected external positions before the COVID-19 crisis may, in some cases, persist after the crisis, implying the need for policy reforms (Tables 1.6 and 1.8).

- *Economies with weaker-than-warranted external positions:* In cases where excess current account deficits in 2019 partly reflected larger-than-desirable fiscal deficits (as in the United States) and where such imbalances persist beyond the crisis, fiscal

Table 1.6. Selected External Sector Report Economies: EBA Current Account Regression Policy Gap Contributions, 2019

(Percent of GDP)

	EBA Gap				Fiscal Gap					Public Health Expenditures Gap					Private Credit Gap					Foreign Exchange Intervention Gap					Other (K-Controls)	
						Domestic					Domestic					Domestic					Domestic					
Economy	Total[1]	Identified	Dom[2]	Residual	Total[1]	Dom[3]	Coeff	P	P*	Total[1]	Dom[3]	Coeff	P	P*	Total[1]	Dom[3]	Coeff	P	P*	Total[1]	Dom[3]	Coeff	P	P*	Total[1]	Dom[3]
Argentina	–0.5	–5.5	–6.0	5.0	0.5	–0.5	0.3	–2.9	–1.5	–0.1	0.0	–0.4	6.5	6.5	–0.1	0.0	–0.1	–0.3	0.0	–5.2	–5.1	0.8	–8.4	1.0	–0.6	–0.5
Australia	0.5	0.2	–0.3	0.2	–0.2	–1.2	0.3	–3.5	0.0	0.1	0.2	–0.4	6.3	6.9	0.4	0.6	–0.1	–5.5	0.0	0.0	0.0	0.8	0.5	0.0	–0.1	0.0
Belgium	–3.5	–0.8	–1.3	–2.7	–0.1	–1.0	0.3	–3.2	0.0	–0.2	–0.1	–0.4	8.0	7.7	–0.3	–0.2	–0.1	1.5	0.0	0.0	0.0	0.8	–0.3	0.0	–0.1	0.0
Brazil	–1.2	0.7	0.2	–1.9	0.6	–0.4	0.3	–5.1	–4.0	0.1	0.2	–0.4	3.9	4.4	0.2	0.3	–0.1	–2.9	0.0	–0.2	–0.1	0.8	–0.6	0.0	0.0	0.1
Canada	–4.1	0.3	–0.3	–4.4	1.0	0.1	0.3	–0.5	–0.7	–0.1	0.0	–0.4	7.1	7.0	–0.4	–0.3	–0.1	3.1	0.0	0.0	0.0	0.8	–0.1	0.0	–0.1	0.0
China	1.2	–0.1	–0.6	1.3	–0.4	–1.3	0.3	–6.0	–2.0	0.1	0.2	–0.4	3.4	4.0	–0.1	0.0	–0.1	0.2	0.0	0.0	0.0	0.8	0.1	0.0	0.3	0.4
Euro Area[4]	1.3	0.6	0.1	0.7	0.8	–0.2	0.3	–0.7	–0.2	–0.1	0.0	–0.4	8.2	8.2	0.1	0.2	–0.1	–3.3	–1.0	0.0	0.0	0.8	0.0	0.0	–0.1	0.0
France	–1.1	–0.6	–1.1	–0.5	0.3	–0.7	0.3	–2.4	–0.4	–0.2	–0.1	–0.4	9.4	9.1	–0.5	–0.4	–0.1	3.5	0.0	0.0	0.0	0.8	0.1	0.0	–0.1	0.0
Germany	4.7	1.1	0.6	3.7	1.5	0.6	0.3	1.2	–0.5	–0.1	0.0	–0.4	9.6	9.5	–0.1	0.0	–0.1	–2.0	–2.0	0.0	0.0	0.8	0.0	0.0	–0.1	0.0
India	1.6	2.1	1.6	–0.5	0.3	–0.6	0.3	–7.6	–5.8	0.0	0.1	–0.4	1.4	1.6	0.4	0.6	–0.1	–5.5	0.0	0.8	0.9	0.8	2.3	0.0	0.5	0.7
Indonesia	–1.9	1.5	1.0	–3.4	1.0	0.1	0.3	–2.2	–2.5	0.5	0.6	–0.4	1.6	3.0	–0.3	–0.2	–0.1	2.0	0.0	0.2	0.2	0.8	0.7	0.0	0.2	0.3
Italy	0.0	1.1	0.6	–1.1	0.3	–0.6	0.3	–1.3	0.5	0.0	0.1	–0.4	6.6	6.8	1.0	1.1	–0.1	–10.4	0.0	0.0	0.0	0.8	0.2	0.0	–0.1	0.0
Japan	0.0	–1.4	–1.9	1.3	–0.1	–1.0	0.3	–3.0	0.1	–0.1	0.0	–0.4	9.0	9.0	–1.0	–0.9	–0.1	8.4	0.0	0.0	0.0	0.8	0.3	0.0	–0.1	0.0
Korea	0.0	0.9	0.4	–0.9	1.1	0.2	0.3	0.6	0.0	0.3	0.4	–0.4	4.8	5.7	–0.3	–0.2	–0.1	2.1	0.0	0.0	0.0	0.8	0.0	0.0	–0.1	0.0
Malaysia	3.7	1.9	1.4	1.7	0.7	–0.2	0.3	–2.7	–2.0	0.7	0.8	–0.4	2.0	4.1	–0.2	–0.1	–0.1	0.6	0.0	0.8	0.8	0.8	2.9	0.0	–0.1	0.1
Mexico	1.5	1.0	0.5	0.5	0.8	–0.1	0.3	–2.6	–2.3	0.4	0.5	–0.4	2.8	3.9	–0.3	–0.2	–0.1	1.5	0.0	0.0	0.1	0.8	0.2	0.0	0.1	0.2
Netherlands	7.2	2.6	2.0	4.6	1.4	0.5	0.3	1.0	–0.5	0.1	0.3	–0.4	8.2	8.8	1.2	1.3	–0.1	–12.4	0.0	0.0	0.0	0.8	–0.5	0.0	–0.1	0.0
Poland	2.7	1.7	1.2	0.9	0.9	–0.1	0.3	–1.7	–1.5	0.0	0.1	–0.4	5.1	5.4	0.7	0.8	–0.1	–7.7	0.0	0.3	0.3	0.8	1.7	0.0	–0.1	0.0
Russia	0.1	2.6	2.1	–2.5	0.5	–0.4	0.3	2.0	3.3	0.8	0.9	–0.4	3.2	5.5	0.7	0.8	–0.1	–7.6	0.0	0.7	0.7	0.8	3.9	0.0	–0.1	0.0
South Africa	–4.0	0.0	–0.6	–4.0	–0.1	–1.0	0.3	–4.7	–1.6	–0.1	0.0	–0.4	4.2	4.1	0.2	0.3	–0.1	–2.8	0.0	0.0	0.1	0.8	0.4	0.0	0.0	0.1
Spain	1.1	–0.2	–0.7	1.3	–0.1	–1.1	0.3	–3.2	0.0	–0.1	0.0	–0.4	6.2	6.2	0.2	0.3	–0.1	–7.0	–4.0	0.0	0.0	0.8	0.1	0.0	–0.1	0.0
Sweden	3.2	0.1	–0.5	3.2	0.6	–0.3	0.3	–0.7	0.3	–0.2	–0.1	–0.4	9.3	9.0	–0.1	0.0	–0.1	0.0	0.0	0.0	0.0	0.8	–1.2	0.0	–0.1	0.0
Switzerland	5.3	0.0	–0.5	5.2	1.4	0.5	0.3	1.4	0.0	–0.2	–0.1	–0.4	7.6	7.5	–1.0	–0.9	–0.1	8.7	0.0	0.0	0.0	0.8	2.5	0.0	–0.1	0.0
Thailand	6.1	2.2	1.7	4.0	1.1	0.2	0.3	–0.7	–1.2	0.4	0.5	–0.4	2.9	4.1	–0.4	–0.3	–0.1	2.8	0.0	0.9	0.9	0.8	2.4	0.0	0.3	0.4
Turkey	2.5	–1.7	–2.2	4.2	0.3	–0.6	0.3	–5.8	–4.0	0.0	0.1	–0.4	3.3	3.6	–1.6	–1.5	–0.1	14.4	0.0	–0.3	–0.3	0.8	–1.3	0.6	–0.1	0.0
United Kingdom	–4.2	0.2	–0.3	–4.4	0.5	–0.4	0.3	–2.0	–0.8	0.0	0.1	–0.4	7.6	7.9	–0.1	0.0	–0.1	0.0	0.0	0.0	0.0	0.8	–0.1	0.0	–0.1	0.0
United States	–1.3	–0.9	–1.4	–0.4	–0.9	–1.8	0.3	–6.6	–1.2	–0.2	–0.1	–0.4	8.4	8.2	0.3	0.4	–0.1	–4.0	0.0	0.0	0.0	0.8	0.0	0.0	–0.1	0.0

Source: IMF staff estimates.

Note: EBA = external balance assessment; K-controls = capital controls; Dom = domestic; Coeff = coefficient.

[1]Total contribution after adjusting for multilateral consistency.

