INTERNATIONAL MONETARY FUND

EXTERNAL SECTOR REPORT

Global Imbalances and the COVID-19 Crisis

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PREFACE

Produced since 2012, the IMF's annual *External Sector Report* analyzes global external developments and provides multilaterally consistent assessments of external positions, including current accounts, real exchange rates, external balance sheets, capital flows, and international reserves, of the world's largest economies, representing over 90 percent of global GDP. Chapter 1 discusses the evolution of global external positions in 2019, external developments during the COVID-19 crisis, and policy priorities for responding to the crisis and for reducing excess imbalances over the medium term. Chapter 2 analyzes the relationship between the structure of external assets and liabilities—the components of the international investment position—and the risk of external stress events. It also assesses how heightened global risk aversion, as during the COVID-19 crisis, amplifies these risks. Chapter 3, "2019 Individual Economy Assessments," provides details on the different aspects of the overall external assessment and associated policy recommendations for 30 economies. This year's report and associated external assessments are based on the latest vintage of the External Balance Assessment (EBA) methodology and on data and IMF staff projections as of July 6, 2020.

Together with the *World Economic Outlook* and Article IV consultations (both with their heightened focus on spillovers), this report is part of a continuous effort to assess and address the possible effects of spillovers from members' policies on global stability and to monitor the stability of members' external positions in a comprehensive manner.

This report was prepared under the overall guidance of Gita Gopinath, IMF Economic Counsellor and Director of Research, and under the direction of the External Sector Coordinating Group—comprising staff from the IMF's area departments (African Department, Asia and Pacific Department, European Department, Middle East and Central Asia Department, and Western Hemisphere Department) as well as the Fiscal Affairs Department; the Statistics Department; the Strategy, Policy, and Review Department; the Monetary and Capital Markets Department; and the Research Department—namely, Ali Al-Eyd, Fadhila Alfaraj, Tam Bayoumi, Tim Callen, Paul Cashin, Nigel Chalk, Mariana Colacelli, Ana Lucia Coronel, Alfredo Cuevas, Enrica Detragiache, Gaston Gelos, Sonali Jain-Chandra, Venkateswarlu Josyula, Martin Kaufman, Daniel Leigh (Chair), Paolo Mauro, Srobona Mitra, Jonathan D. Ostry, Catherine Pattillo, Ratna Sahay, Carlos Sánchez-Muñoz, Antonio Spilimbergo, and Zeine Zeidane.

Gustavo Adler and Pau Rabanal led the preparation of the report. The report draws on contributions from Suman Basu, Luis Cubeddu, Swarnali Ahmed Hannan, Luciana Juvenal, Christina Kolerus, Huidan Lin, Sergii Meleshchuk, Susanna Mursula, Carolina Osorio-Buitron, Roberto Perrelli, Cyril Rebillard, Francisco Roldan, Charlotte Sandoz, Niamh Sheridan, and Weining Xin. Important input was provided by country teams as well as by Mahir Binici, Diego Cerdeiro, Russell Green, Shakill Hassan, Juan Manuel Jauregui, Yevgeniya Korniyenko, Huidan Lin, Silvia Sgherri, and Hui Tong. Excellent research and editorial assistance were provided by Rachelle Blasco, Kyun Suk Chang, Deepali Gautam, Jane Haizel, Jair Rodriguez, and Zijiao Wang.

Gemma Rose Diaz and Cheryl Toksoz from the Communications Department led the editorial team for the report, with production and editorial support from Joe Procopio, Christine Ebrahimzadeh, Lucy Morales, Katy Whipple/The Grauel Group, and AGS.

The analysis has benefited from comments and suggestions by staff members from other IMF departments, as well as by Executive Directors following their discussion of the report on July 24, 2020. However, both projections and policy considerations are those of the IMF staff and should not be attributed to Executive Directors or to their national authorities.

EXECUTIVE SUMMARY

Current account surpluses and deficits narrowed modestly in 2019, and the outlook is highly uncertain for 2020. The COVID-19 pandemic has caused a sharp decline in global trade, lower commodity prices, and tighter external financing conditions. Implications for current account balances and currencies vary widely across countries. 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. The overall configuration of external positions in 2019 implied persistent vulnerabilities and remaining policy challenges on the eve of the pandemic. The IMF's multilateral approach suggests that about 40 percent of overall current account surpluses and deficits were excessive in 2019, only slightly less than in 2018. Larger-than-warranted current account balances were mostly in the euro area (driven by Germany and the Netherlands) with lower-than-warranted current account balances mainly existing among Canada, the United Kingdom, and the United States. China's assessed external position remained, as in 2018, broadly in line with fundamentals and desirable policies, due to offsetting policy gaps and structural distortions. Currency movements were generally modest, with exceptions including emerging market and developing economies with preexisting vulnerabilities. Addressing underlying structural distortions has been challenging, resulting in persistent excess global imbalances. Furthermore, the stocks of external assets and liabilities have reached historic highs, with attendant risks to both debtor and creditor countries.

At a global level, the latest IMF staff forecasts for 2020 imply a modest narrowing in current account surpluses and deficits by some 0.3 percent of world GDP, although subject to high uncertainty. The limited expected net impact reflects large fiscal expansions with offsetting expected increases in private saving and lower investment. Still, for economies dependent on severely affected sectors, such as oil and tourism, or reliant on remittances, the impact of the crisis has been especially acute, with negative effects on external current account balances expected to exceed 2 percent of GDP that will likely require significant economic adjustment. The deterioration in financial market sentiment early in the crisis triggered a sudden capital flow reversal and currency depreciations across numerous emerging market and developing economies. Global reserve currencies appreciated, reflecting their safe haven role in times of financial stress. The subsequent improvement in risk sentiment, reflecting exceptional monetary and fiscal policy support, came with a stabilization in capital flows and some unwinding of the initial currency shifts.

The outlook for external positions remains highly uncertain, with significant risks. Analysis in Chapter 2 suggests that a further worsening in risk sentiment could—for economies with preexisting vulnerabilities, such as large current account deficits, a high share of foreign currency debt, and limited international reserves—further increase risks of an external crisis. A second wave of the crisis, with a renewed tightening in global financial conditions, could narrow the scope for emerging market and developing economies to run current account deficits, further reduce the current account balances of commodity exporters, and deepen the decline in global trade.

In the near term, policy efforts should continue to focus on providing relief and promoting economic recovery. 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 experiencing disruptive balance of payments pressures and without access to private external financing, official financing would help to ensure that health care spending is not compromised. Tariff and nontariff barriers to trade should be avoided, especially on medical equipment and supplies, and recent new restrictions on trade rolled back.

Over the medium term, economic and policy distortions that predated the crisis may persist or worsen, implying the need for reforms. Where excess current account deficits in 2019 partly reflected larger-than-desirable fiscal deficits and where such imbalances persist beyond the crisis, fiscal consolidation over the medium term would promote debt sustainability,

reduce the current account gap, and facilitate raising international reserves. Countries with lingering export competitiveness challenges would also benefit from productivity-raising reforms. In economies where excess current account surpluses that existed before the COVID-19 crisis 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 would make the economy more resilient and narrow the excess current account surplus. In some cases, reforms to discourage excessive precautionary saving by expanding the social safety net may also be warranted.

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 the underlying distortions and reforms needed to continue to rebalance the global economy.

IMF EXECUTIVE BOARD DISCUSSION SUMMARY

The following remarks were made by the Chair at the conclusion of the Executive Board's discussion of the External Sector Report *on July 24, 2020.*

Executive Directors generally agreed with the findings of the 2020 External Sector Report and its policy recommendations. They noted that current account imbalances had narrowed modestly in 2019, and that the overall configuration of external positions on the eve of the COVID-19 pandemic implied persistent vulnerabilities and challenges in addressing underlying structural distortions. Furthermore, stock imbalances have reached historic highs, with attendant risks to both debtor and creditor countries. Directors shared the view that, while current account imbalances are expected to narrow modestly in the near term, this outlook is subject to high uncertainty and cross-country variation.

Directors noted that excess current account imbalances continue to be concentrated in advanced economies. They reiterated that reducing excess imbalances in the global economy requires continued joint efforts on the part of both excess surplus and excess deficit countries.

Directors observed that the COVID-19 crisis has caused a sharp contraction in global trade, especially in services, and tighter external financing conditions in the early stage of the crisis, with implications for external positions varying widely across countries. They noted the exceptional policy responses on both the fiscal and monetary fronts. For economies dependent on commodities, tourism, and remittances, the adverse effects on their economies and external positions could be severe, likely requiring significant economic adjustment and financing. Directors also noted with concern the recent rise in trade restrictions, especially on pharmaceutical and medical products.

Directors cautioned that a worsening of risk sentiment could re-trigger capital flow reversals and currency pressures, increasing risks of an external crisis for economies with preexisting vulnerabilities, such as large current account deficits, a high share of foreign currency debt, and limited international reserves. Moreover, a second wave of COVID-19 could deepen the decline in global trade and supply chains, reduce investment demand, and limit the financing of current account deficits for emerging market and developing economies. Directors underscored the importance of maintaining strong policy frameworks, adequate reserve buffers, and close monitoring of various components of external flows and currency mismatches. Many Directors noted that precautionary arrangements signify the Fund's endorsement of countries' strong policy frameworks and their prudent response to potential balance of payments needs.

Directors agreed that near-term policy efforts should continue to focus on providing emergency lifelines, ensuring adequate liquidity, and promoting economic recovery while also building strong social safety nets. Countries with flexible exchange rates should allow them to adjust in response to external shocks, although the extent of necessary adjustment and its effectiveness vary depending on country characteristics. Exchange rate intervention, where needed and reserves are adequate, could help alleviate disorderly market conditions. While capital flow management measures on outflows may be needed in imminent crisis circumstances, as guided by the Institutional View, Directors took note of their limited use during the pandemic. They noted the role played by bilateral swap lines in easing global financial conditions and countering capital outflow pressures experienced during the pandemic. They also saw official financing as instrumental in helping vulnerable countries preserve health spending and respond to the crisis. Directors highlighted the need to avoid policies that distort trade, including tariffs, nontariff barriers, and subsidies, with a number of Directors calling particular attention to the detrimental effects of currency-based countervailing duties.

Directors underlined that, over the medium term, economic and policy distortions that predated the

COVID-19 crisis might persist or worsen, suggesting the need for reforms tailored to country-specific circumstances. They concurred that previous recommendations to address excess global imbalances remain largely valid. Excess deficit economies would benefit from growth-enhancing fiscal consolidation and structural policies aimed at enhancing export competitiveness and, for commodity exporters, economic diversification. Excess surplus countries should prioritize reforms that encourage private investment, discourage excessive precautionary savings, and where fiscal space remains, increase productive public investment.

Directors looked forward to a comprehensive and multilaterally consistent assessment of the effects of the COVID-19 crisis and policy response as relevant data become available, with a number of Directors seeing merit in expanding the analysis to the broader membership. Directors acknowledged the challenges in conducting such analysis given the potential structural changes resulting from the crisis. Directors also encouraged continued efforts to improve the External Balance Assessment methodologies and offered several suggestions in this regard. They reiterated the need to ensure transparency, consistency, and evenhandedness of external assessments across countries.

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

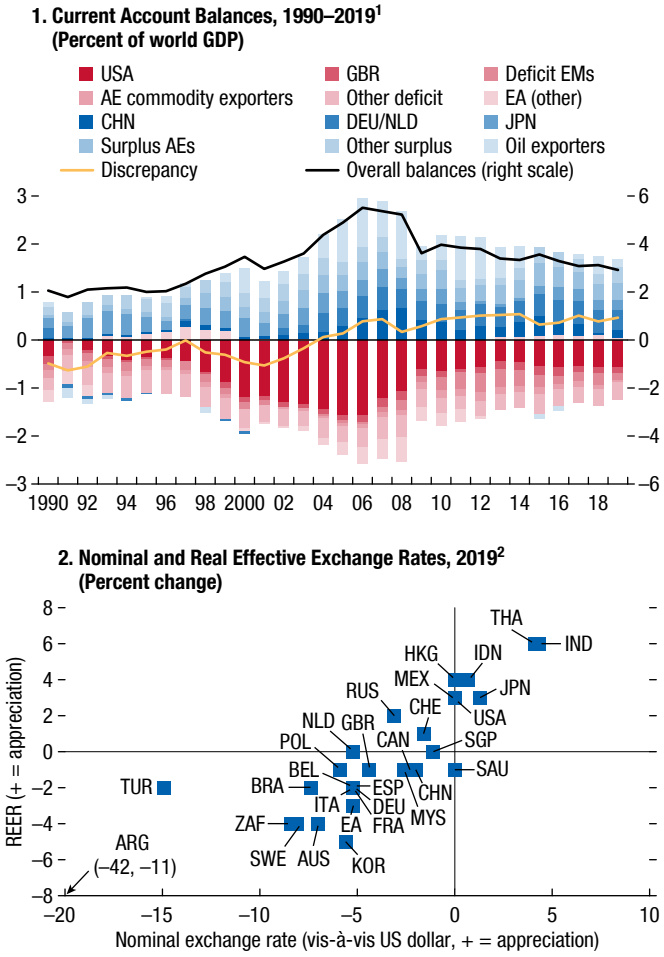
Current account surpluses and deficits narrowed modestly in the years preceding the coronavirus (COVID-19) crisis. In 2019 the global current account balance (the absolute sum of all surpluses and deficits) declined by 0.2 percentage point of world GDP, to 2.9 percent of world GDP (Figure 1.1; Table 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	…	…	…	…

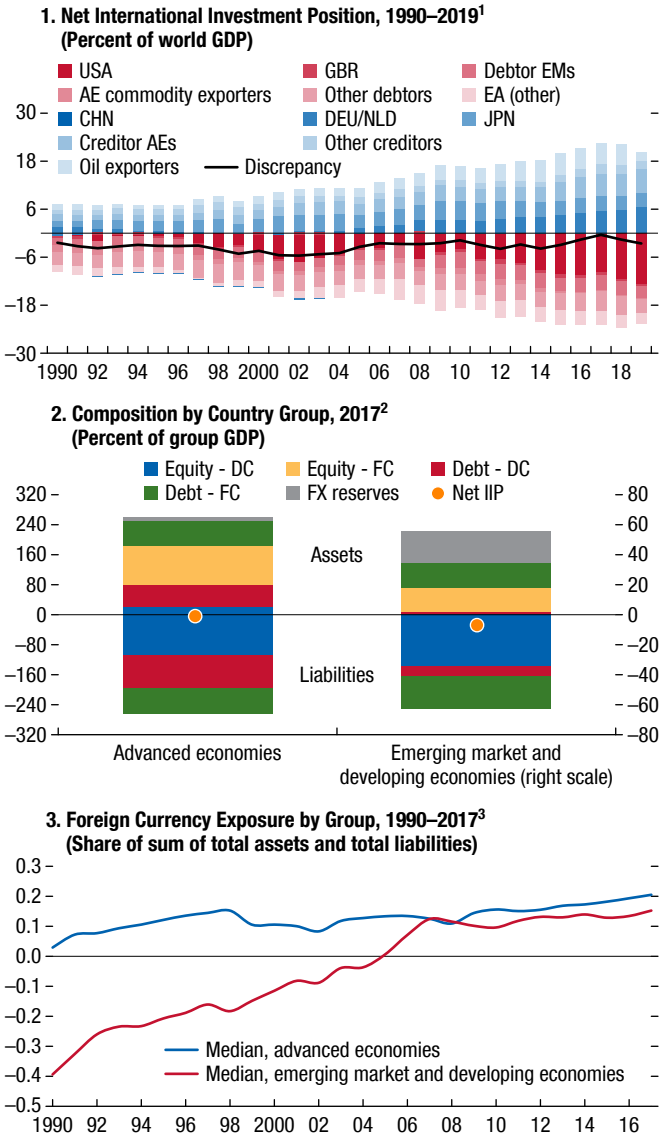
Sources: IMF, *World Economic Outlook;* and IMF staff calculations.

[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.

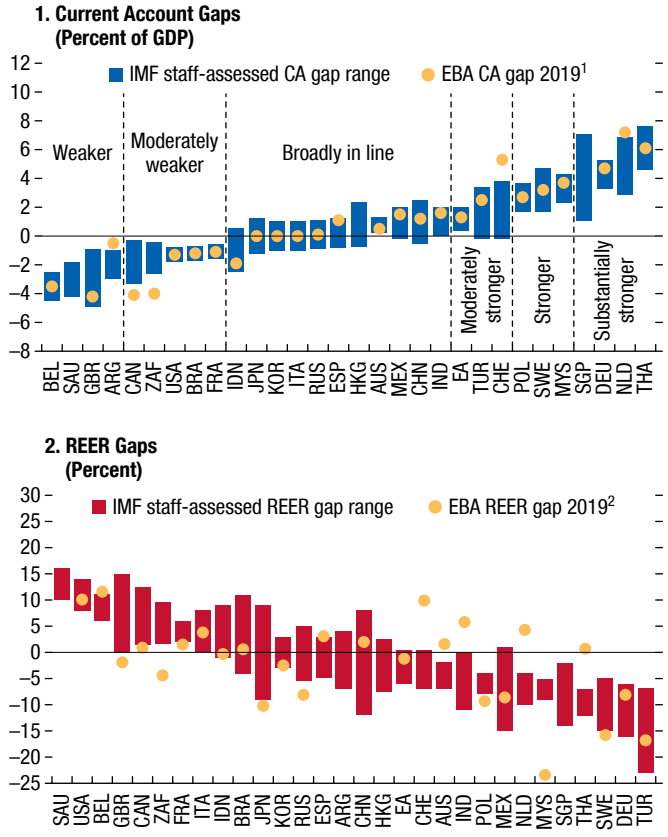
[3]Total staff adjustments include rounding in some cases. The breakdown between the norm and other factors (which affect the underlying CA) is tentative.

[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).

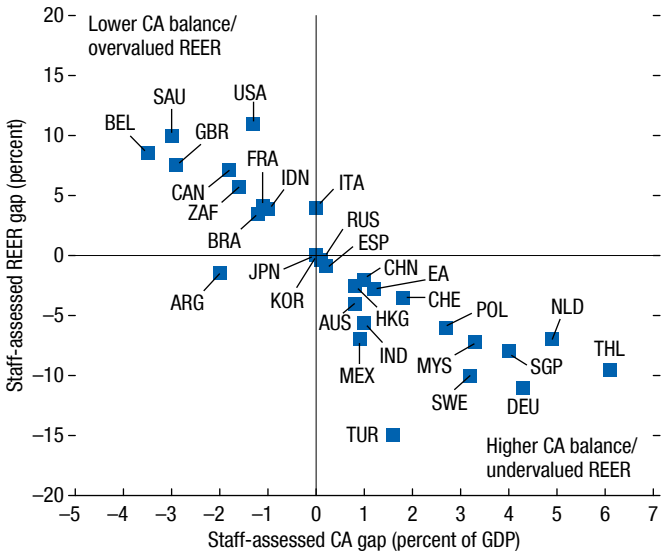
exporters (Brazil, Saudi Arabia) and France, which entered this category in 2019.[4]

- *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.



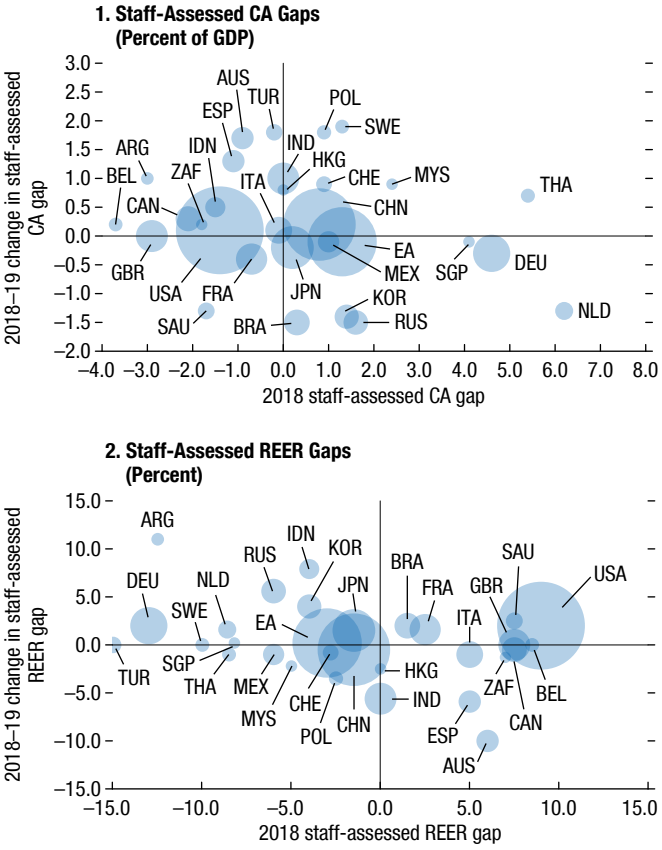
Source: IMF staff calculations.
Note: REER gap is based on 2019 average REER. CA = current account; REER = real effective exchange rate. Data labels use International Organization for Standardization (ISO) country codes.

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

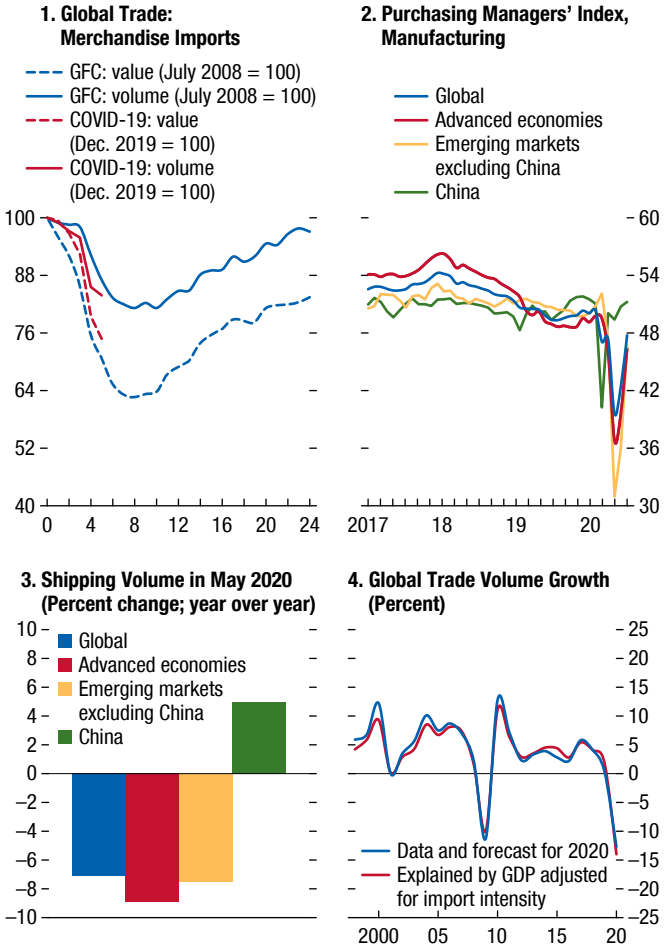
The global volume of goods trade in the first five months of 2020 was about 20 percent lower than in 2019—a more abrupt contraction than in the first five months of the global financial crisis. China's recent trade growth rebound is an exception that reflects the earlier end of lockdown policies (Figure 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.

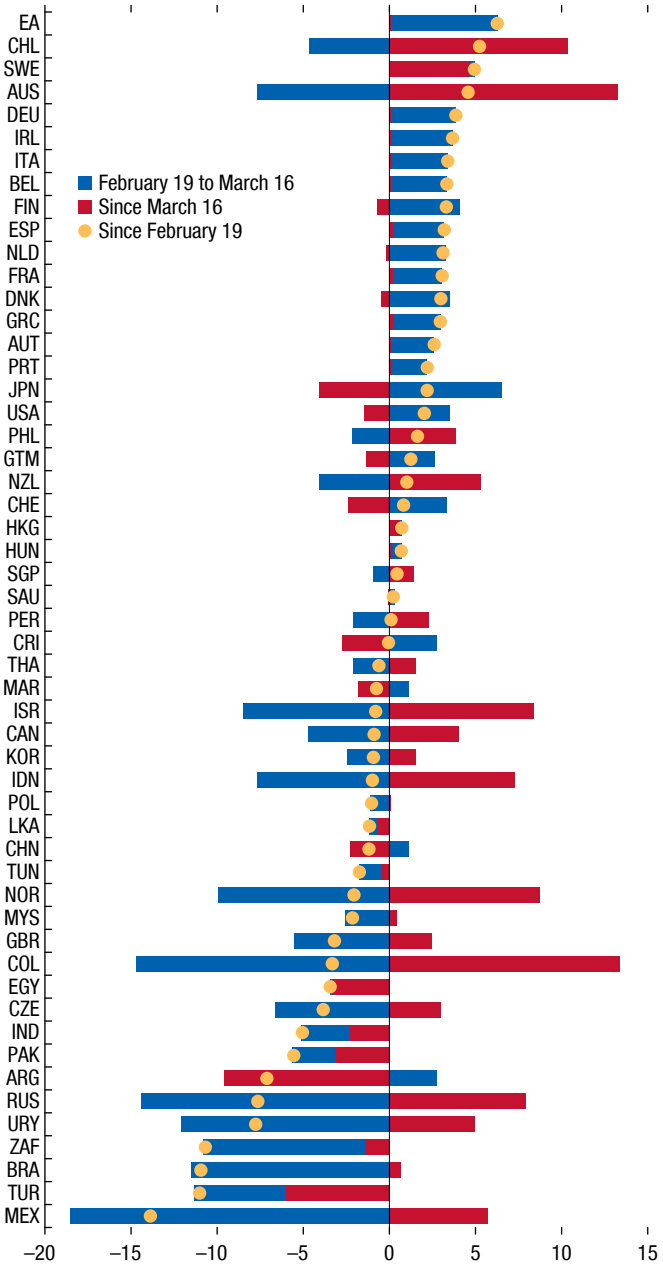
Country-specific characteristics have played a role in determining the degree of capital outflow across economies (Box 1.4). Factors include dependence on commodity exports, the strength of reserve buffers, initial current account balances, and access to swap lines from the US Federal Reserve. While 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).

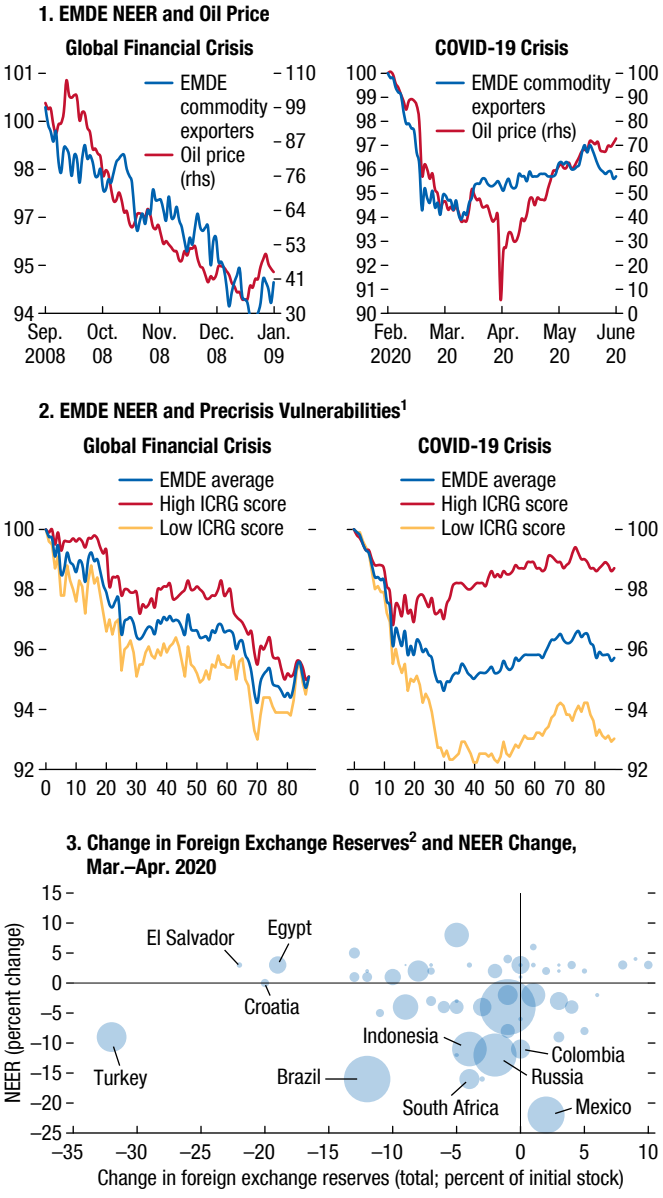
Outlook for Current Account Balances

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

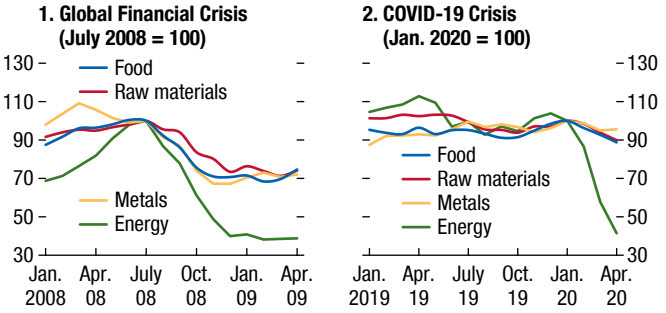
The price of crude oil has fluctuated in recent months and is expected to be 41 percent lower in 2020 than in 2019. The prices of metals, food, and raw materials are also expected to decline, but by significantly less than the price of oil. The decline in the volume of oil imports in economies affected 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.

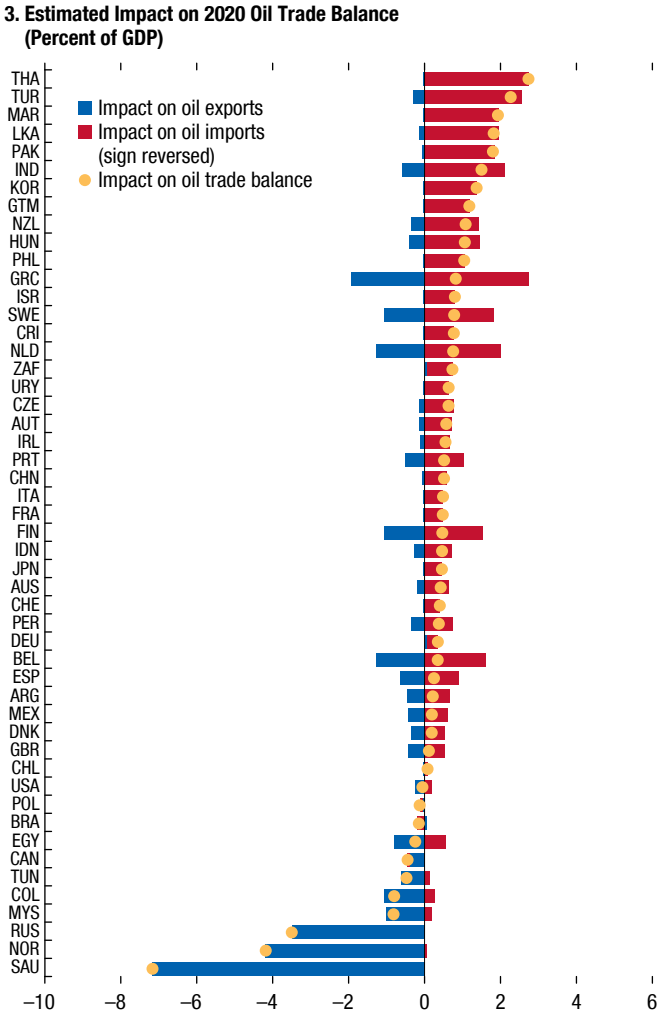
Impact on Tourism Trade Balances

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.

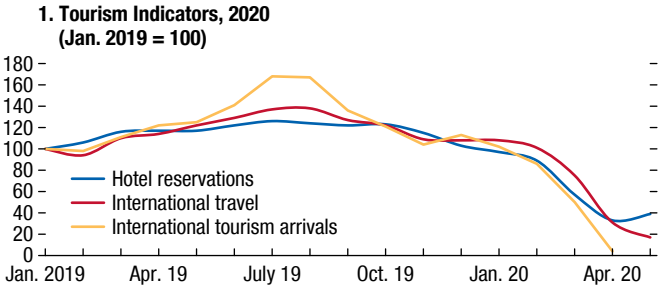


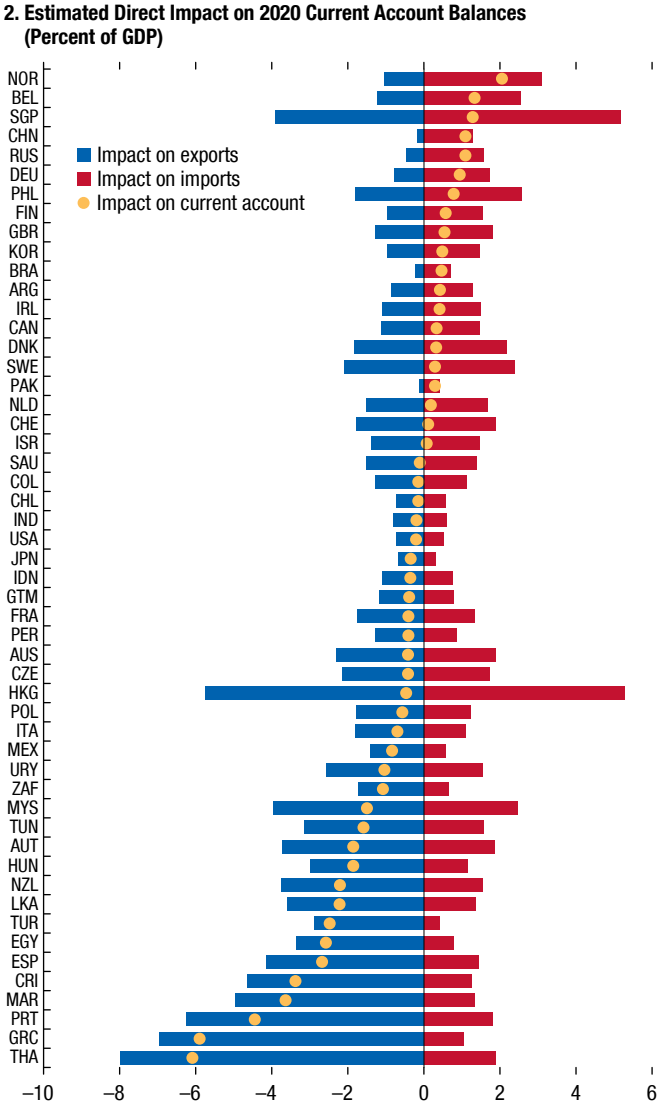


Sources: IMF, Global Data Source; IMF, Information Notice System; IMF, *World Economic Outlook* (WEO); *International Country Risk Guide*; and IMF staff calculations.
Note: The figure reports the impact on the 2020 oil trade balance based on the latest IMF staff forecast compared with the October 2019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

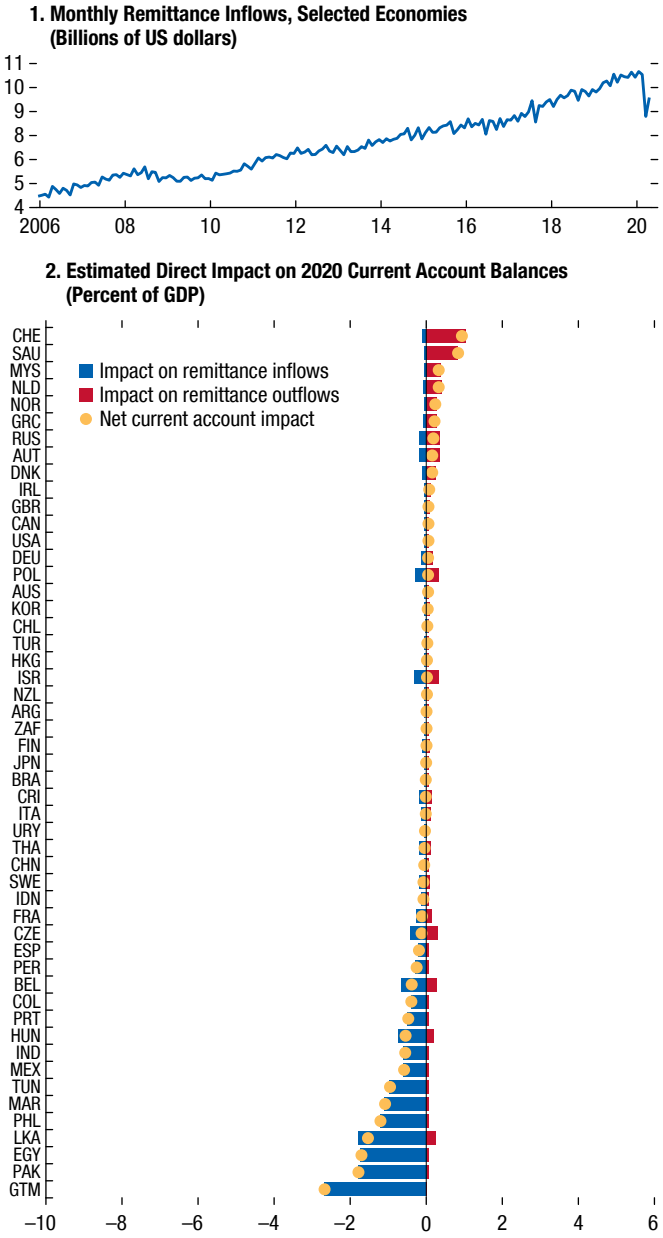
Remittances are highly vulnerable to the COVID-19 crisis because migrant workers are typically more exposed to the risk of unemployment and wage losses during recessions than are native workers. Migrant workers also work disproportionately in such sectors as food and hospitality, retail and wholesale, 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

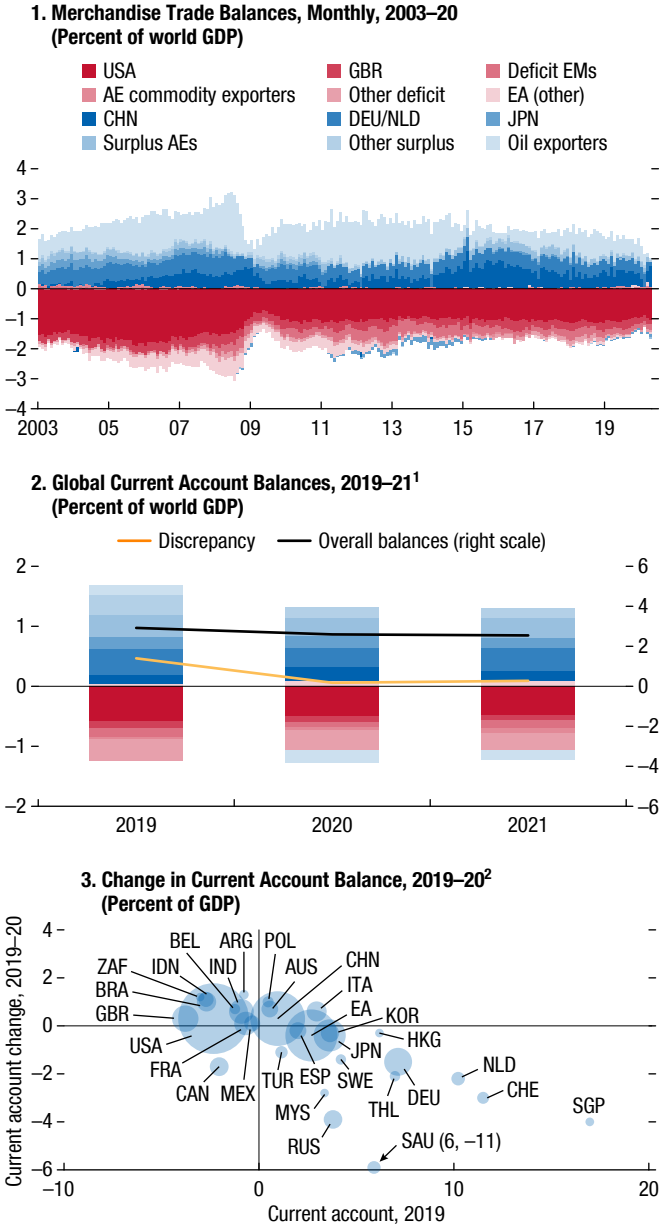
Remittances declined sharply in April 2020, before partially rebounding in May. The direct annual impact on current account balances for some economies could exceed 1 percent of GDP.