[2]Includes the contribution of domestic policy gaps to the identified gap. The total foreign policy gap contribution is constant and equal to 0.3 percent for all countries. Foreign contributions are estimated as follows: fiscal = -0.8 percent of GDP; public health = 0.1 percent of GDP; private credit = 0.1 percent of GDP; foreign exchange intervention = 0.04 percent of GDP.

[3]Total domestic contribution is equivalent to coefficient*(P-P*).

[4]The euro area EBA CA gap and policy gap contributions are calculated as the GDP-weighted averages of EBA CA gaps and policy gap contributions for the 11 largest euro area economies.

Table 1.7. External Sector Report Economies: Summary of IMF Staff–Assessed Real Effective Exchange Rate and External Balance Assessment Model Gaps, 2019

Economy	Staff-Assessed REER Gap[1]	REER Gap Implied from Staff-Assessed CA Gap[2]	EBA REER-Level Gap	EBA REER-Index Gap	CA/REER Elasticity[3]	REER (Percent Change)	
						Avg 19/Avg 18	May 20/Avg 19
Argentina	–1.5	14.6	. . .	–6.4	0.14	–10.7	18.2
Australia	–4.0	–4.0	10.2	–1.4	0.20	–4.5	–1.9
Belgium	8.5	8.3	17.1	9.3	0.42	–1.5	0.8
Brazil	3.5	11.4	2.3	–10.7	0.10	–1.9	–26.8
Canada	7.1	6.8	–6.0	2.1	0.27	–1.0	–3.6
China	–2.0	–4.4	11.4	–1.1	0.23	–0.8	1.8
Euro Area	–2.8	–3.4	–0.7	4.2	0.35	–3.1	0.9
France	4.1	4.1	3.2	–2.7	0.27	–1.7	0.2
Germany	–11.0	–11.8	–16.0	3.6	0.36	–1.7	1.0
India	–5.6	–5.6	10.2	13.4	0.18	5.8	–0.4
Indonesia	3.9	5.6	–9.0	2.1	0.18	4.3	–0.1
Italy	4.0	0.0	4.4	6.8	0.24	–2.4	0.3
Japan	0.0	0.0	–12.5	–18.0	0.14	2.8	4.1
Korea	0.0	0.0	–8.0	0.6	0.36	–4.5	–3.6
Malaysia	–7.2	–7.2	–38.0	–25.0	0.46	–1.4	–3.5
Mexico	–7.0	–6.9	–3.5	–15.4	0.13	3.3	–15.0
Netherlands	–7.0	–7.1	4.2	16.1	0.69	–0.1	1.1
Poland	–6.0	–6.1	–18.6	–2.7	0.44	–1.3	–2.2
Russia	–0.4	–0.4	–14.5	–9.3	0.27	2.5	–5.0
South Africa	5.7	5.7	–3.3	–15.7	0.26	–3.5	–14.7
Spain	–0.9	–0.9	4.9	5.2	0.22	–1.9	–0.3
Sweden	–10.0	–9.1	–19.0	–19.4	0.35	–4.0	0.0
Switzerland	–3.5	–3.5	19.7	13.5	0.52	1.0	3.9
Thailand	–9.5	–9.8	–1.3	14.0	0.62	5.6	–4.2
Turkey	–15.0	–7.3	–20.5	–22.8	0.22	–2.2	–7.8
United Kingdom	7.5	11.7	–5.6	–12.6	0.25	–0.5	–0.4
United States	11.0	10.8	10.9	8.1	0.12	2.8	4.9
Hong Kong SAR	–2.5	. . .	. . .	. . .	0.40	4.0	3.6
Singapore	–8.0	. . .	. . .	. . .	0.50	0.1	–2.8
Saudi Arabia	13.0	. . .	. . .	. . .	. . .	–1.1	2.9
Discrepancy[4]	2.0	. . .	. . .	. . .			

Sources: IMF, Information Notice System; and IMF staff estimates.
Note: CA = current account; EBA = external balance assessment; REER = real effective exchange rate.
[1]Refers to the midpoint of the staff-assessed REER gap.
[2]Implied REER gap = -(staff-assessed CA gap/CA-to-REER elasticity).
[3]CA-to-REER semi-elasticity used by IMF country teams.
[4]GDP-weighted average sum of staff-assessed REER gaps.

consolidation over the medium term that safeguards growth-enhancing items and social safety nets and prioritizes entitlement reform would both promote debt sustainability and reduce the current account gap. In a number of emerging market and developing economies with larger-than-warranted current account deficits in 2019 (such as Argentina) fiscal consolidation would also support raising international reserves to adequate levels, enhancing resilience to global foreign currency liquidity shocks. Structural policies to increase export competitiveness—and, in the case of commodity exporters (such as Saudi Arabia), diversification—would further support rebalancing. Infrastructure investment and active labor market policies may be widely needed to address the scars of the crisis. Countries with lingering competitiveness challenges would also benefit from upgrading infrastructure to reduce bottlenecks; labor market policies, such as enhancing schooling, training, and mobility of workers; supporting the working poor; and encouraging growth in the labor force (including through skill-based immigration reform).

- *Economies with stronger-than-warranted external positions:* In economies where excess current account surpluses that existed before the COVID-19 crisis

Table 1.8. 2019 Individual Economy Assessments: Summary of Policy Recommendations

Economy	Overall 2019 Assessment	Policy Recommendations	
		Short Term	Medium Term[1]
Argentina	Weaker	Balance the need to support the economy during the pandemic, while ensuring domestic and external stability in the context of very limited access to financing.	Implement gradual fiscal consolidation and prudent monetary policies; rebuild international reserves; introduce reforms to strengthen competitiveness and export capacity.
Australia	Broadly in line	Maintain monetary policy easing and fiscal stimulus to support the economy.	Provide fiscal and monetary stimulus to support domestic demand, limiting the projected increase in the CA balance.
Belgium	Weaker	Continue implementing fiscal policies to bolster the healthcare system and support affected firms and individuals to contain the health and economic impact of the pandemic.	Rebuild fiscal space once the recovery is secured; improve competitiveness by reinvigorating structural reforms.
Brazil	Moderately weaker	Stand ready for prudent FX interventions to alleviate possible disorderly market conditions.	Implement fiscal consolidation to raise national savings; introduce structural reforms to reduce cost of doing business and strengthen competitiveness.
Canada	Moderately weaker	Calibrate monetary and fiscal policy support to limit the health and economic impact of the pandemic.	Implement medium-term fiscal consolidation; boost nonenergy exports through improved labor productivity, investment in R&D and public infrastructure; promote FDI.
China	Broadly in line	Continue support focusing on employment stabilization and poverty alleviation; if needed, provide additional support by strengthening public health and social safety net.	Implement gradual fiscal consolidation and continue reform agenda to support rebalancing; by allowing ER flexibility; improving social safety net; and attracting more FDI by ensuring equal treatment of foreign and domestic investors.
Euro Area	Moderately stronger	Contain the COVID-19 outbreak and its economic consequences and provide relief to households and corporates to reduce scarring from the crisis; maintain accommodative monetary policy.	Implement area-wide initiatives (banking and capital markets union and fiscal capacity for macro-stabilization) to further reinvigorate investment; see member country-specific recommendations to reduce internal and external imbalances.
France	Moderately weaker	Provide fiscal support to bolster the health care system and provide targeted support to affected firms and households; focus on saving lives and support those most affected by the crisis.	Improve competitiveness by reinvigorating structural reforms and rebuild fiscal space once the recovery is secured.
Germany	Substantially stronger	Continue mitigating the effects of the outbreak, while supporting households and businesses in a way that minimizes economic scarring effects and facilitates a swift recovery.	Increase public sector investment; implement structural reforms to foster entrepreneurship that would also stimulate investment; introduce additional tax relief for lower-income households; adopt pension reforms prolonging working lives.
Hong Kong SAR	Broadly in line	Implement expansionary fiscal policy.	Continue robust and proactive financial supervision; maintain flexible wages and prices, and prudent fiscal management.
India	Broadly in line	Preserve lives and economy's productive capacity, including through fiscal, monetary, and financial sector policies that especially protect vulnerable households/firms, including in the informal sector.	Implement fiscal consolidation; enhance credit provision; improve the business climate; and liberalize trade and investment to attract FDI.
Indonesia	Broadly in line	Continue ER flexibility with limited FX interventions in response to increased market volatility associated with the pandemic.	Boost competitiveness; improve labor market flexibility; increase infrastructure and social spending (with additional revenue mobilization); ease non-tariff trade barriers and FDI restrictions.
Italy	Broadly in line	Continue fiscal and liquidity measures to support families and businesses and reinforce the health system.	Once the health crisis has passed, focus on policies to improve competitiveness, including aligning wages with productivity; implementing credible fiscal consolidation and further strengthening of bank balance sheets to reduce external vulnerabilities.
Japan	Broadly in line	To preserve lives and the productive capacity of the economy, continue fiscal and monetary support to vulnerable households, workers, and firms.	Implement a coordinated policy package with gradual fiscal consolidation and structural reforms including to boost wages and labor productivity and supply, reduce barriers to entry, and accelerate agricultural and professional services deregulation.
Korea	Broadly in line	Maintain fiscal and monetary stimulus to support economic activity following the COVID-19 outbreak.	Continue accommodative fiscal and monetary policies. Implement structural policies to stimulate investment and facilitate rebalancing of the economy toward services and other new growth drivers.

(*Continued*)

Table 1.8 *(continued)*

Economy	Overall 2019 Assessment	Policy Recommendations	
		Short Term	Medium Term[1]
Malaysia	Stronger	Focus on efforts to provide relief to stressed firms and households and preserve the production capacity of the economy, while maintaining FX market stability.	Implement fiscal consolidation accompanied by policies to strengthen the social safety net and encourage investment; allow continued exchange rate flexibility.
Mexico	Broadly in line	Provide sufficient policy support in response to COVID-19 pandemic; maintain floating ER as the main shock absorber, with FX interventions to prevent disorderly market conditions.	Implement pro-growth and inclusive fiscal reforms and structural reforms; improve competitiveness and business climate.
Netherlands	Substantially stronger	Use fiscal space and the escape clause to provide crucial support to the health sector and to help households and businesses to face the COVID-19 pandemic care.	Promote the recovery and support investment in physical and human capital to foster robust potential growth.
Poland	Stronger	Use fiscal policy to bolster the health system, provide businesses with liquidity, and support incomes of vulnerable households. Prevent a tightening of financial conditions using monetary and financial policies.	After the crisis has abated, reduce fiscal deficit and prioritize spending for health care and public investment; boost corporate investment and productivity; implement active labor market policies.
Russia	Broadly in line	Focus fiscal policy on managing the public health emergency and compensating those most affected by it.	Mitigate impact of oil price volatility on non-oil sector; rebalance government expenditure toward health, education, and infrastructure.
Saudi Arabia	Weaker	Provide fiscal support to the health care sector and sectors hard hit by the pandemic.	Implement further consolidation to ensure savings for future generations; diversify the economy and boost the non-oil tradeable sector.
Singapore	Substantially stronger	Continue monitoring the implementation of fiscal stimulus measures; stand ready to provide further stimulus if needed.	Increase public investment, including on health care, physical infrastructure and human capital; introduce structural reforms to improve productivity.
South Africa	Moderately weaker	Cushion the negative impact of the COVID-19 crisis and protect the vulnerable through temporary and targeted fiscal support.	Introduce structural reforms to improve competitiveness; implement gradual fiscal consolidation while providing space for infrastructure and social spending; seize opportunities to build up reserves.
Spain	Broadly in line	Mitigate the impact of the Great Lockdown by using targeted and temporary income and liquidity support.	Foster competitiveness, including through continued wage flexibility and reforms addressing labor market duality; carefully manage public debt load.
Sweden	Stronger	Adopt sizable targeted policies complemented by broader stimulus packages; minimize persistent scarring, and ensure conditions for a quick economic recovery.	Raise potential output and reduce household uncertainties around the sustainability of Sweden's strong social model.
Switzerland	Moderately stronger	Use fiscal policy to respond to the pandemic; and FX intervention to partially mitigate safe-haven appreciation pressures if needed while not precluding secular real appreciation.	Use fiscal policy to address structural challenges (competitiveness, aging, climate change); implement macroprudential policies to reduce financial sector risks; consider more frequent and timely publication of FXI data.
Thailand	Substantially stronger	Deploy fiscal expansion toward targeted social transfers and relief measures; allow ER flexibility with limited intervention to avoid disorderly market conditions.	Boost domestic demand and public infrastructure; pursue efforts to reform and expand social safety nets; reduce barriers to investment, especially in the services sector.
Turkey	Moderately stronger	Cushion the impact of the COVID-19 crisis and protect the most vulnerable through temporary and targeted fiscal support.	Rein in rapid credit growth; rebuild reserves; strengthen the broader public sector balance sheet; bolster the business climate.
United Kingdom	Weaker	Support the economy, address the impact of the coronavirus, and facilitate the recovery, in particular by maintaining the accommodative monetary policy stance and fiscal policies to support vulnerable households and businesses.	Implement structural reforms, including broadening the skill base, to boost productivity and international competitiveness, once the pandemic is over.
United States	Moderately weaker	Direct fiscal efforts to ease the burden of the shutdown on households and firms; increase investment in infrastructure; facilitate the transition to a lower carbon economy; offer consumption subsidies to kick-start demand.	Implement fiscal consolidation and structural policies to increase competitiveness and growth in the labor force. Roll back tariff barriers, and resolve trade and investment disagreements supporting an open, stable, and transparent global trading system.

Source: 2019 Individual External Assessments.
Note: ECB = European Central Bank; ER = exchange rate; FDI = foreign direct investment; FX = foreign exchange; MP = monetary policy; R&D = research and development; SOE = state-owned enterprises.
[1]The medium-term policy recommendations apply if imbalances that existed prior to the COVID-19 outbreak persist in the medium term.

persist after the crisis, prioritizing reforms that encourage investment and discourage excessive private saving are warranted. In economies with remaining fiscal space, a growth-oriented fiscal policy, with greater public sector investment in such areas as digitalization, infrastructure, and climate change mitigation, would support private investment, promote potential growth, make the economy more resilient, and narrow the excess current account surplus. Germany announced a new package (€130 billion, or 4 percent of GDP, over 2020–21) in June to support the recovery, with measures to boost activity in green and digital economies. The European Union has proposed an additional €750 billion (6 percent of its GDP) in support over 2021–27, including a grant-based recovery fund, which, if approved, could promote green recovery and reduce the uneven impact of the pandemic on member states' debt sustainability. In other cases, structural reforms to boost corporate investment, competition, and productivity, along with active labor market policies to facilitate access to skilled labor and raise potential growth (as in Poland) would further reduce external imbalances. In some cases, reforms to discourage excessive precautionary saving by expanding the social safety net (as in Malaysia and Thailand) may also be warranted.

- *Economies with external positions broadly in line with fundamentals:* In such cases, policies should continue to address domestic imbalances to prevent excessive external imbalances. Former excess surplus countries should, where relevant, address domestic imbalances by gradually narrowing larger-than-desirable fiscal deficits while engaging in reforms of state-owned enterprises and opening markets to more competition (as in China), relaxing restrictions on foreign direct investment, and strengthening the social safety net. Former excess deficit countries (such as Indonesia and Spain) should, where relevant, carefully manage the public debt load, enhance competitiveness through productivity gains and continued wage flexibility, and implement reforms to enhance education outcomes and innovation.

As more data become available to assess the effects of the crisis, comprehensive and multilaterally consistent analysis will remain necessary to promote a shared understanding of underlying distortions and reforms needed to continue rebalancing the global economy.

Box 1.1. External Assessments: Objectives and Concepts

Current account deficits and surpluses can be desirable from an individual country and global perspective. A country's ability to run current account deficits and surpluses at different times is important for absorbing country-specific shocks and facilitating a globally efficient allocation of capital. Some countries may need to save through current account surpluses (for example, because of an aging population); others may need to borrow via current account deficits (for example, to import capital and foster growth). Similarly, countries facing temporary positive (negative) terms-of-trade changes may benefit from saving (borrowing) to smooth out those income shocks. Thus, running a non-zero external current account balance is often desirable both from an individual country and a global standpoint.

To determine if current account balances are *excessive*, the IMF staff compares the actual current account (stripped of cyclical and temporary factors) and the level assessed by IMF staff to be consistent with fundamentals and desirable policies. The resultant staff-assessed gap reflects policy distortions vis-à-vis other economies identified using External Balance Assessment models as well as other policy and structural distortions not captured by the models.[1] A current account balance that is *higher (lower)* than implied by fundamentals and desirable policies corresponds to a positive (negative) current account gap. Elimination of such a gap is desirable over the medium term, although there may be good reasons to have a temporary gap and to adjust gradually. These gaps can reflect domestic macroeconomic or structural policy distortions or similar policy distortions in the rest of the world (that is, foreign distortions).

Assessments also include a view of the real effective exchange rate (REER) that is normally consistent with the assessed current account gap. A positive (negative) REER gap implies an overvalued (undervalued) exchange rate. REER gaps do not necessarily predict future exchange rates and may occur in any economy, including in an economy with a floating exchange rate.

Although the overall assessment of a country's external position reflects the current account and real exchange rate in a given year, it also takes other indicators into consideration. These include the financial account balances, the international investment position, reserve adequacy, and other competitiveness measures, such as the unit-labor-cost–based REER. The overall external position is judged to be weaker (stronger) than warranted by fundamentals and desired policies depending on how low (high) the current account balance is compared with the staff-assessed norm and how overvalued (undervalued) the REER is deemed to be. The external position is broadly in line with fundamentals and desired policies when the current account balance and the REER are at or close to their IMF staff–assessed norms. Assessments strive to be multilaterally consistent; negative staff-assessed current account and REER gaps in some economies are matched by positive staff-assessed gaps in others.

[1]See Cubeddu and others (2019) for a description of the External Balance Assessment models and complementary tools that help in applying analytically grounded judgment, as well as the external assessment process.

Box 1.2. US–China Trade Tensions and Asset Price Movements

News regarding US–China trade policy tensions in 2018–19 had persistent effects on currencies and stock prices in China and the United States. Much of the renminbi's depreciation during this period reflects the escalation of trade tensions.