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

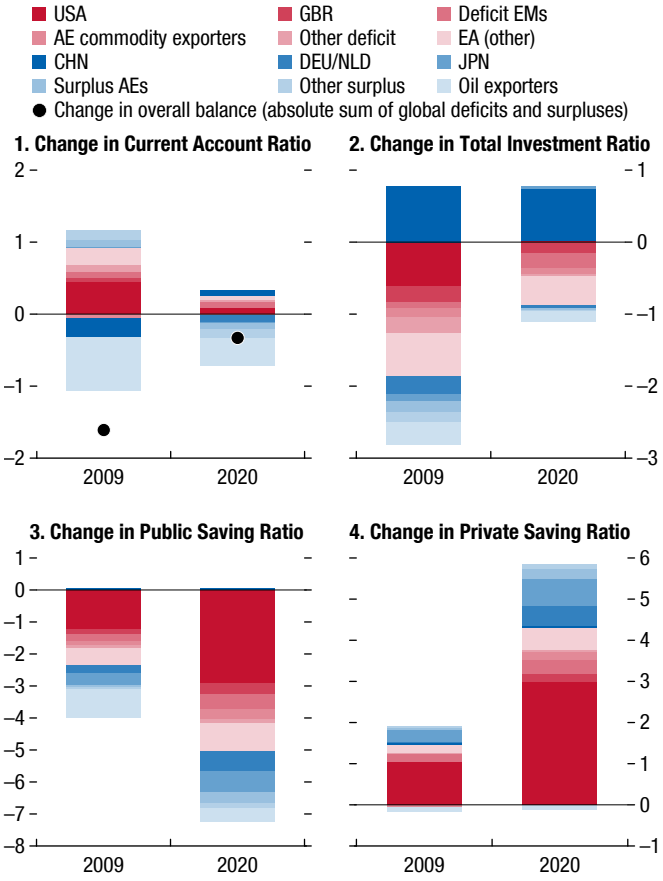
The outlook for trade, currencies, and current account balances is highly uncertain, with significant risks.

- *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).

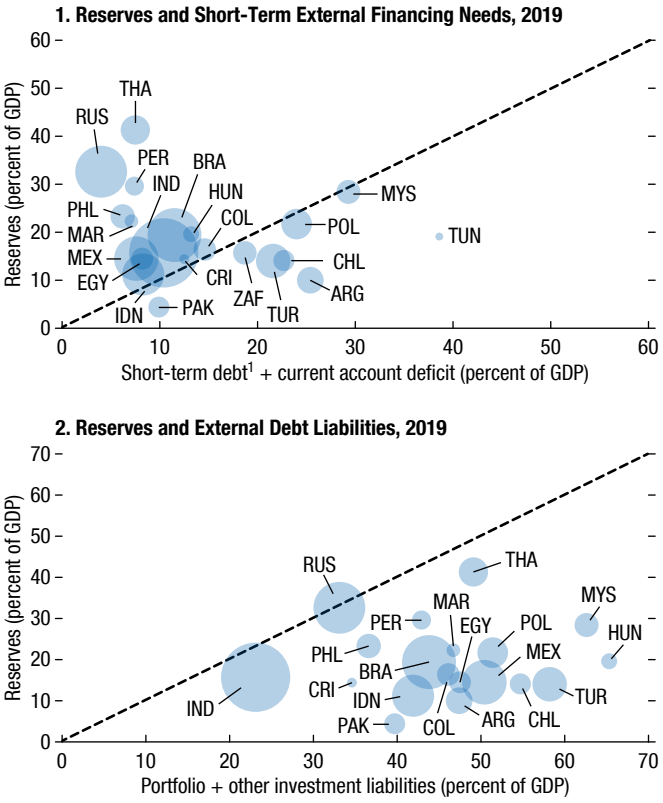
Which of these forces will prevail and how they will shape the outlook remains to be seen. The rest of this section focuses on two central uncertainties: the possibility of a second wave of the COVID-19 crisis and risks to cross-border trade integration.

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.



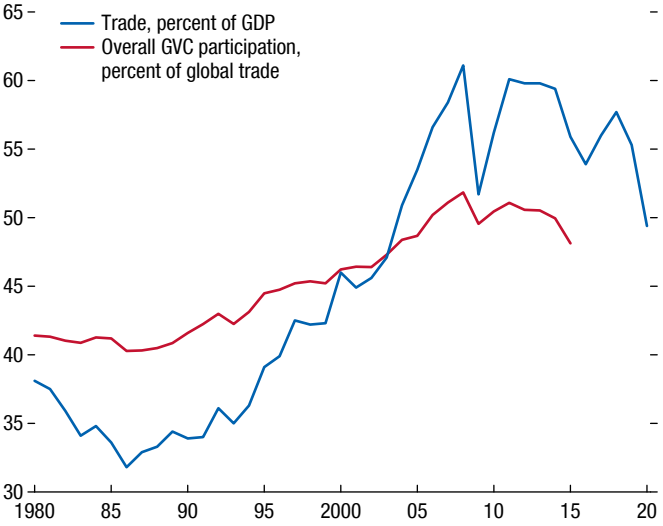
Sources: IMF, *International Financial Statistics*; IMF, *World Economic Outlook*; and IMF staff calculations.
Note: Bubble sizes are proportional to US dollar GDP. Data labels use International Organization for Standardization (ISO) country codes.
[1]Short-term debt on a residual maturity basis. 2018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

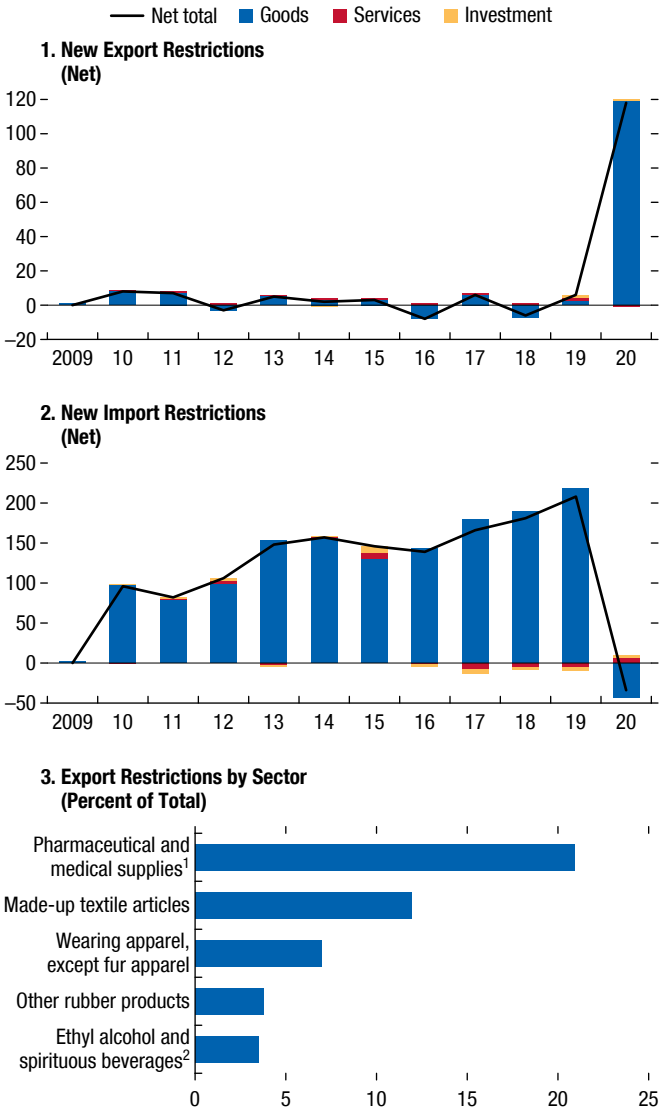
Policy Priorities

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.

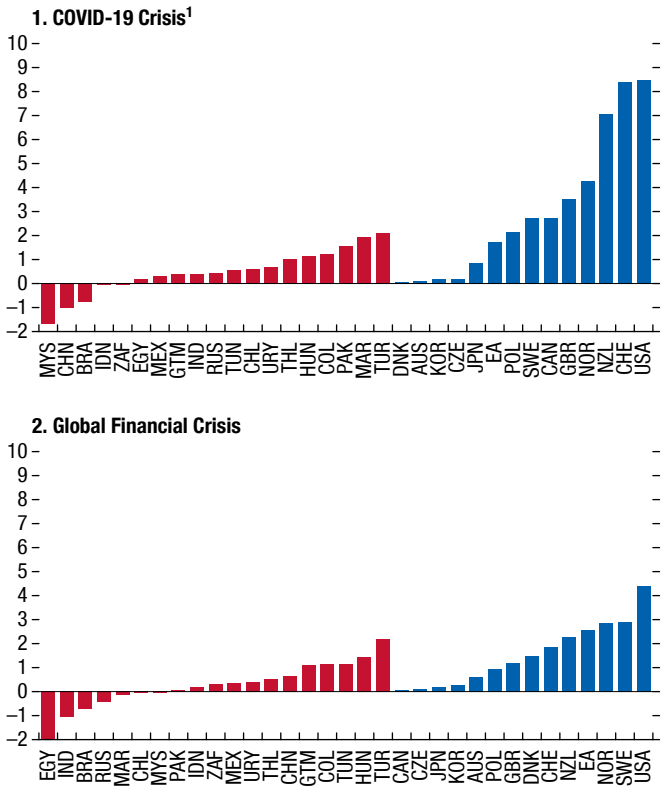


Source: Global Trade Alert (https://www.globaltradealert.org/).
Note: Net interventions is defined as the difference between harmful and liberalizing. Annual totals refer to numbers reported by May 25 each year.
[1]Comprises pharmaceutical products, medical and surgical equipment, and orthopaedic appliances.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

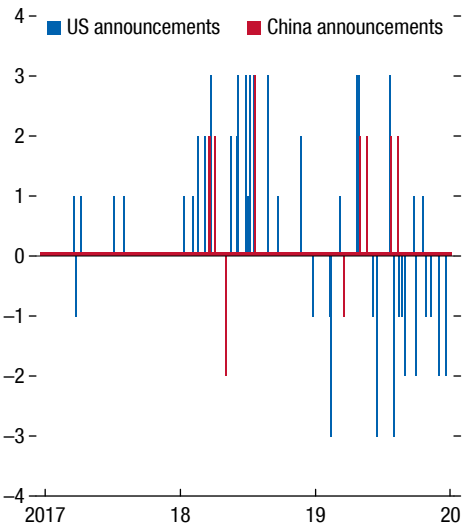
The results suggest that news of a rise in US–China trade tensions causes China's currency to depreciate significantly in trade-weighted terms and the US dollar to appreciate by about half as much (Figure 1.2.2). News of a tightening in US trade policy regarding China in 2018–19, which also came with 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)

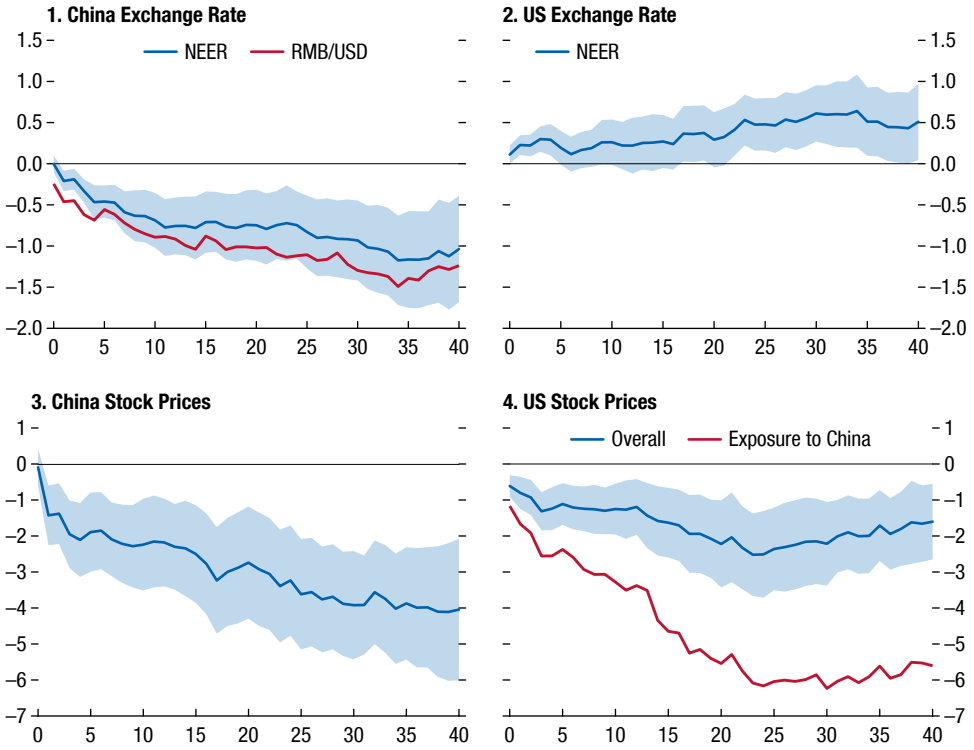


Source: IMF staff estimates.
Note: News shocks based on compilation of news reports citing announcements by US authorities relating to trade barriers targeting imports from China and by China's authorities relating to trade barriers targeting US imports. News grouped into categories related to the direction (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.

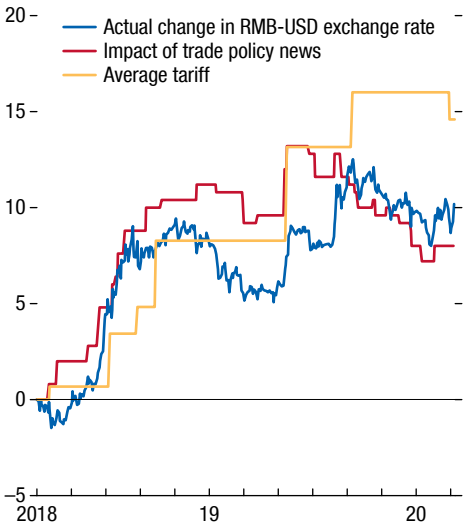
Note: The figure reports responses to an impulse of 3 in the measure of trade-barrier-related news and 90 percent confidence bands derived from Jordà (2005). Local projections are estimated based on the following equation using ordinary least squares with Newey-West standard errors:

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

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

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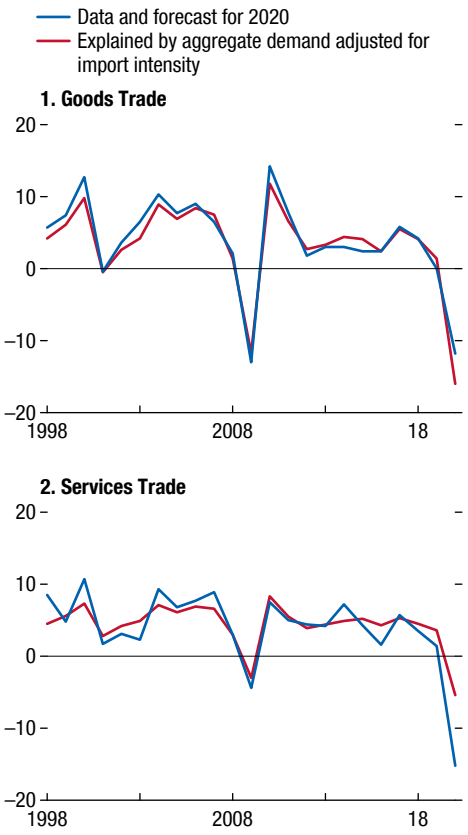
Table 1.3.1. Empirical Model of Real Imports of Goods and Services, 1998–2019

	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.

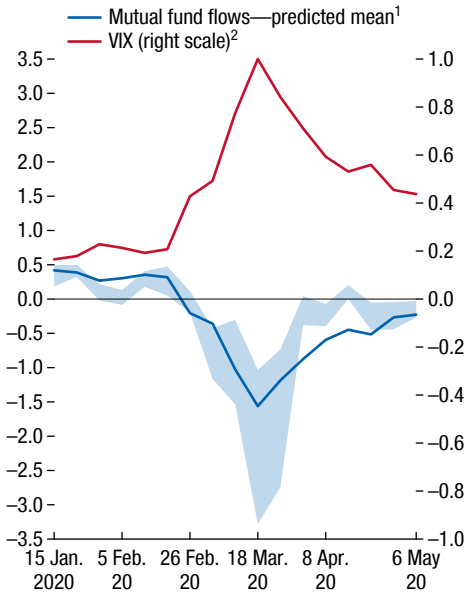
What factors determine the magnitude of the investor pullout? Were outflows driven by tight global financial conditions, commodity terms-of-trade changes, and other country-specific vulnerabilities? Did capital flows reflect likely differences in the severity of the health crisis across countries?

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.

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[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.

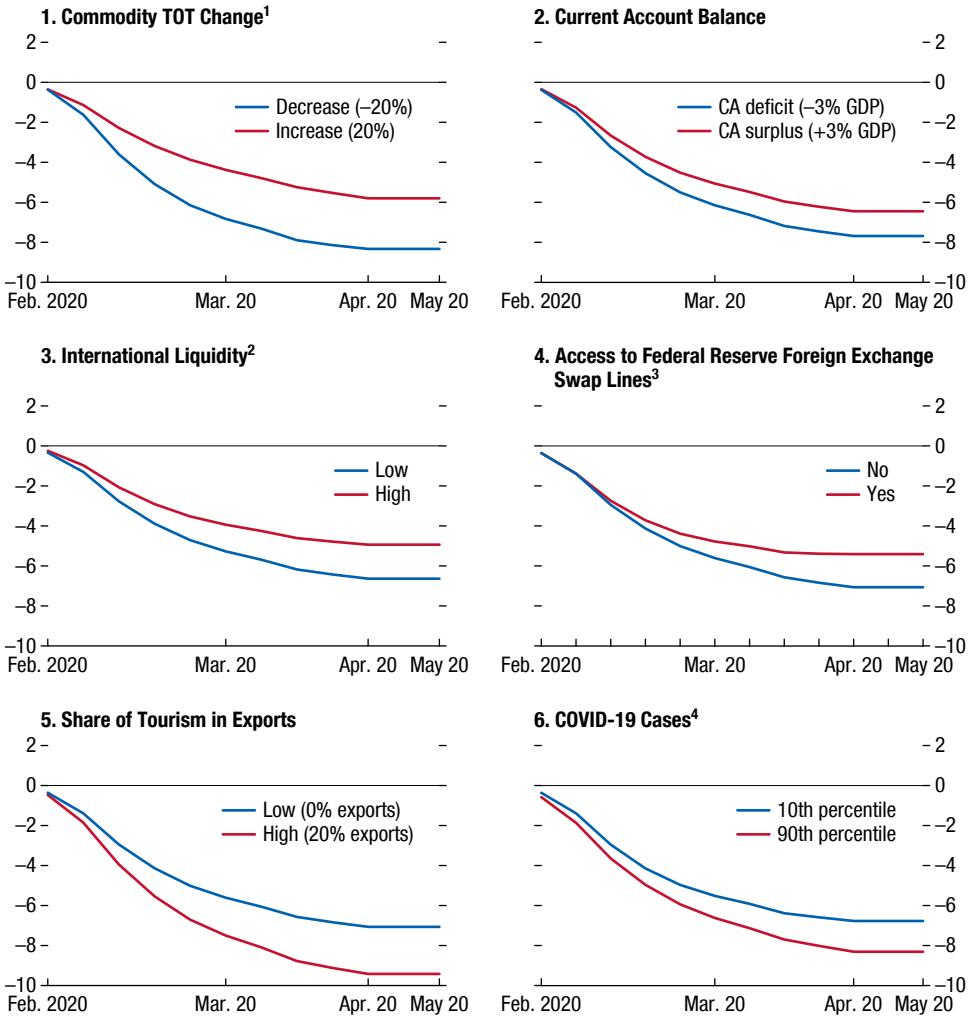
Overall, the analysis indicates that preventing another tightening of global financial conditions and maintaining healthy liquidity buffers in emerging market and developing economies—including through cross-country financial arrangements—will be essential to the support of healthy capital flows to these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

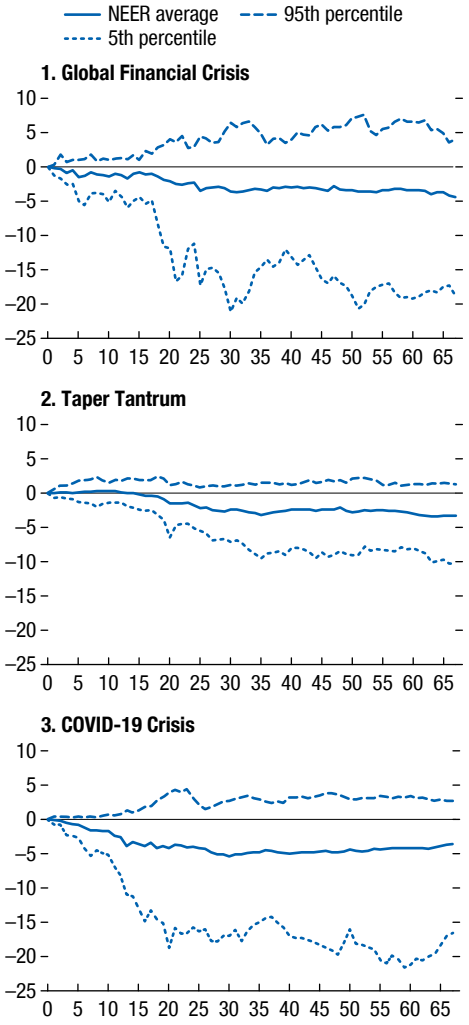
To shed light on what drove the currency movements during the COVID-19 crisis, a panel equation is estimated that relates the change in the nominal effective exchange rate (NEER) over a 30-day period with global factors, country-specific variables, and their interactions (Table 1.5.1).

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

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.

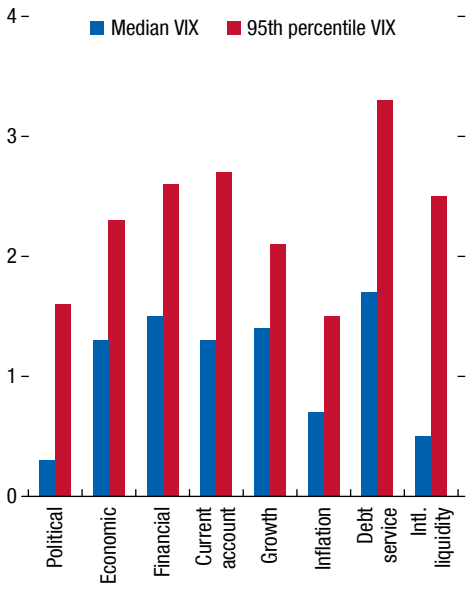
Box 1.5 *(continued)*

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.

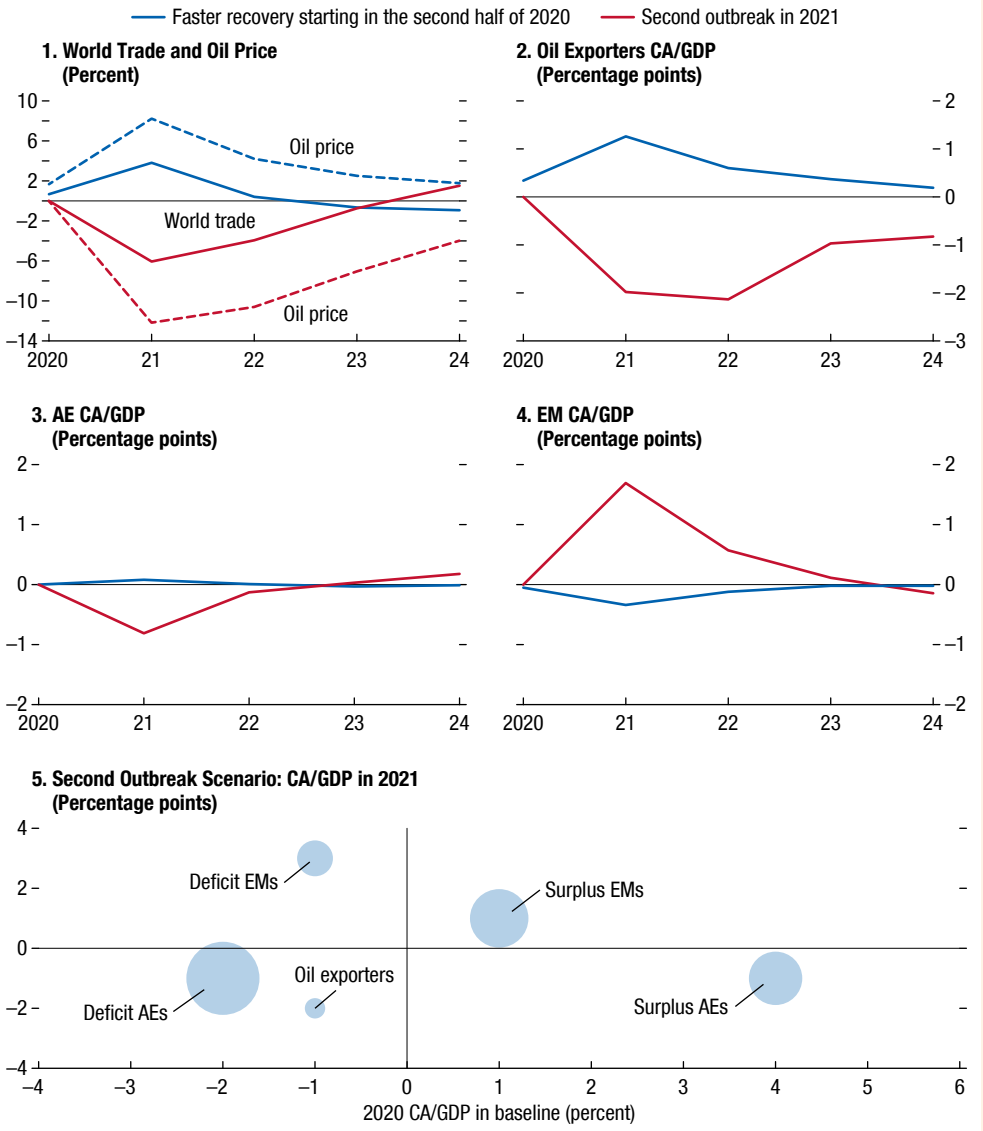
Regarding movements in current account balances, for emerging market economies, the higher borrowing costs, combined with lower oil prices and subdued domestic demand, raise current account balances toward surplus. For net oil exporters, the lower oil prices reduce current account balances. At the same 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.

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CHAPTER 2

EXTERNAL STRESS AND THE INTERNATIONAL INVESTMENT POSITION

Countries' external assets and liabilities reached historic highs in the years before the Great Lockdown. This chapter examines the relationship between the structure of external assets and liabilities—the components of the international investment position (IIP)—and the risk of external stress events, defined as episodes featuring an external debt default, debt restructuring, or access to IMF support. For a sample of 73 economies over the past three decades, it finds that some components of the IIP relate more strongly to external stress than others, suggesting that a disaggregated approach can usefully complement the information content of the net IIP for assessing risks. Debt liabilities in foreign currency increase the likelihood of an external stress episode, especially for emerging market and developing economies, while official foreign exchange reserves play a mitigating role. Additional well-studied factors, such as large current account deficits, also come with higher risks. Heightened global risk aversion, as during the Great Lockdown, amplifies these risks. When an external stress episode occurs, countries with greater preexisting external vulnerabilities typically experience larger output losses and sharper current account adjustments. Creditor countries, on average, experience substantial valuation losses during periods of global financial stress, highlighting the risks and costs of excessive external imbalances for both debtor and creditor countries.

Introduction

External assets and liabilities more than tripled as a share of GDP from the early 1990s to the years preceding the Great Lockdown (Figure 2.1). This sharp increase, both in gross and net terms, often referred to as the rise of "stock imbalances," has raised questions regarding its sustainability in debtor economies as well as the associated macroeconomic vulnerabilities when confronted with domestic and global shocks. The initial sharp tightening in global financial conditions and large terms-of-trade fluctuations caused by the outbreak of coronavirus (COVID-19) and the Great Lockdown led to sharp currency and current account movements in many economies—and, while in most cases the exchange rate was allowed to act as a shock absorber, a few countries resorted to foreign exchange intervention—as well as capital flow management measures to support macroeconomic and financial stability.

There is no clear consensus on which preexisting conditions pose the greatest risks of external stress nor the extent to which the effect of the composition of countries' external stock position matters, including the role played by the type of instrument (debt versus equity) and currency denomination. Numerous studies focus on predicting external crises based on such factors as current account deficits, exchange rate misalignment, credit growth, and the adequacy of international reserve coverage.[1] However, the role of the composition of the IIP has received less attention. Some studies, such as Catão and Milesi-Ferretti (2014), do consider how the structure of the IIP relates to the risk of external crises, but do not analyze the importance of currency composition. Data limitations may explain why previous research has not assessed this factor.

This chapter offers fresh evidence on these issues using a new data set on the currency composition of various types of external assets and liabilities. It investigates the relationship between these IIP components and the likelihood of an external stress episode, defined—as in a number of other studies—as an event that involves either a sovereign external debt default, debt restructuring, or recourse to an IMF arrangement. The chapter does not assess the overall costs and benefits of rising external assets and liabilities nor the associated process of international financial integration, but rather focuses on the country-specific risks related to the size and composition of their IIP. Financial integration can improve risk sharing, provide countries with capital for financing domestic investment, and enhance their ability to absorb shocks. At the same

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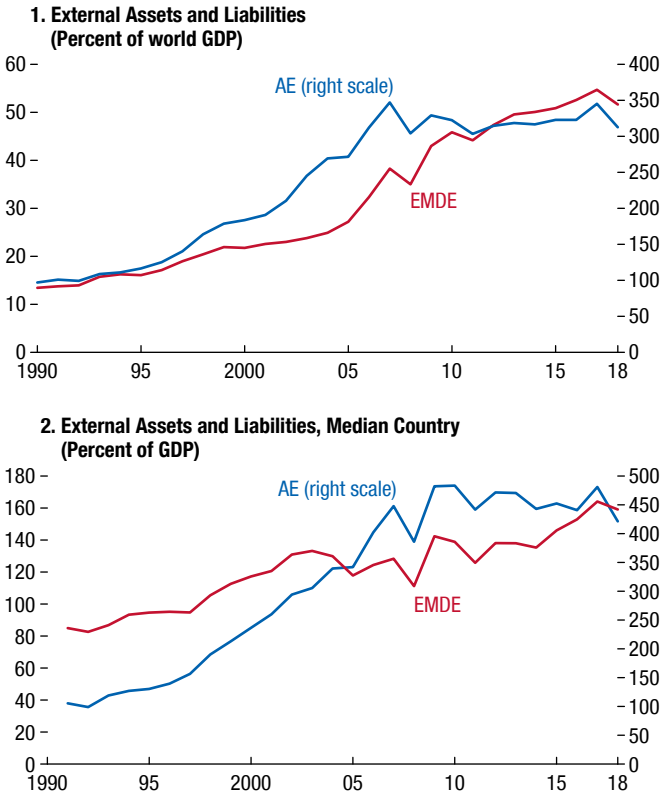
[1]See Frankel and Rose (1996); Eichengreen, Rose, and Wyplosz (1996); Kaminsky, Lizondo, and Reinhart (1998); Kaminsky and Reinhart (1999); Obstfeld, Shambaugh, and Taylor (2009, 2010); and Frankel and Saravelos (2012).

Figure 2.1. Stock Imbalances, 1990–2018

Gross external assets and liabilities are at record high levels.



Sources: External Wealth of Nations database (Lane and Milesi-Ferretti 2007); and IMF, World Economic Outlook database.
Note: AE = advanced economies; EMDE = emerging market and developing economies.

time, it may come with risks to macroeconomic and financial stability.[2]

Using standard statistical tools, the chapter attempts to answer the following questions:

- How do the size and composition of the various types of external assets and liabilities relate to the risk of external stress episodes? Is the relationship for emerging market and developing economies different from that for other (advanced) economies?
- What is the role of other well-studied variables, such as the level of global financial risk aversion and external current account balances, in explaining the likelihood of external stress episodes? How do these factors combine with the structure of the IIP in amplifying or mitigating risks?
- When an external stress event occurs, how does the size and composition of the IIP relate to the impact on output, the current account, and the exchange rate? How do external stress events impact creditor economies?

To address these questions, the analysis focuses on a sample of 73 advanced and emerging market and developing economies during 1991–2018. The chapter seeks to disentangle the role of certain IIP components in explaining external stress episodes, including (1) gross and net external assets and liabilities, (2) equity and debt instruments, (3) the currency denomination of external debt assets and liabilities, and (4) official and private foreign assets. The analysis goes beyond that of other studies by exploring the role of the aforementioned IIP components using a new data set on the currency composition of external assets and liabilities compiled by IMF staff in collaboration with authors at other institutions (Bénétrix and others 2019). To identify episodes of sovereign debt default or restructuring, the chapter uses updated versions of the data sets of Das, Papaioannou, and Trebesch (2011) and Asonuma and Trebesch (2016) as well as Paris Club reports.

The main findings of the chapter are as follows:

- Not all components of the IIP relate equally to the likelihood of external stress episodes. The net IIP declines in the run-up to an external stress episode and, the more negative it becomes, the greater is the likelihood of external stress materializing. However, within the IIP, the analysis can be usefully complemented by analyzing gross positions: in particular, gross external debt liabilities are stronger predictors of external stress than are equity liabilities or private external debt assets. Having a larger stock of foreign official reserves acts as a mitigating factor, lowering the likelihood of an external stress episode, although with diminishing effects.
- In addition, the type of gross external debt that matters most appears to differ across advanced and emerging market and developing economies. When the whole sample is considered, external debt liabilities are strong predictors of stress, irrespective of the currency denomination. But foreign-currency-denominated debt liabilities are particularly relevant for predicting external stress in emerging market and developing economies.

[2]Such risks are especially prevalent where domestic financial markets are thin and policy frameworks do not adequately deal with financial excesses, as highlighted in other studies, such as Obstfeld, Shambaugh, and Taylor (2009, 2010); Rose and Spiegel (2009, 2011); Bruno and Shin (2015); Borio, James, and Shin (2016); and Coeurdacier, Rey, and Winant (2019).

- Beyond the IIP structure, the analysis confirms the role of traditional external stress predictors, such as large current account deficits. Higher levels of global risk aversion increase external financing risks, suggesting an important role for global "push" factors in triggering external stress, especially in countries with preexisting external vulnerabilities.
- The chapter finds that the nature of external vulnerabilities for emerging market and developing economies have rotated over time. For example, while before the Asian financial crisis a central external vulnerability was a low level of international reserves, the central vulnerability ahead of the global financial crisis was more related to the size of current account deficits. In the years preceding the Great Lockdown, elevated gross external debt liabilities and their foreign-currency-denominated component were a central vulnerability for emerging market and developing economies, although relatively small current account deficits and relatively high levels of foreign exchange reserves helped mitigate these risks.
- Preexisting external vulnerabilities also amplify the macroeconomic costs of an external stress episode. For countries with large current account deficits, elevated foreign-currency-denominated debt, and low levels of reserves, real GDP falls by about 4.1 percent within two years of an external stress episode, while for countries with more limited external vulnerabilities, the decline in real GDP levels is typically about 1 percent. Similarly, the real effective exchange rate depreciates by about 10 percent and the current account balance rises by more than 2 percent of GDP within the first year of an external stress episode in countries with high preexisting vulnerabilities, with far more limited effects in countries with smaller preexisting vulnerabilities.
- Finally, the chapter also finds that external stress episodes have implications for creditor economies through valuation effects. Although ascertaining the costs for creditors is difficult, the analysis finds that following large global crises, such as the global financial crisis of 2008 and the euro area sovereign debt crisis of 2010—which featured a number of external stress episodes—creditor economies experienced valuation losses that lowered their IIPs. On average, in the decade following the global financial crisis, a 1 percent of GDP rise in the current account surplus has been associated with a 0.5 percent of GDP valuation loss—a systematic relationship that did not necessarily hold before the crisis.

The remainder of the chapter is organized as follows. The first section presents empirical patterns of the main IIP components around external stress episodes. The second section discusses the main results from estimating an external stress probability model, focusing on the IIP and its main components, including how the combination of vulnerabilities increases the likelihood of external stress episodes. The third section computes costs for debtor and creditor economies after external stress episodes materialize, and the final section concludes by summarizing the chapter's implications for the outlook and risks.

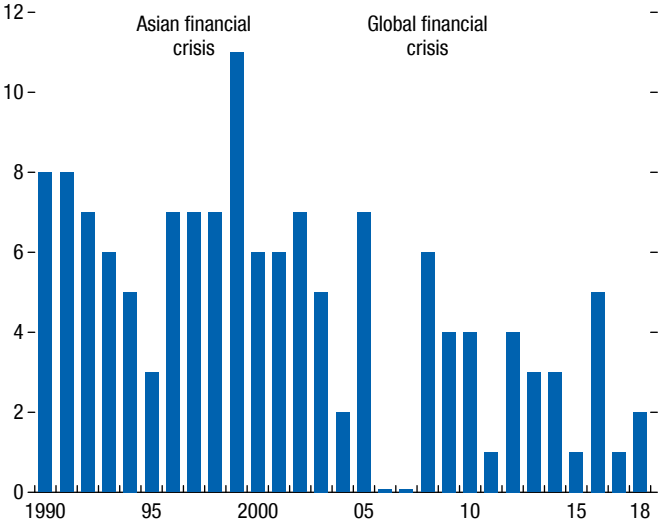
International Investment Position Dynamics before and after External Stress Episodes

To understand the factors that influence external financing risks, the chapter focuses on the determinants of *external* stress episodes. As in Catão and Milesi-Ferretti (2014), episodes of external stress are defined as years in which an economy experiences sovereign debt default or restructurings or the start of IMF-supported financial assistance. Sovereign debt defaults and restructuring episodes are identified based on an updated version of the data set in Das, Papaioannou, and Trebesch (2011) and Asonuma and Trebesch (2016), and recent Paris Club reports. Using the aforementioned criteria, the chapter identifies 128 cases of external stress (Figure 2.2), most of which involve emerging market and developing economies.[3] It is important to note that the chapter focuses on episodes of external stress, using the aforementioned definition, and not on fiscal stress or public debt crisis episodes. The latter would include, in addition to sovereign defaults and restructurings and recourse to IMF financing, additional events such as implicit default via high inflation and rising sovereign risk premiums (see Cerovic, Gerling, and Medas 2018).

[3]One difference with Catão and Milesi-Ferretti (2014) is that it focuses on IMF-supported arrangements exceeding 200 percent of quota, while this chapter considers all IMF-supported arrangements, excluding precautionary and nondisbursing arrangements. Robustness to different definitions of external stress episodes is discussed in Online Annex 2.1. All annexes are available at www.imf.org/en/Publications/ESR.

Figure 2.2. External Stress Episodes in Selected Economies, 1990–2018
(Number per year)

External stress episodes are defined as sovereign debt defaults and restructurings, and/or access to IMF arrangements, for 73 advanced and emerging market and developing economies.



Sources: Das and others (2011); Asonuma and Trebesch (2016); Paris Club; and IMF staff calculations.

The first part of the analysis studies the evolution of the main IIP components around external stress episodes. The sample comprises 73 advanced and emerging market economies during 1991–2018. This event-study analysis controls for country and time fixed effects to capture differences in countries' average IIP levels as well as the influence of common shocks (as in Gourinchas and Obstfeld 2012 and Catão and Milesi-Ferretti 2014; see Online Annex 2.1 for details on the methodology and data sources).[4]

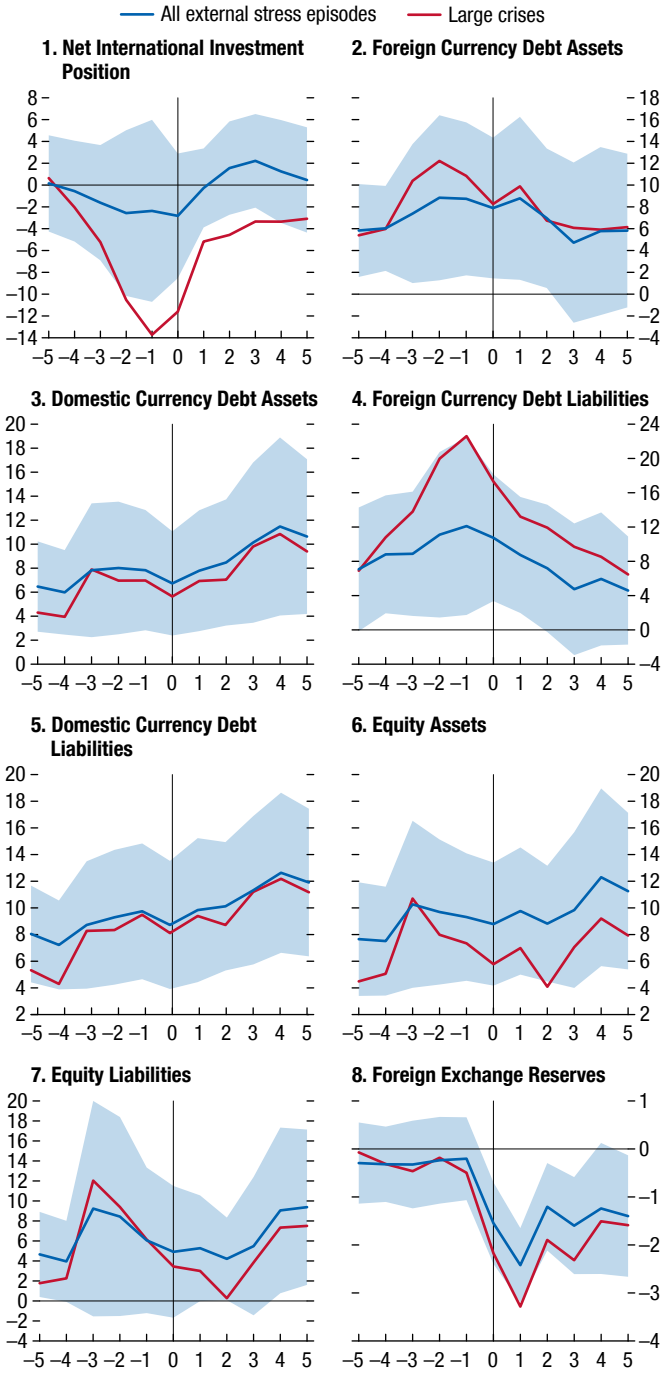
The results suggest that analyzing the information contained in gross positions can helpfully complement the information provided by the net IIP.[5] In the run-up to an external stress episode, the net IIP declines, driven predominantly by a sharp rise in foreign-currency-denominated external debt liabilities as a share of GDP (Figure 2.3, blue line), which in turn partially reflects currency depreciation dynamics.