Standard macroeconomic models predict that raising tariffs leads to currency depreciation for the economy on whose products the tariff is imposed and a currency appreciation for the economy imposing the tariff.

High-frequency analysis of news announcements related to US–China trade tensions during 2018–19 broadly confirms this prediction. The analysis focuses on 43 trade policy announcements cited in news reports, classified by importance, and estimates the responses of exchange rates and stock prices using daily data (Figure 1.2.1).

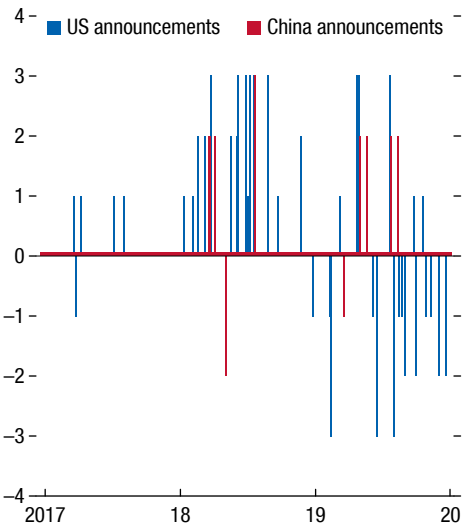
The results suggest that news of a rise in US–China trade tensions causes China's currency to depreciate significantly in trade-weighted terms and the US dollar to appreciate by about half as much (Figure 1.2.2). News of a tightening in US trade policy regarding China in 2018–19, which also came with higher trade-related policy uncertainty, explains much of the 10 percent depreciation in the value of the renminbi vis-à-vis the US dollar over this period (Figure 1.2.3). The impact on the currency corresponds to about two-thirds of the rise in the average US tariff on imports of goods from China. Additional analysis indicates that the renminbi fixing rate (the daily reference rate of the People's Bank of China) has responded significantly less to announcements regarding US trade policy on impact, suggesting a role in smoothing currency movements. Looking at episodes of escalating and easing trade tensions separately provides no evidence that the fixing rate responded asymmetrically to weaken the renminbi. If anything, the results point the other way.

Furthermore, the results suggest that news of a rise in US–China trade tensions depressed stock prices in both China and the United States, with the latter falling by about half as much. The impact on US firms with high sales to China is almost three times the US average. Additional analysis finds persistent negative effects on stock prices in other major economies as well. However, for economies, such as Mexico, that potentially benefited from trade and foreign direct investment diversion effects in 2018–19, the estimated stock market reaction is relatively small.

The author of this box is Daniel Leigh.

Figure 1.2.1. News Shock Index: US and China Trade Policy Announcements, 2017–20

(Reports of new US and China announcements related to US–China trade)

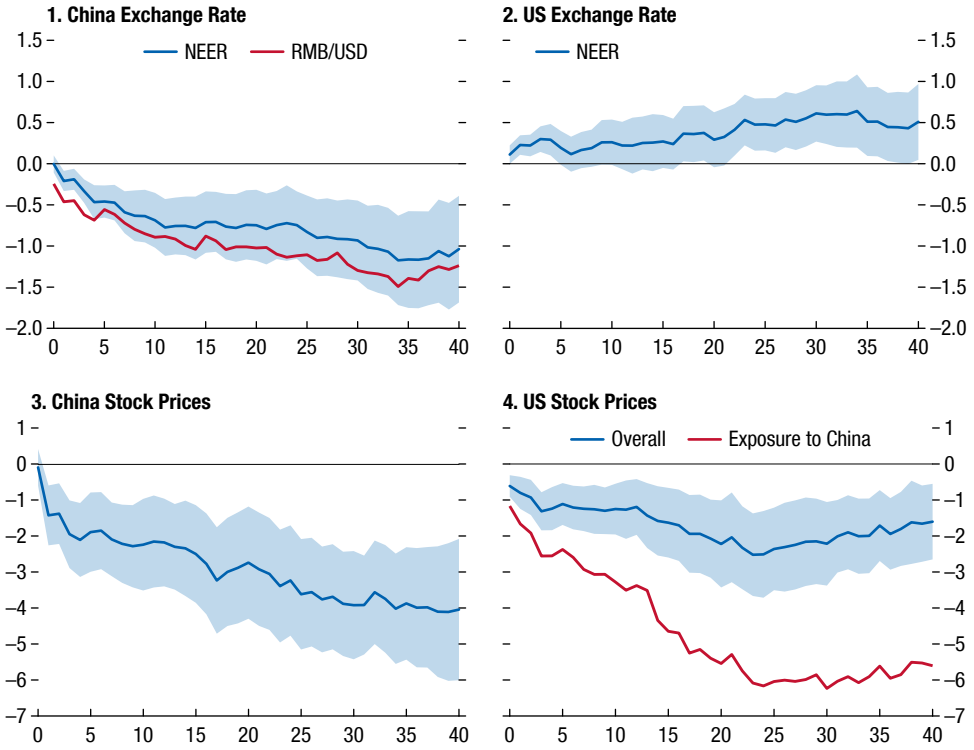


Source: IMF staff estimates.
Note: News shocks based on compilation of news reports citing announcements by US authorities relating to trade barriers targeting imports from China and by China's authorities relating to trade barriers targeting US imports. News grouped into categories related to the direction (easing or tightening) of the policy announcements regarding trade barriers as well as their severity. Tightening announcements assigned 1 for a minor tightening, 2 for a moderate tightening, and 3 for a major tightening announcement. Easing announcements assigned accordingly with the opposite sign (from –1 to –3).

Box 1.2 *(continued)*

Figure 1.2.2. United States and China: Currency and Financial Market Reactions to News of Rising Trade Tensions

(Percent; days on x-axis)



Sources: Bloomberg L.P.; and IMF staff estimates.

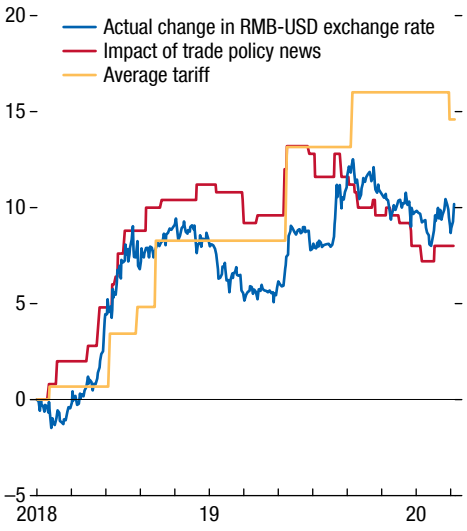
Note: The figure reports responses to an impulse of 3 in the measure of trade-barrier-related news and 90 percent confidence bands derived from Jordà (2005). Local projections are estimated based on the following equation using ordinary least squares with Newey-West standard errors:

$$y_{t+i} = \alpha^i + \beta^i T_t + \Sigma^4_{k=1} y_k^i T_{t-k} + \Sigma^4_{k=1} \theta_k^i y_{t-k} + \Sigma^4_{k=0} \varphi_k^i \chi_{t-k} + e_t^i$$

in which the i denotes the time horizon (days after time t). The variable y_{t+i} denotes the financial market variable at time $t+i$. The term T_t is the indicator of trade policy announcements at time t. The sequence of β^i coefficients indicates the average aftermath of trade policy announcements estimated for up to $i = 40$ days after time t. To capture other dynamics, the equation includes as controls four lags of both the trade and policy announcement indicator and the financial market variable. Additional controls (χ) include announcements by China of trade action targeting the United States and announcements by the United States of trade action targeting Mexico. Exposure to China denotes US firms with high share of sales to China. NEER = nominal effective exchange rate, RMB = Chinese renminbi, USD = US dollar.

Box 1.2 *(continued)*

Figure 1.2.3. Evolution of the Renminbi-US Dollar Rate: Contribution of Trade Policy News Shocks and Tariffs
(Cumulative change; percent; log points)



Sources: Bown (2020); and IMF staff calculations.
Note: The figure reports the cumulative change in US tariffs on imports from China during 2018–20. The estimated cumulative impact of news shocks on the RMB-USD exchange rate is based on the long-term (40-day) impact; and the actual change in the RMB-USD exchange rate. RMB = renminbi; USD = US dollar.

Box 1.3. Trade and Economic Activity in the COVID-19 Crisis

Forecasts of falling global trade in 2020 reflect primarily the expected weakness in economic activity. The historical relationship between trade and aggregate demand fully explains the expected global decline in trade in goods. For trade in services, the expected contraction is more severe than could be expected by the expected fall in aggregate demand, suggesting a strong role for other factors, such as travel restrictions.

Recent data and IMF staff forecasts suggest that global trade will decline by about 12 percent in 2020, comparable to what was observed during the global financial crisis. The COVID-19 crisis has triggered significant declines in economic activity, including reductions in both aggregate supply and demand, especially in such sectors as services (Guerrieri and others 2020). How much of the weakness in trade reflects the expected weakness in economic activity? To address this question, the analysis uses estimates of the historical relationship between trade and aggregate demand up to 2019 to predict trade growth in 2020, based on the current forecast for aggregate demand.