[4]The currency denomination of external debt assets and liabilities data set is available starting in 1991. This restriction determines the initial year of the sample.

[5]In the empirical analysis of the chapter, countries' net IIP corresponds to the net foreign assets variable in the Lane and Milesi-Ferretti (2007) data set, which excludes gold from the definition of foreign exchange reserves.

Figure 2.3. Conditional Mean of the International Investment Position and Its Components around External Stress Episodes, 1990–2018
(Percent of GDP)

External stress episodes are usually preceded by a deterioration of the net international investment position and a large buildup of foreign-currency-denominated debt liabilities.



Source: IMF staff calculations.
Note: The methodology for construction of conditional mean estimates is based on Catão and Milesi-Ferretti (2014) and is discussed in Online Annex 2.1. Shaded area corresponds to the 90 percent confidence interval for all external stress episodes.

Domestic-currency-denominated debt liabilities also increase ahead of the stress episode, but by a smaller magnitude, while equity assets and liabilities decline gradually. Foreign-currency-denominated external debt assets also increase. Meanwhile, private foreign-currency-denominated external debt assets increase ahead of the stress episode, likely reflecting a combination of private capital flight and currency valuation effects, while official foreign exchange reserves decline sharply just ahead of the stress episode.[6] After the onset of an external stress episode, the net IIP typically rises, driven primarily by a significant drop in foreign-currency-denominated external debt liabilities likely associated with the necessary deleveraging and restructuring. Other IIP components exhibit smaller fluctuations or remain broadly unchanged, with the exception of official foreign exchange reserves, which typically decline in the aftermath of a stress episode and bounce back afterwards.

Similar, yet starker, dynamics of IIP components occur for a subsample of stress events defined as *large* external crises, which involve cases of IMF financial assistance exceeding 200 percent of quota (Catão and Milesi-Ferretti 2014). The drop in the net IIP ahead of *large* external crises is far more pronounced, driven even more importantly by a large rise in foreign-currency-denominated debt liabilities. Similarly, declines in gross equity and official reserve assets are much sharper in these cases, and while they rebound, they end well below precrisis peaks.[7]

Estimating External Stress Probabilities

The analysis now investigates how the IIP components and other variables relate to the probability of an external stress event by estimating a pooled probit model (see Online Annex 2.1 for details on the statistical approach). The estimated specification is similar to that of Catão and Milesi-Ferretti (2014) and is extended to include the currency denomination of external assets and liabilities. The dependent variable is the occurrence of external stress (a value of 1 indicates a stress episode in a given country and year, while a value of 0 indicates no stress).[8] The explanatory variables include the various IIP components and standard macroeconomic variables identified in the empirical literature, such as the current account balance, global risk aversion, the real effective exchange rate gap (measured as deviations of the real exchange rate from the average of the previous five years), a measure of income per capita relative to the United States, the credit gap (constructed in a way analogous to the real exchange rate gap), and the degree of financial development.[9] The financial development index includes measures of market depth, access, and efficiency for each country, and can help explain cross-country differences in the ability to respond to external shocks (see Svirydzenka 2016). The sample is the same as for the event study of stress episode dynamics already mentioned.[10]

Estimation Results

In line with the event study analysis, a lower net IIP (a larger net debtor position) is associated with higher external stress (see Table 2.1, first column). When further disaggregating the IIP into its main components, the results suggest that both higher foreign and domestic currency external debt liabilities increase the probability of external stress events (see Table 2.1, second column). These results highlight the potential risks and costs of excessive external debt, either public or private. The estimated coefficients for the same external debt category in the IIP are different for assets and liabilities, denoting that gross positions, rather than net positions, provide useful information to assess the likelihood of external stress episodes. In addition, higher levels of foreign exchange reserves lower the occurrence of stress episodes. Private external debt assets do not appear to play a mitigating role. This result could reflect capital flight, which often rises in

[6]On a net basis, foreign-currency-denominated assets (assets minus liabilities) tend to decrease before the stress episode, implying that the rise in foreign-currency-denominated debt liabilities outstrips the rise in private capital outflows.

[7]The magnitude of the estimates can vary if consecutive years with stress episodes are removed from the data set, but the trajectories are similar.

[8]Gourinchas and Obstfeld (2012) compare the determinants of various crisis episodes, including sovereign defaults, systemic banking crises, and currency crises. See also Turrini and Zeugner (2019). Box 2.1 presents work by IMF staff on predicting external crises using alternative definitions, including sudden stop episodes with high growth impact and exchange rate market pressure episodes.

[9]Several studies have used the Chicago Board Options Exchange Volatility Index (VIX) as a proxy for global risk aversion, with lower values indicating greater tolerance for risk taking and increases in leverage (Rey 2015). Following Obstfeld, Ostry, and Qureshi (2017), the VXO—the precursor of the VIX—is used to maximize data coverage.

[10]Data limitations preclude the inclusion of additional countries in the sample.

Table 2.1. Probit Estimates
(Estimation period: 1991–2018)

Probability of External Stress (0/1; probit)	Full Sample		EMDE Sample	
NIIP/GDP	–0.27*		–0.58**	
Debt Assets: Foreign Currency/GDP		0.40		–0.13
Debt Assets: Domestic Currency/GDP		–0.27		. . .
Debt Liabilities: Foreign Currency/GDP		0.44***		1.78***
Debt Liabilities: Domestic Currency/GDP		0.75**		1.32
Equity Assets/GDP		0.34		–0.52
Equity Liabilities/GDP		–0.66***		–0.56
FX Reserves/GDP		–5.22***		–5.47***
Current Account/GDP	–5.45***	–6.89***	–4.61***	–5.10***
Global Risk Aversion (VXO)	0.02**	0.02**	0.02***	0.02***
Constant	–0.11	–0.67**	–0.61**	–1.24***
Number of Observations	1,838	1,828	1,014	1,004

Source: IMF staff estimates.
Note: Dependent variable is probability of external stress event. Probit coefficients are presented in the table. Country-specific variables are lagged by one year. The current account/GDP is included as a two-year moving average. Additional controls include the credit gap, the real effective exchange rate gap, income per capita relative to the United States, and a financial development index. EMDE = emerging market and developing economies; FX = foreign exchange; NIIP = net international investment position; VXO = Chicago Board Options Exchange Volatility Index.
Significance levels are denoted by *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

anticipation of external stress. Meanwhile, equity assets are not statistically significant. Among other macroeconomic fundamentals, larger current account deficits are associated with higher external stress. The likelihood of external stress events also increases with global risk aversion, suggesting that global "push" factors also play a role.

There are important differences between the results for the entire sample, which includes both advanced and emerging market economies, and the sample that includes only emerging market and developing economies (Table 2.1, third and fourth columns). Foreign-currency-denominated debt liabilities have a statistically significant relationship with external stress risk for emerging market and developing economies, whereas domestic-currency-denominated debt liabilities do not. Another difference is the relation with private external debt assets denominated in foreign currency, which reduce the probability of a stress episode in emerging market and developing economies. Taken together, these results highlight the importance of assessing currency mismatches in emerging market and developing economies. Equity assets and liabilities and external debt assets denominated in domestic currency do not play a statistically significant role. Finally, as before, current account deficits and global risk aversion increase the likelihood of external stress, while higher levels of foreign exchange reserves play a mitigating role.[11]

The central finding that external debt is a strong predictor of external stress episodes is robust to various definitions of external stress or crisis. Box 2.1 explores the correlates of two crisis types that differ from the external stress events already mentioned: (1) sudden stops with a high growth impact, and (2) exchange market pressure events. The analysis reported in Box 2.1 uses signal extraction and machine-learning techniques to predict these types of crises and compare their determinants. The results suggest that stock vulnerabilities, such as external debt measures, are reliable

[11]The main results in Table 2.1 are robust to incorporating additional control variables in the analysis, including global variables (interest rates and real GDP growth in the United States) and country-specific variables (the fiscal balance). The fiscal balance has significant explanatory power when other indicators that incorporate fiscal information, such as the current account balance and external debt, are excluded from the model. The relationship between short-term debt and external stress is found to be not robust, depending on data sources and the inclusion of other control variables. Moreover, a breakdown of the currency composition of short-term external debt is not broadly available.

predictors of crises, although the ranking of candidate variables and the importance of interactions vary across crisis categories and country groups. The current account balance and the level of foreign exchange reserves are also relevant indicators for assessing other crises risks in advanced economies and emerging markets and developing economies.

Predicted Probabilities

To clarify the economic significance of the estimation results reported thus far, this subsection discusses predicted probabilities. These are computed by keeping all the variables in the estimated model constant at their sample means but changing the variable of interest in specified increments (for other applications of this approach, see, for example, Gourinchas and Obstfeld 2012). The estimation of these predicted probabilities (or margins) can uncover important nonlinear effects of some variables on the likelihood of external stress episodes.[12] In general, the estimated effects are economically more meaningful for the model estimated for emerging market and developing economies:

- An increase in foreign-currency-denominated debt liabilities from 40 percent of GDP (near the emerging market and developing economy median) to 60 percent of GDP is associated with an increase in the predicted probability of external stress by 5 percentage points. In the full sample of countries, this rise in debt would result in a much smaller probability increase (only 0.2 percentage points).
- A decline in the current account balance from a surplus of 5 percent of GDP to a deficit of 5 percent of GDP is associated with an increase in the predicted probability of external stress by 5.3 percentage points for emerging market and developing economies. For the full sample, the probability rises by only 1.1 percentage points.
- The relationship between official foreign exchange reserves and external stress is markedly nonlinear. The predicted external stress probability is near zero when reserves are above 40 percent of GDP. As reserves decline, the predicted external stress probability increases. A decline in foreign exchange reserves from 20 percent to 10 percent of GDP is associated with an increase in predicted external stress probability by 6.5 percentage points, while a further decline from 10 percent to 0 percent of GDP increases the predicted external stress probability by an additional 12.6 percentage points in the emerging market and developing economy sample. The corresponding values for the entire sample are much lower (0.7 percent and 2.1 percent, respectively).

The finding that external vulnerabilities are more strongly related to risks of external stress for emerging market and developing economies has a number of potential explanations. This result reflects differences in the estimated coefficients and differences in the mean of some control variables between emerging market and developing economies and the full sample. For instance, the estimated coefficient on the effect of foreign-currency-denominated debt on the probability of an external stress event is about four times larger than for the full sample. In addition, the emerging market and developing economy sample has a lower average in the financial development index (see Svirydzenka 2016 for a detailed explanation). This index includes indicators that try to measure financial market depth, access, and efficiency, which are likely to help explain differences in countries' ability to weather external shocks.

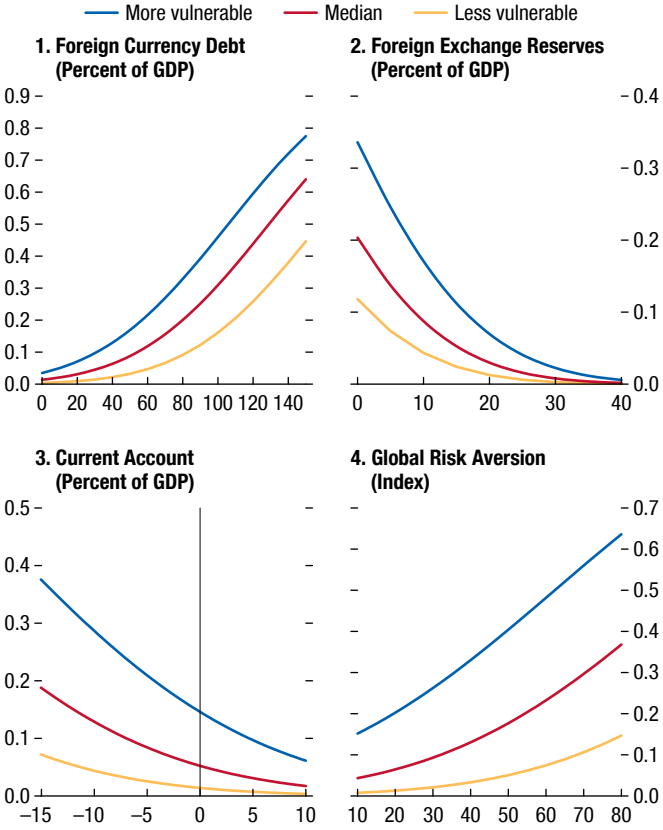
The results also imply that a combination of two or more external vulnerabilities greatly increases the probability of external stress for emerging market and developing economies (Figure 2.4).[13] The same level for foreign-currency-denominated debt liabilities could signal very different risks of an external stress episode, depending on other vulnerabilities. When foreign currency debt is 40 percent of GDP, the predicted probability ranges from 2–12 percent, depending on whether foreign exchange reserves and the current account balance are at high levels (75th percentile of the sample) or at low levels (25th percentile). Similarly, the vulnerabilities associated with large current account deficits depend on the levels of foreign exchange reserves and foreign-currency-denominated debt. The vulnerabilities associated with a low level of reserves are more severe in economies with a lower current account balance and higher level of foreign-currency-denominated debt.

[12]The results in this section are illustrative and should not be interpreted as the IMF's crisis prediction framework.

[13]The analysis in Figure 2.4 excludes domestic-currency-denominated debt liabilities given that the estimated coefficient is not statistically significant for emerging markets and developing economies.

Figure 2.4. Selected Predictors of External Stress in the Emerging Market and Developing Economies Sample
(Model-predicted probabilities)

The combination of external vulnerabilities in multiple dimensions can amplify external financing risks.



Sources: External Wealth of Nations database (Lane and Milesi-Ferretti 2007); Haver Analytics; IMF, World Economic Outlook database; and IMF staff calculations.
Note: All panels display the predicted probabilities of an external stress episode, keeping all covariates except foreign currency debt, foreign exchange reserves, the current account, and global risk aversion at their sample mean. More vulnerable countries are defined as those with foreign currency debt at the 75th percentile and foreign exchange reserves and current account balance at the 25th percentile of the sample. Less vulnerable countries are defined as those with foreign currency debt at the 25th percentile and foreign exchange reserves and current account balance at the 75th percentile. Median countries are defined as those with foreign currency debt, foreign exchange reserves, and current account balance at the median.

Finally, the estimated model has important implications for the risks facing emerging market and developing economies today. Global risk aversion increased sharply in the months following the outbreak of COVID-19, with negative implications for countries with preexisting external vulnerabilities. When global risk aversion reaches the peak values seen during the global financial crisis or the Great Lockdown, the predicted external stress episode probability for an emerging market and developing economy with an average level of preexisting vulnerabilities rises to about 40 percent—more than double the estimated probability for less vulnerable emerging market and developing economies (see Figure 2.4). These results highlight the importance of preexisting conditions when global risk appetite sours.

External Stress Drivers over Time

Having discussed which indicators are associated with external stress episodes, this subsection summarizes their configuration among emerging market and developing economies on the eve of three major crises affecting numerous economies: the Asian financial crisis (1998), the global financial crisis (2008), and the Great Lockdown of 2020. The analysis summarizes the configuration of the indicators using Venn diagrams (Figure 2.5). It indicates the proportion of emerging market and developing economies for which the aforementioned country-specific vulnerabilities (related to foreign currency debt, foreign exchange reserves, and current account deficits) are elevated, as well as the proportion of those economies for which the indicators are at less vulnerable levels.

Before the Asian financial crisis, external risks were associated mostly with low levels of foreign exchange reserves and, to a lesser extent, large current account deficits. At the onset of the global financial crisis, external risks reflected mainly current account deficits and, to a lesser extent, foreign-currency-denominated debt liabilities. Low levels of reserves had become less of a vulnerability for most emerging market and developing economies at that point. In the years preceding the Great Lockdown, elevated foreign-currency-denominated debt liabilities became a central vulnerability for these economies. At the same time, this vulnerability was, in many cases, mitigated by relatively small current account deficits and relatively high levels of foreign exchange reserves.

Consequences of External Stress Episodes for Debtor and Creditor Economies

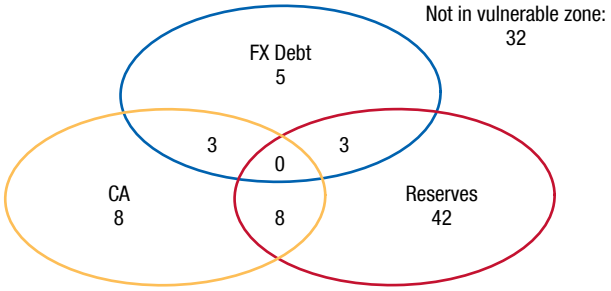
Having discussed the factors associated with external stress events and how their configuration has evolved over time, this section focuses on their macroeconomic consequences and how these depend on preexisting conditions.

Figure 2.5. Rotating Sources of External Stress in Emerging Market and Developing Economies, 1990–2018

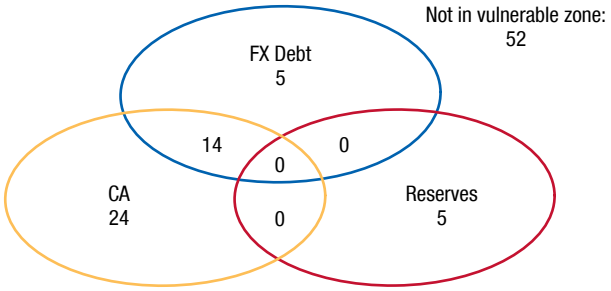
(Percent of sample)

The sources of external vulnerabilities have rotated over time. Before the Asian financial crisis, countries at risk had low levels of foreign exchange reserves and large current account deficits. In recent years, vulnerabilities have been building through high levels of foreign-currency-denominated debt, but have been mitigated in most countries by a combination of smaller current account deficits and higher levels of foreign exchange reserves.

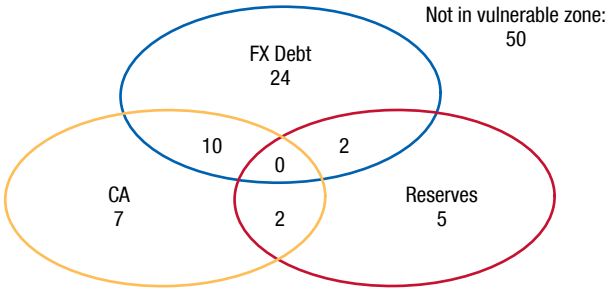
1. Before Asian Financial Crisis, 1996



2. Before Global Financial Crisis, 2007



3. Latest, 2018



Sources: Bénétrix, Lane, and Shambaugh (2015); Bénétrix and others (2019); and External Wealth of Nations database (Lane and Milesi-Ferretti 2007).
Note: CA = current account; FX = foreign exchange. Each Venn diagram reports the proportion of emerging market and developing economies that have a low level of foreign exchange reserves and current account balances (below the 25th percentile) and a high level of foreign exchange debt (above the 75th percentile) for 1996, 2007, and 2018. The current account balance is calculated as a two-year moving average.

Consequences for Debtor Economies

In addition to affecting the likelihood of external stress episodes, it is plausible that external vulnerabilities would have a strong bearing on the macroeconomic consequences of external stress when it materializes. To investigate this possibility, this subsection focuses on the consequences for emerging market and developing economies using local projections following Jordà (2005).[14] The estimates illustrate the dynamic responses of real GDP, the real effective exchange rate, and the current account balance. For the purposes of the analysis, countries are again classified as having higher or lower vulnerabilities based on the preexisting level of foreign-currency-denominated debt liabilities, current account deficits, and foreign exchange reserves (see the definition in the note to Figure 2.6).

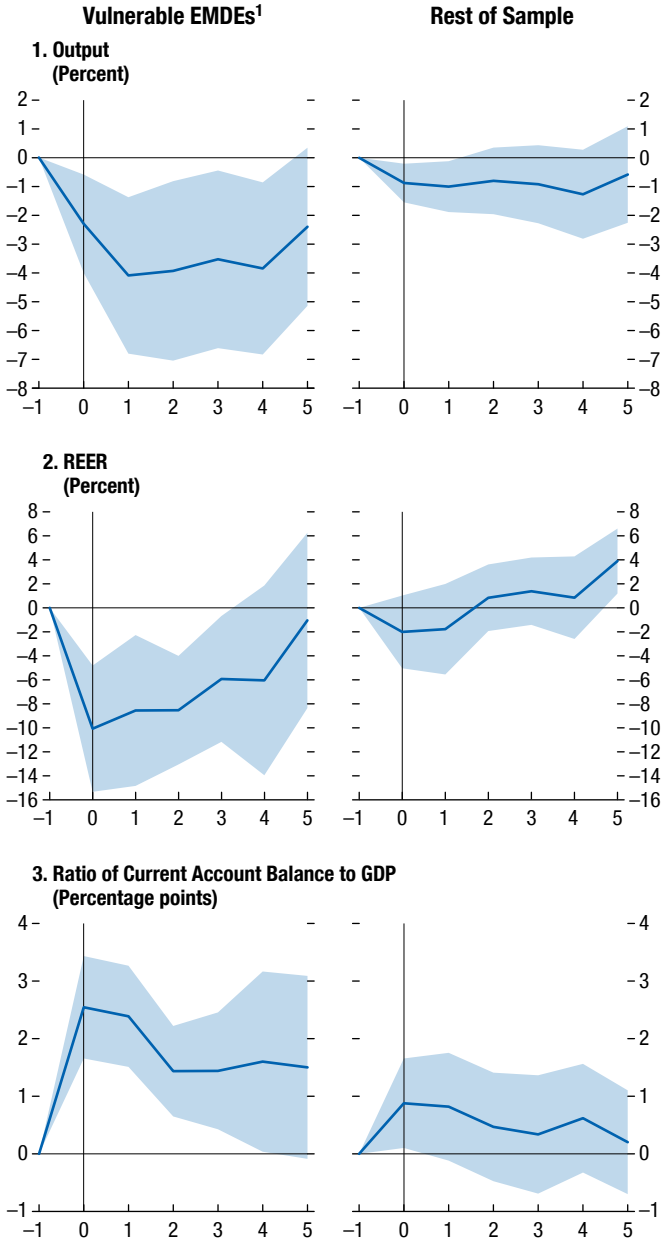
The results suggest that emerging market and developing economies with greater preexisting vulnerabilities tend to experience larger output losses during an external stress episode (Figure 2.6). The output loss within the first two years for vulnerable economies is about 4.1 percent, well above the 1 percent estimated loss for economies identified as "less vulnerable." The recovery is also slower for vulnerable economies, with an output loss of about 2.6 percent five years after the external stress episode, while less vulnerable economies experience a recovery in their GDP levels within five years.

The effects on the real effective exchange rate and current account balance also relate to preexisting vulnerabilities. The real effective exchange rate depreciates by about 10 percent and the current account balance rises by more than 2.5 percent of GDP within the first year of an external stress episode for countries with high preexisting vulnerabilities. For less vulnerable economies, the real effective exchange rate and current account balance movements are much smaller.

[14]The local projection method for each variable includes controls for country and time fixed effects and two-year lags of output growth, exchange rates, and the current account (see Online Annex 2.1 for additional details). The asymmetry is captured by interacting the stress episodes with a dummy that takes a value of 1 for countries with a high level of foreign-currency-denominated debt, a large current account deficit, and a low level of foreign exchange reserves, and 0 otherwise. In line with Chapter 4 of October 2009 *World Economic Outlook*, for this exercise, a country's vulnerability is based on the level of these three indicators compared with the sample median. The analysis in this section assumes that the factors associated with external stress episodes are the same as the preexisting vulnerabilities that amplify their effect.

Figure 2.6. Evolution of Output, Real Exchange Rates, and Current Account Balances Following External Stress Episodes

Countries with preexisting vulnerabilities experience higher output costs of an external stress episode, as well as large exchange rate depreciations and a current account adjustment.



Source: IMF staff calculations.
Note: Estimates are based on the local projection method of Jordà (2005) as explained in Online Annex 2.1. Shaded area corresponds to the 90 percent confidence interval. The horizontal axis denotes time in years, and 0 is the year of the external stress episode. EMDEs = emerging market and developing economies; REER = real effective exchange rate.
[1]Vulnerable EMDEs are defined as those with foreign currency debt above the EMDE median, and current account balance and foreign exchange reserves below the EMDE median.

Consequences for Creditor Economies

When debtors suffer external stress or a crisis, their creditors experience losses in the form of adverse exchange rate movements, lower asset and bond prices, and other valuation changes, including from debt restructuring and write-offs. This consequence for creditors is particularly visible in the years following the global financial crisis. According to the Laeven and Valencia (2012) banking crisis data set, creditor advanced economies, such as Belgium, Denmark, Germany, Sweden, and Switzerland, suffered a banking crisis in 2008, in part due to these economies' exposures to distressed assets in debtor economies.[15]

The analysis follows an aggregate approach, given data limitations, by studying the evolution of the valuation effects in the net IIP in the aftermath of large crises.[16] Valuation effects are estimated as the difference between the annual change in the net IIP and the financial account flows included in the balance of payments statistics for each country and year.[17]

The results indicate sustained valuation losses for countries with persistent current account surpluses in the aftermath of the global financial crisis that were not present in the precrisis period. Figure 2.7 (panels 1 and 2) presents the relationship between the accumulated current account balances of major economies and the estimated accumulated valuation effects, comparing the periods before and after the global financial crisis.[18]

[15]For instance, Hellwig (2018) documents German banking sector losses during the global financial crisis and euro area sovereign debt crisis as a result of exposures to distressed assets in Greece, Portugal, Spain, and the United States. The study's conclusion is that "the fiscal costs of support to German financial institutions were very large, even in comparison to countries that were epicenters of crises." Thévenoz (2010) discusses the case of Switzerland during the global financial crisis, including the government rescue of the Union Bank of Switzerland.

[16]Ascertaining the costs of each external crisis on each creditor economy would require estimating valuation changes at the security level for bilateral country exposures following each crisis.

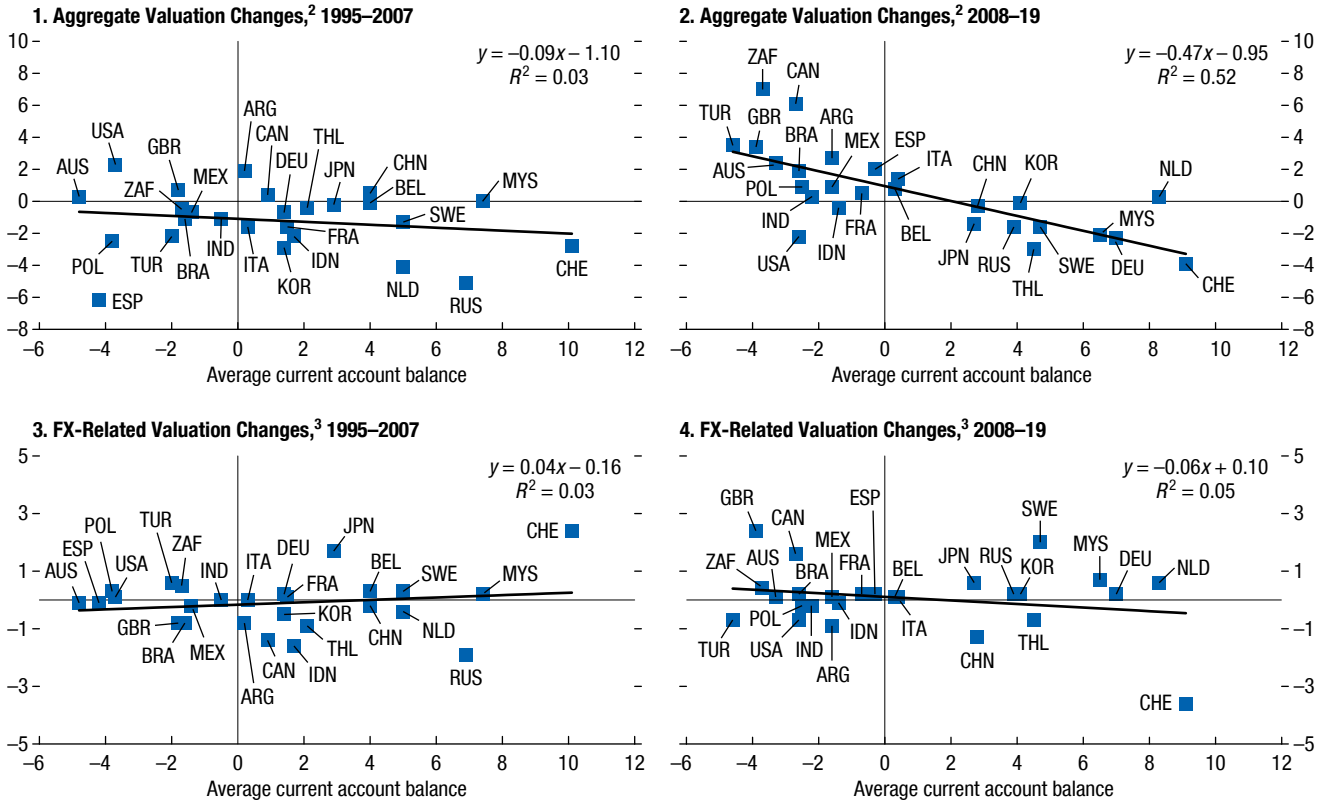
[17]See Bergant (2017) or Adler and Garcia-Macia (2018) for details on this approach, which is known as the "residual" approach. A few countries, such as the United States and some euro area countries, publish valuation changes related to exchange rate fluctuations and asset price changes as well as other valuation changes as part of the stock-flow reconciliation tables between the IIP and balance of payments statistics. To increase country and time coverage, the residual approach is applied. Financial centers with large IIP positions are excluded (Hong Kong SAR and Singapore). Saudi Arabia is excluded because of data limitations.

[18]These results are robust when a narrower window around the global financial crisis is considered (such as 2002–07 for the precrisis period and 2008–13 for the postcrisis period). The results are also robust when including the net international investment period in the beginning of each period instead of the average current account balance on the horizontal axis.

Figure 2.7. Average Current Account Balances and Net International Investment Position Valuation Changes, 1995–2019[1]

(Percent of GDP)

Countries with persistent current account surpluses have experienced sustained valuation losses since the global financial crisis, while this relationship did not hold before the crisis. Valuation effects were not systematically related to exchange rates, but to other asset prices.



Sources: Bénétrix and others (2019); External Wealth of Nations database (Lane and Milesi-Ferretti 2007); IMF, Information Notice System; IMF, World Economic Outlook database; and IMF staff calculations.
Note: Data labels use International Organization for Standardization (ISO) country codes. FX = foreign exchange; NIIP = net international investment position.
[1]Sample includes all *External Sector Report* economies excluding Hong Kong SAR, Saudi Arabia, and Singapore.
[2]NIIP valuation change = {(change of total asset – net acquisition of asset) – (change of total liabilities – net incurrence of liabilities)}/GDP.
[3]FX-related NIIP valuation change = –(net foreign exchange share in GDP × percent change in real effective exchange rate).

The differences across subperiods are significant. In the precrisis period, there is no systematic pattern: sustained valuation gains or losses were not related to average current account balances.

In the post-global-financial-crisis period, which also includes the euro area sovereign debt crisis of 2010, the relationship is negative and statistically significant. Countries with sustained current account surpluses (including Germany, Japan, and Switzerland, among others) experienced sustained valuation losses. The estimated slope coefficient of –0.5 implies that a sustained current account surplus of 2 percent of GDP led, on average, to a valuation loss of 1 percent of GDP a year. The implication of this result is that, in countries with sustained current account surpluses, the net IIP increases by less than would be expected from the cumulative current account balances. On the contrary, for the pre-global-financial-crisis period, the coefficient is near zero and not statistically significant.[19]

The results highlight that the stabilizing role of valuation effects in the net IIP identified by Gourinchas and Rey (2007) and Adler and Garcia-Macia (2018)

[19]The ratio of valuation changes to nominal GDP is estimated by converting both measures to US dollars, following the literature (see Devereux and Sunderland 2010; Bergant 2017; Adler and Garcia-Macia 2018). The choice of the numeraire can affect the estimates. However, the results are quite similar when computing the ratio of valuation changes to nominal GDP when both measures are converted to domestic currency, in particular for economies with sustained current account surpluses.

is especially strong after large systemic crises. On one hand, valuation gains can reflect adverse macroeconomic and financial factors. For example, euro area debtor economies (including Italy and Spain) generally experienced valuation gains following the global financial crisis. Greece and Portugal also experienced large valuation gains during this period that intensified after the euro area sovereign debt crisis.[20] These valuation gains correspond to losses for investors that had significant exposures to these economies. On the other hand, valuation losses can be the consequence of relatively strong underlying fundamentals. Since 2008 the United States has seen valuation losses despite continuing to run current account deficits. These valuation losses have been driven by (1) an appreciation of the US dollar, which reduces the value of US external assets denominated in foreign currency but does not affect liabilities, which are denominated in US dollars; and (2) better performance of equity valuations compared with peers (which leads to a higher value of US foreign equity liabilities and a lower net IIP).[21]

Finally, Figure 2.7 also estimates how much of these valuation effects reflects exchange rate fluctuations. Interestingly, for the two subperiods, there is no systematic relationship between current account balances and valuation changes resulting from exchange rates.[22] This is not to say that exchange rate fluctuations cannot have an impact on countries with large external creditor positions, such as Switzerland. However, when averaged over long periods of time, these valuation effects are not systematically related to the current account balance. This result suggests that factors linked to bond and asset price differentials, debt restructuring, and debt write-offs are driving the valuation effects.

Implications for the Outlook and Policies

This section summarizes possible implications of the chapter's results for economies in today's environment. For debtor economies, the results suggest that the ongoing period of global financial stress has increased the probability of experiencing external stress with either a debt default, debt restructuring, or the need for IMF financial support. In a number of cases, these risks are already materializing. The chapter's findings suggest that the economies most at risk are likely to be emerging market and developing economies with preexisting vulnerabilities, such as a relatively high level of foreign currency external debt, large current account deficits, and a relatively low level of international official reserves. During spikes in global risk aversion, the overall risk of an external stress episode for such economies is several times greater than for emerging market and developing economies with relatively limited preexisting vulnerabilities. In addition, the macroeconomic consequences—in terms of lost real GDP and the sharpness of current account and real effective exchange rate adjustment—are likely to be significantly greater for economies with greater preexisting vulnerabilities when external stress episodes occur. The rise in debt ratios and fall in the level of foreign exchange reserves currently underway in a number of emerging market and developing economies could increase the near-term likelihood of external stress episodes. At the same time, as discussed in Chapter 1, the nature of the COVID-19 crisis is unique, with additional risk factors at play, including the evolution of the pandemic; sharp terms-of-trade movements; disruptions to economic activity, trade, travel, and remittances; and attendant implications for net exporters of commodities and tourism.

For creditor economies, the evidence suggests that running large and persistent current account surpluses comes with potential valuation losses in the aftermath of large systemic crises. Countries that entered the current crisis with large current account surpluses, while at a negligible risk of experiencing an external crisis themselves, may experience IIP valuation losses from their exposures to distressed assets or markets, as was the case during the global financial crisis.

[20]Greece and Portugal are not shown in Figure 2.7 because they are not economies reported in the *External Sector Report*. Ireland, in contrast, suffered valuation losses, although these estimates are imprecise, given that Ireland's IIP data are influenced by measurement issues related to the significant presence of multinational companies.

[21]Gourinchas, Rey, and Govillot (2010) argue that this phenomenon implies that the United States acts as a world insurer by transferring wealth to the rest of the world in crisis periods (via valuation losses). Given this role, Gourinchas, Rey, and Govillot (2010) argue that the United States should earn an insurance premium in the form of higher rates of return on its external assets compared with its external liabilities (an "exorbitant privilege") during tranquil times. Curcuru, Dvorak, and Warnock (2010) challenge this view and do not find evidence of a higher rate of return of US external assets over US external liabilities. See also Lane and Milesi-Ferretti (2008).

[22]The valuation changes due to exchange rate fluctuations are estimated using data on net foreign asset positions in foreign currency from the Bénétrix and others (2019) data set.

Overall, for policymakers, the results imply that limiting a buildup of external vulnerabilities requires monitoring various components of external flows and the IIP. For countries where financing priority investment through external public and private sector debt is warranted, the analysis highlights the importance of limiting the foreign-currency-denominated component and currency mismatches by maintaining adequate buffers in the form of official and private sector reserves, even when the accumulation of foreign assets may carry the risk of valuation losses. An important consideration, highlighted in the April 2020 *Global Financial Stability Report*, is that increased foreign ownership of domestic currency debt can help reduce borrowing costs, but it may also increase price volatility where domestic markets lack depth. Monitoring currency mismatches appropriately requires timely data on the currency composition of external assets and liabilities. The analysis in this chapter uses a new data set compiled by IMF staff together with other institutions. Further efforts are needed to compile official data on currency composition, which would improve and stimulate further analysis in the future.

IMF staff already factor in excessive IIP and financing risk considerations when assessing external positions in the *External Sector Report*, particularly for large debtor economies. The chapter results can be used to further inform the external sector assessment process. The potential risks and costs associated with both large creditor and debtor positions highlighted in this chapter provide a further reason to take steps to avoid excessive and persistent current account imbalances over the medium term. The specific policies for avoiding such excessive imbalances differ across economies, as discussed in Chapter 3 of this report.

Box 2.1. Drivers of Various Types of External Crisis

This box investigates the robustness of the chapter's findings on the drivers of external stress events or crises to alternative definitions. It also considers additional potential explanatory factors. The following events complement the external stress episodes studied in the chapter. These episodes feature capital outflows, exchange rate depreciation, and tighter financial constraints[1]:

- *Sudden stops with growth impact (SSGIs):* During these episodes, a large decline in net private capital inflows tightens financial constraints sufficiently to generate unusually large recessions or lead to recourse to IMF financial support (following the work of Dornbusch, Goldfajn, and Valdés 1995 and Mendoza 2002, among others).
- *Exchange market pressure events (EMPEs):* During these episodes, the currency sharply depreciates or reserves suddenly decline (as in Kaminsky and Reinhart 1999). Such events may imply different growth outcomes, depending on whether gains in export competitiveness are offset by the tightening of financial constraints due to foreign-currency-denominated debt.

The starting point of the analysis uses signal extraction methods to predict external crises given their potential for superior out-of-sample performance, as documented in Berg, Borensztein, and Pattillo (2005). This technique calculates a threshold for each variable separately, which enhances performance by reducing the impact of outliers and missing data but does not allow for variable interactions or more complex nonlinearities. Having established a benchmark, the performance of machine-learning techniques—which offer the potential to uncover novel nonlinearities and complex interactions among many variables—is explored.[2]

About 80 predictive indicators that cover various external crisis generations identified by the academic literature are explored (Table 2.1.1). Variable selection broadly follows the literature on generations of external crises, capturing a range of factors, including (1) policy regimes, such as the exchange rate regime and capital account openness; (2) imbalances and mismatches, including the current account, balance sheet indicators, and private and public buffers; (3) asset price booms and busts, such as medium-term growth and acceleration of stock prices, house prices, and the real effective exchange rate; (4) global liquidity and contagion, such as US interest rates, spreads, volatility, and banking linkages to other countries experiencing recent crises; and (5) political shocks.

The main results are that stock vulnerabilities are generally reliable predictors of external crises, whereas the ranking of indicators and the importance of interactions vary across crisis categories and country groupings. This may indicate that stock variables, being predetermined, are econometrically more sound. Figure 2.1.1 reports, for each type of crisis, the top indicators explaining in-sample variation for the prediction technique with the lowest sum of the percentages of false alarms and missed crises[3]:

- SSGIs in emerging market economies are well predicted by signal extraction methods. The most important predictors are debt liabilities and the asset price and credit bubbles they finance. The predictors include global factors (including the TED spread [the difference between the three-month US Treasury bill rate and the three-month London interbank offered rate based in US dollars],

The authors of this box are Suman Basu (IMF), Roberto Perrelli (IMF), and Weining Xin (University of Southern California), based on Basu, Perrelli, and Xin (forthcoming).

[1]SSGIs occur when the net private capital inflow as a percentage of GDP is at least 2 percentage points lower than in the two previous years with large multilateral support. EMPEs are defined as episodes where the weighted average of the annual percentage depreciation in the nominal exchange rate and the annual decline in reserves as a percentage of the previous year's GDP is below the 15th percentile of the worldwide pooled sample, with large multilateral support.

[2]Tree-based machine-learning models are an extension of the signal extraction technique: after the sample is split according to the threshold for one variable, subsamples continue to be split according to thresholds of other variables, generating an entire tree of threshold splits. The random forest model averages over a large number of randomly generated trees, whereas the RUSBoost model constructs new trees to capture the information left out of previously constructed trees. Machine-learning techniques discipline the construction of trees so that the maximization of in-sample model fit does not worsen out-of-sample performance. See Basu, Perrelli, and Xin (forthcoming).

[3]The sample is not balanced, so missing variables are imputed using the machine-learning-based surrogate technique, which involves substituting available variables for variables that are not available. Both signal extraction and machine learning models are estimated with data from 1990 onward. The results are presented for the model that performs best with out-of-sample testing between 2008–17. The variable importance ranking is subject to the following caveats: (1) in machine learning, there may be slight differences in variable importance in different runs owing to random seed effects; (2) using different subsets of variables can alter the ranking between signal extraction and machine learning; and (3) in-sample and out-of-sample variable importance rankings may vary.

Box 2.1 *(continued)*

Table 2.1.1. Set of Predictive Variables

First Generation
Fiscal balance/GDP
Five-year change in M2/GDP Reserves/M2 and Reserves/GDP Dummies for hard peg and float
Dummy for parallel market

Second Generation
Real GDP growth Change in unemployment rate

Third Generation: Flows and Mismatch
Current account balance/GDP Amortization/exports
FX share of public debt
Debt service/exports
Share of non-investment-grade debt
FX share of external debt Net open FX position/GDP Net open FX debt position/GDP
Inflow and outflow restrictions
Reserves/short-term debt FX share of household and nonfinancial corporate credit

Third Generation: Liability Stocks
External debt/GDP
External debt/exports Private external debt/GDP Bank external debt/GDP
Cross-border interbank liabilities/GDP
Private credit/GDP
Total and external public debt/GDP
Nonbank private external debt/GDP External equity liabilities/GDP Household liabilities/GDP
Foreign liabilities/Domestic credit

Third Generation: Buffers
EMBI spread (level and change)
Primary gap/GDP
Corporate sector returns on assets
Corporate default probability Interest coverage ratio Price/earnings ratio
Bank returns on assets
Nonperforming loans Banks' capital-asset ratio Loan-to-deposit ratio inflation

Third Generation: Medium-Term (Five-Year) Building Bubbles
Private sector credit/GDP growth
Real housing price growth Real stock price growth REER growth
Cross-border interbank Liabilities/GDP growth External debt/GDP growth
External equity liabilities/GDP growth
Contribution of construction GDP Contribution of finance of GDP

Third Generation: Bursting Bubbles
Change in reserves/GDP REER acceleration
Real house price acceleration
Real stock price acceleration One-year changes in all liability stocks

Third Generation: Global Shocks
VIX
US NEER change US term premium TED spread
Federal funds rate (level and change)

Current Account Shocks
Real growth in exports Change in terms of trade Reserves/imports
Absolute oil balance/GDP

Law of One Price
Five-Year Cumulative Inflation

Political Shocks
Political violence Successful coup

Contagion
Change in export partner growth relative to five-year trend
Interbank liabilities/GDP to banks to AEs in financial crisis
Frequency of banking crises in AEs
Similarity to last year's crises

Source: Basu, Perrelli, and Xin, forthcoming.

Note: AEs = advanced economies; FX = foreign exchange; NEER = nominal effective exchange rate; REER = real effective exchange rate; TED spread = the difference between the three-month US Treasury bill rate and the three-month LIBOR based US dollars; VIX = Chicago Board Options Exchange Volatility Index.

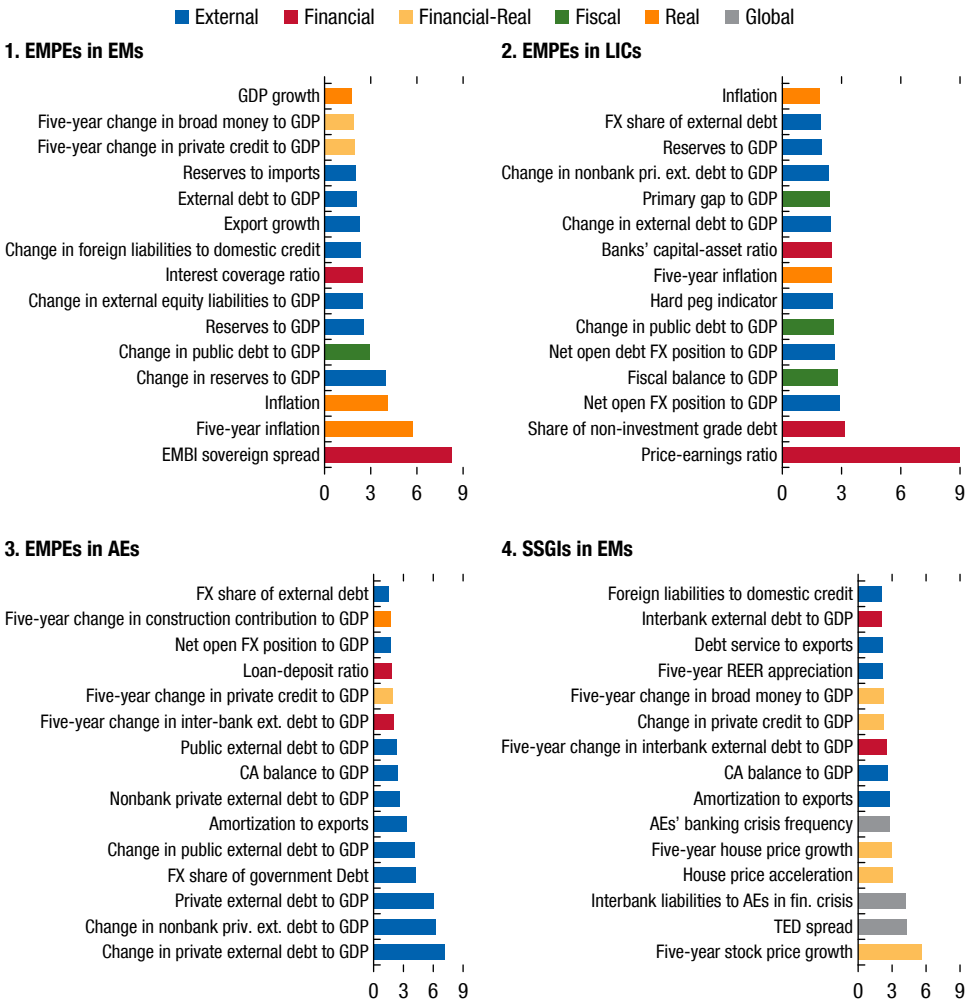
the incidence of financial crisis in advanced economies, and interbank liabilities to banks in these advanced economies), medium-term bubbles (stock prices, house prices, real effective exchange rate), and external debt measures (scheduled amortization, cross-border interbank debt).

- EMPEs in emerging market economies, by contrast, are better predicted by machine learning techniques, implying that interactions between variables help sort through the more heterogeneous category of events. The best predictors come from several crisis generations models. External variables, such as reserve adequacy metrics, are complemented by measures of equity outflows that generate depreciations. In addition, fiscal vulnerabilities (EMBI sovereign spread, change in public debt) and competitiveness indicators (cumulative inflation) are highly important.
- EMPEs in advanced economies are well predicted by signal extraction techniques, and the most important predictors are indicators of external debt (private external debt, amortization, and the foreign currency and external shares of public debt).
- EMPEs in low-income countries are sometimes better predicted by signal extraction techniques and sometimes by machine learning, depending on

Box 2.1 *(continued)*

Figure 2.1.1. Top Predictive Variables for Various Crises[1]

(Percent)



Source: IMF staff calculations.
Note: AEs = advanced economies; CA = current account; FX = foreign exchange; EMs = emerging market economies; EMPEs = exchange market pressure events; LICs = low-income countries; REER = real effective exchange rate; SSGIs = sudden stops with growth impact; TED Spread = the difference between the three-month US Treasury bill rate and the three-month Libor based in US dollars.
[1]The horizontal axes plot the variable importance metric from authors' calculations. The metric in the signal extraction model is the weight of the variable. The metric in the machine-learning model is the percentage of in-sample variation in the sum of errors explained by removal of the variable from the model-generated trees.

whether foreign currency share data are included. If included, net open foreign currency share measures are important; other important predictors include indicators of first-generation currency crises (cumulative inflation, fiscal vulnerabilities, exchange rate regime), banking system health (share of non-investment-grade debt, capital-to-assets ratio), and—for countries where it is available—stock market overvaluation (price-to-earnings ratio). When foreign currency share data are not available, machine-learning methods deliver superior performance, and, in addition to the above variables, global factors (TED spread, US term premium) are identified as important.

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CHAPTER 3

2019 INDIVIDUAL ECONOMY ASSESSMENTS

Methodology and Process

The individual economy assessments use a wide range of methods to form an integrated and multilaterally consistent view on economies' external sector positions. These methods are grounded in the latest vintage of the External Balance Assessment (EBA), developed by the IMF's Research Department to estimate desired current account balances and real exchange rates.[1] Model estimates and associated discussions on policy distortions (see Box 3.1 for an example) are accompanied by a holistic view of other external indicators, including capital and financial account flows and measures, foreign exchange intervention and reserves adequacy, and foreign asset or liability positions.[2]

The EBA models provide numerical inputs for the identification of external imbalances but in some cases may not sufficiently capture all relevant country characteristics and potential policy distortions. In such cases, the individual economy assessments may need to be complemented by country-specific knowledge and insights. To integrate country-specific judgment in an objective, rigorous, and evenhanded manner, a process was developed for multilaterally consistent external assessments for the 30 largest economies, representing about 90 percent of global GDP. These assessments are also discussed with the respective authorities as part of bilateral surveillance.

External assessments are presented in ranges, in recognition of inherent uncertainties, and in different categories generally reflecting deviations of the overall external position from fundamentals and desired policies. As reported in Table 1.4, the ranges of uncertainty for IMF staff–assessed current account gaps are generally about ±1 percent of GDP. For the real effective exchange rate (REER), the ranges of uncertainty vary by country, reflecting country-specific factors, including different exchange rate semi-elasticities applied to the staff-assessed current account gaps. Overall external positions are labeled as either "broadly in line," "moderately weaker (stronger)," "weaker (stronger)," or "substantially weaker (stronger)" (see Table 3.A and Box 1.1). The criteria for applying the labels to overall external positions are multidimensional. Regarding the wording to describe the current account and REER gaps: (1) when comparing the cyclically adjusted current account to the current account norm, the wording "higher" or "lower" is used, corresponding to positive or negative current account gaps, respectively; (2) a quantitative estimate of the IMF staff's view of the REER gap is generally reported as (–) percent "over" or "under" valued. External positions that are labeled as being "broadly in line" are consistent with current account gaps in the range of ±1 percent of GDP as well as REER gaps in the range that reflects the country-specific exchange rate semi-elasticity (±5 percent based on an elasticity of –0.2).

Selection of Economies

The 30 systemic economies analyzed in detail in this report and included in the individual economy assessments are listed in Table 3.B. They were generally chosen on the basis of a set of criteria, including each economy's global rank in terms of purchasing power GDP, as reported in the IMF's *World Economic Outlook*, and in terms of the level of nominal gross trade and degree of financial integration.

[1]See Cubeddu and others (2019) for a complete description of the EBA methodology and for a description of the most recent refinements.

[2]The individual economy assessments for 2019 are based on data and IMF staff projections as of July 6, 2020, except for cyclical and medium-term variables, which are based on data as of January 31, 2020, preceding the COVID-19 pandemic.

Table 3.A. Description in *External Sector Report* Overall Assessment

CA Gap	REER Gap (Using Elasticity of –0.2)	Description in Overall Assessment
>4%	<–20%	. . . substantially stronger . . .
[2%, 4%]	[–20%, –10%]	. . . stronger . . .
[1%, 2%]	[–10%, –5%]	. . . moderately stronger . . .
[–1%, 1%]	[–5%, 5%]	The external position is broadly in line with fundamentals and desirable policy settings.
[–2%, –1%]	[5%, 10%]	. . . moderately weaker . . .
[–4%, –2%]	[10%, 20%]	. . . weaker . . .
<–4%	>20%	. . . substantially weaker . . .

Table 3.B. Economies Covered in the *External Sector Report*

Argentina	Euro area	Italy	Poland	Sweden
Australia	France	Japan	Russia	Switzerland
Belgium	Germany	Korea	Saudi Arabia	Thailand
Brazil	Hong Kong SAR	Malaysia	Singapore	Turkey
Canada	India	Mexico	South Africa	United Kingdom
China	Indonesia	Netherlands	Spain	United States

Box 3.1. Assessing Imbalances: The Role of Policies—An Example

A two-country example is used to clarify how to analyze policy distortions in a multilateral setting and how to distinguish between domestic policy distortions, on which a country might need to take action to reduce its external imbalance, and foreign policy distortions, which require no action by the home country (but for which action by the other would help reduce the external imbalance). Consider a stylized example of a two-country world.

- **Country A** has a large *current account deficit* and a large fiscal deficit, as well as high public and external debt.
- **Country B** has a *current account surplus* (matching the deficit in Country A) and a large creditor position but has no policy distortions.

Overall external assessment: The analysis would show that Country A has an external imbalance reflecting its large fiscal deficit. Country B would have an equal and opposite surplus imbalance. Country A's exchange rate would look overvalued and Country B's undervalued.

Policy gaps: The analysis of policy gaps would show that Country A has a domestic policy distortion that needs adjustment. The analysis would also show that there are no domestic policy gaps in Country B—instead, adjustment by Country A would automatically eliminate the imbalance in Country B.

Individual economy write-ups: While the estimates of the needed *current account adjustment* and associated *real exchange rate change* would be equal and opposite in both cases (given there are only two economies in the world), the individual economy assessments would identify the different issues and risks facing the two economies.

- In the case of Country A, the *capital flows and foreign asset and liability position* sections would note the vulnerabilities arising from international liabilities, and the *potential policy response* section would focus on the need to rein in the *fiscal deficit* and limit *financial excesses*.
- For Country B, however, as there were no domestic policy distortions, the write-up would find no fault with policies and would note that adjustment among other economies would help reduce the imbalance.

Implications: It remains critical to distinguish between domestic and foreign fiscal policy gaps. The elimination of the fiscal policy gap in a systemic deficit economy would help reduce excess surpluses in other systemic economies.

Abbreviations and Acronyms

Adj.	adjusted
ARA	assessing reserve adequacy
BOP	balance of payments
CA	current account
CFM	capital flow management measure
CPI	consumer price index
Cycl.	cyclically
E&O	errors and omissions
EBA	External Balance Assessment
ECB	European Central Bank
eop	end of period
FDI	foreign direct investment
FX	foreign exchange
HKMA	Hong Kong Monetary Authority
IIP	international investment position
LEBAC	central bank short-term instrument (Argentina)
LERS	linked exchange rate system (Hong Kong SAR)
Liab.	liabilities
LIBOR	London interbank offered rate
MAS	Monetary Authority of Singapore
NAFTA	North American Free Trade Agreement
NDF	nondeliverable forward
NEER	nominal effective exchange rate
NFC	nonfinancial corporation
NIIP	net international investment position
NPL	nonperforming loan
PBoC	People's Bank of China
QE	quantitative easing
REER	real effective exchange rate
Res.	residual
RMB	renminbi
SOE	state-owned enterprise
ULC	unit labor cost

Table 3.1. Argentina: Economy Assessment

Overall Assessment: *The external position in 2019 was weaker than the level implied by medium-term fundamentals and desirable policies.* Bringing gross external debt and debt service down to sustainable and manageable levels requires a successful debt operation and policies to ensure a sufficiently high CA surplus over the near and medium term while keeping the real exchange rate near 2019 levels.

Potential Policy Responses: In the near term, policies should 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. Over time, a gradual and growth-friendly fiscal consolidation, combined with prudent monetary policies, is essential to maintain a trade surplus, rebuild international reserves, and ensure debt sustainability, although the path will depend on the evolution of the global pandemic. In addition, structural reforms to boost Argentina's export capacity and measures to encourage FDI in sectors with export potential are required. As stability is established, and the pandemic wanes, a gradual unwinding of CFMs and export taxes will be necessary, provided fiscal consolidation is on track.

Foreign Asset and Liability Position and Trajectory	**Background.** After Argentina regained access to international capital markets in early 2016, its external gross liabilities jumped from 34 percent of GDP at end-2015 to 63 percent at end-2019, the bulk of which was in foreign currency and of a short-term nature (22 percent of GDP came due in 2019). The evolution of the NIIP was less dramatic, as public debt issuances were offset by private capital outflows, with valuation effects resulting from the sharp peso depreciation since mid-2018 playing a mitigating role. Despite the rise in gross indebtedness, the NIIP rose from 2.3 percent in 2017 to about 26 percent of GDP in 2019. **Assessment.** Argentina's public and external debt is unsustainable, and a restructuring with private creditors is ongoing even after a missed payment in May. The debt operation should further raise Argentina's NIIP and reduce external debt service to manageable levels. CFMs introduced in 2019 will remain necessary in the near term to mitigate capital outflow risks. Prospects of market access over the medium term will depend greatly on orderly resolution of the debt problem and implementation of coherent macroeconomic and structural reforms.					
2019 (% GDP)	NIIP: 26.2	Gross Assets: 89.1	Res. Assets: 10.0	Gross Liab.: 62.8	Debt Liab.: 45.6	
Current Account	**Background.** The CA deficit narrowed further to 0.8 percent of GDP in 2019, mainly on account of a sharp import contraction (in line with the recession and sharp peso depreciation) along with a pickup in exports (following the 2018 drought and the anticipated increase in export taxes) and despite higher interest payments abroad. The trade surplus—1.2 percent of GDP through April for goods—is projected to reach 4.2 percent of GDP in 2020 (2.9 percent in 2019), with import compression (aided by a 30 percent tax on imports of services and stringent COVID-19 mitigation measures) more than offsetting lower exports (reflecting COVID-related weakness in external demand and commodity prices). **Assessment.** The EBA CA model estimates a CA norm of about –1.2 percent of GDP, although an upward adjustment of 1.5 percent is necessary to ensure external debt can be brought down to sustainable levels over the medium term. Moreover, with limited access to international capital markets, Argentina cannot sustain CA deficits in the near to medium term. As such, the 2019 cyclically adjusted CA balance of –1.7 percent of GDP is at least 2 percent of GDP weaker than implied by fundamentals and desired policies, a portion of which reflects fiscal policy gaps.					
2019 (% GDP)	Actual CA: –0.8	Cycl. Adj. CA: –1.7	EBA CA Norm: –1.2	EBA CA Gap: –0.5	Staff Adj.: –1.5	Staff CA Gap: –2.0
Real Exchange Rate	**Background.** The official REER depreciated by a further 11 percent on average in 2019 relative to 2018, driven by a sharp nominal depreciation of the peso in the second half of the year (which was only partially offset by an increase in relative prices), reflecting political and policy uncertainty. Through May 2020, the official REER is estimated to have appreciated 18.2 percent relative to the 2019 average, supported by the central bank intervention. **Assessment.** While the CA assessment implies a moderate REER *overvaluation* (15 percent assuming an elasticity of 0.14), the REER-index model suggests an *undervaluation* closer to 6.4 percent. Overall, and given the large REER depreciations since early 2018, which are expected to support a rise in the trade balance going forward, the IMF staff assesses the 2019 REER gap to be in the range of –6.5 to +3.5 percent, with a midpoint of –1.5 percent.					
Capital and Financial Accounts: Flows and Policy Measures	**Background.** Following the August 2019 market turbulence, Argentina lost market access, and capital outflows led to a significant loss of reserves. The authorities introduced CFMs in September 2019 and further tightened them in October and December. Current CFMs include (1) surrender requirement for FX export proceeds, (2) central bank authorization for payment of dividends and profits, and (3) limits on FX purchases by firms and individuals. There are no restrictions on FX deposit withdrawals for individuals or firms. CFMs have been tightened since March 2020, mainly to prevent operations in the parallel exchange rate market, which in May was trading at a premium of 65–80 percent over the official rate. **Assessment.** The CFMs stabilized the peso, contained the reserve loss in 2019, and slowed COVID-triggered capital outflows in 2020. The gap between the official and parallel exchange rates has risen relative to end-2019, reflecting in part a rise in inflation expectations following increased monetary financing for COVID-related fiscal needs. CFMs remain necessary in the near term, but could be gradually unwound as conditions allow, especially to encourage FDI.					
FX Intervention and Reserves Level	**Background.** Gross international reserves had fallen to US$44 billion by end-2019, US$21billion below end-2018 levels, with the bulk of the decline coming in the months following the primary elections and ahead of the adoption of CFMs. After remaining relatively stable through early March 2020, gross reserves had fallen by US$1.7 billion through mid-June, reflecting a combination of debt service payments and FX sales (US$0.7 billion). **Assessment.** Reserve coverage at end-2019 fell to 45 percent of the ARA metric, and net reserves are insufficient to cover FX debt service obligations. Projected trade surpluses, in the context of a successful restructuring of external debt, are necessary to allow a gradual rebuilding of reserve coverage (about ¾ percent of GDP a year initially) and relaxation of CFMs over the medium term. Given low reserve coverage, FX intervention should be limited to softening disorderly conditions.					

Table 3.2. Australia: Economy Assessment

Overall Assessment: *The external position in 2019 was broadly in line with the level implied by medium-term fundamentals and desirable policies.* The CA recorded a surplus of about 0.6 percent of GDP, mainly due to a temporary surge in commodity prices, a ramp-up in resource exports, exchange rate depreciation, and weaker domestic demand, and it is expected to remain in surplus in 2020.

Potential Policy Responses: The recent substantial monetary policy easing and fiscal stimulus are appropriate to support the economy, which has significantly weakened due to the COVID-19 outbreak. The authorities should stand ready to provide additional stimulus if necessary, and particularly in case of a renewed COVID-19 outbreak. Fiscal and monetary stimulus is supporting domestic demand, thereby limiting the projected increase in the CA balance.

Foreign Asset and Liability Position and Trajectory	**Background.** Australia has a large negative NIIP, which is estimated at about –45.6 percent of GDP in 2019. Liabilities are largely denominated in Australian dollars, whereas assets are in foreign currency. Foreign liabilities are composed of about one-quarter FDI, one-half portfolio investment (principally banks' borrowing abroad and foreign holdings of government bonds), and one-quarter other investment and derivatives. The NIIP rose by about 7.9 percent of GDP in 2019, partially due to the valuation effect of the Australian dollar's depreciation versus other key currencies. The NIIP-to-GDP ratio is expected to stabilize at about –43 percent of GDP over the medium term. **Assessment.** The NIIP level and trajectory are sustainable. Staff analysis suggests that the NIIP will be stable at about current levels over the medium term, with a CA deficit at about 2.3 percent of GDP. The structure of Australia's external balance sheet reduces the vulnerability associated with its high negative NIIP. With a positive net foreign currency asset position, a nominal depreciation tends to strengthen the external balance sheet, all else equal. The banking sector's net foreign currency liability position is mostly hedged. The maturity of banks' external funding has lengthened since the global financial crisis, and in a tail risk event in which domestic banks suffer a major loss, the government's strong balance sheet position would allow it to offer credible support.				
2019 (% GDP)	NIIP: –45.6	Gross Assets: 151.1	Debt Assets: 44.4	Gross Liab.: 196.7	Debt Liab.: 94.8
Current Account	**Background.** Australia has run CA deficits for most of its history, reflecting a structural saving-investment imbalance with very high private investment relative to a private saving rate that is already high by advanced economy standards. Since the early 1980s, deficits have averaged about 4 percent of GDP. The CA balance in 2019 risen to a surplus of 0.6 percent of GDP, reflecting mostly strong iron ore prices and a ramp-up in new resource exports, including liquefied natural gas. The CA surplus is expected to widen to about 1.2 percent of GDP in 2020, reflecting resilient foreign demand for Australia's commodity exports and a steep decline in services imports (especially tourism) related to the border closure. While there is significant uncertainty, the CA is expected to return to a deficit over the medium term, albeit at a level lower than the historical average. Key risks are a deeper-than-expected slowdown in Australia's major trading partners and further declines in commodity prices. **Assessment.** Considering the relative output gaps and the cyclical component of the commodity terms of trade, the EBA model estimates a cyclically adjusted CA balance of 0.3 percent of GDP for 2019. Compared with the EBA CA norm of –0.1 percent of GDP, this suggests a model-based CA gap of 0.5 percent of GDP. However, in the IMF staff's view, two adjustments are warranted: (1) the CA norm for Australia should be adjusted by –1.0 percent of GDP (which implies an adjusted CA norm of –1.1 percent of GDP), reflecting Australia's traditionally large investment needs due to its size, low population density, and initial conditions; and (2) given that the EBA model may be underestimating the cyclical effects related to the temporary surge in iron ore prices, the cyclically adjusted CA balance should be adjusted by –0.7 percent of GDP (iron ore prices increased about 20 percent above medium-term *World Economic Outlook* commodity price assumptions, and iron ore exports amount to about 3.3 percent of GDP). Taking these adjustments into consideration, the IMF staff–adjusted CA gap would be in the range of 0.3 to 1.3 percent of GDP (with a midpoint of 0.8 percent of GDP).					
2019 (% GDP)	Actual CA: 0.6	Cycl. Adj. CA: 0.3	EBA CA Norm: –0.1	EBA CA Gap: 0.5	Staff Adj.: 0.3	Staff CA Gap: 0.8
Real Exchange Rate	**Background.** Australia's REER has entered an overall depreciation path since the unwinding of the commodity boom in 2014. The 2019 REER was about 4.5 percent below the 2018 average, partly reflecting uncertainties related to US-China trade tensions, volatile commodity prices, and a narrowing interest rate gap between Australian bonds and US Treasury bills. As of May 2020, the REER had depreciated by about 1.9 percent relative to the 2019 average amid significant financial market volatility and weaker demand and prices for Australia's key commodity and service exports due to the COVID-19 outbreak. **Assessment.** For 2019, the IMF staff–assessed REER gap is estimated to be in the range of –1.5 to –6.5 percent, with a midpoint of –4 percent, consistent with the staff CA gap.[1]					
Capital and Financial Accounts: Flows and Policy Measures	**Background.** The financial account recorded net outflows in 2019, reflecting the rise in the CA balance. FDI continued in 2019 but was offset by portfolio investment outflows, against a backdrop of higher interest rates abroad. The financial account deficit widened in the first quarter of 2020, reflecting the CA surplus amid sizable portfolio investment outflows and weaker FDI inflows due to the COVID-19 shock. **Assessment.** Vulnerabilities related to the financial account remain contained, supported by a credible commitment to a floating exchange rate.					
FX Intervention and Reserves Level	**Background.** The currency has been free floating since 1983. The central bank has not intervened in the foreign exchange market since the global financial crisis. The authorities are strongly committed to a floating regime, which reduces the need for reserve holdings. **Assessment.** Although domestic banks' external liabilities are sizable, they are either in local currency or hedged, so reserve needs for prudential reasons are also limited.					

Table 3.3. Belgium: Economy Assessment

Overall Assessment: *The external position in 2019 was weaker than the level implied by medium-term fundamentals and desirable policies.*

Potential Policy Responses: The COVID-19 pandemic prompted a sizable fiscal policy response to bolster the health care system and support affected firms and individuals. In the near term, containing the health and economic impact of the pandemic should remain the overarching policy priority. Uncertainty surrounding the medium-term outlook is unusually large. If the imbalances that existed prior to the COVID-19 outbreak were to persist in the medium term, policies would need to refocus on improving competitiveness by reinvigorating structural reforms and on rebuilding fiscal space once the recovery is secured. These could also help bring the CA more in line with medium-term fundamentals and desirable policies.

Foreign Asset and Liability Position and Trajectory	**Background.** The NIIP remains strong, at 38 percent of GDP at end-2019, up from 35 percent at end-2018, reflecting the continued positive net financial wealth of households. Gross foreign assets were large at 425 percent of GDP, inflated by intragroup corporate treasury activities. Gross foreign assets of the banking sector stood at 80 percent of GDP, down considerably from the precrisis peak. External public debt was 65 percent of GDP, predominantly denominated in euros. TARGET2 balances averaged –€27.4 billion (–5.8 percent of GDP) in 2019, up from –€9.9 billion in 2018. **Assessment.** Belgium's large gross international asset and liability positions are inflated by the presence of corporate treasury units, which do not appear to create macro-relevant mismatches. Based on the projected CA and growth paths, the NIIP-to-GDP ratio is expected to decline going forward. The large and positive NIIP and its trajectory do not raise sustainability concerns.				
2019 (% GDP)	NIIP: 37.6	Gross Assets: 425.0	Debt Assets: 171.3	Gross Liab.: 387.4	Debt Liab.: 184.2

Current Account	**Background.** Since the global financial crisis, the CA balance averaged 0.3 percent of GDP during 2010–18, although data have been subject to large historical revisions.[1] The relative stability in the CA masks significant movements in the trade and primary income balances, reflecting large operations of multinationals. In 2019, the CA balance registered a deficit of 1.2 percent of GDP, slightly lower than in 2018 (by 0.2 percent), as imports slowed more than exports, and a decrease in current transfers largely offset a modest decline in net primary income. For 2020, the CA deficit is projected to narrow further, as imports are expected to contract more than exports given depressed domestic and external demand, the large foreign content of exports, and a significant terms-of-trade improvement driven by lower oil prices; the income balance is expected to remain broadly unchanged. Indeed, the first quarter national accounts data confirm that imports contracted more than exports (–4.7 relative to –3.8 percent, quarter over quarter). **Assessment.** EBA model estimates yield a CA gap of –3.5 percent of GDP for 2019, based on a cyclically adjusted CA balance of –1.1 percent (relative to an estimated norm of 2.3 percent). This is within the range estimated by the IMF staff for the CA gap of between –4.5 and –2.5 percent of GDP, which applies a standard range for the CA gap of ±1 percent of GDP.					
2019 (% GDP)	Actual CA: –1.2	Cycl. Adj. CA: –1.1	EBA CA Norm: 2.3	EBA CA Gap: –3.5	Staff Adj.: 0.0	Staff CA Gap: –3.5

Real Exchange Rate	**Background.** The REER (both ULC- and CPI-based) appreciated by nearly 20 percent during 2000–09. Over the past decade the REER has been more volatile, with wage moderation contributing to a 6 percent depreciation of both the ULC- and CPI-based REER in 2014–15, which has since been largely reversed. In 2019, the ULC- and CPI-based REER depreciated by 2.0 and 1.5 percent, respectively, relative to the 2018 average. By end-May 2020, the ULC-based REER had further depreciated by 4.5 percent, while the CPI-based REER appreciated by 0.8 percent, relative to their respective 2019 averages. **Assessment.** EBA model estimates point to an REER overvaluation of between 9 and 17 percent, based on the CPI-based REER index and level models; the REER overvaluation resulting from the IMF staff CA gap is 8.3 percent, using an elasticity of 0.42. The IMF staff assesses the REER to be overvalued in the range of 6 to 11 percent, with a midpoint of 8.5 percent.[2]
Capital and Financial Accounts: Flows and Policy Measures	**Background.** Gross financial outflows and inflows were on an upward trend during the precrisis period as banks expanded their cross-border operations. Since the crisis, these flows have shrunk and become more volatile as banks have deleveraged. Short-term external debt accounted for 27 percent of gross external debt at end-2019. The capital account is open. **Assessment.** Belgium remains exposed to financial market risks, but the structure of financial flows does not point to specific vulnerabilities. The large and positive NIIP reduces the vulnerabilities associated with high external public debt.
FX Intervention and Reserves Level	**Background.** The euro has the status of a global reserve currency. **Assessment.** Reserves held by the euro area are typically low relative to standard metrics, but the currency is free floating.

Table 3.4. Brazil: Economy Assessment

Overall Assessment: *The external position in 2019 was moderately weaker than the level implied by medium-term fundamentals and desirable policies.* In the wake of the COVID-19 shock, the CA deficit is projected to narrow in 2020 on account of the currency depreciation and weaker domestic demand.

Potential Policy Responses: If imbalances that existed prior to the COVID-19 outbreak persist in the medium term, efforts to raise national saving remain essential to provide room for a sustainable expansion in investment. Fiscal consolidation, anchored by the federal spending cap, will be needed to boost net public saving. Structural reforms to improve efficiency and reduce the cost of doing business would also help strengthen competitiveness. Foreign exchange intervention, including using derivatives, can be appropriate to alleviate disorderly market conditions in the foreign exchange market.

Foreign Asset and Liability Position and Trajectory	**Background.** Brazil's NIIP was –39.8 percent of GDP at end-2019, weaker than the 2013–18 average (about –29 percent of GDP). At end-2019 external debt accounted for about 37 percent of GDP and 264 percent of exports. At the end of the first quarter of 2020, the negative NIIP had shrunk substantially compared with end-2019 due to a combination of exchange rate valuation effects (assets tend to be in FX, while liabilities are concentrated in local currency) and a fall in domestic equity price. **Assessment.** Brazil's NIIP has remained negative since the series was first published in 2001. Short-term gross external financing needs are significant, at about 13 percent of projected 2020 GDP, with capital flows and the exchange rate particularly sensitive to global financing conditions.				
2019 (% GDP)	NIIP: –39.8	Gross Assets: 48.6	Res. Assets: 19.4	Gross Liab.: 88.4	Debt Liab.: 23.1

Current Account	**Background.** The CA deficit widened from –2.2 percent of GDP in 2018 to –2.7 in 2019 due to a modest pickup in domestic demand, a slowdown in external demand (exports to key trading partners China and Argentina declined by 2 and 34 percent, respectively), and fairly sizable statistical revisions. Relative to last year's ESR assessment, the CA has been revised to show larger deficits for 2018 and 2019 because of statistical revisions to improve data quality.[1] During January–April 2020, the trade balance declined slightly compared with the same period in 2019 on the back of lower manufacturing exports. Over the year, the IMF staff projects a narrowing in the CA deficit to about –1.7 percent of GDP as the sharp currency depreciation boosts the trade surplus and lower service imports and distribution of profits and dividends reduce the service and income deficits. **Assessment.** In 2019, the cyclically adjusted CA deficit was –3.7 percent of GDP, reflecting a still large negative output gap. EBA estimates suggest a CA norm in 2019 of –2.5 percent of GDP. The IMF staff assesses a CA norm between –2 and –3 percent of GDP. Thus, the CA is assessed to have been moderately weaker than the level implied by fundamentals and desirable policies. The medium-term outlook for the CA is difficult to assess given the unfolding COVID-19 crisis and related policy response.					
2019 (% GDP)	Actual CA: –2.7	Cycl. Adj. CA: –3.7	EBA CA Norm: –2.5	EBA CA Gap: –1.2	Staff Adj.: 0	Staff CA Gap: –1.2

Real Exchange Rate	**Background.** After depreciating by about 8 percent in 2018, the REER (Information Notice System) was broadly stable in 2019, depreciating by 1.9 percent relative to 2018. In 2020 the REER has depreciated sharply. As of May 2020, the REER had depreciated by about 26.8 percent relative to 2019 average. Depreciation pressures have subsided since mid-May, but uncertainty remains high. **Assessment.** Based on the results of the EBA CA balance and the REER index and level methodologies, the IMF staff assesses the REER gap at end-2019 to be in the range of –4 to 11 percent, with a midpoint of 3.5 percent.[2]
Capital and Financial Accounts: Flows and Policy Measures	**Background.** Net FDI has fully financed CA deficits since 2015 (averaging 3.2 percent of GDP during 2015–19, while CA deficits averaged 2 percent), despite net portfolio outflows of (0.6 percent of GDP on average during 2015–19). In early 2020, however, net portfolio outflows accelerated sharply (1.6 percent of GDP in 2020:Q1) before beginning to ease in late April. FDI inflows have been stronger than in the same period in 2019, supported by high intercompany lending, but portfolio equity investment has declined sharply as foreign investors sold off their shares. Sizable external buffers and a new swap line with the US Federal Reserve for US$60 billion provide a comfortable cushion against external shocks. **Assessment.** The high degree of uncertainty about the scarring effects of COVID-19 on the global economy makes it challenging to assess the medium-term prospects for capital flows. A renewed spike in international risk aversion, potentially linked to a second wave of COVID-19, could trigger a new bout of capital market volatility.
FX Intervention and Reserves Level	**Background.** Brazil has a floating exchange rate. Between August and December 2019, the central bank unwound part of its FX swap position while selling dollars in the spot market in nearly equivalent amounts in response to an increasing demand for spot dollars and decreasing demand for FX hedging in Brazil. Consequently, gross reserves fell by about US$19 billion in 2019 and ended the year at US$357 billion—about 19 percent of GDP or 154 percent of the IMF's composite reserve adequacy metric. Gross reserves net of FX swaps stood at US$322 billion at end-2019. To dampen excess exchange rate volatility during the COVID-19 shock, the central bank sold FX in the spot, repo, and FX swap markets in the year through June 10. Nevertheless, reserves remain adequate at US$348 billion, while gross reserves net of FX swaps declined to US$289 billion. **Assessment.** The flexible exchange rate has been an important shock absorber. Reserves are adequate relative to various criteria, including the IMF's reserve adequacy metric, and serve as insurance against external shocks. The authorities should retain strong external buffers, with intervention limited to addressing disorderly market conditions.

Table 3.5. Canada: Economy Assessment

Overall Assessment: *The external position in 2019 was moderately weaker than the level implied by medium-term fundamentals and desirable policies, mainly reflecting sustained but declining CA deficits.* It will take time for the economy to adjust to structural shifts in the allocation of resources, restore lost production capacity, and address productivity underperformance. The CA deficit is expected to expand in the near term—largely due to the impact of COVID-19 and lower oil prices—but then narrow in the medium term as nonenergy exports gradually benefit from improved price competitiveness.

Potential Policy Responses: If imbalances that existed prior to the COVID-19 outbreak persist in the medium term, policies should aim to boost Canada's nonenergy exports. These policies include measures geared toward improving labor productivity, investing in R&D and physical capital, promoting FDI, developing services exports, and diversifying Canada's export markets. The planned increase in public infrastructure investment should boost competitiveness and improve the external position in the medium term. The recent sharp increase in government debt that resulted from the government's response to COVID-19 increases the importance of developing a credible medium-term fiscal consolidation plan to support external rebalancing.

Foreign Asset and Liability Position and Trajectory	**Background.** Despite running a CA deficit, Canada's NIIP has risen since 2010, reaching 44.2 percent of GDP in 2019, up from 20.8 percent in 2015 and –18.4 percent in 2010. This largely reflects valuation gains on external assets. At the same time, gross external debt increased to 119.8 percent of GDP, of which about one-third is short term. **Assessment.** Canada's foreign assets have a higher foreign currency component than its liabilities, which provides a hedge against currency depreciation. The NIIP level and trajectory are sustainable.					
2019 (% GDP)	NIIP: 44.2	Gross Assets: 252.9	Debt Assets: 64.5	Gross Liab.: 208.7	Debt Liab.: 111.7	
Current Account	**Background.** The CA deficit stood at 2.0 percent of GDP in 2019, down from 2.5 percent of GDP in 2018, reflecting improvements in the trade (merchandise and services) and primary income balances. The CA deficit is expected to widen to 3.7 percent of GDP in 2020, reflecting the impact of COVID-19 and a sharp decline in oil prices. The CA deficit has been financed by non-FDI net financial inflows, which have more than offset net outflows of FDI. **Assessment.** The EBA estimates a CA norm of 2.2 percent of GDP and a cyclically adjusted CA of –1.9 percent of GDP for 2019. Helped by a narrowing in the CA deficit, the EBA gap shrunk (in absolute value) relative to 2018. The IMF staff assesses the CA gap to be narrower after taking into account (1) CA measurement issues,[1] (2) the authorities' demographic projections and current immigration targets,[2] and (3) the steeper-than-usual discount between Canadian oil prices and international prices.[3] Taking these factors into consideration, the IMF staff assesses the CA to be moderately lower than warranted by fundamentals and desired policies, with a gap ranging between –3.3 and –0.3 percent of GDP.					
2019 (% GDP)	Actual CA: –2.0	Cycl. Adj. CA: –1.9	EBA CA Norm: 2.2	EBA CA Gap: –4.1	Staff Adj.: 2.3	Staff CA Gap: –1.8
Real Exchange Rate	**Background.** The year average REER depreciated by about 0.5 percent in 2018 and by 1.0 percent in 2019. Relative to the 2019 average, the REER depreciated by 3.6 percent through May 2020. **Assessment.** The EBA REER index model points to an overvaluation of 2.1 percent in 2019, while the REER level model points to an undervaluation of about 6.0 percent. In the IMF staff's view, the REER level model could overstate the extent of undervaluation.[4] Consistent with the staff CA gap, the IMF staff assesses the REER to be overvalued in the range of 1.5 to 12.6 percent, with a midpoint of 7 percent.[5]					
Capital and Financial Accounts: Flows and Policy Measures	**Background.** The CA deficit in 2019 was financed by non-FDI net financial inflows: portfolio (0.2 percent of GDP), other investment (2.8 percent of GDP), and change in reserve assets (0.1 percent of GDP). FDI recorded net outflows of 1.5 percent of GDP (higher than the net outflows of 2018 but lower than those of 2017 and 2016). In 2019, errors and omissions recorded an inflow of 0.4 percent of GDP. **Assessment.** Canada has an open capital account. Vulnerabilities are limited by a credible commitment to a floating exchange rate.					
FX Intervention and Reserves Level	**Background.** Canada has a free-floating exchange rate regime and has not intervened in the foreign exchange market since September 1998 (with the exception of participating in concerted international interventions). Canada has limited reserves, but its central bank has standing swap arrangements with the US Federal Reserve and four other major central banks (it has not drawn on these swap lines). **Assessment.** Policies in this area are appropriate to the circumstances of Canada. The authorities are strongly committed to a floating regime, which, together with the swap arrangement, reduces the need for reserve holdings.					

Table 3.6. China: Economy Assessment

Overall Assessment: *The external position in 2019 was broadly in line with the level implied by medium-term fundamentals and desirable policies.* The CA surplus is expected to widen in 2020 amid the pandemic, and trend downward over the medium term in line with rebalancing.