Most studies use GDP as a proxy for aggregate demand when estimating trade relations. In contrast, the analysis here uses an import-intensity-adjusted measure of aggregate demand following Bussière and others (2013). This measure is a weighted average of aggregate demand components in which the weights are the import content of each component computed from national accounts input-output tables. A decline in GDP causes a greater reduction in trade if it is driven by an import-rich component, such as investment, than by a less-import-rich component, such as private consumption. This distinction is important for understanding the evolution of trade during the COVID-19 crisis, which is expected to feature a deeper contraction in consumption than did the global financial crisis.

Based on this measure of aggregate demand, the analysis estimates the historical relationship with trade, measured by import volume growth, for 33 economies during 1998–2019. The equation estimated is

$$\Delta lnM_{c,t} = \delta_c + \beta_D \Delta lnD_{c,t} + \beta_P \Delta lnP_{c,t} + \varepsilon_{c,t},$$

where Δ denotes first difference, δ_c denotes country dummies, $D_{c,t}$ is aggregate demand, and $P_{c,t}$ is the relative price of imports. The estimation results confirm that using the import-intensity-adjusted measure of aggregate demand to estimate trade equations provides a better fit than using GDP, including during recessions (Table 1.3.1). The same equation is estimated separately for goods and services imports.

The historical relationship between import growth and aggregate demand explains the full expected decline in goods trade in 2020 (Figure 1.3.1). In fact, based on the currently expected declines, the historical relationship suggests that global trade growth could be even more negative in 2020 than currently predicted. Lockdowns and social distancing measures may have prevented some firms from importing production inputs, causing value chain disruptions and further declines in goods trade.

For services imports, by contrast, the decline currently expected is sharper than what could be expected based on the historical relationship between services trade and aggregate demand. This result is consistent with the COVID-19 crisis and the

The author of this box is Charlotte Sandoz.

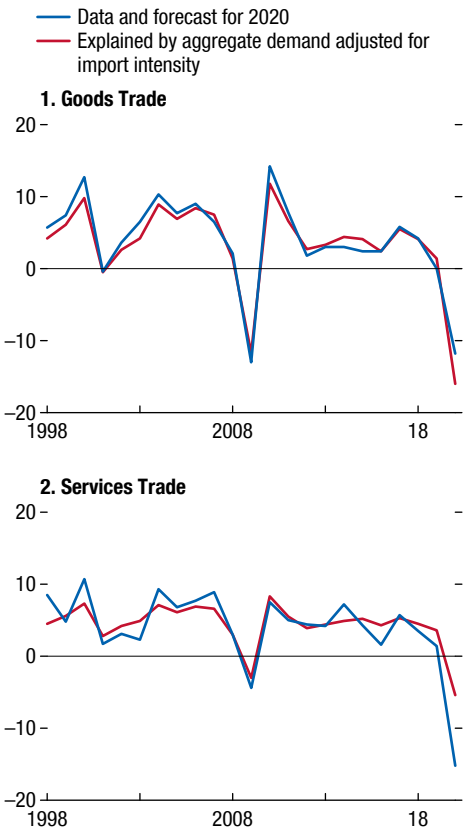
Table 1.3.1. Empirical Model of Real Imports of Goods and Services, 1998–2019

	IAD specification			GDP specification		
	Tot. (1)	Exp. (2)	Rec. (3)	Tot. (4)	Exp. (5)	Rec. (6)
Aggregate Demand	1.56***	1.55***	1.63***	2.59***	2.09***	3.86***
Relative Import Price	–0.17**	–0.13	–0.15***	–0.28**	–0.21	–0.24***
Observations	693	577	116	693	577	116
R-squared	0.78	0.61	0.86	0.56	0.27	0.70

Source: IMF staff calculations.
Note: The table reports estimates for the full 1998–2019 sample (Tot.), as well as periods of economic expansion (Exp.) and recessions (Rec.). Recessions are defined as years with real GDP growth below the country-specific 10th percentile. Country-fixed effects are included in all equations. IAD = import-intensity-adjusted measure of demand. ***, **, and * denote statistical significance at the 1, 5, and 10 percent level, respectively, based on robust standard errors.

Box 1.3 *(continued)*

Figure 1.3.1. Global Trade: Actual and Prediction Based on Aggregate Demand
(Percent)



Source: IMF staff calculations.
Note: Trade growth is based on growth in volume of imports. The panels report actual trade growth and the June 2020 *World Economic Outlook Update* forecast for 2020; trade growth is predicted by the historical relationship with the measure of import-intensity-adjusted aggregate demand. Annual aggregate import growth is calculated as the weighted average of country-specific real import growth rates.

unprecedented travel restrictions, which have reduced services trade, including tourism, especially severely.

The analysis also highlights possible risks to trade growth in the future. In the years following the global financial crisis, trade in both goods and services was weaker than would be expected based on aggregate demand, reflecting factors such as rising protectionism, as highlighted in previous work (see the October 2016 *World Economic Outlook*, for example). A rise in trade barriers and a retreat from cross-border integration in the coming years thus presents a further risk to global trade growth.

Box 1.4. Drivers of the COVID-19 Sudden Stop

The investor pullout from emerging market and developing economies during the COVID-19 crisis largely reflected the tightening in global financial conditions. Country factors associated with more severe pullouts include a fall in the country-specific commodity terms of trade, smaller liquidity buffers, and larger external financing needs. Access to the US Federal Reserve's swap lines also appears to have been associated with smaller outflows. COVID-19–specific factors, including dependence on tourism revenues and the severity of the spread of the virus, also played some role.

As COVID-19 emerged as a global pandemic in late January and its full scale became apparent to markets in the following weeks, global financial conditions tightened sharply, and emerging market and developing economies experienced a sharp reversal in portfolio flows. Since early April flows have stabilized in most cases, though meaningful inflows are still absent.

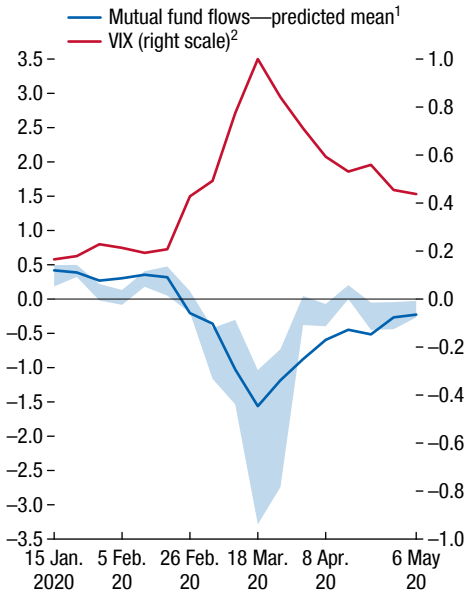
What factors determine the magnitude of the investor pullout? Were outflows driven by tight global financial conditions, commodity terms-of-trade changes, and other country-specific vulnerabilities? Did capital flows reflect likely differences in the severity of the health crisis across countries?

To shed light on these questions, and complementing the analysis of Chapter 3 of the April 2020 *Global Financial Stability Report*, a panel regression is estimated to exploit the cross-country and weekly variation during the COVID-19 episode (in percent of the asset position at the end of 2019) in debt and equity flows to emerging market and developing economy mutual funds from Emerging Portfolio Fund Research (EPFR).[1] The analysis focuses on the roles of (1) global financial conditions, measured by the Chicago Board Options Exchange Volatility Index (VIX) and its interaction with country-specific factors; (2) macroeconomic fundamentals, including precrisis external vulnerabilities (reserve adequacy and the current account balance), and commodity terms-of-trade changes, which capture country-specific effects of the large swing in global commodity prices; and (3) COVID-19–related country features that reflect the importance of the tourism sector (which the virus and mitigating measures have severely affected), as well as the speed at which the virus spread. The equation estimated is

$$Flows_{i,t} = \alpha + \beta VIX_t + \gamma VIX_t Fundamentals_{i,t} + \theta Fundamentals_{i,t} + \delta COVID\ features_{i,t} + \varepsilon_{i,t}.$$

The results indicate that outflows were driven largely by heightened global risk aversion, illustrated by the close relationship between the actual (and predicted) path of mutual fund portfolio flows and the VIX (Figure 1.4.1). The latter index alone explains 45 percent of the variance of EPFR flows during the sample period, dominating the role of country-specific factors.[2]

Figure 1.4.1. Weekly Flows into Emerging Market and Developing Economy Mutual Funds and the Chicago Board Options Exchange Volatility Index (VIX)



Sources: Emerging Portfolio Fund Research; Haver Analytics; and IMF staff estimates.
Note: Shaded band depicts 90 percent confidence interval for actual mutual fund flows (in percent of initial stock).
[1]Percent of initial stock.
[2]VIX is normalized to take a value of 1 at its peak date.

The authors of this box are Gustavo Adler and Carolina Osorio Buitron.

[1]EPFR data cover specialized mutual fund flows and have the advantage of covering a large set of countries at weekly frequency, thus permitting an analysis of COVID-specific drivers of flows. The focus on mutual funds implies a departure from the balance of payments concept of portfolio flows, although available indicators (with narrower coverage or lower frequency) that map more closely to the balance of payments concept (from the Institute of International Finance, for example) display similar patterns for emerging market and developing economies as a whole.

[2]Analysis in the October 2019 *Global Financial Stability Report* indicates that balance of payments flows have, historically, been significantly less sensitive to the VIX than EPFR flows.

Box 1.4 *(continued)*

At the same time, certain country-specific characteristics amplified or mitigated the impact of tighter global financial conditions (in a statistically and economically meaningful way), as illustrated in Figure 1.4.2:

- Economies facing a simultaneous deterioration in commodity terms of trade (mainly oil exporters) experienced larger outflows. For example, economies whose commodity terms of trade fell by 20 percent experienced cumulative outflows up to 50 percent larger than economies whose commodity terms of trade improved by a similar magnitude.
- Precrisis vulnerabilities related to external financing needs and liquidity buffers were also important. For example, cumulative outflows are estimated to have been about 20 percent larger in economies with a current account deficit of 3 percent of GDP or more than in an economy with a current account surplus of 3 percent of GDP or more, indicating that investors withdrew from economies that were more vulnerable to a drying up of external financing. Outflows were nearly 30 percent lower for economies with high rather than low reserves-to-imports ratios.
- In addition, results suggest that capital outflows were 30 percent lower for economies whose central banks obtained access to the US Federal Reserve's swap lines during the episode relative to other economies.

COVID-19–related factors also amplified the sudden stop. In particular,

- Economies that were structurally more vulnerable to travel bans and lockdown measures because of their dependence on tourism revenues also faced larger outflows. For example, capital outflows were 20 percent larger in economies with 20 percent of exports concentrated in tourism, relative to those with no tourism proceeds.
- The speed of spread of the virus, measured by the weekly change in confirmed cases, also played a role, with a 20 percent difference in the magnitude of outflows between extreme (10th and 90th percentiles) cases. This result, while somewhat tenuous at this point, suggests that as the health crisis unfolds and lockdown measures ease or tighten at different paces, there might be more differentiation in the recovery of outflows across countries.

Additional analysis suggests that the COVID crisis shares some features with the global financial crisis. In particular, capital outflows from emerging market and developing economies were also driven largely by heightened risk aversion and external vulnerabilities (reserve adequacy and external financing needs) during the global financial crisis. These factors were, however, somewhat less relevant during the 2013 taper tantrum, which featured strong risk appetite as the US economy was on a recovery path. A caveat to this analysis is that it focuses on mutual fund portfolio flows, given the limited data availability on other types of flows at this point. The role of other flows—including cross-border banking flows, which played an important role in the global financial crisis—is still unknown.[3] In addition, while foreign direct investment was more resilient relative to other flows during the global financial crisis, the risk of these flows being lower during this episode is not negligible.

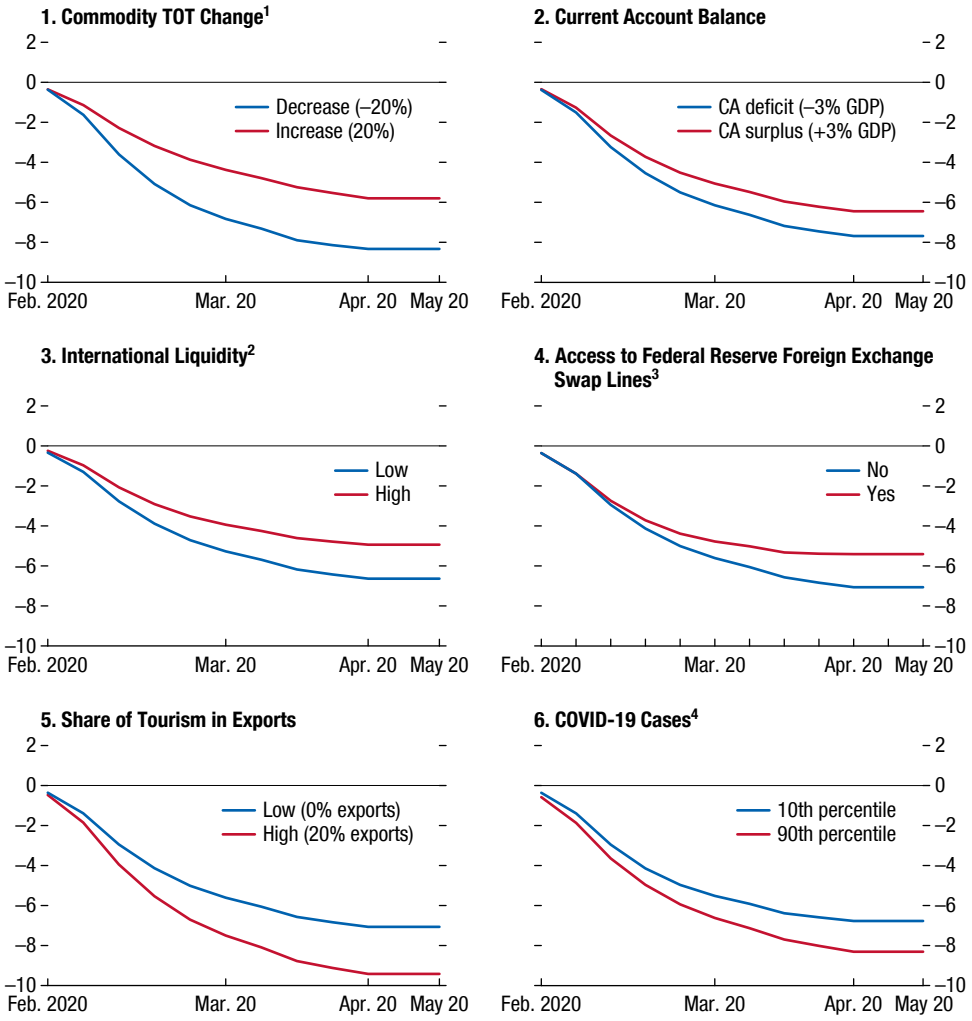
Overall, the analysis indicates that preventing another tightening of global financial conditions and maintaining healthy liquidity buffers in emerging market and developing economies—including through cross-country financial arrangements—will be essential to the support of healthy capital flows to these economies.

[3]See, for example, Avdjiev and others (2018).

Box 1.4 *(continued)*

Figure 1.4.2. Predicted Cumulative Portfolio Flows: Differentiation by Fundamentals

(Percent of initial stock position, cumulative since February 19, 2020)



Source: IMF staff estimates.
Note: CA = current account; TOT = terms of trade.
[1]Commodity terms of trade is the monthly change in the commodity net export price index, in which individual commodities are weighted by the ratio of net exports to total commodity trade, as developed by Gruss and Kebhaj (2019).
[2]Based on 2019 *International Country Risk Guide* subcomponent score that reflects availability of international reserves in months of imports. "High (low)" indicates score in the top (bottom) 25 percent of the sample.
[3]Dummy variable that takes a value of 1 from the week of March 19, 2020, onward for countries granted access to the US Federal Reserve foreign exchange swap lines since that day (Brazil, Korea, and Mexico).
[4]Weekly log difference in the number of confirmed COVID-19 cases.

Box 1.5. Emerging Market and Developing Economy Currency Movements during the COVID-19 Crisis

The currency depreciations among emerging market and developing economies during the COVID-19 crisis reflected the worsening global economic outlook and tighter financial conditions. Preexisting country economic and financial fundamentals as well as perceived institutional quality played a significant role in amplifying or mitigating the impact of these global factors.

The currencies of emerging market and developing economies depreciated sharply during the turmoil in global financial and commodity markets in early 2020. From mid-February to late March, these economies' currencies depreciated by an average of 5 percent; some depreciated more than 20 percent. These currencies, in many cases, have partially recovered since March. The range of emerging market and developing economy currency movement was broadly comparable to what was seen during the global financial crisis and significantly larger than during the 2013 taper tantrum (Figure 1.5.1).

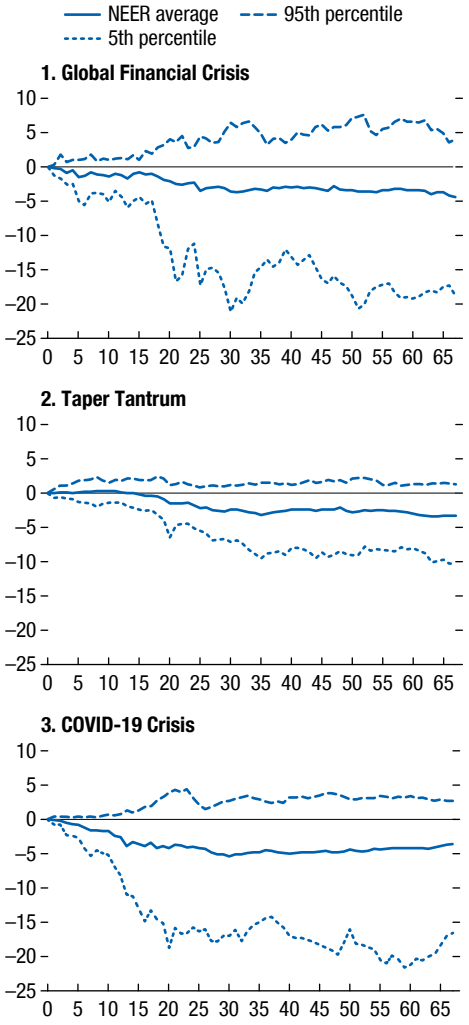
To shed light on what drove the currency movements during the COVID-19 crisis, a panel equation is estimated that relates the change in the nominal effective exchange rate (NEER) over a 30-day period with global factors, country-specific variables, and their interactions (Table 1.5.1).

$$\begin{aligned}\Delta NEER_{i,t} = \alpha &+ \beta_1 VIX_t + \beta_2 \Delta Oil\ Price_t \\ &+ \gamma_1 Floater_i + \gamma_2 Oil\ Exporter_i \\ &+ \gamma_3 Fundamentals_i \\ &+ \theta_1 \Delta Oil\ Price_t Oil\ Exporter_i \\ &+ \theta_2 VIX_t Fundamentals_i + \varepsilon_{i,t}\end{aligned}$$

Global factors have driven currency depreciation in emerging market and developing economies. The estimation results indicate that a rise in equity market volatility, as measured by the Chicago Board Options Exchange Volatility Index (VIX), is significantly associated with currency depreciations in emerging market and developing economies. Similarly, a fall in the price of oil (the simple average of prices of Dated Brent, Dubai Fateh, and West Texas Intermediate), which to a large extent reflects expectations of lower

The author of this box is Christina Kolerus.