Potential Policy Responses: Policy reactions have appropriately prioritized support to the most affected households, workers, and firms, with increased focus on further supporting the demand recovery. China has room to provide more policy support if needed, including on green investment and strengthening the public health system and social safety net. If imbalances that existed prior to the COVID-19 outbreak persist in the medium term, policies to achieve a lasting balance in the external position should include a gradual fiscal consolidation and successful implementation of the authorities' reform agenda, which addresses distortions and supports rebalancing. Reform priorities include improving the social safety net, SOE reform and opening markets to more competition, attracting more FDI, creating a more market-based and robust financial system, and moving to a more flexible exchange rate along with a more market-based and transparent monetary policy framework.

Foreign Asset and Liability Position and Trajectory	**Background.** The NIIP declined to 14.4 percent of GDP in 2019 from 15.5 percent in 2018, after peaking at 30.4 percent in 2008. This decline reflects lower loans extended abroad and higher securities investment received amid robust GDP growth, despite a higher CA surplus. **Assessment.** The NIIP-to-GDP ratio is expected to remain positive, with a modest decline over the medium term. The NIIP is not a major source of risk at this point, as assets remain high—reflecting large foreign reserves (US$3.2 trillion; 21.9 percent of GDP)—and liabilities are mostly FDI related.					
2019 (% GDP)	NIIP: 14.4	Gross Assets: 52.4	Res. Assets: 21.9	Gross Liab.: 37.9	Debt Liab.: 12.2	
Current Account	**Background.** The CA surplus widened to 1 percent of GDP in 2019, reflecting the economic slowdown arising from continued financial regulatory strengthening and US-China trade tensions. Trade flows (especially those related to the inventory cycle) in 2018–19 shifted in response to expected and realized tariff hikes, contributing to a lower trade balance in 2018 and a higher balance in 2019. Moreover, imported foreign inputs for exports fell with signs of accelerated "onshoring" and adjustments in global value chains, though their long-term effect on the CA balance remains unclear. Lower commodity and semiconductor import prices also boosted the trade balance, while outbound tourism spending declined (by ¼ percent of GDP) following a pronounced slowdown in overseas travel and lower tourism spending. Viewed from a longer perspective, the CA surplus has been trending down from the peak of 10 percent of GDP in 2007, reflecting strong investment growth, REER appreciation, weak external demand, and progress in rebalancing. In the first quarter of 2020, the CA turned to a deficit of 1 percent of GDP, as exports declined sharply due to production disruptions. For the year, the CA balance is expected to post a surplus of 1.3 percent, reflecting the combined effects of weaker demand, lower commodity prices, international travel disruptions, and a higher income deficit. The CA surplus is projected to converge to about 0.5 percent of GDP over the medium term, in line with continued rebalancing. **Assessment.** The EBA CA methodology estimates the CA gap to be 1.2 percent of GDP. Considering that shifts in timing of trade and the accelerated onshoring raised the CA surplus by about ¼ percent of GDP, the IMF staff assesses the CA gap to range from –0.5 to 2.5 percent of GDP, with a midpoint of 1 percent. This assessment is subject to uncertainties around the degree of the temporary nature of these factors. The EBA identified policy gaps are close to nil on balance, reflecting the impact of loose fiscal policy offsetting that of a relatively closed capital account (in a de jure sense), while the earlier negative credit gap was closed following moderate credit growth. The overall gap is accounted for by the residual, which reflects other factors, including distortions that encourage excessive saving.					
2019 (% GDP)	Actual CA: 1.0	Cycl. Adj. CA: 0.8	EBA CA Norm: –0.4	EBA CA Gap: 1.2	Staff Adj.: –0.2	Staff CA Gap: 1.0
Real Exchange Rate	**Background.** In 2019, the REER depreciated by 0.8 percent from the 2018 average. The signaling effect from a stronger use of the countercyclical adjustment factor (CCAF) helped counter the depreciation pressure from heightened trade tensions, leading to a moderate NEER depreciation (1.8 percent). As of May, the REER had appreciated by about 1.8 percent from the 2019 average. **Assessment.** The EBA REER index regression estimates the REER gap to be –1.1 percent and that resulting from the IMF staff CA gap (using an elasticity of 0.23) to be –4.4 percent. Overall, the staff assesses the REER gap to be in the range of –12 to 8 percent, with a midpoint of –2 percent, while noting that the RMB depreciation was driven largely by the escalation of trade tensions. The assessment, in this context, is subject to especially high uncertainty.					
Capital and Financial Accounts: Flows and Policy Measures	**Background.** Capital outflows increased to about US$160 billion in 2019, up from US$6 billion in 2018. Benefiting partially from continued opening, despite external pressure and weaker domestic growth, the amount was significantly below the annual outflows of about US$650 billion in 2015–16. A 20 percent reserve requirement on FX forwards, a CFM, and the CCAF (both reintroduced in 2018) remain in place. Two CFMs were eased in 2020 to attract inflows; the ceiling on cross-border financing under the macroprudential assessment framework was raised by 25 percent and restrictions on the investment quota of foreign institutional investors (QFII and RQFII) were removed. **Assessment.** While currently absent, substantial net outflow pressures may resurface as the private sector seeks to accumulate foreign assets faster than nonresidents accumulate Chinese assets. Over the medium term, the sequence of further capital account opening consistent with exchange rate flexibility should carefully consider domestic financial stability. Specifically, further capital account opening is likely to create substantially larger two-way gross flows. Hence, the associated balance sheet adjustments and the shifts in market sentiment require prioritizing the shift to an effective float (while using FX intervention to counter disorderly market conditions) and strengthening domestic financial stability prior to a substantial further opening. Efforts should be redoubled to encourage inward FDI, support growth, and improve corporate governance. CFMs should not be used to actively manage the capital flow cycle or substitute for warranted macroeconomic adjustment and exchange rate flexibility.					
FX Intervention and Reserves Level	**Background.** FX reserves increased by US$35 billion in 2019, following a decline of US$67 billion in 2018, reflecting mainly valuation effects, interest income, and adjustments in net forward positions, with no sign of large FX intervention. FX reserves had declined by US$6 billion as of May. **Assessment.** The level of reserves—at 82 percent of the IMF's standard composite metric at end-2019 (89 percent in 2018) and 133 percent of the metric adjusted for capital controls (143 percent in 2018)—is assessed to be adequate. The decline in the ratios reflects higher broad money growth, external debt, and other liabilities that raised the metric.					

Table 3.7. Euro Area: Economy Assessment

Overall Assessment: *The external position in 2019 was moderately stronger than the level implied by medium-term fundamentals and desirable policies.* This year, the impact of the pandemic on the CA balance, which is projected to narrow 2.3 percent in 2020, is highly uncertain amid the collapse in global trade and investment income. In the medium term, the CA surplus is projected to narrow slightly from 2019 levels, although the range of uncertainty around this is very high given the nature of this crisis. Nevertheless, imbalances that existed prior to the COVID-19 outbreak could remain sizable at the national level.

Potential Policy Responses: Short-term policies should focus on containing the COVID-19 outbreak and its economic consequences and provide relief to households and firms to reduce scarring from the crisis. The recent EU-level COVID-crisis initiatives will support these efforts and potentially help reduce imbalances. While medium-term outcomes are subject to significant uncertainty, monetary policy should remain accommodative until inflation has durably converged to the ECB's medium-term price stability objective. If imbalances in policy gaps that existed prior to COVID-19 were to persist at the national level, then countries with excess CA surpluses should continue to strengthen investment and potential growth, whereas those with weak external positions should undertake reforms to raise productivity and enhance competitiveness as the acute phase of the pandemic recedes. Area-wide initiatives to make the currency union more resilient (for example, banking and capital markets union and fiscal capacity for macroeconomic stabilization) could further reinvigorate investment and, hence, reduce the aggregate CA surplus.

Foreign Asset and Liability Position and Trajectory	**Background.** The NIIP of the euro area had fallen to about –23 percent of GDP by the end of 2009, but has since recovered, reaching about –51 percent by the end of 2019. The rise was driven by stronger CA balances and modest nominal GDP growth. The increase in the NIIP during 2019 reflects primarily transactions and exchange rate changes, especially the net increase in "other investment" assets. Gross foreign positions were about 243 percent of GDP for assets and 244 percent of GDP for liabilities in 2019. However, net external assets reached elevated levels in large net external creditors (for example, Germany and the Netherlands), whereas net external liabilities remained high in some countries, including Portugal and Spain. **Assessment.** Projections of continued CA surpluses suggest that the NIIP-to-GDP ratio will rise further, at a moderate pace, and the euro area is expected to soon become a net external creditor. The region's overall NIIP financing vulnerabilities appear low. Despite rising CA balances, large net external debtor countries still bear a greater risk of a sudden stop of gross inflows.					
2019 (% GDP)	NIIP: –0.5	Gross Assets: 243.3	Debt Assets: 95.4	Gross Liab.: 243.8	Debt Liab.: 94.7	
Current Account	**Background.** The CA balance for the euro area stood at 2.7 percent in 2019, lower than in 2018, following a steady increase from close to zero in 2011. A stronger goods balance was more than offset by weaknesses in services and investment income balances. Some large creditor countries, such as Germany and the Netherlands, continued to have sizable surpluses, reflecting strong corporate and household saving and weak investment. The CA surplus widened in the first quarter of 2020, year over year, driven by the goods balance. **Assessment.** The EBA model estimates a CA norm of 1.4 percent of GDP, against a cyclically adjusted CA of 2.7 percent of GDP. This implies a gap of 1.3 percent of GDP. IMF staff analysis indicates a higher CA norm than estimated by the EBA model, consistent with the assessed external positions of euro area member countries. The higher CA norm considers policy commitments to reduce the large net external liability positions in some countries (for example, Portugal and Spain) and uncertainty about the demographic outlook and the impact of recent large-scale immigration (for example, Germany). In addition, adjustments to the underlying CA for measurement issues were undertaken in Ireland and the Netherlands. Considering these factors and uncertainties in the estimates, the IMF staff assesses the CA gap to be 1.2 percent for 2019, with a range of 0.4 to 2.0 percent of GDP.					
2019 (% GDP)	Actual CA: 2.7	Cycl. Adj. CA: 2.7	EBA CA Norm: 1.4	EBA CA Gap: 1.3	Staff Adj.: –0.1	Staff CA Gap: 1.2
Real Exchange Rate	**Background.** The CPI-based REER depreciated by 3.1 percent in 2019, reversing the appreciation in 2018. This reflected a nominal depreciation of 1.5 percent in 2019, which was reinforced by weaker euro area inflation relative to its trading partners. The ULC-based REER depreciated by 2.3 percent. Other published REERs based on extra-euro-area trading partners depreciated by 1.6 percent on average. The REER continued to depreciate until February 2020, before reversing course in March. As of May, the REER appreciated by about 0.9 percent from the 2019 average. **Assessment.** The EBA REER index model suggests an overvaluation of 4.2 percent, and the EBA REER-level model implies an undervaluation of 0.7 percent. The REER gap derived from the IMF staff's CA gap assessment, with an estimated elasticity of 0.35, implies that the real exchange rate was undervalued by 3.4 percent in 2019.[1] Given the high uncertainty around these estimates, the staff-assessed REER gap range is –5.7 to 0, with a midpoint of –2.8.[2] As with the CA, the aggregate REER gap masks a large degree of heterogeneity in REER gaps across euro area member states, ranging from an undervaluation of 11 percent in Germany to overvaluations of 0 to 9 percent in several small to mid-sized euro area member states. The large differences in REER gaps within the euro area highlight the continued need for net external debtor countries to improve their external competitiveness and for net external creditor countries to boost domestic demand.					
Capital and Financial Accounts: Flows and Policy Measures	**Background.** Mirroring the 2019 CA surplus, the euro area experienced net capital outflows, driven largely by transactions in direct investment to the United Kingdom and the United States, and other investment outflows as banks reduced external liabilities. These were somewhat tempered by net portfolio debt inflows. In the first quarter of 2020, the euro area experienced net capital outflows, driven mainly by FDI and other investment flows. **Assessment.** Gross external indebtedness of euro area residents decreased by 1.3 percent of GDP as higher external long-term sovereign debt was more than offset by lower other investment liabilities of banks and interoffice FDI debt.					
FX Intervention and Reserves Level	**Background.** The euro has the status of a global reserve currency. **Assessment.** Reserves held by euro area economies are typically low relative to standard metrics, but the currency is free floating.					

Table 3.8. France: Economy Assessment

Overall Assessment: *The external position in 2019 was moderately weaker than the level implied by medium-term fundamentals and desirable policies.*

Potential Policy Responses: In response to the COVID-19 pandemic, France deployed significant fiscal resources to bolster the health care system and provide targeted support to affected firms and individuals. In the near term, efforts should continue to focus on saving lives and supporting those most affected by the crisis. Uncertainty surrounding the medium-term outlook is unusually large. If the imbalances that existed prior to the COVID-19 outbreak were to persist in the medium term, policies would need to refocus on improving competitiveness by reinvigorating structural reforms and on rebuilding fiscal space once the recovery is secured. These could also help bring the CA more in line with medium-term fundamentals and desirable policies.

Foreign Asset and Liability Position and Trajectory	**Background.** The NIIP stood at –19 percent of GDP at end-2019, slightly below the range observed during 2014–18 (between –15 and –18 percent of GDP). The NIIP had fallen by about 8 percent of GDP since end-2018, largely driven by an increase in banks' and public sector gross debt (11 and 5 percent of GDP, respectively). While the net position is moderately negative, gross positions are large. Gross asset position stood at 299 percent of GDP in 2019, of which banks' non-FDI-related assets account for about 40 percent, reflecting their global activities. On the other hand, gross liabilities reached 318 percent of GDP in 2019, of which external debt is about 218 percent of GDP (53 percent accounted for by banks and 27 percent by the public sector). About three-fourths of France's external debt liabilities are denominated in domestic currency. The average TARGET2 balance in 2019 was only about €100 million. **Assessment.** The NIIP is negative, but its size and projected stable trajectory do not raise sustainability concerns. However, there are vulnerabilities coming from large public external debt (58 percent of GDP) and banks' gross financing needs—the stock of banks' short-term debt securities was €83 billion at end-2019 (3.5 percent of GDP), and financial derivatives stood at about 35 percent of GDP.				
2019 (% GDP)	NIIP: –18.7	Gross Assets: 299.2	Debt Assets: 166.6	Gross Liab.: 317.9	Debt Liab.: 212.0
Current Account	**Background.** The CA deficit remained broadly stable in 2019, at 0.7 percent of GDP (compared with 0.6 percent in 2018). The modest decline in the primary income surplus (by 0.2 percent of GDP from 2018 to 2019) was broadly offset by a small rise in the goods and services trade balance (by 0.1 percent of GDP). The CA deficit over the four quarters up to 2020:Q1 remained unchanged at 0.7 percent of GDP as a fall in the balance on non-oil goods and in the primary balance was offset by a rise in current transfers. For 2020, the IMF staff projects the CA deficit will narrow slightly to about 0.5 percent of GDP, as the contraction in exports and further fall in the primary income balance are expected to be more than offset by a rise in the oil balance, given lower oil prices, and a significant expected contraction in non-oil imports on the back of depressed domestic activity. **Assessment.** The 2019 cyclically adjusted CA deficit is estimated at 0.5 percent of GDP, compared with an EBA-estimated norm of a surplus of 0.6 percent. On this basis, the IMF staff assesses that the CA gap in 2019 was between –1.6 and –0.6 percent of GDP.					
2019 (% GDP)	Actual CA: –0.7	Cycl. Adj. CA: –0.5	EBA CA Norm: 0.6	EBA CA Gap: –1.1	Staff Adj.: 0.0	Staff CA Gap: –1.1
Real Exchange Rate	**Background.** Following a cumulative appreciation of 3.0 and 3.7 percent during 2016–18, mainly due to the appreciation of the euro during that period, the ULC-based and the CPI-based REER depreciated by 3.3 and 1.7 percent, respectively, in 2019. The depreciation of the REER registered in 2019 largely exceeded the depreciation of the euro (the NEER depreciated by only about 1 percent in 2019). Through May 2020, however, the ULC-based REER has appreciated by 9.7 percent with respect to the 2019 average, while the CPI-based REER has depreciated slightly, by 0.2 percent. From a longer perspective, although both REER measures have depreciated by about 9 percent since their peak levels in 2008, France has not managed to regain the loss of about one-third of its export market share registered in the early 2000s (while the export market share of the euro area remained broadly stable between 2000 and 2018). **Assessment.** The EBA REER-index model points to an REER gap of –2.7 percent, while the EBA REER-level model points to an REER gap of 3.2 percent. Meanwhile, given an elasticity of 0.27, the staff CA gap points to an overvaluation of 2.2 to 5.9 percent. In line with estimates derived from the CA assessment, the IMF staff assesses the REER gap to be in the range of 2.2 to 5.9 percent, with a midpoint of 4.1 percent.[1]					
Capital and Financial Accounts: Flows and Policy Measures	**Background.** The CA deficit in 2019 was financed mostly by net portfolio debt inflows (about 3.2 percent of GDP). Outward direct investment flows declined from 4.5 to 2 percent of GDP between 2018 and 2019, falling below inward flows (at about 2.5 percent of GDP) for the first time in six years. Financial derivative flows have grown sizably both on the asset and the liability side since 2008, and especially in 2020:Q1, when asset- and liability-side flows increased to 12 and 18 percent of GDP, respectively, from about 5.5 percent in 2019. The capital account is open. **Assessment.** France remains exposed to financial market risks owing to the large refinancing needs of the sovereign and banking sectors.					
FX Intervention and Reserves Level	**Background.** The euro has the status of a global reserve currency. **Assessment.** Reserves held by the euro area are typically low relative to standard metrics, but the currency is free floating.					

Table 3.9. Germany: Economy Assessment

Overall Assessment: *The external position in 2019 was substantially stronger than the level implied by medium-term fundamentals and desirable policies.* The IMF staff projects a temporary dip in the CA surplus below trend in the near term as the COVID-19 crisis leads to a severe disruption in world trade. Over the medium term—after the impact of the pandemic has receded—the CA surplus is projected to recover and then resume its modest gradual narrowing, supported by a realignment of price competitiveness and solid domestic demand. As Germany is part of the euro area, the nominal exchange rate does not flexibly adjust to the country's external position, but stronger wage growth relative to euro area trading partners is expected to contribute to realigning price competitiveness within the monetary union. However, the projected adjustment is partial, and additional policy actions will be necessary for external rebalancing.

Potential Policy Responses: The sizable fiscal stimulus in response to the COVID crisis is a welcome use of Germany's ample fiscal space. In the near term, policies should continue mitigating the outbreak while supporting households and businesses in a way that minimizes economic scarring and facilitates a swift recovery. If imbalances and policy distortions that existed prior to the COVID-19 outbreak persist in the medium term, a growth-oriented fiscal policy, with greater public sector investment in areas such as digitalization, infrastructure, and climate mitigation, would help crowd in private investment, promote potential growth, and make the economy more resilient. Structural reforms to foster entrepreneurship (for example, by expanding access to venture capital, and stronger tax incentives for research and development) would also stimulate investment and reduce external imbalances. Additional tax relief for lower-income households, boosting their purchasing power, and pension reforms prolonging working lives would help reduce excessive saving and ameliorate external imbalances.

Foreign Asset and Liability Position and Trajectory	**Background.** Germany's positive NIIP surpassed 70 percent of GDP in 2019, more than doubling over the past five years. The net rise in foreign assets over this period, however, still fell short of the accumulation of CA surpluses. The NIIP of financial corporations other than monetary financial institutions is large and positive (65 percent of GDP), whereas that of the general government is large and negative (26 percent of GDP), partly reflecting Germany's safe haven status. The NIIP is expected to exceed 80 percent of German GDP by 2022, as the projected CA surplus remains large through the medium term but is expected to be partly offset by valuation changes. Foreign assets are well diversified by instrument. The stock of Germany's TARGET2 claims on the Eurosystem has gradually come down, standing at €895 billion at end-2019 (26 percent of GDP), down from a peak of over €976 billion in mid-2018. **Assessment.** With implementation of QE measures by the ECB, Germany's exposure to the Eurosystem remains large.					
2019 (% GDP)	NIIP: 70.7	Gross Assets: 273.4	Debt Assets: 148.6	Gross Liab.: 202.7	Debt Liab.: 118.5	
Current Account	**Background.** The CA surplus has widened significantly since 2001, peaking at 8.6 percent of GDP in 2015 and falling gradually since then. In 2019, the CA surplus decreased slightly to 7.1 percent of GDP (from 7.4 percent of GDP in 2018) despite a rise in the oil and gas trade balance (partly due to energy prices falling from the previous year's spike). The bulk of the CA surplus reflects the large saving-investment surpluses of households and the government; the saving-investment balance of nonfinancial corporations, while still positive, has narrowed. In 2020, the CA surplus is projected to temporarily decline to 5.6 percent of GDP. **Assessment.** The cyclically adjusted CA balance reached 7.3 percent of GDP in 2019, 0.4 percentage point below the 2018 level. The IMF staff assesses the CA norm at 2 to 4 percent of GDP, with a midpoint 0.4 percent of GDP above the 2.5 percent CA norm implied by the EBA model. This upward adjustment reflects uncertainty over the demographic outlook and the impact of recent large-scale immigration on national saving. Taking these factors into account, the IMF staff assesses the 2019 CA gap to be in the range of 3.3 to 5.3 percent of GDP.[1,2]					
2019 (% GDP)	Actual CA: 7.1	Cycl. Adj. CA: 7.3	EBA CA Norm: 2.5	EBA CA Gap: 4.7	Staff Adj.: –0.4	Staff CA Gap: 4.3
Real Exchange Rate	**Background.** The yearly average CPI-based REER depreciated by 1.7 percent, while the ULC-based REER appreciated by 3.0 percent in 2019, reflecting the depreciation of the euro against the currencies of key trading partners—most notably the US dollar—amid significant pickup in relative unit labor costs. Through May 2020, the REER has appreciated by 1.0 percent relative to the 2019 average. **Assessment.** The EBA REER-level model yields an undervaluation of 16 percent, whereas the undervaluation implied by the assessed CA gap is in the range of 9 to 14 percent (using an estimated elasticity of about 0.36).[3] Taking these estimates into consideration in conjunction with the 2019 real appreciation in ULC-based terms, the IMF staff assesses the 2019 REER to have been undervalued in the range of 6 to 16 percent, with a midpoint of 11 percent.[4]					
Capital and Financial Accounts: Flows and Policy Measures	**Background.** In 2019, net portfolio outflows comprised almost half of the capital and financial accounts balance, with direct investment being the second largest item (27 percent of total). On a destination basis, over 60 percent of the outflows went to other EU countries, with about 23 percent going to the Americas (mostly the United States). Meanwhile, inflows were primarily accounted for by direct investment and portfolio inflows originating in other EU countries, whereas investment by emerging markets and North America declined. FDI inflows and outflows declined sharply, after rising in 2018, driven mainly by slowing flows between Germany and other EU countries. **Assessment.** Safe haven status and the strength of Germany's current external position limit risks.					
FX Intervention and Reserves Level	**Background.** The euro has the status of a global reserve currency. **Assessment.** Reserves held by euro area countries are typically low relative to standard metrics. The currency floats freely.					

Table 3.10. Hong Kong SAR: Economy Assessment

Overall Assessment: *The external position in 2019 was broadly in line with the level implied by medium-term fundamentals and desirable policies.* The CA surplus widened in 2019, mostly owing to the economic downturn resulting from the domestic social unrest and trade tensions between the United States and China. From a longer-term perspective, the CA surplus remained lower than its pre-2010 level on account of structural factors, including the opening of mainland China's capital account and changes in offshore merchandise trade activities. As a result of Hong Kong SAR's linked exchange rate system (LERS), short-term movements in the REER largely reflect US dollar developments. The credibility of the currency board arrangement is assured by a transparent set of rules governing the arrangement, ample fiscal and FX reserves, strong financial regulation and supervision, a flexible economy, and a prudent fiscal framework.

Potential Policy Responses: In the near term, policies, including expansionary fiscal policy, are needed to cope with the cyclical downturn aggravated by the COVID-19 outbreak and support the recovery. If imbalances that existed prior to the COVID-19 outbreak persist in the medium term, fiscal policy should remain expansionary and measures will be necessary to ensure fiscal sustainability given the rapidly aging population. Maintaining policies that support wage and price flexibility is crucial to preserving competitiveness. Robust and proactive financial supervision and regulation, prudent fiscal management, flexible markets, and the LERS have worked well, and continuation of these policies will help keep the external position broadly in line with fundamentals.

Foreign Asset and Liability Position and Trajectory

Background. The NIIP increased to 427 percent of GDP in 2019 from 354 percent in 2018. Gross assets (1,537 percent of GDP) and liabilities (1,109 percent of GDP) are high, reflecting Hong Kong SAR's status as a global financial center. Valuation changes have been sizable, as the increase in NIIP during 2015–19 (153 percent of 2019 GDP) far exceeded the cumulative financial account balances (21 percent of 2019 GDP).

Assessment. Vulnerabilities are low given the positive and sizable NIIP and its favorable composition. FX reserves are large and stable (121 percent of GDP), and direct investment accounts for a large share of gross assets and liabilities (36 and 51 percent, respectively), whereas only 14 percent of gross liabilities are portfolio liabilities.

2019 (% GDP)	NIIP: 427.4	Gross Assets: 1,536.6	Debt Assets: 527.4	Gross Liab.: 1,109.2	Debt Liab.: 389.0

Current Account

Background. The economy fell into a technical recession in 2019, and the CA surplus widened to 6.2 percent of GDP from 3.7 percent in 2018, driven by a sharp narrowing of the trade deficit in goods. This reflects both weakness in domestic demand from the social unrest and lower oil prices, which were partially offset by weak exports resulting from the trade tensions between the United States and China and a lower services balance (by about 3 percentage points of GDP) from the sharp fall in tourism (–14 percent year over year). From a longer-term perspective, the gradual decline in private saving, driven by robust consumption growth, a tight labor market, and wealth effects related to the strong housing market, accounted for most of the drop in the CA surplus from its peak of 15 percent of GDP in 2008. The CA balance turned into a deficit of 1.4 percent of GDP in the first quarter of 2020, driven mainly by declines in the services and income balances amid the COVID-19 outbreak. The CA surplus is projected to fall below 6.0 percent of GDP in 2020 driven by weak tourism flows, with significant uncertainties from US-China tensions and the cyclical positions of the domestic economy and key trading partners. The CA balance is projected to be about 4.0 percent of GDP over the medium term.

Assessment. The cyclically adjusted CA surplus increased to 5.2 percent of GDP in 2019, which is close to a midpoint of the IMF staff–assessed CA norm range of 2.9 to 5.9 percent of GDP. The staff-assessed CA gap range is hence about –0.7 to 2.3 percent of GDP, with a midpoint of about 0.8 percent. The staff-assessment CA gap reflects mainly the policy gaps related to fiscal policy. Since Hong Kong SAR is not in the EBA sample, the CA norm was estimated by applying EBA-estimated coefficients to Hong Kong SAR and was adjusted for measurement issues related to the large valuation effects in the NIIP and the discrepancies between stocks and flows.[1]

2019 (% GDP)	Actual CA: 6.2	Cycl. Adj. CA: 5.2	EBA CA Norm: —	EBA CA Gap: —	Staff Adj.: —	Staff CA Gap: 0.8

Real Exchange Rate

Background. Under the currency board arrangement, REER dynamics are largely determined by US dollar developments and inflation differentials between the United States and Hong Kong SAR. In line with the US dollar, after appreciating by about 16 percent during 2012–18, the REER appreciated by another 4 percent in 2019. The REER continued to appreciate by about 3.6 percent in the first five months of 2020 compared with its 2019 average.

Assessment. The IMF staff assesses the REER gap, based on a midpoint of the staff CA gap, to be in the range of –7½ to 2½ percent, with a midpoint of –2½ percent (based on CA-REER elasticity of about 0.4).[2]

Capital and Financial Accounts: Flows and Policy Measures

Background. As a global financial center, Hong Kong SAR has an open capital account. Nonreserve financial outflows widened in 2019, largely driven by net portfolio outflows, but turned to inflows in the first quarter of 2020 on strong net portfolio inflows. The financial account is typically very volatile, reflecting financial conditions in Hong Kong SAR and mainland China (transmitted through growing cross-border financial linkages),3 shifting expectations of US monetary policy, and related arbitrage in the FX and rates markets.

Assessment. Large financial resources, proactive financial supervision and regulation, and deep and liquid markets should help limit the risks from potentially volatile capital flows. The greater financial exposure to mainland China could also pose risks to the banking sector if growth on the mainland slows sharply or financial stress emerges amid increasing tension between the United States and China. However, the credit risk appears manageable given the high origination and underwriting standards of Hong Kong SAR banks.

FX Intervention and Reserves Level

Background. As the Hong Kong dollar depreciated to the weak side of convertibility undertaking, the HKMA conducted FX operations as part of the currency board operations, selling US$2.8 billion in March 2019. As Hong Kong interbank offered rates have gradually caught up with London interbank offered rates since then, the spread has narrowed, and the Hong Kong dollar has traded within the convertibility undertaking range. Total reserve assets increased to about 121 percent of GDP at end-2019 (or twice the monetary base), up from 117 percent in 2018. The strong side of the convertibility undertaking was triggered in April and June 2020—driven mainly by increased carry-trade activities and equity-related demand for Hong Kong dollars—prompting the HKMA to sell HK$57.6 billion as part of the currency board arrangement.

Assessment. FX reserves are currently adequate for precautionary purposes and should continue to evolve in line with the automatic adjustment inherent in the currency board system. Hong Kong SAR also holds significant fiscal reserves (about 40 percent of GDP) built through a track record of strong fiscal discipline.

Table 3.11. India: Economy Assessment

Overall Assessment: *The external position in 2019 was broadly in line with the level implied by medium-term fundamentals and desirable policies.* India's low per capita income, favorable growth prospects, demographic trends, and development needs justify running CA deficits. External vulnerabilities remain, stemming from volatility in global financial conditions and an oil price surge, as well as a retreat from cross-border integration. Progress has been made on FDI liberalization, whereas portfolio flows remain controlled. India's trade barriers remain significant.

Potential Policy Responses: Policy priorities in the period ahead need to address the pandemic emergency in a way that preserves lives and the productive capacity in the economy. These include fiscal, monetary, and financial sector policies that especially protect vulnerable households and firms, including those in the informal sector. If imbalances that existed prior to the COVID-19 outbreak persist in the medium term, measures to rein in fiscal deficits should be accompanied by efforts to enhance credit provision through faster cleanup of bank, nonbank financial, and corporate balance sheets, and strengthening the governance of public banks. Improving the business climate, easing domestic supply bottlenecks, and liberalizing trade and investment will be important to help attract FDI, improve the CA financing mix, and contain external vulnerabilities. Gradual liberalization of portfolio flows should be considered, while monitoring risks of portfolio flow reversals. Exchange rate flexibility should remain the main shock absorber, with intervention limited to addressing disorderly market conditions.

Foreign Asset and Liability Position and Trajectory	**Background.** As of end-2019, India's NIIP had risen to –15.0 percent of GDP, from –15.9 percent of GDP at end-2018. Gross foreign assets and liabilities were 24.6 and 39.6 percent of GDP, respectively. The bulk of assets are in the form of official reserves and FDI, whereas liabilities include mostly other investments and FDI. External debt amounted to some 20 percent of GDP, of which about 52 percent was denominated in US dollars and another 34.5 percent in Indian rupees. Short-term external debt on a residual maturity basis stood at 42.3 percent of total external debt and 51.8 percent of FX reserves. **Assessment.** With CA deficits projected to continue in the medium term, the NIIP-to-GDP ratio is expected to fall marginally. India's external debt is moderate compared with other emerging market economies, but rollover risks remain elevated in the short term. The moderate level of foreign liabilities reflects India's gradual approach to capital account liberalization, which has focused mostly on attracting FDI.					
2019 (% GDP)	NIIP: –15.0	Gross Assets: 24.6	Res. Assets: 16.2	Gross Liab.: 39.6	Debt Liab.: 19.9	
Current Account	**Background.** The CA deficit is estimated to have narrowed to 0.9 percent of GDP in fiscal year 2019/20 from 2.1 percent of GDP in the previous year, due to sharply weaker domestic demand. Despite exports decelerating amid the slowdown in global growth and trade, the contraction in investment goods imports resulted in a narrowing of the trade balance aided by relatively low oil prices. The CA deficit is projected to narrow to 0.3 percent of GDP in 2020/21 driven mainly by lower oil prices and import compression due to weak domestic demand, with unusually high uncertainty, including over the cyclical position of the economy. Over the medium term, the CA deficit is expected to widen to about 2½ percent of GDP, on the back of strengthening domestic demand. **Assessment.** The EBA cyclically adjusted CA deficit stood at 1.4 percent of GDP in fiscal year 2019/20. The EBA CA regression estimates a norm of –3.0 percent of GDP for India in fiscal year 2019/20, with a standard error of 1.3 percent, thus implying an EBA gap of 1.6 percent. In the IMF staff's judgment, a CA deficit of about 2½ percent of GDP is financeable over time. FDI flows are not yet sufficient to cover protracted and large CA deficits; portfolio flows are volatile and susceptible to changes in global risk appetite, as demonstrated in the taper tantrum episode and again in fall 2018 and more recently due to the COVID-19 outbreak. Thus, with the IMF staff–assessed CA norm, the CA gap would range from 0 to 2 percent of GDP. Positive policy contributions to the CA gap stem from a negative credit gap, an increase in FX reserves, and a relatively closed capital account, partly offset by a larger-than-desirable domestic fiscal deficit.					
2019 (% GDP)	Actual CA: –0.9	Cycl. Adj. CA: –1.4	EBA CA Norm: –3.0	EBA CA Gap: 1.6	Staff Adj.: –0.6	Staff CA Gap: 1.0
Real Exchange Rate	**Background.** The average REER in 2019 appreciated by about 5.8 percent from its 2018 average. As of May 2020, the rupee had depreciated by about 0.4 percent in real terms compared with the average REER in 2019. **Assessment.** The EBA REER index and REER level models estimate a REER gap of 13.4 and 10.2 percent, respectively, for 2019. Based on the IMF staff CA gap and semi-elasticity of 0.18, the REER gap is assessed to be in the range of –11.1 to –0.1 percent for fiscal year 2019/20, with a midpoint of –5.6 percent.[1]					
Capital and Financial Accounts: Flows and Policy Measures	**Background.** The sum of FDI, portfolio, and financial derivatives flows on a net basis is estimated at 2.3 percent of GDP in 2019, up from 0.8 percent in 2018. Net FDI inflows increased only marginally to 1.4 percent of GDP in 2019, despite investor-friendly reform efforts that could have attracted more investment. After bouts of both equity and debt outflows in 2018, net portfolio flows rebounded (0.9 percent of GDP) in 2019. However, India faced a drastic reversal of portfolio flows US$15 billion in 2020:Q1 amid the COVID-19 shock, while FDI inflows US$10.6 billion continued. The authorities responded by allowing exchange rate depreciation and limited FX intervention, and by relaxing measures on debt inflows. **Assessment.** Yearly capital inflows are relatively small, but, given the modest scale of FDI, flows of portfolio and other investments are critical to finance the CA. As evidenced by the episodes of external pressure, portfolio debt flows have been volatile, and the exchange rate has been sensitive to these flows and changes in global risk aversion. Attracting more stable sources of financing is needed to reduce vulnerabilities.					
FX Intervention and Reserves Level	**Background.** With weak domestic demand, relatively low oil prices, and renewed total capital inflows, foreign reserves reached a record high (US$459.8 billion) in 2019. Spot foreign exchange purchases were US$40 billion (1.5 percent of GDP), and net forward sales decreased by US$550 million in 2019. International reserves continued increasing rapidly in the first two months of the year, leaving reserves higher at US$477.8 billion at end-March 2020. Reserve coverage currently is about 16.4 percent of GDP and about 13 months of prospective imports of goods and services. **Assessment.** Reserve levels are adequate for precautionary purposes relative to various criteria. International reserves represented about 173 percent of short-term debt and 163 percent of the IMF's composite metric by end-2019.					

Table 3.12. Indonesia: Economy Assessment

Overall Assessment: *The external position in 2019 was broadly in line with the level implied by medium-term fundamentals and desirable policies.* Exchange rate flexibility and structural policies should help contain the CA deficit over the medium term. External financing appears sustainable. However, it is sizable, and with a large share of foreign portfolio investment, it exposes the economy to fluctuations in global financial conditions, introducing uncertainty in the assessment.

Potential Policy Responses: Achieving durable external balance will require structural reforms to boost competitiveness. Reforms should include higher infrastructure and social spending aimed at fostering human capital development (while maintaining fiscal sustainability through revenue mobilization), fewer restrictions on FDI and external trade (nontariff trade barriers), and labor market flexibility (for example, streamlining stringent job protection, improving job placement services). Flexibility of the exchange rate should continue to support external stability in a context of increased market volatility associated with the COVID-19 pandemic.

Foreign Asset and Liability Position and Trajectory

Background. At end-2019, Indonesia's NIIP was –31 percent of GDP, broadly unchanged since end-2018. Gross external assets reached 33 percent of GDP (of which, 35 percent were reserve assets) and gross external liabilities reached 64 percent of GDP. Despite an influx of foreign capital, Indonesia's gross external debt was moderate at 36 percent of GDP at end-2019, of which 19 percent was denominated in rupiah and 84 percent was maturing after one year.

Assessment. The level and composition of the NIIP and gross external debt indicate that Indonesia's external position is sustainable and subject to limited rollover risk, but nonresident holdings of rupiah-denominated government bonds, at 39 percent of the total stock (or 6.8 percent of GDP) at end-2019, combined with shallow domestic financial markets, make Indonesia vulnerable to global financial volatility, higher US interest rates, and a stronger US dollar. Since 2015, the IIP has had a positive net foreign currency exposure, based on its currency composition and asset-liability structure. IMF staff projections for the CA suggest that the NIIP as a percentage of GDP will continue to rise over the medium term.

2019 (% GDP)	NIIP: –31.2	Gross Assets: 32.7	Res. Assets: 11.5	Gross Liab.: 64.0	Debt Liab.: 32.3

Current Account

Background. Indonesia's CA deficit narrowed to 2.7 percent of GDP in 2019, from a 2.9 percent deficit in 2018, driven mainly by weak import growth. The latter reflected lower prices for imported commodities and, despite this, weaker import volume growth from policy actions and softening domestic demand. The CA deficit is projected to narrow to 1.6 percent in 2020, driven by a contraction in domestic demand and imports, partially compensated for by the negative impact on tourism of the COVID-19 pandemic. Structural policies are expected to help limit the CA deficit in the medium term.

Assessment. The IMF staff estimates a CA gap of –1.0 percent for 2019, consistent with an estimated cyclically adjusted CA deficit of 2.7 percent of GDP and a staff-assessed norm of –1.6 percent of GDP.[1] Considering uncertainties in the estimation of the norm, the CA gap for 2019 is in the range of –2.5 percent to 0.5 percent of GDP.[2] Achieving external balance will require structural reforms to strengthen health, education, and infrastructure and increase labor market flexibility, which is consistent with the suggested room for higher fiscal spending identified by the policy gaps.

2019 (% GDP)	Actual CA: –2.7	Cycl. Adj. CA: –2.7	EBA CA Norm: –0.8	EBA CA Gap: –1.9	Staff Adj.: 0.9	Staff CA Gap: –1.0

Real Exchange Rate

Background. The REER depreciated in 2018 by 6.3 percent relative to the average of 2017 due to tighter global financial conditions. In 2019, the average REER appreciated by 4.3 percent relative to the 2018 average, following an easing of global financial conditions and an inflow of capital. As of May 2020, the REER had depreciated by 0.1 percent compared with the 2019 average.

Assessment. The EBA index and level REER models point to 2019 REER gaps of about 2.1 percent to –9.0 percent, respectively, with the upward shift in the range of the estimated gaps, compared with 2018, driven by the appreciation of the REER. Meanwhile, the IMF staff CA gap estimate of –1.0 percent of GDP implies an REER gap of 5.6 percent with standard elasticities.[3] In the staff's assessment, the EBA index and CA models are most relevant for Indonesia. Considering all inputs as well as the REER appreciation in 2019, the IMF staff assesses the REER gap in the –1.2 to 8.9 percent range, with a midpoint of 3.9 percent.[4]

Capital and Financial Accounts: Flows and Policy Measures

Background. In 2019, net capital and financial account inflows (3.3 percent of GDP) were sustained by net FDI inflows (1.8 percent of GDP), net portfolio inflows (1.9 percent of GDP), and net other investment inflows of –0.5 percent of GDP. In March 2020, Indonesia faced large capital outflows from the sale of rupiah-denominated securities by nonresident investors, although these outflows were largely offset by inflows from the subsequent issuance of foreign-currency-denominated government bonds.

Assessment. Net and gross financial flows continue to be prone to periods of volatility. The broadly contained CA deficit and strengthened policy frameworks, including exchange rate flexibility since mid-2013, have helped reduce capital flow volatility. Continued strong policies focused on strengthening the fiscal position, keeping inflation in check, advancing financial deepening, and easing supply bottlenecks would help sustain capital inflows in the medium term.