Figure 1.5.1. Emerging Market and Developing Economy Nominal Effective Exchange Rate Movements
(Percent change from start of episode; days on x-axis)



Sources: IMF, Global Data Source; and IMF staff calculations.
Note: Global financial crisis indicates evolution starting September 10, 2008. Taper tantrum indicates episode starting May 22, 2013. COVID-19 crisis indicates episode starting February 19, 2020. NEER = nominal effective exchange rate.

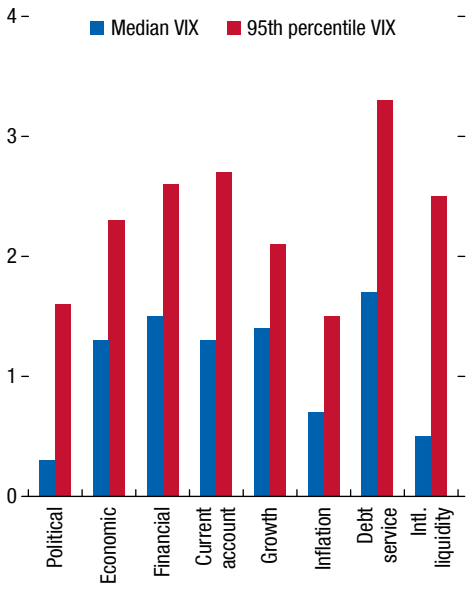
Box 1.5 *(continued)*

global economic activity, is strongly associated with emerging market and developing economy currency depreciations. Additional analysis indicates that the first principal component of the VIX, US equity prices, and oil prices is strongly correlated with the variance in currency movements, underscoring the strong role of global factors at times of global financial stress. Preexisting country characteristics did much to amplify or mitigate the impact of these global factors:

- The currencies of oil-exporting emerging market and developing economies depreciated more strongly than those of other such economies when oil prices declined (Table 1.5.1).
- In economies with stronger perceived institutional quality—or stronger economic and financial fundamentals, as measured by *International Country Risk Guide* (ICRG) scores—there were smaller currency depreciations when the VIX was high. An economy at the 75th percentile of the ICRG score for economic or financial fundamentals experienced, on average, a 2½ percent smaller NEER depreciation than an economy at the 25th percentile when the VIX increased to peak levels in March 2020.
- Within the subcomponents of ICRG scores, the scores for debt service, international liquidity (which reflects the availability of international reserves), and the current account deficit affected differences among emerging market and developing economies.
- Economies with more flexible exchange rates (those classified by Ilzetzki, Reinhart, and Rogoff [2019] as having managed floating or free floating regimes) experienced larger currency depreciations.

Overall, the results suggest that the recent easing in global financial conditions, reflecting swift actions by central banks, should further reduce pressure on emerging market and developing economy currencies. The results also suggest that economies with stronger perceived economic and financial fundamentals are likely to experience less downward pressure on their currencies in the event that downside risks to global financial and economic conditions materialize in the future.

Figure 1.5.2. Relationship between Stronger Country Risk Scores and Emerging Market and Developing Economy Currency Movements
(Percent appreciation; evaluated at various VIX levels)



Sources: *International Country Risk Guide* (ICRG); and IMF staff calculations.
Note: The figure reports the NEER increase associated with improving each ICRG risk score reported on the *x*-axis from the 25th percentile to the 75th percentile of the emerging market and developing economy sample. The bars indicate the NEER increase evaluated at the median level of the VIX from early February to mid-May 2020 and at the 95th percentile of the VIX during that period, respectively. NEER = nominal effective exchange rate; VIX = Chicago Board Options Exchange Volatility Index.

Box 1.5 *(continued)*

Table 1.5.1. Explaining Nominal Effective Exchange Rate Movements in Emerging Market and Developing Economies

(Dependent variable is the 30-day percent change in the NEER)

	(1)	(2)	(3)	(4)
Δ Oil Price	0.03*	0.03**	0.03**	0.03*
VIX	–0.51***	–0.28**	–0.33***	–0.33***
Floater	–3.22***	–3.24***	–3.46***	–3.05***
Oil Exporter	1.03	0.99	0.95	0.88
Oil Exporter × Δ Oil Price	0.08**	0.07**	0.08**	0.08**
Composite Score	–0.14*			
Composite Score × VIX	0.01***			
Political Risk Score		–0.13**		
Political Risk Score × VIX		0.00**		
Economic Risk Score			–0.11	
Economic Risk Score × VIX			0.01***	
Financial Risk Score				–0.08
Financial Risk Score × VIX				0.01***
Observations	1,848	1,838	1,823	1,843
R-squared	0.316	0.290	0.319	0.324

Source: IMF staff estimates.

Note: Sample is February–May 2020 for 25 emerging market and developing economies. Constant term is included in all equations. ***, **, and * denote statistical significance at the 1, 5, and 10 percent level, respectively, based on standard errors corrected for serial correlation of type MA(30) using the Newey-West procedure, given use of 30-day overlapping intervals. Outliers are removed using Cook's distance method by discarding observations with Cook's distance greater than 4/N, in which N is the sample size. "Floater" indicates economies classified by Ilzetzki, Reinhart, and Rogoff (2019) as having managed floating or free floating regimes. NEER = nominal effective exchange rate; VIX = Chicago Board Options Exchange Volatility Index.

Box 1.6. A Second Outbreak: Implications for Trade and Current Account Balances

The IMF's G20 Model is used to illustrate the impact on global trade and current account balances of two alternative scenarios: (1) a second COVID-19 outbreak in early 2021 and (2) a faster recovery from the lockdown measures implemented in the first half of 2020. The June 2020 *World Economic Outlook* (WEO) *Update* highlights the implications of these scenarios for GDP.

Scenario 1: A Second Outbreak

The first scenario assumes that a second major global outbreak takes place in early 2021, composed of domestic disruptions to economic activity as well as a tightening in international financial conditions. The disruptions to domestic economic activity in each country are assumed to be roughly half the size of what is already in the baseline for 2020. The additional tightening involves about one-half of the increase in sovereign and corporate spreads seen since the beginning of the pandemic, with advanced economies facing, on average, relatively limited tightening, especially in sovereign premiums, and emerging market economies facing larger increases in spreads on both sovereign and corporate debt. The simulation assumes that conventional monetary policy reacts endogenously in countries where there is still some room for further reductions in policy rates, mainly in emerging market economies. Unconventional policies are not explicitly incorporated in the simulations; however, they are implicitly reflected in the limited tightening of financial conditions in advanced economies. On the fiscal front, governments implement additional discretionary measures above and beyond automatic stabilizers depending on available fiscal space, with the overall spending response to the decline in output assumed, for simplicity, to be about twice as strong as the response under typical business cycle fluctuations in advanced economies.

Scenario 2: A Faster Recovery

The second scenario assumes that the economic recovery is faster than expected, as greater confidence in efficient post-lockdown measures (social distancing and more effective testing, tracing, and isolation practices) lead to effective containment and less precautionary behavior by households and firms once the lockdowns are lifted. With the faster recovery, financial conditions loosen more than in the baseline. The discretionary fiscal measures already included in the baseline are maintained but automatic fiscal stabilizers imply less fiscal support as they respond endogenously to a faster dissipation of excess supply.

Results

Results are presented in Figure 1.6.1 as deviations from the June 2020 WEO *Update* projections (the baseline) for advanced economies, emerging market economies that are not net oil exporters, and emerging market net oil exporters.

In the second outbreak scenario, global trade declines by an additional 6 percent in 2021 compared with the baseline, reflecting the weakness in domestic demand as a result of containment measures. Global GDP declines by about 5 percent compared with the baseline in 2021, as reported in the June 2020 WEO *Update* downside scenario, and oil prices are higher by about 12 percent. The recovery in global trade thereafter reflects two factors. The first is the need to rebuild the capital stock and the import-rich nature of the associated rise in investment. The second is the import intensity of exports, which adds further momentum to trade during the recovery.