FX Intervention and Reserves Level

Background. Since mid-2013, Indonesia has had a more flexible exchange rate policy framework. At end-2019, reserves were US$129.2 billion (equal to 12 percent of GDP, about 119 percent of the IMF's reserve adequacy metric and about 9 months of prospective imports of goods and services), compared with US$120.7 billion at end-2018. The reserve accumulation reflects mainly the net capital inflows and foreign exchange receipts from oil and gas and other sectors. In addition, contingencies and swap lines amounting to about US$95 billion are in place. In a context of increased market volatility associated with the COVID-19 pandemic, the Bank of Indonesia intervened in the non-spot and spot FX markets in February and March 2020 and introduced daily FX swap auctions to ensure adequate market liquidity. International reserves recovered in April 2020, reaching US$127.9 billion.

Assessment. While the composite metric may not adequately account for commodity price volatility, the current level of reserves (US$129.2 billion at end-2019) should provide a sufficient buffer against a wide range of possible external shocks, with predetermined drains also manageable. FX intervention should continue to aim primarily at preventing disorderly market conditions while allowing the exchange rate to adjust to external shocks.

Table 3.13. Italy: Economy Assessment

Overall Assessment: *The external position in 2019 was broadly in line with the level implied by medium-term fundamentals and desirable policies.* The sustained CA surplus reflects structurally weak investment, while gross external liabilities remain high, with a large share of public debt.

Potential Policy Responses: In the above-mentioned context, once the health crisis has passed, policies to improve competitiveness are necessary to support growth and reduce public debt over the medium term. Even if the external position remains in line with fundamentals, credible medium-term fiscal consolidation as well as efforts to further strengthen bank balance sheets will be necessary to reduce external vulnerabilities and maintain investor confidence. Structural reforms to ensure wages are aligned with productivity at the firm level are also important to boost potential growth and competitiveness and reduce vulnerabilities. The elements of this package of policies would likely have offsetting effects on the CA balance, as they would boost export competitiveness but also raise investment.

Foreign Asset and Liability Position and Trajectory	**Background.** Italy's NIIP reached an estimated –1.6 percent of GDP at end-2019, the highest level since Italy adopted the euro. Gross assets and liabilities, however, are estimated at about 163 and 165 percent of GDP (both over 60 percentage points higher than in 2000). TARGET2 liabilities declined to 25 percent of GDP in 2019, partially because of the inflow of reserves to Italian banks following the introduction of tiering by the ECB.[1] The trend, however, reversed in early 2020 on the back of nonresident outflows, Eurosystem asset purchases, and liquidity measures. Debt securities represent about two-thirds of gross external liabilities, half of which are owed by the public sector. High public debt continues to be a key vulnerability for the Italian economy. **Assessment.** Further strengthening of balance sheets would reduce vulnerabilities related to the high public debt and potential negative feedback loops between the debt stock and debt servicing costs, as well as between sovereign debt and the financial system.				
2019 (% GDP)[2]	NIIP: –1.6	Gross Assets: 163.4	Debt Assets: 64.8	Gross Liab.: 165.0	Debt Liab.: 115.5

Current Account	**Background.** Italy's CA balance averaged –1¼ percent of GDP in the decade following euro adoption. The rise in the CA since 2010 is almost entirely due to the increase in gross national saving, while investment over GDP has remained stagnant. During 2013–18, the CA balance turned positive; about two-thirds of the increase was driven by increasing trade surpluses, supported initially by lower commodity prices and subsequently by a rebound in external demand. The rest of the increase reflected a higher income balance as residents increased net purchases of foreign assets and external liability payments declined, not least due to accommodative monetary policy. The positive primary income balance also reflects a higher weight of equity in foreign assets than in liabilities. In 2019, the CA surplus reached a multiyear record of 3 percent of GDP as weak domestic demand weighed on imports. The CA surplus is projected to rise to 3.6 percent in 2020 as weaker external demand is offset by weaker oil prices, domestic demand, and imports. **Assessment.** The cyclically adjusted CA is estimated at 2.7 percent of GDP in 2019, close to the EBA-estimated CA norm of 2.6 percent of GDP. The IMF staff assesses a CA gap in the range of –1.0 to 1.0 percent of GDP. Despite the CA being in line with fundamentals, Italy's sizable and long-standing structural rigidities hamper its ability to improve competitiveness.					
2019 (% GDP)	Actual CA: 3.0	Cycl. Adj. CA: 2.7	EBA CA Norm: 2.6	EBA CA Gap: 0.0	Staff Adj.: 0.0	Staff CA Gap: 0.0

Real Exchange Rate	**Background.** From 2018 to 2019, the CPI-based and ULC-based REERs depreciated by about 2 percent. Stagnant productivity and rising labor costs led to a gradual appreciation of the REER since Italy joined the euro area, both in absolute terms and relative to the euro area average, which has partially reversed since 2014. As of May 2020, the REER had appreciated by 0.3 percent compared to the 2019 average. **Assessment.** The level and index REER models suggest a modest overvaluation in 2019 of 4.4 percent and 6.8 percent, respectively, which is generally consistent with, but slightly below, the persistent wage-productivity differentials vis-à-vis key partners. The IMF staff CA gap implies a REER gap close to zero.[3] Overall, the staff assesses the REER gap in the range of 0 to 8 percent of GDP, which implies a midpoint of about 4 percent and reflects the dispersion of and uncertainty around the estimates across different models.
Capital and Financial Accounts: Flows and Policy Measures	**Background.** Portfolio and other investment inflows have typically financed past CA deficits, despite a modest net FDI outflow, without much difficulty. Italy's financial account posted net outflows of 3 percent of GDP in 2019, reflecting residents' net purchases of foreign assets. In the middle of the year, portfolio investment shifted from outflows to inflows as foreign investors returned to Italian sovereign debt following the ECB's announcement of extended asset purchases. However, the COVID-19 pandemic, tightening of global financial conditions, and concerns over sovereign rating downgrades triggered substantial sales of Italian government securities by foreign investors in early 2020. **Assessment.** While supported by ample monetary accommodation by the ECB, Italy remains vulnerable to market volatility, owing to the large refinancing needs of the sovereign and banking sectors as well as the remaining balance sheet weaknesses in some banks.
FX Intervention and Reserves Level	**Background.** The euro has the status of a global reserve currency. **Assessment.** Reserves held by the euro area are typically low relative to standard metrics, but the currency is free floating.

Table 3.14. Japan: Economy Assessment

Overall Assessment: *The external position in 2019 was broadly in line with the level implied by medium-term fundamentals and desirable policies.* The strong NIIP generates sizable net returns supporting an income balance that is about as large as Japan's CA surplus.

Potential Policy Responses: Policy priorities in the period ahead should focus on addressing the pandemic emergency to preserve lives and the productive capacity of the economy. Recent fiscal measures and Bank of Japan actions have appropriately prioritized support to vulnerable households, workers, and firms while also maintaining the smooth functioning of financial markets. If the domestic policy distortions that existed prior to the pandemic are to persist in the medium term, a coordinated policy package will be needed to ensure that the external position remains in line with fundamentals. In particular, addressing domestic policy distortions with offsetting effects would require that, whereas fiscal consolidation should proceed in a gradual manner, it will need to be accompanied by a credible medium-term fiscal framework and structural reforms that support domestic demand. These include measures to boost wages, increase labor productivity and labor supply, reduce barriers to entry in some industries, and accelerate agricultural and professional services sector deregulation.

Foreign Asset and Liability Position and Trajectory	**Background.** The NIIP remained at about 60 percent of GDP during 2015–18, increasing by 7 percentage points between 2018 and 2019, when it reached 67 percent of GDP—as assets increased more than liabilities, recording 198 and 132 percent of GDP, respectively. In the medium term, the NIIP is projected to rise to about 75 percent, with CA surpluses, before gradually stabilizing due to population aging. Japan holds the world's largest stock of net foreign assets, which was valued at US$3.4 trillion at end-2019. **Assessment.** Foreign asset holdings are diversified geographically and by risk classes. Portfolio investment accounts for 46 percent of total foreign assets, with about 20 percent yen-denominated. However, with about half of portfolio investment denominated in US dollars, negative valuation effects could materialize in the event of yen appreciation against the US dollar. Liabilities' vulnerabilities are limited, with equity and direct investment accounting for 33 percent of total liabilities. The NIIP generated net annual investment income of 3.8 percent of GDP in 2019. The large positive NIIP in part reflects the accumulation of assets for old-age consumption, which is expected to be gradually unwound over the long term.				
2019 (% GDP)	NIIP: 66.8	Gross Assets: 198.3	Debt Assets: 91.7	Gross Liab.: 131.5	Debt Liab.: 81.8
Current Account	**Background.** Japan's CA surplus reflects high corporate gross saving exceeding domestic investment and a sizable income balance owing to its large net foreign assets position. In line with sustained national saving, the CA surplus has averaged 3.7 percent of GDP since 2015, recording 3.6 percent of GDP in 2019. The income balance continues to contribute most to the CA surplus, at 3.8 percent of GDP in 2019. Lower energy prices supported the average CA balance surplus during 2015–17, while higher energy prices during 2018–19 contributed to a relatively lower CA surplus. The 2019 CA-surplus-to-GDP ratio was unchanged since 2018, as an increase in the services trade balance from higher travel credits was offset by a decline in the goods trade balance as exports to GDP decreased more than imports to GDP due to adverse external conditions. The 2020 CA balance is projected at 3.2 percent of GDP, with unusually high uncertainty, including over the cyclical position of the economy. The ongoing pandemic is expected to significantly depress both exports to GDP and imports to GDP in 2020 due to a collapse in external and domestic demand, and the pandemic is expected to reduce the income balance by a reduction in net credits. **Assessment.** The 2019 CA assessment uses the EBA model, in which the estimated cyclically adjusted CA is 3.5 percent of GDP and the cyclically adjusted CA norm is estimated at 3.5 percent of GDP, with a standard error of 1.2 percent of GDP. The IMF staff estimates a 2019 CA norm range between 2.3 and 4.7 percent of GDP. The 2019 CA gap midpoint is assessed to be 0.0 percent of GDP (with the CA gap range between –1.2 and 1.2). The large unexplained portion of the 2019 EBA CA gap suggests that important bottlenecks to investment and consumption were present, including entry barriers to entrepreneurship and corporate saving's distortions.					
2019 (% GDP)	Actual CA: 3.6	Cycl. Adj. CA: 3.5	EBA CA Norm: 3.5	EBA CA Gap: 0.0	Staff Adj.: 0.0	Staff CA Gap: 0.0
Real Exchange Rate	**Background.** After depreciating by 5.7 percent between 2016 and 2018, the average REER appreciated in 2019 by 2.8 percent. Estimates through May 2020 show that the REER has appreciated by 4.1 percent relative to the 2019 average, although markets remain volatile, reflecting changes in global risk aversion and the monetary policy stances of key central banks in response to the pandemic. **Assessment.** The EBA REER level and index models deliver REER gaps of –12.5 and –18 percent, respectively, for the 2019 average REER. However, the EBA REER level and index models are not used for the assessment because they do not capture well Japan-specific factors. Using the IMF staff 2019 CA gap as a reference and applying a staff-estimated semi-elasticity of 0.14 yields a staff range for the 2019 REER gap between –9 and 9 percent with a midpoint of 0 percent.[1]					
Capital and Financial Accounts: Flows and Policy Measures	**Background.** Portfolio outflows continued during 2019, although they decreased over the year as institutional investors continued to diversify overseas, and FDI outflows increased, mainly to Europe and the United States. Net FDI and portfolio flows comprise the bulk of the 2019 financial account (4.2 and 1.7 percent of GDP, respectively), whereas other investments (net) recorded inflows (2.1 percent of GDP). Net short yen positions reemerged in late 2019. In the first quarter of 2020, portfolio outflows to the United States and Europe picked up and FDI outflows were stable, while net short yen positions decreased. **Assessment.** Vulnerabilities are limited. Inward investment tends to be equity-based, and the home bias of Japanese investors remains strong. So far there have been no large spillovers from the Bank of Japan's yield curve control to financial conditions in other economies (interest rates, credit growth). If capital outflows from Japan accelerate, they could provide an offset to the effects of tighter domestic financial conditions in the region.					
FX Intervention and Reserves Level	**Background.** Reserves are about 25 percent of GDP, on legacy accumulation. There has been no FX intervention in recent years. **Assessment.** The exchange rate is free floating. Interventions are isolated (last occurring in 2011), intended to reduce short-term volatility and disorderly exchange rate movements.					

Table 3.15. Korea: Economy Assessment

Overall Assessment: *The external position in 2019 was broadly in line with the level implied by medium-term fundamentals and desirable policies.* The change in assessment from 2018, when the external position was assessed to be moderately stronger than fundamentals, is due to the narrowing of the CA gap, which in turn reflects a decline in policy gaps and a deterioration in Korea's terms of trade following a fall in semiconductor prices.

Potential Policy Responses: Following the COVID-19 outbreak in early 2020, the authorities have deployed additional fiscal and monetary stimulus to support economic activity, most of which is expected to be temporary. Ensuring that the external position remains in line with medium-term fundamentals will require continued accommodative fiscal and monetary policies, as well as structural policies to stimulate investment and facilitate rebalancing of the economy toward services and other new growth drivers. Desirable reforms include reducing barriers to firm entry and investment, deregulating the nonmanufacturing sector, and strengthening the social safety net to lessen the need for precautionary saving across sectors. The exchange rate should remain market-determined, with intervention limited to addressing disorderly market conditions.

Foreign Asset and Liability Position and Trajectory	**Background.** The NIIP has grown since 2014. Data for 2019 imply that Korea's NIIP was about 30 percent of GDP, with gross liabilities at about 73 percent of GDP, of which about one-third was gross external debt. On the back of CA surpluses and search-for-yield activity by financial institutions, driven by asset accumulation for old-age consumption as Korean society ages, the NIIP is projected to rise to about 50 percent of GDP in the medium term. **Assessment.** The positive NIIP strengthens external sustainability. Foreign asset holdings are diversified, with about 45 percent held in equity or debt securities. About 60 percent of foreign assets are denominated in US dollars, implying that won depreciation has positive valuation effects. Vulnerabilities from the liability side are limited, with equity and direct investment accounting for 40 percent of total liabilities.					
2019 (% GDP)	NIIP: 30.4	Gross Assets: 103.2	Debt Assets: 28.9	Gross Liab.: 72.8	Debt Liab.: 26.3	
Current Account	**Background.** The CA surplus narrowed further to 3.6 percent of GDP in 2019 compared with a peak of 7.2 percent in 2015. The narrowing in the 2019 CA surplus relative to 2018, when it was 4.5 percent of GDP, principally reflects a fall in semiconductor prices. From a saving-investment perspective, the narrowing in the CA reflected a larger fall in saving, particularly for the household sector, relative to the investment-to-GDP ratio. The CA surplus is projected to narrow further to 3.4 percent in 2020, due largely to weak external demand from trading partners being offset by lower imports. Over the medium term, the CA surplus is projected to widen to about 4.3 percent of GDP as global demand recovers, semiconductor prices stabilize, and the service sector balance rises. **Assessment.** The EBA model estimates the cyclically adjusted CA to be 3.3 percent of GDP, while the cyclically adjusted CA norm is estimated at 3.3 percent of GDP, with a standard error of 0.9 percent of GDP. The 2019 CA gap midpoint is assessed to be 0.0percent of GDP. Policy gaps narrowed compared with 2018, reflecting more expansionary fiscal policy. The policy gap was still positive in 2019, however, reflecting a larger fiscal surplus than the IMF staff's recommended medium-term balance and low social spending. At the same time, the residual component has grown, reflecting a larger drop in Korea's terms of trade than is potentially picked up by the EBA model.					
2019 (% GDP)	Actual CA: 3.6	Cycl. Adj. CA: 3.3	EBA CA Norm: 3.3	EBA CA Gap: 0.0	Staff Adj.: 0.0	Staff CA Gap: 0.0
Real Exchange Rate	**Background.** Following sustained appreciation during 2015–18, the REER depreciated in 2019 by about 4.5 percent, returning to its 2015 level. As of May 2020, the REER had depreciated by an additional 3.6 percent compared to the 2019 average. The Korean won remains sensitive to swings in the semiconductor price cycle, shifts in global risk sentiment, and the monetary policy stances of key central banks. **Assessment.** Using 2019 data, the EBA REER index model reports that the REER was 0.6 percent overvalued; the REER level model reports an 8 percent undervaluation. Overall, the IMF staff uses the CA gap while assuming a trade elasticity of 0.36, which implies a REER gap of –3 percent to 3 percent with a midpoint of 0 percent.					
Capital and Financial Accounts: Flows and Policy Measures	**Background.** Net portfolio outflows have been on a downward trend since 2017, when outflows peaked at 6.7 percent of GDP. Portfolio outflows were 5.8 percent of GDP in 2019, reflecting further portfolio diversification, and institutional investors continued to search for yield. Net FDI and portfolio flows comprised the bulk of the 2019 financial account (2.2 and 3.6 percent of GDP, respectively), whereas other investments (net) recorded inflows (0.6 percent of GDP). In the first quarter of 2020, net FDI and portfolio outflows moderated, largely driven by portfolio debt inflows and a fall in outward FDI flows. **Assessment.** The present configuration of net and gross capital flows appears sustainable over the medium term. In recent years, including in the context of the ongoing COVID-19 outbreak, Korea has demonstrated significant capacity to absorb short-term capital flow volatility.					
FX Intervention and Reserves Level	**Background.** Korea has a floating exchange rate. FX intervention appears to have been two-sided since early 2015, based on IMF staff estimates. In 2019 reserves reached 25 percent of GDP, on legacy accumulation. FX intervention data released by the Bank of Korea show that it sold a net US$6.7 billion (0.4 percent of GDP) in 2019 to help the won adjust in an orderly way in the face of significant won exchange rate pressures. In the first quarter of 2020, reserves declined modestly by US$7.6 billion in the context of heightened volatility in the exchange rate market following the COVID-19 outbreak. As of end-April, the Bank of Korea had also drawn about US$20 billion from the US$60 billion swap line established by the Federal Reserve (US$60 billion). **Assessment.** Since 2015, intervention appears to have been limited to addressing disorderly market conditions. As of end-2019, FX reserves were about 110 percent of the IMF's composite reserve adequacy metric, which, together with access to the recently established Federal Reserve swap facility, provides enough of a buffer against a wide range of possible external shocks.					

Table 3.16. Malaysia: Economy Assessment

Overall Assessment: *The external position in 2019 was stronger than the level implied by medium-term fundamentals and desirable policies.* Over the past few years, Malaysia's growth model has become increasingly driven by private domestic demand, and its CA surplus has narrowed significantly. Further decline in the surplus is projected over the medium term on the back of policies supporting continued robust domestic private demand.

Potential Policy Responses: In response to the ongoing COVID-19 shock, policies should continue to focus on providing relief to stressed firms and households and preserving the production capacity of the economy, while maintaining FX market stability. The recent fiscal stimulus and monetary easing were appropriate, and need to be kept under review as the crisis unfolds. If distortions that existed prior to the COVID-19 outbreak persist in the medium term, the planned fiscal consolidation should be accompanied by policies to strengthen the social safety net and continue to encourage private investment and productivity growth, including measures to improve small and medium-sized enterprises' access to credit, promote the quality of education, reduce skills mismatch, and encourage female labor participation. Continued exchange rate flexibility is necessary to facilitate external adjustment, with intervention limited to addressing disorderly market conditions.

Foreign Asset and Liability Position and Trajectory	**Background.** Malaysia's NIIP has averaged about 1 percent of GDP since 2010, with changes in recent years reflecting both CA surplus and valuation effects. As of end-2019, the NIIP rose to –1.5 percent of GDP from –5.7 percent of GDP at end-2018, with higher net direct investment liabilities more than offset by the reduction in the net portfolio investment and other investment liabilities.[1] Direct investment abroad and official reserves contribute most to foreign assets, whereas FDI and nonresidents' portfolio investment in Malaysia contribute most to foreign liabilities. Total external debt, measured in US dollars, was about 63.4 percent of GDP at end-2019 (end-2018: 62.3 percent), of which about two-thirds was in foreign currency and 41 percent in short-term debt, by original maturity. **Assessment.** The NIIP should rise gradually over the medium term, reflecting projected moderate CA surpluses. Malaysia's balance sheet strength, along with exchange rate flexibility and increased domestic investor participation, would help support resilience to a variety of shocks, including outflows associated with external liabilities.[2]					
2019 (% GDP)	NIIP: –1.5	Gross Assets: 111.1	Res. Assets: 28.4	Gross Liab.: 112.6	Debt Liab.: 62.6	
Current Account	**Background.** Malaysia's CA surplus declined by about 8 percentage points of GDP between 2010 and 2018, primarily driven by lower national saving and a modest rise in investment until 2017. In 2019, the CA surplus increased to 3.4 percent of GDP, driven by a sharp decline in capital imports. The goods balance remained in surplus, whereas the services account and income accounts registered lower deficits. The CA registered a surplus of 2.6 percent of GDP in 2020:Q1. With high uncertainty due to the COVID-19 shock, the CA surplus is projected to decline to 0.5 percent of GDP in 2020, driven by a sharp decline in tourism and external demand, which will outweigh the negative impact of the domestic demand shock on imports. After the COVID-19 shock dissipates, the CA balance is expected to return to a modest surplus but decline over the medium term, driven by lower private sector saving and higher investment. **Assessment.** The EBA CA regression estimates a cyclically adjusted CA of 3.5 percent of GDP and a CA norm at –0.2 percent of GDP for 2019. After factoring in the effect of the postponement of large infrastructure projects (which have relatively high import content) on capital imports (0.4 percent of GDP), which represents a temporary yet protracted shock that would gradually taper off, the preliminary estimate of the IMF staff CA gap is about 3.3 percent of GDP (about 1 percent of GDP). Over half of the CA gap is attributed to policy distortions. Low domestic public health care spending contributes 0.7 percentage point to the CA gap, while looser fiscal policy in the rest of the world, relative to Malaysia, also contributes 0.7 percentage point to the excess surplus. Unidentified residuals potentially reflect structural impediments and country-specific factors not included in the model.					
2019 (% GDP)	Actual CA: 3.4	Cycl. Adj. CA: 3.5	EBA CA Norm: –0.2	EBA CA Gap: 3.7	Staff Adj.: –0.4	Staff CA Gap: 3.3
Real Exchange Rate	**Background.** In 2019, the REER depreciated by 1.4 percent relative to the 2018 average. The REER is about 12 percent lower than its 2013 peak, reflecting the impact on the NEER from capital outflows and terms-of-trade shocks, with the latter contributing to a decline in the CA surplus. In May 2020, the REER had depreciated by 3.5 percent relative to the 2019 average. **Assessment.** The EBA REER index and level models estimate Malaysia's REER to be undervalued by about 25 and 38 percent, respectively. However, the usual macroeconomic stresses associated with such undervaluation are absent (for example, high core inflation, sustained wage pressure, or significant FX reserve buildup). Consistent with the IMF staff CA gap, the staff assesses the REER gap in 2019 to be –7.2 percent (about 2 percent).[3]					
Capital and Financial Accounts: Flows and Policy Measures	**Background.** Since the global financial crisis, Malaysia has experienced periods of significant capital flow volatility, largely driven by portfolio flows in and out of the local-currency-debt market, in response to both the change in global financial conditions and domestic factors. Since late 2016, the Financial Markets Committee has implemented measures to develop the onshore FX market.[4] Portfolio capital flows had stabilized in April 2020, after substantial outflows in March. **Assessment.** Continued exchange rate flexibility and macroeconomic policy adjustments are necessary to manage capital flow volatility. CFMs should be gradually phased out, with due regard for market conditions.					
FX Intervention and Reserves Level	**Background.** Malaysia's official reserves fell by US$8.1 billion since May 2018 and had stabilized at US$101.4 billion as of end-2018. The reserve level began to gradually pick up in the first half of 2019 and stood at US$103.6 billion as of end-2019. The pre–COVID-19 reserve level was sustained throughout April 2020. **Assessment.** Under the IMF's composite reserve adequacy metric (ARA),[5] reserves remain broadly adequate. Gross and net official reserves were about 116 percent and 101 percent of the ARA metric, respectively, as of end-2019. Given limited reserves and the increased hedging opportunities since 2017, FX interventions should be limited to preventing disorderly market conditions. In case of an inflow surge, some reserve accumulation would be suitable to increase the reserve coverage ratio.					

Table 3.17. Mexico: Economy Assessment

Overall Assessment: *The external position in 2019 was broadly in line with the level implied by medium-term fundamentals and desirable policies.* The CA deficit narrowed significantly, on the back of a temporary sharp decline in investments and imports, as well as strong exports and remittances. The assessment remains subject to considerable uncertainty around the degree of the temporary nature of these factors and the impact of developments (notably, COVID-19 and oil prices) in 2020.

Potential Policy Responses: The focus should be on providing sufficient policy support in the near term in response to COVID-19 and committing to implement pro-growth and inclusive fiscal reforms as well as reinvigorate structural reforms over the medium term, conditional on the post–COVID-19 challenges and environment, to improve competitiveness and the investment climate. The floating exchange rate should continue to serve as the main shock absorber, with FX interventions used to prevent disorderly market conditions. A dollar swap line with the US Federal Reserve and the IMF Flexible Credit Line provide added buffers against global tail risks.

Foreign Asset and Liability Position and Trajectory	**Background.** Mexico's NIIP is projected to remain broadly stable at about –50 percent of GDP over the medium term. Foreign assets mainly consist of direct investment (18 percent of GDP) and reserves (14.5 percent of GDP). Foreign liabilities are mostly FDI (50 percent of GDP) and portfolio investment (41 percent of GDP). Gross public external debt was 25 percent of GDP, of which about one-third was holdings of local currency government bonds. **Assessment.** Whereas the NIIP is sustainable, and the local currency denomination of a large share of foreign public liabilities reduces foreign exchange risks, the large gross foreign portfolio liabilities could be a source of vulnerability in case of global financial volatility. Exchange rate vulnerabilities are also moderate as most Mexican firms with FX debt have natural hedges and actively manage their FX exposures.				
2019 (% GDP)	NIIP: –52.1	Gross Assets: 48.3	Res. Assets: 14.5	Gross Liab.: 100.4	Debt Liab.: 38.6

Current Account	**Background.** In 2019, the CA deficit narrowed sharply to –0.3 percent of GDP from –2.1 percent in 2018, driven by an unexpected sharp contraction in investments and imports (from uncertainty related to the United States-Mexico-Canada Agreement and to policy), strong exports (from trade diversion arising from US-China trade tensions), and workers' remittances. Exports and imports of goods fell by 10.7 and 11.3 percent year over year, respectively, in the first four months of 2020, reflecting the impact of COVID-19 and the fall in oil prices, while remittances increased by 18.4 percent in the first quarter. The 2020 CA is expected to record a moderate deficit of 0.2 percent of GDP subject to a high degree of uncertainty against the backdrop of the collapse of oil prices and a decline in external and domestic demand from COVID-19. Over the medium term, the CA deficit is projected to widen toward the CA norm as a rising oil balance is offset by some decline in the non-hydrocarbon CA. **Assessment.** The EBA model estimates a cyclically adjusted CA norm of –2.2 percent of GDP in 2019. This implies a CA gap of 1.5 percent of GDP (range of 0.4 to 2.6 percent of GDP). The policy gap contribution is estimated at 1 percent of GDP, mainly driven by loose fiscal policy in the rest of the world and lower-than-desired spending on health. Given an IMF staff adjustment of 0.6 percent of GDP to account for the unexpectedly sharp rise in the CA, which is expected to unwind, reflecting the decline in investment and imports in the context of trade-related and policy uncertainty in 2019, as well as the positive impact of trade diversion and remittances, the IMF staff assesses the CA gap at 0.9 percent of GDP (range of –0.2 to 2.0 percent of GDP).					
2019 (% GDP)	Actual CA: –0.3	Cycl. Adj. CA: –0.7	EBA CA Norm: –2.2	EBA CA Gap: 1.5	Staff Adj.: 0.6	Staff CA Gap: 0.9

Real Exchange Rate	**Background.** For most of 2019, the peso fluctuated within a relatively narrow range of 19 to 19.5 vis-à-vis the US dollar. The average REER in 2019 was about 3 percent stronger than the 2018 average, mostly driven by a nominal appreciation. In May 2020, the REER was 15.0 percent weaker than the 2019 average, driven by an almost 17 percent depreciation in nominal effective terms. **Assessment.** The EBA REER level and index models estimate an undervaluation of 3.5 and 15.4 percent, respectively, in 2019. Considering all estimates and the uncertainties around them, the IMF staff's overall assessment, based on the staff CA gap (applying an elasticity of 0.13), estimates Mexico's REER gap to be in the range of –15 to 1 percent, with a midpoint of –7 percent.
Capital and Financial Accounts: Flows and Policy Measures	**Background.** In 2019, net FDI and portfolio debt flows decelerated but remained positive, while net equity flows were negative. In the first four months of 2020, the sovereign issued around US$12 billion in FX bonds, exceeding its FX debt financing needs, while there was a decline of almost US$14 billion in nonresident holdings of peso debt by mid-May. Net FDI flows also declined sharply (by 20 percent), while net equity flows were negative in the first quarter. Going forward, portfolio inflows are unlikely to return to previous high growth rates. **Assessment.** The long maturity of sovereign debt and high share of local currency financing reduce the exposure of government finances to depreciation risks. The banking sector appears well capitalized, liquid, and resilient. Nonfinancial corporate debt is low, and foreign exchange risks are generally covered by natural and financial hedges. But the strong presence of foreign investors leaves Mexico exposed to capital flow reversals and risk premium increases. The authorities have refrained from capital flow management measures. Capital flow risks are also mitigated by prudent macro policies.
FX Intervention and Reserves Level	**Background.** The central bank remains committed to a free-floating exchange rate, whereas discretionary intervention is used solely to prevent disorderly market conditions. At end-2019, FX reserves amounted to US$183 billion (14.5 percent of GDP), up from US$176 billion at end-2018. By mid-June 2020, FX reserves had increased to US$197 billion, mostly owing to the federal government's debt management operations and valuation changes. In 2018 and 2019, no discretionary interventions occurred. In 2020, two nondeliverable forwards auctions were conducted, alongside further US dollar liquidity provision measures, in response to large external shocks. **Assessment.** At 117 percent of the assessing reserve adequacy metric and 234 percent of short-term debt (at remaining maturity), the end-2019 level of foreign reserves remains adequate. The IMF staff recommends that the authorities continue to maintain reserves at an adequate level over the medium term. Also, the US$60 billion swap line with the Federal Reserve, established in March 2020, and the IMF Flexible Credit Line arrangement provide additional buffers.

Table 3.18. Netherlands: Economy Assessment

Overall Assessment: *The external position in 2019 was substantially stronger than the level implied by medium-term fundamentals and desirable policies.* The Netherlands' status as a trade and financial center and natural gas exporter makes an external assessment particularly uncertain.

Potential Policy Responses: The authorities' use of their 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 is entirely appropriate. Once the pandemic is over, policies should aim at promoting the recovery and supporting investment in physical and human capital to foster robust potential growth.

Foreign Asset and Liability Position and Trajectory	**Background.** The Netherlands' NIIP reached 89 percent of GDP at the end of 2019 (with gross assets and liabilities totaling 1,126 and 1,037 percent of GDP, respectively), rising from an almost balanced NIIP at end-2009. The largest component of the NIIP comes from the net FDI stock, about €1,007 billion (124 percent of GDP) at the end of 2019. The Netherlands reported the largest inward and outward FDI positions in the world at end-2018, according to the latest Coordinated Direct Investment Survey. The United Kingdom, the United States, and Luxembourg are the top three partner countries, with gross bilateral stock positions close to US$1.6, US$1.2, and US$0.9 trillion, respectively. TARGET2 assets of the Eurosystem are estimated at about €62 billion. Owing both to the CA surplus and to large denominator effects, the NIIP is expected to increase as a ratio to GDP in 2020, possibly exceeding the 100 percent mark in the absence of large revaluation effects. **Assessment.** The Netherlands' safe haven status and its sizable foreign assets limit risks from its large foreign liabilities.					
2019 (% GDP)	NIIP: 89	Gross Assets: 1,126	Res. Assets: 262.1	Gross Liab.: 1,037	Debt Liab.: 306.6	
Current Account	**Background.** In 2019, the CA surplus decreased slightly to 10.2 percent of GDP (10.5 percent cyclically adjusted). The CA has been in surplus since 1981—a reflection of a positive goods and services balance, largely vis-à-vis EU trading partners. The primary income balance is relatively low despite the large NIIP. Nonfinancial corporate net saving (that is, gross saving minus domestic business investment) has been a main driver of the surpluses since 2000, with large corporate saving financing substantial FDI outflows. Household net saving (that is, gross saving minus residential investment) accounts for a small part of the CA surpluses, reflecting offsetting high mandatory contributions to the second-pillar pension funds and high real estate investment. The Netherlands' status as a trade and financial center and natural gas exporter also contribute to the strong structural position. In 2020, the CA surplus is projected to decline to 8.0 percent of GDP. **Assessment.** The EBA CA model estimates a CA norm of 3.3 percent of GDP and a CA gap of 7.2 percent of GDP in 2019, with an unexplained residual of 4.6 percent of GDP.1 The large unexplained residual primarily reflects the high gross saving of Netherlands-based multinationals, a fraction of which may reflect measurement errors or biases, as official statistics may overstate the net accumulation of wealth that should be attributed to Dutch residents. This is especially relevant for the Netherlands because the foreign ownership of publicly listed Dutch corporations has been above 85 percent over the past 10 years. An IMF staff adjustment of –2.3 percent of GDP to offset said bias is based on useful data provided by the Dutch central bank. Taking these factors into account, the IMF staff assesses the norm in a range of 1.3 to 5.3 percent of GDP, and a corresponding CA gap of 2.9 to 6.9 percent of GDP.					
2019 (% GDP)	Actual CA: 10.2	Cycl. Adj. CA: 10.5	EBA CA Norm: 3.3	EBA CA Gap: 7.2	Staff Adj.: –2.3	Staff CA Gap: 4.9
Real Exchange Rate	**Background.** The annual average CPI-based REER remained flat, whereas the average ULC-based REER depreciated by about 4 percent in 2019. Euro depreciation together with higher inflation in the Netherlands (due to temporary effects of indirect tax increases) led to an unchanged REER, whereas the Dutch ULC grew more slowly than its trading partners' did. As of May 2020, the REER has appreciated by 1.1 percent relative to the 2019 average. **Assessment.** The EBA REER models indicate an overvaluation between 4.2 percent (level model) and 16.1 percent (index model) in 2019, largely attributable to unexplained residuals. The IMF staff CA gap of 4.9 percent of GDP implies an REER undervaluation of about 7 percent (assuming a semi-elasticity of 0.7). Taking into account all estimates and the uncertainty surrounding the EBA REER results, the IMF staff assesses that the REER remained undervalued by about 4.1 to 9.9 percent, with a midpoint of 7 percent.[1]					
Capital and Financial Accounts: Flows and Policy Measures	**Background.** Net FDI and portfolio outflows dominate the financial account. FDI outflows are driven by the investment of corporate profits abroad, largely by multinationals. More than half of gross FDI assets and liabilities are attributable to subsidiaries of multinationals. **Assessment.** The strong external position limits vulnerabilities from capital flows. The financial account is likely to remain in deficit as long as the corporate sector continues to invest substantially abroad.					
FX Intervention and Reserves Level	**Background.** The euro is a global reserve currency. **Assessment.** Reserves held by the euro area are typically low relative to standard metrics, but the currency is free floating.					

Table 3.19. Poland: Economy Assessment

Overall Assessment: *The external position in 2019 was stronger than the level implied by medium-term fundamentals and desirable policies.* Large depreciation of the REER over the past decade amid resilient external demand caused the CA to transition from a large deficit to a small surplus, reaching 0.5 percent of GDP in 2019. While this evolution is consistent with a maturing FDI cycle, the CA surplus is excessive given that income convergence is incomplete. In the short term, the CA surplus is projected to remain broadly stable as a substantial decline in government net saving should be largely offset by increases in private net saving. Uncertainty is higher over the medium term due to the COVID-19 pandemic; however, as the economy recovers from the COVID-19 crisis, the CA is expected to return to a moderate deficit as private net saving returns to a lower level, more than offsetting an anticipated rise in government net saving. Reserves are adequate to insulate against external shocks and disorderly market conditions.

Potential Policy Responses: In the short term, fiscal policy should bolster the health system, providing businesses with liquidity and supporting incomes of vulnerable households, including through preserving employment. Monetary and financial policies should prevent a tightening of financial conditions and enable the financial sector to support firms' liquidity. If imbalances that existed prior to the COVID-19 outbreak persist in the medium term, policies should aim to boost corporate investment and productivity, while active labor market policies should facilitate access to skilled labor with structural reforms focused on raising potential growth. The fiscal deficit should be reduced after the crisis has abated. Room should be made for priority fiscal spending, especially health care and self-financed public investment, as EU funds are gradually phased out, by better targeting social benefits according to need.

Foreign Asset and Liability Position and Trajectory

Background. The NIIP stood at –50 percent of GDP in 2019, broadly stable since 2018. Gross assets and liabilities reached 49 and 99 percent of GDP, respectively. The stock of net FDI (equity and debt), accounting for 36 percent of gross external liabilities, remains diversified across sectors and source countries. While gross external debt is sizable (62 percent of GDP), 27 percent of the debt is liabilities to direct investors via intercompany loans; 74 percent of the debt is of long-term maturity. Short-term debt (excluding intercompany debt), amounting to 16 percent of GDP, is mainly owed by banks (currency and deposits) and the nonfinancial private sector (trade credit). Automatic debt dynamics are projected to continue to reduce the negative NIIP.

Assessment. While sizable external debt is a vulnerability, rollover risk is mitigated by the large share of long-term debt as well as intercompany lending that tends to be automatically rolled over. Adequate reserves reduce residual rollover risk from short-term debt (gross reserves at end-2019 were equivalent to 142 percent of short-term debt).

2019 (% GDP)	NIIP: –50.3	Gross Assets: 48.8	Res. Assets: 21.7	Gross Liab.: 99.2	Debt Liab.: 43.2

Current Account

Background. The CA has moved toward surplus since the 2008 crisis, from large deficits to close-to-balance in recent years. This reflects a larger trade surplus (mainly services), despite sustained high primary income deficits from reinvested earnings and dividend payments to direct investors and net earnings of foreign workers in Poland. Low investment and high saving by the corporate sector have been partially offset by net borrowing by households and the government. Poland's CA swung from a deficit of 1 percent of GDP in 2018 to a surplus of 0.5 percent of GDP in 2019 on further rise in goods and services balances, assisted in part by lower oil prices. In 2020:Q1, the CA surplus increased significantly to US$6.2 billion (1.1 percent of annual GDP) driven mostly by a large decline in the primary income deficit. For 2020, the CA surplus is expected to reach 1.5 percent of GDP as a projected reduction in the primary income deficit outweighs a decline in the balance of goods and services. Over the medium term, the CA relative to GDP is expected to return to a small deficit as private net saving return to a lower level as the economy recovers, outweighing an increase in government net saving.

Assessment. For 2019, the EBA CA model estimates a norm of –2.1 percent of GDP against a cyclically adjusted CA of 0.6 percent of GDP. The resulting EBA gap of 2.7 (±1) percent of GDP can be attributed in part to identified policy gaps (1.7 percent of GDP) and an unexplained residual of 0.9 percent of GDP.[1,2]

2019 (% GDP)	Actual CA: 0.5	Cycl. Adj. CA: 0.6	EBA CA Norm: –2.1	EBA CA Gap: 2.7	Staff Adj.: 0.0	Staff CA Gap: 2.7

Real Exchange Rate

Background. The REER has depreciated by 18 percent since 2008, including a 1.3 percent real depreciation in 2019. In nominal terms, the zloty has tended to depreciate against the dollar but remain relatively stable against the euro. Over the same period, inflation in Poland has been only slightly higher than in its trading partners. As of May 2020, the REER has depreciated by 2.2 percent relative to the 2019 average.

Assessment. The REER index model suggests a gap of –2.7 percent.[3] The undervaluation implied by the IMF staff CA gap, along with the assumed CA-REER elasticity of 0.44, is in the range of –4 to –8 percent. Overall, the IMF staff assesses the 2019 REER gap to be –6 percent (±2 percent), consistent with the staff CA gap.

Capital and Financial Accounts: Flows and Policy Measures

Background. The capital account, which is dominated by inflows of EU funds for financing investment projects, has averaged about 2 percent of GDP over the past 10 years. In 2019, financial account outflows amounted to 1.7 percent of GDP, mainly due to portfolio investment; net FDI inflows narrowed by 0.5 percentage point from 2018 to 2 percent of GDP, due to both expansion of Polish investment abroad and lower inflows into Poland. In 2020, first quarter financial account outflows increased to US$8.2 billion (1.5 percent of annual GDP), concentrated in March. The outflows are projected to reach 2 percent of GDP for the year.

Assessment. Foreign holdings of domestic government securities have declined sharply since 2016 (to 23 percent of the total; 6.9 percent of GDP) as domestic banks have increased their holdings in response to the bank asset tax, which exempts government bonds. Nevertheless, the overall stock remains sizable and could pose risks, although the diversified foreign investor base is a mitigating factor.

FX Intervention and Reserves Level

Background. Gross international reserves were US$128 billion at end-2019. Net reserves, which exclude the central bank's repo operations (part of its reserve management strategy) and government FX deposits, were US$113 billion at end-2019. Net reserves had increased from US$101 billion at end-2018, reflecting in part the central bank's conversion of a portion of EU funds received by the government to zloty. This is consistent with the central bank's strategy of building an adequate precautionary reserve buffer. Through March 2020, net reserves increased approximately US$1 billion from end-2019 to US$114 billion, while gross reserves declined by about US$8 billion, to US$121, reflecting a decline in repo operations. The zloty is free floating, and the central bank does not directly intervene in the FX market.

Assessment. Net reserves were adequate at end-2019, standing at 127 percent of the IMF's composite reserve adequacy (ARA) metric at end-2019. Gross reserves were about 144 percent of the ARA metric.

Table 3.20. Russia: Economy Assessment

Overall Assessment: *The external position in 2019 was broadly in line with the level implied by medium-term fundamentals and desirable policies.* Oil exports were somewhat affected by moderating oil prices. As a result, the CA surplus narrowed to 3.8 percent of GDP. In the meantime, capital outflows caused by uncertainties surrounding sanctions have declined dramatically.

Potential Policy Responses: In the short term, fiscal policy should focus on managing the COVID-19 public health emergency and compensating those most affected by it, including self-employed and informal workers as well as small and medium-sized enterprises. If policy distortions and imbalances that existed prior to the COVID-19 outbreak persist in the medium term, fiscal policy should continue to reduce the impact of oil price volatility on the non-oil sector while rebalancing government expenditure toward health, education, and infrastructure. Also, focus should be given to structural reforms aimed at improving the business climate and boosting private sector investment.

Foreign Asset and Liability Position and Trajectory	**Background**. The NIIP had declined slightly to US$356.5 billion by the end of 2019, which at 21 percent of GDP remains well above the near balance net stock position in 2010. Gross assets rose from 76 percent of GDP in 2018 to 89 percent of GDP; liabilities also increased from 58 percent of GDP to 68 percent. Debt liabilities to nonresidents edged up slightly to 33 percent of GDP. Nonresidents' holdings of ruble-denominated government debt rose marginally to 32 percent of total external debt from 24 percent at end-2018.[1] There are no obvious maturity mismatches between the gross asset and liability positions. Historically, the NIIP position has not kept pace with CA surpluses due to unfavorable valuation changes and the treatment of "disguised" capital outflows.[2] **Assessment.** The projected CA surpluses suggest that Russia will see a gradual rise in its positive NIIP, lowering risks to external stability. Moreover, official external assets have been increasing rapidly since the introduction of the new fiscal rule. The recent COVID-19 shock to oil production and prices, however, could dampen the pace of reserve accumulation in the near term.				
2019 (% GDP)	NIIP: 21.0	Gross Assets: 88.8	Res. Assets: 32.6	Gross Liab.: 67.8	Debt Liab.: 20.6

Current Account	**Background.** Reflecting moderating oil prices and commodity exports, the CA balance narrowed to 3.8 percent of GDP in 2019 from 6.8 percent in 2018. The nonenergy CA deficit widened by 1 percentage point to 9.7 percent of GDP, reflecting relatively weak competitiveness in the nonenergy sector. Despite the sharp dip in oil prices, the CA balance still registered a surplus of US$22 billion in the first quarter of 2020, driven by a trade surplus of US$32 billion. The CA balance is expected to decline to near zero in 2020 on contracting exports caused by the oil price plunge and weakening global demand as a result of the COVID-19 shock but is expected to recover to above 3 percent of GDP over the medium term as exports rebound. **Assessment.** The EBA CA model yields a norm of 3.7 percent of GDP for 2019, compared with a cyclically adjusted CA surplus of 3.8 percent of GDP. This implies an EBA CA gap of 0.1 percent of GDP, for which identified policies contributed 2.6 percent of GDP, reflecting sound fiscal and monetary policy, lower-than-desirable health spending, and a continued increase in reserves. The IMF staff assesses the CA gap to be 0.1 percent of GDP in 2019, with a range between –0.9 and 1.1 percent of GDP. Volatility in global commodity markets and uncertainty regarding sanctions complicate this assessment.[3]					
2019 (% GDP)	Actual CA: 3.8	Cycl. Adj. CA: 3.8	EBA CA Norm: 3.7	EBA CA Gap: 0.1	Staff Adj.: 0	Staff CA Gap: 0.1

Real Exchange Rate	**Background.** The REER appreciated marginally by 2.5 percent in 2019, despite a weaker CA. The REER was generally stable since mid-2017 until recently, when the slump in oil prices put pressure on the currency. By end-May, the REER had depreciated by 5.0 percent from the average in 2019. **Assessment.** EBA level and index REER models indicate an undervaluation of 14.5 percent and 9.3 percent, respectively. Among the model determinants, the most important contributor to undervaluation is lower-than-desirable health expenditures. Using an elasticity parameter of 0.27 and the IMF staff–assessed CA gap, the staff assesses the 2019 REER gap to be in the range of –5.4 to 4.6 percent, with a midpoint of –0.4 percent.[4]
Capital and Financial Accounts: Flows and Policy Measures	**Background.** Net private capital outflows declined significantly in 2019. The majority of net outflows took place in the first quarter; net flows were insignificant during the rest of the year. The banking sector accounts for the bulk of outflows by reducing foreign liabilities (US$20.2 billion), while the nonbanking private sector increased both foreign assets (US$25.3 billion) and foreign liabilities (US$25.7 billion). In the first quarter of 2020, there were moderate outflows by the private sector in both banking and nonbanking. Pressure on financial flows could stem from volatility in oil prices and global demand as well as geopolitical uncertainty. **Assessment.** While Russia is exposed to risks of continued outflows due to global and geopolitical uncertainties, the large FX reserves and the floating exchange rate regime provide substantial buffers to help absorb external shocks. The substantial deleveraging in 2018 also helped reduce susceptibility to external shocks.
FX Intervention and Reserves Level	**Background.** Since the floating of the ruble in November 2014, FX interventions have been limited. In 2020:Q1, despite a sharp fall in oil revenue, FX sales have been moderate. International reserves rose to US$554 billion (more than 19 months of imports) by end-2019 and further edged up marginally in 2020:Q1, largely reflecting FX purchases by the National Wealth Fund under the fiscal rule. **Assessment.** International reserves at end-2019 were equivalent to 310 percent of the IMF's reserve adequacy metric, considerably above the adequacy range of 100 to 150 percent. Taking into account Russia's vulnerability to oil price shocks and sanctions, an additional commodity buffer of US$77 billion is appropriate, translating to a ratio of reserves to the buffer-augmented metric to 217 percent.

Table 3.21. Saudi Arabia: Economy Assessment

Overall Assessment: *The external position in 2019 was weaker than the level implied by medium-term fundamentals and desirable policies.* The pegged exchange rate provides Saudi Arabia with a credible policy anchor. Given the close link between the fiscal and external balance and the structure of the economy, external adjustment will be driven primarily by fiscal policy. The external balance sheet remains very strong. Reserves remain very comfortable when judged against standard IMF metrics, although external savings are not sufficient from an intergenerational equity perspective. Reserves are expected to decline as the CA moves to a deficit and investments overseas by public sector institutions continue.

Potential Policy Responses: The immediate priority should be fiscal support to the health sector and sectors hit hard by the coronavirus, which will entail running a larger-than-budgeted fiscal deficit this year given the expected decline in oil revenues. To address the imbalances that already existed prior to COVID-19, fiscal consolidation is needed over the medium term to raise the CA and increase saving for future generations. Fiscal adjustment should be based on further energy price reforms, non-oil revenue measures, expenditure restraint, and more efficient spending, supported by reforms to strengthen the fiscal framework. Structural reforms that help diversify the economy and boost the non-oil tradable sector would support a stronger external position over the long term.

Foreign Asset and Liability Position and Trajectory	**Background.** Net external assets are estimated at 86 percent of GDP at end-2019, up from 80 percent of GDP in 2018 but down from 105 percent in 2015. Only broad categories are available on the composition of external assets. Portfolio and other investments, reserves, and FDI account for 46 percent, 43 percent, and 11 percent of total external assets, respectively. **Assessment.** The external balance sheet remains very strong. Substantial accumulated assets represent both protection against vulnerabilities from oil price volatility and savings of exhaustible resource revenues for future generations.				
2019 (% GDP)	NIIP: 86.1	Gross Assets: 146.0	Res. Assets: 63.0	Gross Liab.: 59.9	Debt Liab.: 23.6
Current Account	**Background.** The CA balance registered a surplus of 5.9 percent of GDP in 2019, down from a surplus of 9.2 percent in 2018. The trade balance decreased by 5 percent of GDP as the price and volume of oil exports declined and imports increased. The terms of trade deteriorated by 4.6 percent. The CA is expected to register a deficit of 4.9 percent of GDP in 2020 as oil revenues decline further (the terms of trade are projected to worsen by 42 percent).[1] **Assessment.** The reliance on oil subjects the CA to wide swings and complicates the application of standard external assessment methodologies. The CA gap estimated by the EBA-Lite methodology is negative, although the size of the estimated gap varies by approach. The estimated CA gap in 2019 is –2.1 percent of GDP using the CA-regression approach. The consumption allocation rules suggest a CA gap of –2.3 percent of GDP and –5.0 percent of GDP for the constant real annuity and constant real per capita annuity allocation rules, respectively. The Investment Needs Model suggests a CA gap of –2.6 percent of GDP. The IMF staff assesses a CA gap of –3.0 percent of GDP with a range from –1.8 to –4.2 percent of GDP in 2019.[2]				
2019 (% GDP)	Actual CA: 5.9	Cycl. Adj. CA: 5.2	EBA CA Norm: —	EBA CA Gap: —	Staff Adj.: —	Staff CA Gap: –3.0
Real Exchange Rate	**Background.** The riyal has been pegged to the US dollar at a rate of 3.75 since 1986. The Saudi Arabian Monetary Authority recently issued a statement reiterating its commitment to the peg. On average, the REER depreciated by 0.4 percent in 2019 but was 5.4 percent above its 10-year average. As of end-May 2020, the REER had appreciated by about 2.9 percent relative to the 2019 average. **Assessment.** Exchange rate movements have a limited impact on competitiveness in the short term as most exports are oil or oil-related products, and there is limited substitutability between imports and domestically produced products, which in turn have significant imported labor and intermediate input content. The IMF staff assesses the 2019 REER gap to be about 13 percent with a range of 10 to 16 percent.				
Capital and Financial Accounts: Flows and Policy Measures	**Background.** Net financial outflows continued in 2019 as public sector institutions accumulated external assets. FX reserves increased marginally. Reserves are expected to decline in 2020 as the CA slips into a deficit and investments overseas by public sector institutions continue as part of the diversification strategy under the government's Vision 2030 plan. Equity markets saw large outflows in March 2020 as oil prices declined and COVID-19 struck global financial markets but have seen some rebound more recently. **Assessment.** Analysis of the financial account is complicated by the lack of detailed information on the nature of the financial flows. The strong reserves position limits risks and vulnerabilities to capital flows.				
FX Intervention and Reserves Level	**Background.** The investments of the Public Investment Fund are increasing, although most of the government's foreign assets are still held at the central bank within international reserves. Net FX reserves had increased slightly to US$494 billion (62 percent of GDP, 30.6 months of imports, and 375 percent of the IMF's reserve adequacy metric) at end-2019 but are down from US$724 billion in 2014. Reserves have fallen by US$50 billion since end-2019, mainly due to transfers of foreign assets to the sovereign wealth fund. **Assessment.** Reserves play a dual role: savings for both precautionary motives and for future generations. Reserves are more than adequate for precautionary purposes (measured by the IMF's metrics). Nevertheless, fiscal adjustment is needed over the medium term to raise the CA and increase savings for future generations.				

Table 3.22. Singapore: Economy Assessment

Overall Assessment: *The external position in 2019 was substantially stronger than with the level implied by medium-term fundamentals and desirable policies.* Singapore's very open economy and its position as a global trading and financial center make the assessment more uncertain than usual.

Potential Policy Responses: Amid COVID-19, both external and domestic demand significantly weakened. A sizable fiscal stimulus has been introduced drawing down accumulated government financial assets. The authorities should continue monitoring the implementation of stimulus measures and stand ready to provide further stimulus if needed. If imbalances that existed prior to the COVID-19 outbreak persist in the medium term, higher public investment, including on health care, physical infrastructure, and human capital, would help moderate the CA imbalance by lowering net public saving. Structural reforms are also necessary to improve productivity, which would support a trend real exchange rate appreciation.

Foreign Asset and Liability Position and Trajectory	**Background.** The NIIP stood at 241 percent of GDP in 2019, up from 206 percent of GDP in 2018 and 187 percent in 2014. Gross assets and liabilities are high, reflecting Singapore's status as a financial center (about 1,135 and 896 percent of GDP, respectively). About half of foreign liabilities is in FDI, and about a third is in the form of currency and deposits. The CA surplus has been a main driver, but valuation effects were material in some years. CA and growth projections imply that the NIIP will rise over the medium term. The large positive NIIP in part reflects the accumulation of assets for old-age consumption, which is expected to be gradually unwound over the long term. **Assessment.** Large gross non-FDI liabilities (438 percent of GDP in 2019)—predominantly cross-border deposit taking by foreign bank branches—present some risks, but these are mitigated by large gross asset positions, banks' large short-term external assets, and the authorities' close monitoring of banks' liquidity risk. Singapore has large official reserves and other official liquid assets.				
2019 (% GDP)	NIIP: 240.8	Gross Assets: 1,135.2	Debt Assets: 533.0	Gross Liab.: 894.4	Debt Liab.: 357.9
Current Account	**Background.** The CA surplus was 17.0 percent of GDP in 2019, similar to 17.2 percent in 2018. The CA balance is slightly lower than its average since 2014 and significantly lower than the post-global-financial-crisis peak of 22.9 percent in 2010. The CA balance is likely to decline in 2020—due to the COVID-19 movement restrictions and weak external demand—to about 13 percent of GDP, but the uncertainty around this projection is high. Singapore's large CA balance reflects a strong goods balance and small surplus in the services balance that is partly offset by a deficit in the income balance.[1] The oil trade deficit narrowed in 2019. Structural factors and policies that boost saving, such as Singapore's status as a financial center, consecutive fiscal surpluses, and the rapid pace of aging—combined with a mandatory defined-contribution pension program (whose assets were about 83.8 percent of GDP in 2019), as well as relatively high productivity—are the main drivers of Singapore's strong external position. The CA surplus over the medium term is projected to narrow on the back of increased infrastructure and social spending. **Assessment.** Guided by the EBA framework, the IMF staff assesses the 2019 CA gap to be in the range of 1 to 7 percent of GDP.[2] This gap in part reflects a tighter-than-desired fiscal balance and, to a limited extent, relatively low government health spending.					
2019 (% GDP)	Actual CA: 17.0	Cycl. Adj. CA: 16.8	EBA CA Norm: —	EBA CA Gap: —	Staff Adj.: —	Staff CA Gap: 4
Real Exchange Rate	**Background.** The REER appreciated by 0.1 percent year over year in 2019 reflecting the appreciation of the NEER by 1.4 percent year over year. This followed a depreciation of the REER by 1.8 percent and an appreciation of the NEER by 1.1 percent, both cumulative, between 2016 and 2018. As of May 2020, the REER had depreciated by 2.8 percent relative to 2019 average. **Assessment.** The IMF staff assesses that the REER is undervalued by 2 to 14 percent, with a midpoint of 8 percent, applying the semi-elasticity of 0.5 to the staff CA gap. This assessment is subject to a wide range of uncertainty about both the underlying CA assessment and the semi-elasticity of the CA with respect to the REER.					
Capital and Financial Accounts: Flows and Policy Measures	**Background.** Singapore has an open capital account. As a trade and financial center in Asia, changes in market sentiment can affect Singapore significantly. Increased risk aversion in the region, for instance, may lead to inflows to Singapore given its status as a regional safe haven, whereas global stress may lead to outflows. The financial account deficit reflects in part reinvestment abroad of income from official foreign assets, as well as sizable net inward FDI and smaller but more volatile net bank-related flows. In 2019, the deficit on the capital and financial account widened to 19 percent of GDP from 13 percent in 2018. This reflected higher net outflows of portfolio investment, more than offsetting the increase in net inflows of direct investment and a decline in the net outflows of other investment. **Assessment.** The financial account is likely to remain in deficit as long as the trade surplus remains large.					
FX Intervention and Reserves Level	**Background.** With the NEER as the intermediate monetary policy target, intervention is undertaken to achieve inflation and output objectives. As a financial center, prudential motives call for a larger NIIP buffer. Official reserves at the Monetary Authority of Singapore (MAS) reached US$279 billion (75 percent of GDP) in 2019, after US$33 billion was transferred to the government in May 2019 for management by sovereign wealth fund GIC. It increased to US$302 billion in April 2020. The MAS started publishing aggregate data on foreign exchange intervention in April 2020. On March 19, the MAS announced the establishment of a US$60 billion swap facility with the US Federal Reserve. **Assessment.** In addition to FX reserves held by the MAS, Singapore also has access to other official foreign assets managed by Temasek and GIC.[3] The current level of official external assets appears adequate, even after considering prudential motives, and there is no clear case for further accumulation for precautionary purposes.					

Table 3.23. South Africa: Economy Assessment

Overall Assessment: *The external position in 2019 was moderately weaker than the level implied by medium-term fundamentals and desirable policies*, with the CA gap staying at the same level as in 2018. Portfolio flows continued to finance most of the relatively high CA deficit.

Potential Policy Responses: In the near term, policies need to cushion the negative impact of the COVID-19 crisis and protect the vulnerable through temporary and targeted fiscal support. If imbalances that existed prior to the COVID-19 outbreak persist in the medium term, reducing external gaps will require bold implementation of structural reforms to improve competitiveness and gradual but substantial fiscal consolidation while providing space for infrastructure and social spending (to improve educational attainment and skills and help reduce poverty and inequality). Efforts are also needed to improve the efficiency of key product markets (by encouraging private sector participation in power generation, transportation, and telecommunications) and the functioning of labor markets. These reforms will help attract durable capital inflows such as FDI. Seizing opportunities to accumulate international reserves, should they arise, would strengthen the country's ability to deal with FX liquidity shocks.

Foreign Asset and Liability Position and Trajectory	**Background.** With large gross external assets and liabilities (respectively, 137 and 129 percent of GDP in 2019), South Africa is highly integrated into international capital markets. The NIIP rose markedly from –8 percent of GDP in 2014 to 16 percent of GDP in 2015, mainly on valuation changes, but declined to 8 percent of GDP in 2019. The NIIP is expected to continue moderating over the medium term as CA deficits are projected to remain relatively high. Gross external debt rose from 26 percent of GDP in 2008 to an estimated 50 percent of GDP in 2019 due mainly to public sector long-term debt. Short-term external debt (on a residual maturity basis) is estimated at about 15.7 percent of GDP in 2019. **Assessment.** Risks from large gross external liabilities are mitigated by several factors, including South Africa's comfortable external asset position, as well as the fact that the bulk of the liabilities are in the form of equities and that about half of all external debt is rand-denominated.				
2019 (% GDP)	NIIP: 8	Gross Assets: 137	Debt Assets: 13.9	Gross Liabilities: 129	Debt Liabilities: 43.2

Current Account	**Background.** The CA deficit narrowed from 5.8 percent of GDP in 2013 to 2.5 percent in 2017 but widened to 3.5 percent in 2018 as the terms of trade deteriorated and the trade balance declined. The CA deficit for 2019 was 3 percent of GDP due to increases in the trade and income balances. With high uncertainty related to the COVID-19 outbreak, in 2020 the CA deficit is projected to decline to 1.8 percent of GDP, mainly due to import compression and lower oil prices. The CA deficit is projected to widen to about 4 percent of GDP in the medium term owing to an elevated deficit in the income account—projected to remain at about 4 percent of GDP. **Assessment.** The IMF staff estimates a CA gap in the range of –0.5 to –2.7 percent of GDP in 2019, derived from a revised cyclically adjusted CA and an adjusted model-based norm. The revised cyclically adjusted CA (–1.7 percent of GDP) is obtained by subtracting 1.5 percentage points from the cyclically adjusted CA (–3.2 percent of GDP) for the statistical treatment of transfers and income accounts. The adjusted CA norm (–0.1 percent of GDP) is obtained by subtracting 1 percentage point from a surplus CA norm from the regression model (0.9 percent of GDP) to reflect the lower life expectancy at prime age relative to other countries in the regression sample.[1] The estimated CA gap is largely explained by structural factors outside the model.					
2019 (% GDP)	CA: –3.0	Cycl. Adj. CA: –3.2	EBA CA Norm: 0.9	EBA CA Gap: –4.0	Staff Adj.: 2.5	Staff CA Gap: –1.5

Real Exchange Rate	**Background.** The CPI-REER depreciated during 2011–16 and recouped some of the losses in 2017–18. In 2019, the REER depreciated by about 3.5 percent relative to 2018. As of end-May 2020, the REER further depreciated by 14.7 percent relative to the 2019 average. **Assessment.** The IMF staff assesses the REER to have been overvalued by 1.7 to 9.7 percent in 2019, with a midpoint of 5.7 percent, relying on the CA approach, in which the implied REER gap is estimated from the staff CA gap.[2] The two REER-based regressions point to undervaluation in a range of 3.3 percent (level approach) and 15.7 percent (index approach), but the staff deems these results less reliable.[3]
Capital and Financial Accounts: Flows and Policy Measures	**Background.** Net FDI flows stayed positive in 2019 (0.4 percent of GDP). Net portfolio investment (2.6 percent of GDP) remained as the main source of financing the CA deficit. Gross external financing needs stood at 20 percent of GDP in 2019. **Assessment.** In 2020, COVID-19–related large portfolio outflows from emerging markets may continue. Moody's in end-March downgraded the sovereign's credit rating to sub-investment status, increasing capital outflow pressure. Risks from large reliance on non-FDI inflows and nonresident holdings of local financial assets are mitigated by a flexible exchange rate, a large local currency component in nonresident portfolio holdings, and a large domestic institutional investor base. The latter tends to reduce asset price volatility during periods of market stress. The South African authorities have requested financing under the IMF's Rapid Financing Instrument.
FX Intervention and Reserves Level	**Background.** South Africa's exchange rate regime is classified as floating. Central bank intervention in the foreign exchange market is rare. International reserves are estimated to have been about 16 percent of GDP, 80 percent of gross external financing needs, and nine months of imports at end-2019. Reserves stand below the IMF's composite adequacy metric (76 percent of the metric without considering existing CFMs and 83 percent of the metric after considering them). **Assessment.** If conditions allow, reserve accumulation would be desirable to strengthen the external liquidity buffer, subject to maintaining the primacy of the inflation objective.

Table 3.24. Spain: Economy Assessment

Overall Assessment: *The external position in 2019 was broadly in line with the level implied by medium-term fundamentals and desirable policies.* In 2019, the CA remained in surplus for the eighth consecutive year. Achieving a sufficiently strong NIIP will continue to require a relatively high CA surplus for a sustained period.

Potential Policy Responses: Structural reforms in response to the global financial crisis—in particular labor market reform, with the resulting wage moderation, and fiscal adjustment—helped reduce imbalances. To mitigate the impact of the COVID-19 crisis, targeted and temporary income and liquidity support is warranted. If sources of external vulnerability that existed prior to the COVID-19 outbreak persist in the medium term, policies should foster competitiveness and carefully manage the public debt load. Boosting competitiveness through productivity gains over the medium term would entail continued wage flexibility, reforms to address labor market duality, implementation of product and service market reforms, and actions to enhance education outcomes and innovation.

Foreign Asset and Liability Position and Trajectory	**Background.** The NIIP dropped significantly during 2000–09, driven mostly by high CA deficits but also by valuation effects. The NIIP was –74 percent of GDP in 2019, but has risen by 15 percentage points since 2015, partly due to sustained CA surpluses and despite some negative valuation effects. Gross liabilities stood at 250 percent of GDP in 2019, with about two-thirds in the form of external debt. Whereas the private sector has deleveraged since the 2008–12 crisis, the NIIP accounted for by the general government and the central bank increased, raising its share to more than four-fifths in 2019. Part of that increase is due to TARGET2 liabilities, which had reached 30 percent of GDP by end-2019.[1] **Assessment.** The large negative NIIP comes with external vulnerabilities, including from large gross financing needs and potentially adverse valuation effects. Mitigating factors are a favorable maturity structure of outstanding sovereign debt (averaging almost eight years) and current ECB measures, such as QE, that lower the cost of debt.					
2019 (% GDP)	NIIP: –73.5	Gross Assets: 176.1	Debt Assets: 80.9	Gross Liab.: 249.6	Debt Liab.: 151.7	
Current Account	**Background.** After a peak CA deficit in 2007, corrected initially by a sharp contraction in imports, regained competitiveness from wage moderation and greater internationalization efforts contributed to strong export growth, leading to CA surpluses in 2012–19. Historical data revisions, including upward changes in tourism receipts, show that recent CA surpluses were higher than reported earlier—the annual average surplus during 2013–18 was revised from 1.5 to 2.3 percent of GDP. The CA surplus was estimated at 2.0 percent of GDP in 2019. With high uncertainty, the 2020 CA is projected at slightly below 2 percent of GDP, with imports declining more strongly than exports partly because of low oil prices. Weaker-than-expected exports—particularly tourism receipts—are a key downside risk around this projection. Moderate CA surpluses are projected to continue in the medium term. **Assessment.** The EBA CA model suggests a norm of 1.1 percent of GDP for 2019, which is below the cyclically adjusted CA balance (2.2 percent of GDP). However, given external risks from a large and negative NIIP, the IMF staff's assessment puts more weight on external sustainability and is guided by the objective of raising the NIIP to at least –50 percent over the medium to long term. The NIIP is projected to reach –57 percent of GDP over the medium term under current policies, though with high uncertainty as zero valuation effects are assumed. Allowing for a safety margin, the IMF staff therefore considers a CA norm of about 2 percent of GDP, with a range of 1 to 3 percent of GDP. This yields a CA gap of –0.8 to 1.2 percent of GDP.[2]					
2019 (% GDP)	Actual CA: 2.0	Cycl. Adj. CA: 2.2	EBA CA Norm: 1.1	EBA CA Gap: 1.1	Staff Adj.: –0.9	Staff CA Gap: 0.2
Real Exchange Rate	**Background.** In 2019, the CPI-based REER and the ULC-based REER depreciated from their average 2018 levels by 1.9 and 1.4 percent, respectively. The CPI-based REER is still moderately lower than its 2009 peak, partially reversing the significant appreciation from euro entry in 1999 until 2009. The ULC-based REER shows that the appreciation between 1999 and 2008 has been substantially reversed, initially because of labor shedding and thereafter due to wage moderation and strong output growth until 2019. After reaching its peak in 2008, the ULC-based REER depreciated by 19 percent. As of May 2020, the CPI-based REER had depreciated by 0.3 percent and the ULC-based REER had depreciated by 1.6 percent relative to their 2019 averages. **Assessment.** The EBA REER models estimate an overvaluation of 4.9 to 5.2 percent for 2019, whereas the IMF staff CA gap implies an undervaluation of 0.9 percent. Taking into account also the need for preserving competitiveness, and the risks from NIIP sustainability, on balance, the IMF staff assesses the 2019 REER gap to be in the range of –4.9 to 3.1 percent, with a midpoint of –0.9 percent.[3]					
Capital and Financial Accounts: Flows and Policy Measures	**Background.** Financing conditions have continued to be favorable, despite some increase in sovereign bond yields in the wake of the COVID-19 crisis. And by 2019:Q4 the private sector had continued its deleveraging against the rest of the world. In 2019, the financial account balance was largely driven by net outflows of loans and other bank-related instruments (especially from sectors other than the central bank). The accumulation of TARGET2 liabilities, reflecting liquidity creation within the framework of the Eurosystem's asset purchase program, was negative for the first time since 2015 (–3 percent of GDP in 2019). **Assessment.** Investor sentiment had continued to improve in 2019. However, amid the pandemic crisis, large external financing needs leave Spain vulnerable to sustained market volatility, although the ECB's policies to maintain favorable liquidity conditions and monetary accommodation remain a mitigating factor.					
FX Intervention and Reserves Level	**Background.** The euro has the status of a global reserve currency. **Assessment.** Reserves held by the euro area are typically low relative to standard metrics, but the currency is free floating.					

Table 3.25. Sweden: Economy Assessment

Overall Assessment: *The external position in 2019 was stronger than the level implied by medium-term fundamentals and desirable policies.* The outlook for 2020 is clouded by high uncertainty caused by the COVID-19 crisis, which will likely push Sweden into a recession in 2020. External global demand is projected to retract, and with it Sweden's CA surplus. Given the unprecedented crisis any assessment going forward is difficult to make and subject to revisions.

Potential Policy Responses: Given its large fiscal buffers, Sweden was in a good position to provide timely, substantial support to companies and households through various compensation programs, guarantees, and tax deferrals. The Riksbank is providing ample liquidity and has expanded its quantitative easing program. A swap line with the US Federal Reserve was established to address dollar funding pressures. Additional sizable targeted policies, complemented by broader stimulus packages, will be required to secure adequate resources for the health care system and limit the propagation of the health crisis to economic activity. If imbalances and policy distortions that existed prior to the COVID-19 outbreak persist in the medium term, reforms should be implemented to raise potential output and reduce household uncertainties around the sustainability of Sweden's strong social model.

Foreign Asset and Liability Position and Trajectory

Background. The Swedish NIIP reached 21.0 percent of GDP in 2019, up 12.9 percentage points in the year. It is expected to rise further in the medium term, reflecting the outlook for continued CA surpluses. Although the increase in the NIIP is above the CA surplus in 2019 due to large positive valuation effects, it is worth noting that the data for 2019 are still preliminary and subject to considerable errors and omissions, which have averaged –1.3 percent of GDP in the past decade.

Assessment. Gross liabilities were 263 percent of GDP in 2019, with about half being gross external debt (138 percent of GDP). Other financial institutions (70 percent of GDP) hold the bulk of net foreign assets as well as social security funds (21 percent of GDP) and the government (16 percent of GDP). Nonfinancial corporations (48 percent of GDP) and monetary financial institutions (38 percent of GDP) are net external debtors. Although rollovers of external debt (which include banks' covered bonds) pose some vulnerability, risks are moderated by the banks' ample liquidity and large capital buffers. In response to the COVID-19 crisis, the authorities lowered the countercyclical capital buffer from 2.5 percent to 0 and eased the requirement for the liquidity coverage ratio for individual and total currencies. These measures, together with Sweden's strong FX reserves, the swap line with the Federal Reserve, and low public debt, appear to have helped manage crisis-related pressures, but the full impact on corporate and bank balance sheets remains uncertain as it is still unfolding.

2019 (% GDP)	NIIP: 21.0	Gross Assets: 283.5	Debt Assets: 91.4	Gross Liab.: 262.5	Debt Liab.: 132.2

Current Account

Background. After being unexpectedly low at 1.9 percent of GDP in 2018, the CA increased in 2019 to 4.2 percent of GDP, interrupting a trend decline in the surplus in the past decade. Despite rising exports, imports were flat in 2019 owing to weak investment and durables consumption. Sweden is a net oil importer with a negative oil balance of 1.3 percent of GDP. The CA in 2020 is expected to decline to 2.8 percent of GDP due to depressed external demand, but this projection is subject to high uncertainty.

Assessment. The cyclically adjusted CA is estimated at 4.5 percent of GDP in 2019, 3.2 percentage points above the cyclically adjusted EBA norm of 1.2 percent of GDP. However, the estimated EBA norm for Sweden has been below the actual CA balance for the past two decades, suggesting that factors not captured by the model, such as Sweden's mandatory contributions to fully funded pension plans and an older labor force, may also be driving Sweden's saving-investment balances. Overall, the IMF staff assesses Sweden's CA gap at 3.2 percent of GDP in 2019, within a range of ±1.5 percent of GDP, reflecting uncertainty around the EBA-estimated norm.

2019 (% GDP)	Actual CA: 4.2	Cycl. Adj. CA: 4.5	EBA CA Norm: 1.2	EBA CA Gap: 3.2	Staff Adj.: 0.0	Staff CA Gap: 3.2

Real Exchange Rate

Background. The Swedish krona depreciated by 4 percent in real effective terms (CPI based) in 2019 relative to its average level in 2018. In May 2020 it was at the same level as its 2019 average. The temporary weakness of the krona in March and April 2020 may partly have reflected financial outflows in response to the crisis, accommodative monetary policy, and demand for foreign currency funding.

Assessment. EBA analysis suggests a gap of –19.4 percent and –19.0 percent using the REER index and level approaches, respectively, for 2019. The ULC-based REER index is 10.8 percent below its 27-year average (since the krona was floated in 1993) in 2019. Applying a 0.35 semi elasticity of CA to the REER to the CA gap of 3.2 percent ±1.5 percent of GDP[1] gives a valuation range for the krona of –5.1 to –13.7 percent. Overall, the IMF staff assesses the krona to be undervalued by 5 to 15 percent, with a midpoint of 10 percent. This REER gap may decline once the situation, including monetary policy, normalizes.

Capital and Financial Accounts: Flows and Policy Measures

Background. Portfolio investment outflows of 2.1 percent provided two-thirds of the financial account balance in 2019, with other investment (1.4 percent) and direct investment (0.4 percent) outflows comprising the remainder.

Assessment. Given their size and funding model, Sweden's large banks remain vulnerable to liquidity risks stemming from global wholesale markets, even though banks have improved their structural liquidity measures in recent years. The authorities' swift and strong policy response to the COVID-19 crisis appears to have eased liquidity and funding pressures for banks, but the full extent of the impact remains uncertain as it is still unfolding.

FX Intervention and Reserves Level

Background. The exchange rate is free floating. Foreign currency reserves stood at US$56 billion in December 2019, which is equivalent to 19 percent of the short-term external debt of monetary and financial institutions (primarily banks) and about 11 percent of GDP.

Assessment. In view of the high dependence of Swedish banks on wholesale funding in foreign currency, and the disruptions in such funding that have occurred at times of international financial distress, Sweden should maintain adequate foreign reserves. A US$60 billion swap facility was agreed with the Federal Reserve to address risks to dollar funding related to the COVID-19 crisis.

Table 3.26. Switzerland: Economy Assessment

Overall Assessment: *The external position in 2019 was moderately stronger than the level implied by medium-term fundamentals and desirable policies.* However, the assessment for 2019 is subject to significant uncertainty given complex measurement issues and data lags.

Potential Policy Responses: Fiscal policy should continue to play a key role in responding to the coronavirus pandemic. Foreign exchange intervention may be used to partially mitigate appreciation pressures that would otherwise push the economy further into deflation but should not preclude secular real appreciation. Against the backdrop of high uncertainty in global economic conditions, and the medium-term outlook for external positions, medium-term policies should be geared toward ensuring balanced domestic and external contributions to growth. Fiscal policy should remain supportive in the post-pandemic environment, including to help address structural challenges (for example, competitiveness, aging, and climate change). Monetary policy should remain directed at price stability, and macroprudential policies should focus on reducing financial sector risks. More frequent publication of foreign exchange intervention data is encouraged.

Foreign Asset and Liability Position and Trajectory	**Background.** Switzerland is a major international financial center with a positive NIIP of 117 percent of GDP and gross foreign asset and liability positions of 761 and 644 percent of GDP, respectively, at end-2019. The NIIP reflects both a history of large CA surpluses and valuation changes.[1] Valuation changes reflect fluctuations in exchange rates (ERs) and prices of securities and precious metals that interact with differences between assets and liabilities in terms of currencies and instruments.[2] There was a sizable decrease in the NIIP in 2019, from 127 to 117 percent of GDP, mainly reflecting significantly higher investment returns on portfolio liabilities than on portfolio assets. Projections of the NIIP in 2020 and beyond are complicated by heightened uncertainty, and because of the large gross positions and compositional mismatches between assets and liabilities, even modest changes in exchange rates, asset prices, and returns can have a material effect on the NIIP. **Assessment.** Switzerland's large gross liability position and volatility of financial flows and investment returns present some risk, but this is mitigated by the large gross asset position and the Swiss franc denomination of about two-thirds of external liabilities.					
2019 (% GDP)	NIIP: 117.4	Gross Assets: 761.0	Debt Assets: 242.8	Gross Liab.: 643.7	Debt Liab.: 194.9	
Current Account	**Background.** Switzerland has run large CA surpluses, averaging about 10 percent of GDP since 2009. The CA balance has been estimated at 11.5 percent of GDP in 2019, an increase from 8.2 percent in 2018, driven by lower income payments on FDI to nonresidents. Large revisions are common, mainly downward and due to changes in investment income. In 2020, sizable fiscal support, an expected drop in merchanting profits (reflecting lower commodity prices and demand), and a weaker investment income balance will likely bring the CA surplus down to about 8½ percent of GDP. **Assessment.** The EBA CA norm of 6.3 percent of GDP is slightly higher than last year's norm. Based on a cyclically adjusted CA surplus of 11.5 percent of GDP and the norm, the overall EBA estimated CA gap equaled 5.3 percent of GDP in 2019. Domestic policy gaps account for –0.5 percentage point of the CA gap and include excessive private sector credit (–0.9) and fiscal underspending (0.5), while policy gaps in the rest of the world contribute 0.5 percentage point. Switzerland-specific factors not appropriately treated in the income account lower the gap to about 1.8 percent of GDP (with a range of ±2 percentage points): (1) inclusion of estimated retained earnings on portfolio equity investment and (2) compensation for valuation losses on fixed-income securities arising from inflation.[3,4] A further downward revision of 2019 CA surplus may reduce or eliminate the gap. The decline in the NIIP despite a large CA surplus argues against increasing misalignment in 2019.					
2019 (% GDP)	Actual CA: 11.5	Cycl. Adj. CA: 11.5	EBA CA Norm: 6.3	EBA CA Gap: 5.3	Staff Adj.: –3.5	Staff CA Gap: 1.8
Real Exchange Rate	**Background.** The CPI-based REER depreciated by 5.8 percent in 2015–19. After appreciating sharply following the exit from the ER floor relative to the euro in 2015, the REER moderated, initially with unwinding of the overshooting of the nominal effective ER and, subsequently, on lower inflation in Switzerland than in its trading partners. The average REER for 2019 strengthened by 1.0 percent relative to the 2018 average. As of May 2020, the REER had appreciated by 3.9 percent compared with the 2019 average. **Assessment.** The EBA REER index and level models suggest that the average REER in 2019 was 13.5 to 19.7 percent overvalued, respectively, with policy gaps accounting for a modest amount of the total gap. To a large extent, this finding reflects the "reversion to trend" property of the empirical model in the context of the prior rapid appreciation episodes. However, due to measurement issues, these results may not fully capture the secular improvement in productivity, especially in knowledge-based sectors. Accordingly, based on the IMF staff CA gap, the staff assesses the 2019 REER gap to be in the range of –7.4 to 0.4 percent, with a midpoint of –3.5 percent.[5] The CA-REER elasticity of 0.52 is relatively large due to the high openness of the economy.					
Capital and Financial Accounts: Flows and Policy Measures	**Background.** During 2019, net financial outflows totaled 5.2 percent of GDP, including moderate accumulation of Swiss National Bank (SNB) reserves. Since 2015, SNB deposits at the bank (above a threshold) have been subject to a negative interest rate of 0.75 percent, which likely contributed to a reduction of nonresident currency holdings and deposits during 2018–19. There are no restrictions on financial flows. **Assessment.** Financial flows are large and volatile, reflecting Switzerland's status as a financial center and safe haven.					
FX Intervention and Reserves Level	**Background.** Official reserve assets (including gold) amounted to US$855 billion (118 percent of GDP) at end-2019, up US$68 billion from end-2018 (including valuation changes). Since exiting the ER floor in 2015, the SNB has intervened periodically, purchasing in response to appreciation pressures from safe haven surges, and more frequently but in smaller amounts. Purchases amounted to CHF13 billion in 2019 and have continued in 2020. The SNB has a standing swap line with the Federal Reserve. **Assessment.** Reserves are large relative to GDP but more moderate in comparison with short-term foreign liabilities. The high level of reserves also reflects monetary operations aimed at avoiding persistent undershooting of inflation as a result of inflow surges and given the limited scope for significant easing via other monetary policy tools. In particular, the supply of domestic assets for purchase is very limited, and the marginal interest rate on bank deposits at the SNB of –0.75 percent is the lowest in the world. More frequent publication of foreign exchange intervention data and information—now annual—is encouraged.					

Table 3.27. Thailand: Economy Assessment

Overall Assessment: *The external position in 2019 was substantially stronger than the level implied by medium-term fundamentals and desirable policies.* Relative to 2018, imports contracted more than exports, and domestic demand was weak, which increased the CA surplus in 2019.

Potential Policy Responses: In the near term, given the large COVID-19 shock, the IMF staff recommends an accelerated, mutually reinforcing macro policy stimulus, led by a fiscal expansion, given available fiscal space, deployed toward targeted social transfers and relief measures. The exchange rate should move flexibly as the key shock absorber, with intervention limited to disorderly market conditions. Over the medium term, if imbalances that existed prior to the COVID-19 outbreak persist, policies should aim to revitalize domestic demand, which would facilitate the needed REER appreciation. Infrastructure investment should be accelerated to support recovery and reorientation of sectors affected by the pandemic, such as tourism. Efforts to reform and expand social safety nets should continue, and steps to address widespread informality will reduce precautionary saving and support consumption.