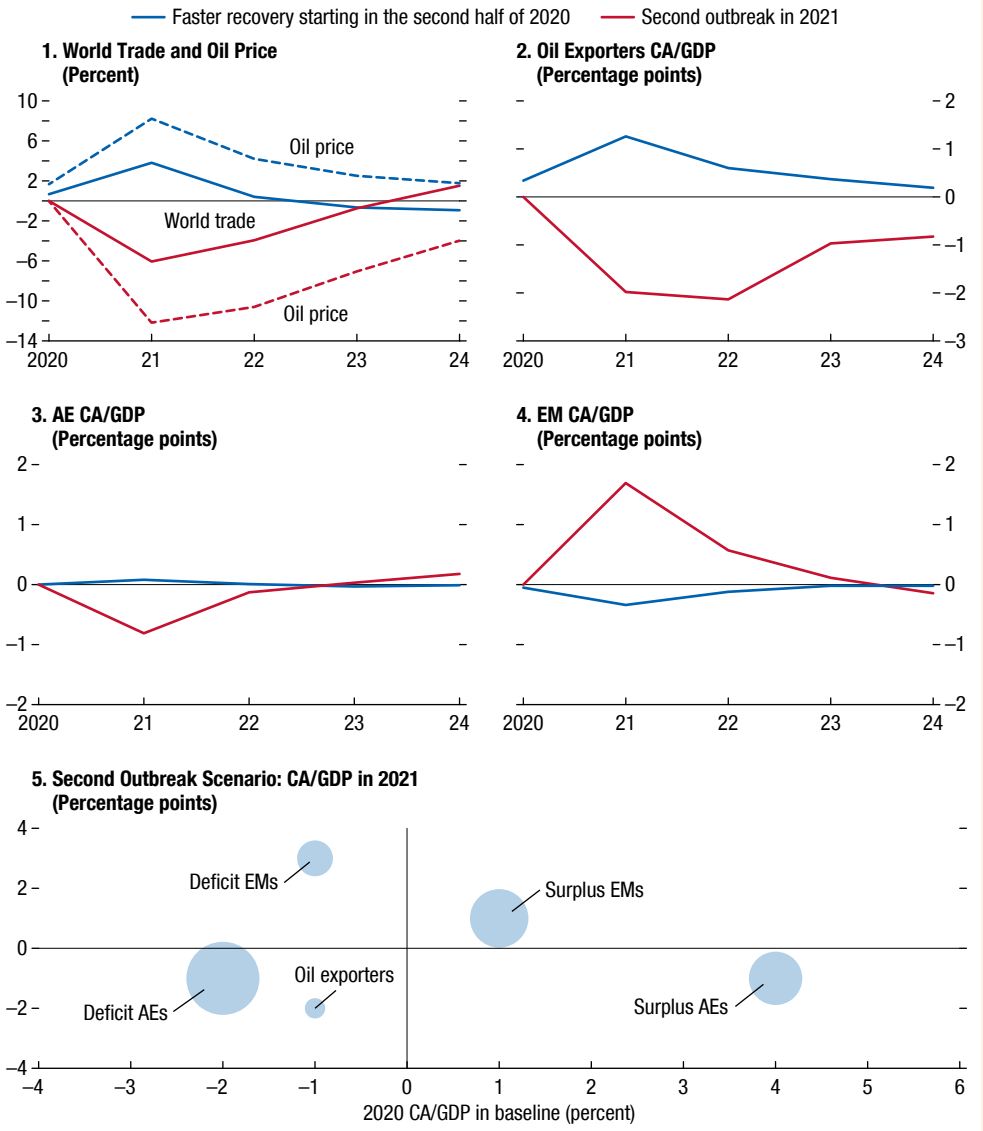
Regarding movements in current account balances, for emerging market economies, the higher borrowing costs, combined with lower oil prices and subdued domestic demand, raise current account balances toward surplus. For net oil exporters, the lower oil prices reduce current account balances. At the same time, for advanced economies, the relatively limited tightening in external financing conditions and greater fiscal policy space to support incomes translates into less import compression than among emerging market economies and lower current account balances. Overall, this pattern implies an uphill flow of capital from emerging market economies to advanced economies, highlighting the unequal impact of the crisis and the need for a global policy response to support more vulnerable countries. In addition, as advanced economy status correlates little with initial balances, the pattern of current account movements among advanced economies and emerging markets implies little narrowing in overall global current account surpluses and deficits.

In the faster recovery scenario, global trade rises by an additional 4 percent in 2021 compared to the baseline, reflecting the stronger economic activity, with oil prices higher by 8 percent. For emerging market economies, the additional easing in global financial conditions and

The authors of this box are Susanna Mursula and Francisco Roldan.

Box 1.6 *(continued)*

Figure 1.6.1. Alternative Scenarios
(Deviation from baseline)



Source: IMF, G20 Model simulations.
Note: AE = advanced economies; CA = current account; EM = emerging market economies not including oil exporters. Global trade is based on sum of volume of exports.

improved investor sentiment lowers borrowing costs, which, combined with higher oil prices and rising domestic demand, reduces current account balances toward deficit. For net oil exporters, the higher oil prices raise current account balances. In advanced economies, the on average greater automatic fiscal stabilizers imply a larger rise in government saving, compared to baseline, and current account balances rise modestly.

It is important to stress the considerable uncertainty surrounding the simulation results. Uncertainties include the potential amplification of overall macroeconomic effects from financial pressures during a second outbreak, especially in emerging market economies, and sustained negative effects on trade from further disruptions to global value chains not captured by the analysis.

References

Avdjiev, Stefan, Bryan Hardy, Sebnem Kalemli-Ozcan, and Luis Servén. 2018. "Gross Capital Flows by Banks, Corporates, and Sovereigns." NBER Working Paper 23116, National Bureau of Economic Research, Cambridge, MA.

Bénétrix, Agustín S., Deepali Gautam, Luciana Juvenal, and Martin Schmitz. 2019. "Cross-Border Currency Exposures." IMF Working Paper 19/299, International Monetary Fund, Washington, DC.

Bonadio, Barthélémy, Zhen Huo, Andrei A. Levchenko, and Nitya Pandalai-Nayar. 2020. "Global Supply Chains in the Pandemic." NBER Working Paper 27224, National Bureau of Economic Research, Cambridge, MA.

Borin, Alessandro, and Michele Mancini. 2015. "Follow the Value Added: Bilateral Gross Export Accounting." Temi di discussione (Economic Working Paper) 1026, Economic Research and International Relations Area, Bank of Italy, Rome.

Borin, Alessandro, and Michele Mancini. 2019. "Measuring What Matters in Global Value Chains and Value-Added Trade." Policy Research Working Paper 8804. World Bank, Washington, DC.

Bown, Chad. 2020. "US–China Trade War Tariffs: An Up-to-Date Chart." Peterson Institute for International Economics, Washington, DC. https://www.piie.com/research/piie-charts/us-china-trade-war-tariffs-date-chart

Bussière, Matthieu, Giovanni Callegari, Fabio Ghironi, Giulia Sestieri, and Norihiko Yamano. 2013. "Estimating Trade Elasticities: Demand Composition and the Trade Collapse of 2008–2009." *American Economic Journal: Macroeconomics* 5 (3): 118–51.

Cerdeiro, Diego, Andras Komaromi, Yang Liu, and Mamoon Saeed. 2020. "World Seaborne Trade in Real Time: A Proof of Concept for Building AIS-based Nowcasts from Scratch." IMF Working Paper 20/57, International Monetary Fund, Washington, DC.

Cubeddu, Luis, Signe Krogstrup, Gustavo Adler, Pau Rabanal, Mai Chi Dao, Swarnali Ahmed Hannan, Luciana Juvenal, Nan Li, Carolina Osorio Buitron, Cyril Rebillard, Daniel Garcia-Macia, Callum Jones, Jair Rodriguez, Kyun Suk Chang, Deepali Gautam, and Zijiao Wang. 2019. "The External Balance Assessment Methodology: 2018 Update." IMF Working Paper 19/65, International Monetary Fund, Washington, DC.

Gruss, Bertrand, and Suhaib Kebhaj. 2019. "Commodity Terms of Trade: A New Database." IMF Working Paper 19/21, International Monetary Fund, Washington, DC.

Guerrieri, Veronica, Guido Lorenzoni, Ludwig Straub, and Ivan Werning. 2020. "Macroeconomic Implications of COVID-19: Can Negative Supply Shocks Cause Demand Shortages?" University of Chicago, Becker Friedman Institute for Economics Working Paper 2020–35, Chicago, IL.

Ilzetzki, Ethan, Carmen M. Reinhart, and Kenneth S. Rogoff. 2019. "Exchange Arrangements Entering the 21st Century: Which Anchor Will Hold?" *Quarterly Journal of Economics* 134 (2): 599–646.

International Monetary Fund. 2015. "Assessing Reserve Adequacy-Specific Proposals." Washington, DC.

Jordà, Òscar. 2005. "Estimation and Inference of Impulse Responses by Local Projections." *American Economic Review* 95 (1): 161–82.

United Nations World Tourism Organization (UNWTO). 2020. "World Tourism Barometer: Special Focus on the Impact of COVID-19." Madrid, May.

World Bank. 2020. "COVID-19 Crisis through a Migration Lens." Migration and Development Brief 32, Washington, DC.