Foreign Asset and Liability Position and Trajectory	**Background.** Thailand's NIIP continued to rise in 2019 to about –1.8 percent of GDP (from –2.2 percent in 2018), reflecting a higher CA surplus. Gross assets rose to about 97.6 percent of GDP (driven by the increase in reserve assets to 41.3 percent of GDP) while gross liabilities increased slightly to 99.4 percent of GDP (comprising direct [about half] and portfolio [a third] investment). Increasing outward investment continues to keep net FDI low; portfolio (debt) outflows increased. **Assessment.** The NIIP is projected to reach a small creditor position over the medium term given (albeit narrowing) CA surpluses. External vulnerabilities are limited: external debt is steady at about 31.7 percent of GDP, of which short-term debt (on a remaining maturity basis) amounts to 16 percent of GDP; risks to external debt sustainability and liquidity are limited.					
2019 (% GDP)	NIIP: –1.8	Gross Assets: 97.6	Res. Assets: 41.3	Gross Liab.: 99.4	Debt Liab.: 28.1	
Current Account	**Background.** Thailand's CA surplus rose sharply from 5.6 to 7.0 percent of GDP in 2019, reversing the contraction achieved in 2018. US-China trade tensions contributed to weak export growth, particularly of manufacturing goods, together with low intermediate goods imports. However, weak domestic demand further compressed capital and consumer goods imports, leading to a rise in the trade balance. The services account rose relative to 2018, as tourism receipts recovered from a low 2018 base. As of May 2020, tourism arrivals had declined sharply due to the impact of the coronavirus pandemic, while the trade balance rose as imports contracted, while non-gold exports weakened in the face of supply chain disruptions and falling external demand. The CA surplus in 2020 is expected to narrow to 4.9 percent of GDP. **Assessment.** The EBA CA model estimates a cyclically adjusted CA of 6.6 percent of GDP and a CA norm of 0.4 percent of GDP for 2019. The CA gap of 6.1 percent of GDP consists of an identified policy gap of 2.2 percent of GDP (mainly due to fiscal policy and FX intervention) and an unexplained residual of 4 percent of GDP, which partly reflects structural factors not fully captured by the EBA model. Recognizing these factors as well as uncertainties related to the output gap, the IMF staff assesses the CA gap to be about 4.6 to 7.6 percent of GDP.[1] This CA gap is expected to narrow over the medium term as policy stimulus is deployed, domestic demand picks up, and the social safety net is enhanced.					
2019 (% GDP)	Actual CA: 7.0	Cycl. Adj. CA: 6.6	EBA CA Norm: 0.4	EBA CA Gap: 6.1	Staff Adj.: 0.0	Staff CA Gap: 6.1
Real Exchange Rate	**Background.** The baht has been on a gradual real appreciation trend since the mid-2000s, despite occasional bouts of volatility. In 2019, the REER appreciated overall by 5.6 percent relative to 2018, as the baht was one of the best performing currencies in the region. As of May 2020, the REER had depreciated by 4.2 percent relative to its 2019 average as capital outflows accelerated in connection with the coronavirus pandemic. **Assessment.**[2] Using an elasticity of 0.62 and based on the IMF staff CA gap, the staff assesses the REER to be undervalued in the 7 to 12 percent range, with a midpoint of 9.5 percent.					
Capital and Financial Accounts: Flows and Policy Measures	**Background.** In 2019, the capital and financial account balance rose to –2.4 percent of GDP from –3.1 percent in 2018. The key drivers were net portfolio flows and other investment. Nonresident holdings of Thai bonds and equities surged in the middle of the year and corrected somewhat in the third quarter. Inflows resumed in the fourth quarter, reflecting in part Thailand's strong external position relative to other emerging market and developing economies. Outward FDI fell to 2.6 percent of GDP from 4.2 percent in 2018. In July 2019, the authorities introduced measures to curb speculative inflows, tightening the limit on the outstanding amount of nonresident baht accounts. They also eased FX regulations, in line with the broader strategy to liberalize the financial account in a gradual and prudent manner. In 2020, Thailand experienced large capital outflows in line with the regional trends, in both equities and bonds, amounting to US$4 billion by May 2020. **Assessment.** Since 2013, Thailand has experienced episodes of volatility reflecting external financial and political conditions, and recently concerns about the impact of US-China trade tensions and the coronavirus pandemic. Nevertheless, Thailand has been able to weather well such episodes, given strong external buffers and fundamentals. The IMF staff recommends phasing out the reduction in the limits on nonresident baht accounts. Instead, a comprehensive package of macroeconomic, financial, and structural policies should be pursued, complemented by continued efforts to liberalize capital outflows.					
FX Intervention and Reserves Level	**Background.** The exchange rate regime is classified as (de jure and de facto) floating. International reserves (including the net forward position) amounted to 47.6 percent of GDP in 2019, which is more than three times short-term debt and 12 months of imports, and more than 200 percent of the IMF's standard reserve adequacy metric. In response to the COVID-19 shock, the exchange rate has been allowed to adjust, with some FX sales since March. **Assessment.** Gross international reserves (including the net forward position) increased by more than US$19 billion in 2019. While official intervention data are not published, estimates suggest net purchases for most of the year. Reserves are higher than the range of the IMF's adequacy metrics, and there continues to be no need to build up reserves for precautionary purposes. The exchange rate should move flexibly to act as a shock absorber, with intervention limited to avoiding disorderly market conditions.					

Table 3.28. Turkey: Economy Assessment

Overall Assessment: *The external position in 2019 was moderately stronger than the level implied by medium-term fundamentals and desirable policies, although uncertainties are high.* This assessment reflects the lagged adjustment of external balances following the sharp depreciation of the real exchange rate in 2018, which is projected to unwind over time. Large external financing needs and relatively low reserves leave Turkey vulnerable to shocks.

Potential Policy Responses: In the near term, policies need to cushion the impact of the COVID-19 crisis and protect the most vulnerable through temporary and targeted fiscal support, preferably within a policy package that would help secure greater external stability. If imbalances that existed prior to the COVID-19 outbreak persist in the medium term, policies should aim to strengthen external resilience and support a sustainable rebalancing of the economy. Monetary policy, supported by efforts to rein in rapid credit growth, would aim to reduce inflation durably and strengthen central bank credibility while rebuilding reserves. Focused structural reforms would be necessary to enhance productivity, increase resilience to shocks, and strengthen the broader public sector balance sheet and improve transparency in general. These could include efforts to bolster the business climate, including by further strengthening Turkey's insolvency and corporate restructuring frameworks.

Foreign Asset and Liability Position and Trajectory

Background. After reaching –54 percent of GDP at end-2017, Turkey's NIIP rose to –48 percent at end-2018 and –46 percent at end-2019. The large change in 2018 mostly reflected valuation effects from the lira's sharp depreciation that year, as a higher share of external assets relative to external liabilities are denominated in FX (a portion of the liabilities are in the form of Turkish equities and lira-denominated debt securities).1 After a large increase in 2017, total foreign liabilities remained broadly stable at about 79 percent of GDP at end-2019. Based on 2020 first quarter data, the NIIP rose to –41 percent of GDP, largely due to a decline in equity liabilities. Foreign liabilities are dominated by debt, which, at 54 percent of GDP, remains sustainable over the medium term. Private external debt service is vulnerable to global and domestic financial conditions because most of the debt is in FX, a significant portion of which is short term (about 20 percent of GDP, on a remaining maturity basis), with about 40 percent of long-term debt at variable rates.

Assessment. The size and composition of external liabilities, coupled with relatively low reserves, continue exposing Turkey to liquidity shocks, sudden shifts in investor sentiment, and increases in global interest rates. The FX exposure of nonfinancial companies is high, with the potential to undermine bank asset quality. Turkey's NIIP is projected to gradually increase to about –32 percent of GDP by 2025, driven by a decline in liabilities, mainly loans, as the economy rebalances in a post-COVID environment.

2019 (% GDP)	NIIP: –45.8	Gross Assets: 33.7	Res. Assets: 14.0	Gross Liab.: 79.5	Debt Liab.: 53.9

Current Account

Background. The CA deficit, after averaging 3.5 percent of GDP during 2014–16, widened to 4.8 percent in 2017 as policy stimulus resulted in overheating, before narrowing in 2018 to 2.7 percent as domestic demand contracted and the lira depreciated sharply. The CA registered a surplus of 1.2 percent of GDP in 2019, reflecting continued import compression and strong tourism receipts. In the first quarter of 2020, the CA registered a deficit, which led to a decline in the 12-month CA surplus to 0.2 percent of GDP. Import tariffs of up to 30 percent have been imposed on a large number of items. The IMF staff projects a broadly balanced CA in 2020 with a rise in the goods balance (driven by import compression) offset by a fall in services (due to a fall in travel services).

Assessment. The EBA CA model estimates a norm of –1.7 percent of GDP, with a particularly large standard error of 1.8 percentage points of GDP. The cyclically adjusted CA surplus in 2019 is estimated at 0.8 percent of GDP. After taking into account the temporarily large receipts from travel services (0.9 percent of GDP higher than normal in 2019), the IMF staff assesses the CA gap to be about 1.6 percent of GDP, subject to considerable uncertainty (with a range between –0.2 and 3.4 percent of GDP).

2019 (% GDP)	Actual CA: 1.2	Cycl. Adj. CA: 0.8	EBA CA Norm: –1.7	EBA CA Gap: 2.5	Staff Adj.: 0.9	Staff CA Gap: 1.6

Real Exchange Rate

Background. After depreciating sharply in 2018, the average REER depreciated by 2.2 percent in 2019 and a further 7.8 percent through May 2020 driven by nominal depreciation of the lira.

Assessment. The EBA REER level and index approaches suggest the REER remained undervalued in 2019 by 21 to 23 percent, albeit with large uncertainties. The IMF staff CA gap suggests the REER was undervalued by 7 percent (based on an elasticity of 0.22). The staff assesses the REER to be undervalued by 7 to 23 percent in 2019 (with a midpoint of 15 percent).

Capital and Financial Accounts: Flows and Policy Measures

Background. Net capital flows registered modest inflows of US$0.5 billion in 2018 and US$5.6 billion in 2019 (0.7 percent of GDP and excluding reserves and E&O). E&O were positive in 2018, likely reflecting repatriation of foreign assets and unrecorded capital inflows before switching to outflows in 2019. In the first quarter of 2020, net capital outflows were US$6 billion due to portfolio and other investment outflows. To help address currency volatility in August 2018, Turkey introduced limits on bank swaps and other derivatives transactions with foreign counterparties as well as export surrender and repatriation requirements (both CFMs). These measures were partially unwound as volatility receded, but limits on bank swaps and other derivatives transactions with foreign counterparties were reintroduced and tightened in December 2019 and February–April 2020 in response to new bouts of volatility.

Assessment. The quality of financing remained weak in 2019. Turkey remains vulnerable to adverse shifts in global and domestic investor sentiment, with annual gross external financing needs of about 23 percent of GDP on average during 2020–21. CFMs should be phased out as macroeconomic and financial conditions improve.

FX Intervention and Reserves Level

Background. The de jure exchange rate is classified as floating. With pressure on the lira in early 2020, including from the COVID shock, gross reserves had declined by US$22 billion as of mid-May 2020, and net international reserves have dropped by US$15 billion to US$26 billion since the beginning of the year.[2]

Assessment. Gross reserves increased to 85 percent of the IMF's ARA metric at end-2019, from 74 percent at end-2018, but dipped to 67 percent in mid-May 2020. Similarly, reserve coverage of external financing requirements rose to 64 percent in 2019, from 46 percent the year prior, and then dropped to 49 percent in mid-May. Significant accumulation of reserves over the medium term is needed given sizable external liabilities and dependence on short-term and portfolio funding.

Table 3.29. United Kingdom: Economy Assessment

Overall Assessment: *The external position in 2019 was weaker than the level implied by medium-term fundamentals and desirable policies.* The CA deficit remained high in 2019, reflecting low public and private saving. The uncertainty around this assessment is significant, reflecting both measurement issues and uncertainty about the future trade arrangement with the European Union and its possible effect on growth and trade flows. Although the COVID-19 pandemic is a major disruption to trade and capital flows, the net impact on the UK CA is uncertain.

Potential Policy Responses: Macroeconomic policies in the short term (2020–21) should focus on supporting the economy, addressing the impact of the coronavirus, and facilitating the recovery. Once the pandemic is over, structural reforms, including those focused on broadening the skill base, should boost the United Kingdom's productivity and international competitiveness. These efforts are particularly important in light of expectations that access to the EU market will become more restricted.

Foreign Asset and Liability Position and Trajectory

Background. The NIIP declined to –25.2 percent of GDP in 2019 from –12.8 percent of GDP in 2018, to a large extent due to the pound's appreciation. Over the past five years, the NIIP has declined by 2.5 percentage points, reflecting a negative CA contribution (–19.7 percentage points) largely offset by valuation and growth effects (13.7 percentage points and 3.6 percentage points, respectively).[1] The composition of assets roughly matches that of liabilities (about 86 percent of GDP in FDI, 70 percent of GDP in equity instruments, about 98 percent of GDP in derivatives—about ¾ linked to interest rates and ¼ to exchange rates—and about 183 percent of GDP in other investment), although portfolio investment liabilities (167 percent of GDP) exceed assets in portfolio investments (126 percent of GDP). The United States, other European countries, and Japan account for about 75 percent of total UK external assets and liabilities, and external liabilities have a larger share denominated in pounds than assets.[2] The IMF staff projects the NIIP to decline over the medium term, although the large and volatile valuation effects make these estimates particularly uncertain.

Assessment. Despite some decline, the sustainability of the NIIP is not an immediate concern. Since 2000, valuation gains have offset about 40 percent of the effect of CA flows on the IIP, partially reflecting CA measurement issues and depreciation of the pound. However, fluctuations in the large gross stock positions are a potential source of vulnerability (including derivatives, gross assets and gross liabilities both exceed 500 percent of GDP).

2019 (% GDP)	NIIP: –25.2	Gross Assets: 508.6	Debt Assets: 250.7	Gross Liab.: 533.8	Debt Liab.: 288.0

Current Account

Background. The CA deficit narrowed marginally to –3.8 percent of GDP in 2019 (from –3.9 percent in 2018) and remains significantly larger than its historical average. The wider CA deficits since the global financial crisis reflect mostly weaker income balance, due in part to lower earnings on the United Kingdom's FDI abroad (especially in the euro area). In 2019, a slightly rise in the trade balance was offset by a slight fall in the income balance. The CA deficit is projected to decline to 3.5 percent of GDP in 2020 due to a narrower trade deficit and slight rise in the primary income balance.

Assessment. The EBA CA model estimates a norm of 0.4 percent of GDP and a cyclically adjusted EBA CA gap of –4.2 percent of GDP. However, the CA is assessed to be understated due to measurement biases, which are partly reflected in the large NIIP exchange rate valuation effects and in other unidentified stock-flow adjustments. An important source of bias is retained earnings on portfolio equity assets, which are not recorded on an accrual basis—estimated at about 0.8 percent of GDP.[3] A second source is the unrecorded impact of expected inflation differentials on the CA—estimated to be about 0.5 percent of GDP. Overall, the IMF staff assesses the CA gap in the range of –0.9 to –4.9 percent of GDP. This range takes into account the uncertainty in the assessment related to the outcome of the negotiations on the future UK-EU relationship and possible measurement issues.[4]

2019 (% GDP)	Actual CA: –3.8	Cycl. Adj. CA: –3.8	EBA CA Norm: 0.4	EBA CA Gap: –4.2	Staff Adj.: 1.3	Staff CA Gap: –2.9

Real Exchange Rate

Background. The pound remained unchanged in real effective terms in 2019 relative to its average level in 2018 but has depreciated since mid-2016 by about 6 percent. Sterling depreciation since 2016 may reflect an unwinding of past overvaluation as well as market expectations of more restricted access to the EU market in the future. As of May 2020, the REER had depreciated by 0.4 percent compared with the 2019 average.

Assessment. EBA REER level and index approaches suggest a gap of –5.6 and –12.6 percent, respectively, for 2019. However, given uncertainties related to the United Kingdom's new trading relationship with the European Union, these model estimates may not be entirely appropriate. The IMF staff CA gap assessment implies an REER gap of 12 percent. Overall, the staff assesses the REER to be overvalued between 0 and 15 percent, with a midpoint of 7.5 percent.

Capital and Financial Accounts: Flows and Policy Measures

Background. Given the United Kingdom's role as an international financial center, portfolio investment and other investment are the key components of the financial account. In net terms, the CA was financed in 2019 by broadly stable net FDI inflows of 1 percent of GDP, net other investments worth 5.7 percent of GDP (reflecting rising inflows and declining outflows), while net portfolio investments declined by 2 percent of GDP (reflecting accumulation of assets abroad by 4.9 percent of GDP and higher investments in the United Kingdom of 2.8 percent of GDP). Nonresidents' net purchases of UK debt (portfolio and direct investment) represented 2 percent of GDP. Despite some turbulence in March, access to finance has remained favorable during the COVID-19 crisis, aided by the Bank of England's liquidity support and expanded quantitative easing.

Assessment. Large fluctuations in capital flows are inherent to financial transactions in countries with a large financial sector. This volatility is a potential source of vulnerability, although it is mitigated by sound financial regulation and supervision and a strong financial sector. An additional risk is that FDI and portfolio investment inflows may decelerate, driven by concerns about the United Kingdom's future trade relations with the European Union.

FX Intervention and Reserves Level

Background. The pound has the status of a global reserve currency. Despite uncertainty about the future relationship between the United Kingdom and the European Union, the share of global reserves in sterling has not changed since 2015, at about 4.5 percent.

Assessment. Reserves held by the United Kingdom are typically low relative to standard metrics, and the currency is free floating.

Table 3.30. United States: Economy Assessment

Overall Assessment: *The external position in 2019 was moderately weaker than the level implied by medium-term fundamentals and desirable policies.* Larger private sector saving is expected to largely offset the 2020 fiscal packages, resulting in a relatively steady CA deficit in the coming years. The deep economic contraction, and the effects of actual and prospective changes in fiscal, trade, and labor market (including, for example, immigration) policies add uncertainty to the assessment.

Potential Policy Responses: Given the unprecedented social and economic fallout from the coronavirus outbreak and associated containment measures, the United States should expand fiscal efforts to ease the burden of the shutdown on households and firms. Once the immediate health crisis has subsided, the United States should also use its still-considerable fiscal space to put in place a front-loaded package that would increase investment in infrastructure, facilitate the transition to a lower-carbon economy, and offer consumption subsidies to kick-start demand. Over the medium term, fiscal consolidation, aimed at a medium-term general government primary surplus of about ¾ percent of GDP, should be reinvigorated to put the debt-GDP ratio on a downward path and address the CA gap. Structural policies to increase competitiveness include upgrading infrastructure, enhancing schooling, training and mobility of workers, supporting the working poor, and policies to increase growth in the labor force (including skill-based immigration reform). 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.

Foreign Asset and Liability Position and Trajectory	**Background.** The NIIP, which averaged about –41 percent during 2014–17, decreased further from –46.4 percent of GDP in 2018 to –51.3 percent of GDP in 2019, including as a result of valuation effects of –4.9 percent of GDP. Under the IMF staff's baseline scenario, the NIIP is projected to decline by about 2 percent of GDP through the medium term, on the back of sustained CA deficits. **Assessment.** Financial stability risks could surface in the form of an unexpected decline in foreign demand for US fixed income securities, which are the main component of the country's external liabilities. This risk, which could materialize, for example, as a result of failure to reestablish fiscal sustainability, remains moderate given the dominant status of the US dollar as a reserve currency. About 63 percent of US assets are in the form of FDI and portfolio equity claims.					
2019 (% GDP)	NIIP: –51.3	Gross Assets: 136.8	Debt Assets: 40.4	Gross Liab.: 188.1	Debt Liab.: 87.2	
Current Account	**Background.** The US CA deficit decreased from 2.4 percent of GDP in 2018 to 2.3 percent in 2019 (from 2.4 to 2.0 in cyclically adjusted terms), compared with a deficit of 2.1 percent of GDP in 2014. The evolution since 2014 is explained by a fall in the non-oil balance. The large fiscal deficit did not lead to an increase in the CA deficit in 2019 due to a move in the oil balance toward surplus and a positive income account. However, trade-balance outturns continued to be difficult to interpret as a result of shifts in the timing of exports and imports due to tariffs. In 2020, 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 compressing imports are projected to offset a weaker income account. The CA deficit is expected at about 2 percent of GDP. **Assessment.** The EBA model estimates a cyclically adjusted CA of –2 percent of GDP, and a cyclically adjusted CA norm of –0.7 percent of GDP. The cyclically adjusted CA gap is –1.3 percent of GDP for 2019, reflecting policy gaps (–0.9 percent of GDP, of which –0.9 percent corresponds to fiscal policy) and an unidentified residual (about –0.4 percent of GDP) that may reflect structural factors not included in the model. On balance, the IMF staff assesses the 2019 cyclically adjusted CA to be –0.8 to –1.8 percent of GDP lower than implied by medium-term fundamentals and desirable policies.					
2019 (% GDP)	Actual CA: –2.3	Cycl. Adj. CA: –2.0	EBA CA Norm: –0.7	EBA CA Gap: –1.3	Staff Adj.: 0.0	Staff CA Gap: –1.3
Real Exchange Rate	**Background.** After depreciating by 1 percent in 2018 (year over year), the REER appreciated by 2.8 percent in 2019 (year over year). As of end-2019 the REER was thus still about 17 percent higher than the average for 2014. Through May 2020, the US dollar appreciated 4.9 percent in real terms relative to the 2019 average. **Assessment.** Indirect estimates of the REER (based on the EBA CA assessment) imply that the exchange rate was overvalued by 11.4 percent in 2019 (applying an estimated elasticity of 0.11). The EBA REER index model suggests an overvaluation of 8.1 percent, and the EBA REER level model suggests an overvaluation of 10.9 percent. Considering all the estimates and their uncertainties, the IMF staff assesses the 2019 average REER to be somewhat overvalued, in the 8 to 14 percent range, with a midpoint of 11 percent.[1]					
Capital and Financial Accounts: Flows and Policy Measures	**Background.** Net financial inflows were about 1.8 percent of GDP in 2019, compared with 2.2 percent of GDP in 2018. Stronger net portfolio investment flows were offset by weaker direct and other investment flows. **Assessment.** The United States has an open capital account. Vulnerabilities are limited by the dollar's status as a reserve currency, with foreign demand for US Treasury securities supported by the status of the dollar as a reserve currency and, possibly, by safe haven flows.					
FX Intervention and Reserves Level	**Background.** The dollar has the status of a global reserve currency. Reserves held by the United States are typically low relative to standard metrics. The currency is free floating.					

Technical Endnotes by Economy

Australia

[1]The REER gap range (–1.5 to –6.5 percent) is derived from the CA gap range (0.3 to 1.3 percent) with an elasticity of 0.2.

Belgium

[1]The Belgian CA numbers underwent major revisions in 2015, 2016, 2017, and 2019, complicating the comparison with previous external sector assessments.
[2]The error bands are based on the range for the CA gap (2.5 to 4.5 percent) and an estimated semi-elasticity of the CA balance to the REER of 0.42.

Brazil

[1]New questions added to the Brazilian Capital Abroad Survey and to the Foreign Capital in Brazil Survey in 2019 improved the data coverage and accuracy of the services, income, and reinvested earnings components of the balance of payments. The improved data were included in the balance of payments in September/November 2019 and resulted in an upward revision of debits in services, interest and reinvested earnings, and the downward revision of credits in reinvested earnings, with consequent increase of the current account deficit for 2018 from US$15 billion to US$41.3 billion. The change in the assessment for Brazil between 2018 to 2019 is primarily due to these statistical revisions. The new data coverage will apply going forward. Revisions of the 2019 CA, incorporating data sourced from the two surveys, are scheduled for August and November 2020.
[2]Based on CA gap point estimate of –1.2 percent from the EBA CA methodology and Brazil's CA to REER semi-elasticity of –0.11, the REER gap is estimated at 11 percent (overvalued). The two REER methodologies give –10.7 percent (undervalued) and 2.4 percent (overvalued), respectively, with a midpoint of about –4 percent (undervalued). Based on this, staff assesses the REER gap to be in the range –4 to 11, with a midpoint of 3.5 percent (overvalued).

Canada

[1]The statistical treatment of retained earnings on portfolio equity and inflation is estimated to generate a downward bias in the income balance of the current account of the order of 1.9 percent of GDP.
[2]EBA uses UN demographic projections. These differ from the authorities' projections due to methodological differences. The authorities' projections suggest slightly higher population growth and a slightly lower CA norm. The authorities' demographic projections also do not incorporate recent increases in immigration targets, which are assumed to be permanent. Together, these effects reduce the EBA estimate of the CA norm by about 0.3 percent.
[3]The price discount between Canadian crude (WCS) and the West Texas benchmark increased in 2018 to an average of US$26 a barrel (from US$13 in 2017), before moderating back to US$14 in 2019. The price discount in 2019 is estimated to temporarily reduce the CA by about 0.1 percent of GDP.
[4]The approach includes commodity terms of trade rather than oil prices as an explanatory variable, while Canada's REER has mirrored movements in oil prices much more closely than its commodity terms of trade.
[5]The semi-elasticity of the CA with respect to the REER is estimated at 0.27.

Euro Area

[1]The export and import elasticities are taken as the average of estimates from Consultative Group on Exchange Rate Issues (CGER)-inspired export and import equations using various types of REERs relevant for the euro area (with an ADL (2,2,2) model on quarterly data 2000–19). The trade balance elasticity is calculated using the share of exports and imports for *extra-EA trade* in GDP.
[2]The REER gap range derived from the CA gap range (0.4 to 2.0 percent) is –1.2 to –5.7 percent (with an elasticity of 0.35). The range of –5.7 to 0 is determined by putting more weight on the current account gap method and less on the two REER models.

France

[1]The range of the REER gap (2.2 to 5.9 percent) is obtained from the range of the CA gap (–1.6 to –0.6 percent of GDP) and an estimated semi-elasticity of the CA balance to the REER of 0.27.

Germany

[1]For Germany, the bulk of the EBA-estimated gap for 2019 reflects the regression's residual rather than gaps in the policy variables included in the EBA model.
[2]The estimated norm reflects changes in the credit gap estimates to better reflect the German financial cycle. The IMF staff assesses the credit-to-GDP ratio to be currently lower than its long-term equilibrium, and that gradual closing of that gap will help support investment over the long term.
[3]The EBA REER Index model implies that the REER is close to equilibrium. However, the EBA REER Index model has an unusually poor fit for Germany.
[4]The range of the REER gap (–6 to –16 percent) is obtained from the range of the CA gap and an estimated semi-elasticity of the CA balance to the REER in the range of 0.3–0.5.

Hong Kong SAR

[1]Hong Kong SAR is not in the EBA sample as it is an outlier along many dimensions of EBA analysis, thus one possibility—though with obvious drawbacks—is to use EBA-estimated coefficients and apply them to Hong Kong SAR. Following this approach, the CA norm in 2019 is estimated to be about 14 percent of GDP, implying a CA gap of about –8½ percent, which is almost entirely explained by the model residuals. However, the EBA CA gap is overstated, as it does not properly reflect the measurement issues that are relevant for Hong Kong SAR for which three adjustments are made. First, an adjustment of 3 to 5 percentage points is made to the EBA's implied contribution of the NIIP position. This is because the positive NIIP contribution in the EBA captures average income effects that are less relevant for Hong Kong SAR, because the income balance relative to its NIIP is systematically lower than that of peer economies, due to a persistently higher share of debt instruments on the asset side than on the liability side. Second, the opening of the Precious Metals Depository has resulted in a decline of 4 to 4½ percentage points in the gold trade balance that does not reflect changes in wealth but rather the increased physical settlement of gold futures contracts. Third, mainland China's increased onshoring has led to a decline in logistics and trading activities in Hong Kong SAR (1 to 1½ percent of GDP in CA), which did not result in lower consumption because it is viewed as temporary and to be replaced with increased provision of high-value-added services as Hong Kong SAR's own economy rebalances in response to mainland demand. See Guo (2017) for more details.
[2]The range is calculated by applying the exchange rate semi-elasticities of Hong Kong SAR and similar economies to the IMF staff CA gap range.
[3]The financial linkages with the mainland have deepened in recent years with the increase in cross-border bank lending, capital market financing, and the internationalization of the RMB. As of December 2019, banking system claims on mainland nonbank entities amounted to HK$6.1 trillion, or about 213 percent of GDP, up by about 14 percentage points since end-2018.

India

[1]The REER range is based on ±1 percent of uncertainty around the IMF staff-assessed current account gap and semi-elasticity of 0.18.

Indonesia

[1]As Indonesia is among the few outlier countries regarding adult mortality rates, the demographic indicators are adjusted to account for the younger average prime age and exit age from the workforce. This results in an adjustor of 0.9 percentage point being applied to the model-estimated CA norm.
[2]A range of ±1.5 percent is added to reflect the fact that the EBA regression estimates are subject to normal uncertainty (the standard error of the EBA norm is 1.3 percent).
[3]The semi-elasticity of CA/GDP with respect to REER, based on trade adjustment, is estimated to be –0.18 for Indonesia.
[4]The midpoint of the REER range is calculated by taking the average of the estimated gap from the EBA index model (that is, 2.1 percent) and the REER gap implied by the IMF staff CA gap estimate of –1.0 percent of GDP (that is, 5.6 percent). To obtain the width of the range for the REER gap, the standard ±5 percent interval was applied to the midpoint of 3.9 percent, leading to a range of –1.2 to 8.9.

Italy

[1]Under tiering, deposits at the ECB below a country-level cap of six times the minimum reserve requirement benefit from higher rates. Because Italy was the only country below that threshold, it attracted liquid assets from other euro area banks. This is a one-off effect.
[2]Debt assets and liabilities data are for 2018.
[3]The semi-elasticity of the CA balance (percent of GDP) to REER is estimated to be 0.26.

Japan

[1]The staff range for the REER gap is computed by applying the staff-estimated semi-elasticity of 0.14 to the staff CA gap range.

Malaysia

[1]The ratios to GDP are based on IMF staff estimates using US dollar values.
[2]Close to one-third of external debt is denominated in local currency and is largely of medium-term maturity, helping reduce FX and rollover risks. Malaysia's local currency external debt reflects holdings of domestically issued debt (mainly Malaysian government securities) by nonresident investors (about 13 percent of GDP as of end-2019). Short-term FX-denominated debt largely belongs to the banking system, and a good portion is matched by short-term foreign currency assets, which are being closely supervised by Bank Negara Malaysia. Stress test analysis by the IMF staff suggests that the Malaysian economy would be resilient to a large capital flow reversal due to the depth of the domestic financial markets and the role of institutional investors.
[3]The point and range estimates of the REER gap are based on the estimated semi-elasticity of CA to REER at 0.46.
[4]On December 2, 2016, the Financial Markets Committee announced a package of measures aimed at facilitating onshore FX risk management and enhancing the depth and liquidity of onshore financial markets. Two of these measures were classified as CFMs under the IMF's institutional view on capital flows.

In addition, the authorities' strengthened enforcement of regulations on resident banks' noninvolvement in offshore ringgit transactions was considered enhanced enforcement of an existing CFM. Over the course of 2017–19, additional measures were announced to help deepen the onshore financial market and facilitate currency risk management.
[5]The IMF's composite reserve adequacy metric classifies Malaysia's regime as "floating" since 2016.

Netherlands

[1]The range of the REER gap (–4.1 to –9.9 percent) is obtained from the range of the CA gap and an estimated semi-elasticity of the CA balance to the REER of 0.7.

Poland

[1]The 1.7 percentage point contribution from identified policy gaps reflects mainly effects of the credit gap (0.7 percentage point) and the fiscal policy gap, in which a too-loose domestic fiscal policy (contributing –0.1 percentage point) is more than offset by too-loose fiscal policies in trading partners (0.9 percentage point). Small domestic policy gaps in public health spending and reserves are partially offset by these gaps in the rest of the world. Given that Poland's negative NIIP has continued to decline and is projected to decline further over the medium term, no adjustor has been applied to the CA norm.
[2]The standard error for the 2019 CA norm is 0.6 percent of GDP. However, the IMF staff uses a larger confidence band to reflect potential measurement error related mainly to the impact of remittances of foreign workers on the CA.
[3]The REER level model for Poland suggests an undervaluation of 18.5 percent. However, the model's large residuals (–16.1 percent) suggest that it may not adequately capture changes in the equilibrium REER that occurred during the sample period.

Russia

[1]Nominal GDP denominated in US dollars grew by only 1.9 percent in 2019, largely reflecting moderate growth.
[2]Unfavorable valuation changes arise because the Russian stock market has performed very well in the past 15 years as the oil price soared, boosting the valuation of foreign-owned assets. "Disguised" capital outflows include transactions such as prepayments on import contracts whose goods are not delivered, repeated large transfers abroad that deviate from standard remittance behavior, or securities transactions at inflated prices. The central bank includes estimates of disguised capital outflows in the financial account but not in the foreign asset position of the reported NIIP. Hence, the actual NIIP position could be higher than the reported level, and this treatment of disguised outflows may explain part of the discrepancy between accumulated CA surpluses and the reported NIIP position.
[3]Due to lower volatility in oil prices in 2019, the IMF staff does not see a need to make additional adjustment for cyclical effects.
[4]The range of the REER estimate is ±5 percent around the midpoint, reflecting uncertainties of various shocks (for example, current and potential implementation of sanctions) and volatility in the oil market.

Saudi Arabia

[1]At current oil exports, a US$1 change in the oil price results in a 0.5 percent of GDP first-round change in the CA balance. The average oil export price is assumed to be US$36.20 in 2020 ($66.50 in 2019). Oil export volumes are expected to decrease by 6 percent in 2020.
[2]EBA models do not include Saudi Arabia. The IMF staff considered three approaches in the EBA-Lite methodology, including two that incorporate the special intertemporal considerations that are dominant in economies in which exports of nonrenewable resources are a very high share of output and exports. Using the CA regression approach, the cyclically adjusted CA norm is estimated at 7.4 percent of GDP (lower than the CA norm in 2018 because the headline fiscal deficit consistent with the IMF staff's recommended path of the non-oil primary fiscal deficit is now somewhat larger due to lower oil revenues). The Consumption Allocation Rules (Bems and de Carvalho Filho 2009) assume that the sustainability of the CA trajectory requires that the net present value (NPV) of all future oil and financial/investment income (wealth) be equal to the NPV of imports of goods and services net of non-oil exports. Estimated CA norms from the Consumption Allocation Rules were 8.1 percent of GDP and 10.8 percent of GDP for the constant real annuity and constant real per capita annuity allocation rules, respectively. The Investment Needs Model (Araujo and others 2016) takes into account the possible desirability of allocating a portion of the resource wealth to finance investment, which was not explicitly considered by the consumption-based model and produced a CA gap of –2.6 percent over the medium term. The CA gap in 2019 (–3.0 percent of GDP) is the average of the estimates from the three approaches.

Singapore

[1]Singapore has a negative income balance despite its large positive NIIP position, reflecting lower rates of return on its foreign assets relative to returns on its foreign liabilities, possibly due to the fact that the composition of Singapore's assets is tilted toward safer assets with lower returns.
[2]Nonstandard factors make a quantitative assessment of Singapore's external position difficult and subject to significant uncertainty. Singapore is not included in the EBA sample because it is an outlier along several dimensions (for example,

large external asset and liability positions, highly positive NIIP position). Therefore, IMF staff estimates the CA norm using various approaches. Overall, the staff-estimated CA gap is about 4 percent of GDP, to which the fiscal policy gap contributes about 1.4 percent of GDP and the health spending gap about 0.2 percent of GDP.
[3]The reserves-to-GDP ratio is also larger than in most other financial centers, but this may reflect in part that most other financial centers are in reserve-currency countries or currency unions. External assets managed by the government's investment corporation and wealth fund (GIC and Temasek) amount to at least 70 percent of GDP.

South Africa

[1]The final CA gap estimate results from the CA regression and IMF staff judgment.
(1) Because South Africa is among the few outlier countries regarding adult mortality rates, the demographic indicators are adjusted to account for the younger average prime age and exit age from the workforce. This results in an adjustor of –1 percent of GDP to the model-based CA norm.
(2) Net current transfers related to the Southern African Customs Union (SACU), assessed to have a net negative impact on the CA, are not accounted for in the regression model and warrant an adjustment to the cyclically adjusted CA. In addition, measurement issues pertaining the income balance are likely to contribute to an underestimation of the CA.
(3) The 2019 EBA CA norm is higher than in 2018 because of the required lower desirable fiscal deficit to stabilize future debt.
[2]Applying an estimated long-term elasticity of 0.26 would suggest a REER overvaluation of 2 to 10 percent.
[3]Gauging the appropriate REER for South Africa is challenging. The weakening of average REER levels from pre-2000 to post-2000 would likely lead REER regression-based model results to indicate undervaluation, unless the model can sufficiently attribute the observed weakening in average REER to weaker fundamentals.

Spain

[1]Based on data available through 2019:Q4.
[2]The EBA model suggests a CA norm of 1.1 percent of GDP, with a standard error of 0.8 percent of GDP. But the empirically based EBA norm does not fully account for the very negative NIIP, with about 30 percent of gross liabilities in the form of equity. Given external stability considerations, including potentially adverse NIIP valuation effects, a CA norm in the range of 1 to 3 percent of GDP is necessary to raise the NIIP by at least roughly 3 percent of GDP annually over the next 10 years. Over 2013–19, valuation effects were on average –2.9 percent of GDP per annum. CA surpluses during 2013–19 of about 2.2 percent of GDP, on average, suggest that maintaining CA balances aligned with the IMF staff–assessed norm of 1 to 3 percent of GDP would be feasible under current policies.
[3]The REER gap midpoint is obtained from the IMF staff-assessed CA gap and an estimated semi-elasticity of the CA to the REER of 0.22. The range of the REER gap is ±4 percent, which is obtained from Spain's estimated standard error of the EBA CA norm (0.8 percent of GDP) and the aforementioned CA-to-REER semi-elasticity.

Sweden

[1]The range is used to reflect uncertainty around the EBA estimated norm.

Switzerland

[1]Other stock-flow adjustments include changes in statistical sources, such as changes in the number of entities surveyed and items covered, although their quantitative importance is not known.
[2]As a result, an appreciation (depreciation) of the Swiss franc has a negative (positive) effect on the NIIP, whereas a symmetric percentage increase in share prices in Switzerland and abroad would reduce the NIIP.
[3]The underlying CA is adjusted for (1) retained earnings on portfolio equity investment that are not recorded in the income balance of the CA under the sixth edition of the IMF *Balance of Payments and International Investment Position Manual*, and (2) the recording of nominal interest on fixed income securities under the Balance of Payments Manual framework, which compensates for expected valuation losses (due to inflation and/or nominal exchange rate movements), even though this stream compensates for the (anticipated) erosion in the real value of debt assets and liabilities. Adjusting for both of these effects and taking into account the lagged net foreign assets contribution to the norm, the underlying CA would need to be reduced by about 3.5 percent of GDP.
[4]The CA gap range reflects the uncertainty inherent in the assessment.
[5]The IMF staff CA gap for 2019 was 1.8 percent of GDP, with a range of ±2 percentage points. With an estimated CA-REER semi-elasticity of 0.52, the IMF staff CA gap implies an REER gap from –7.4 percent to +0.4 percent, with a midpoint of –3.5 percent.

Thailand

[1]The IMF staff no longer sees a case for including the country-specific adjustors introduced in past external sector assessments to account for temporary factors not in the CA model. Specifically, the adjustor for political uncertainty has been removed given the elections were held in March 2019;

a big data approach confirms that there is no longer any significant correlation between private demand elements and political uncertainty measures for 2019. Further, the adjustment for terms of trade has been removed as there is no notable divergence between the total terms-of-trade series the IMF staff used and the commodities terms-of-trade series used in the EBA.
[2]The REER range is based on the current account range from the CA approach, using an elasticity of 0.62, the country-specific elasticity estimated for Thailand. The current account range is computed as the estimated CA gap (6.1 percent of GDP) with an error band using the standard error of the norm for Thailand (1.6 percent of GDP).
[3]The EBA index REER gap in 2019 is estimated at 13.5 percent; the EBA level REER gap is estimated at –1.6 percent.

Turkey

[1]Despite persistent CA deficits, the NIIP fluctuated with no clear trend during 2009–18, due to a mix of positive valuation effects and large net balance of payments E&O.
[2]Net international reserves are defined as gross international reserves minus the central bank's FX liabilities to banks, including the Reserve Option Mechanism.

United Kingdom

[1]The official NIIP data may understate the true position—estimates of FDI stocks at market values imply a much higher NIIP. Estimates from the Bank of England suggested that the NIIP based on market values could have been close to 80 percent of GDP for mid-2017 (November 2017 inflation report). Market value estimates of FDI assets assume their valuations move in line with those of equity market indices in the United Kingdom and abroad. These estimates are highly uncertain, as actual FDI market values could evolve differently across different equity markets.
[2]Estimates in Juvenal and others (2019) suggest that, in 2017, about 90 percent of external assets were denominated in foreign currency, compared with 60 percent for external liabilities.
[3]The marked shift in recent years from FDI assets to portfolio equity assets implies a greater-than-historical underestimation of the income balance.
[4]Should Brexit lead to a significant increase in trade barriers, the equilibrium exchange rate could be weaker than suggested here.
[5]These values reflect the relative weights put on the different approaches, with a higher weight on the CA gap methodology. The wide range reflects the large uncertainty as to the future of the UK-EU relationship.

United States

[1]The midpoint is obtained from the CA model gap, applying an estimated semi-elasticity of 0.11. The range stems from the largest absolute discrepancy between the CA model and the set of REER models.

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—Kristalina Georgieva

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