CHAPTER 1

EXTERNAL POSITIONS AND POLICIES

This overview chapter presents the evolution, outlook, and risks from global external positions and summarizes the external assessments of a globally representative set of economies for 2018, which are also detailed in Chapter 3, "2018 Individual Economy Assessments." These assessments are multilaterally consistent and draw on inputs from 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 chapter's key objectives and concepts are summarized in Box 1.1.

The chapter is organized as follows: the first section "Recent External Developments, 2018–19" documents the recent evolution of current accounts, exchange rates, and international trade; the second section "A Longer-Term View on External Positions" discusses the evolution and drivers of external positions a decade after the global financial crisis; the third section "Normative Assessment of External Positions" presents the assessment of external positions of 29 key economies plus the euro area; the fourth section "Outlook and Risks" discusses the outlook and risks from the current configuration of imbalances; and the last section "Policy Challenges" ends by discussing macroeconomic and structural policies to address excess surpluses and deficits in a manner supportive of global growth.

Box 1.1. External Assessments: Key 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 key 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, deviating from a strict external balance is often desirable both from an individual country and a global standpoint.

Current account balances are deemed *excessive* if they depart from levels *consistent with fundamentals and desired policies.*

- **The current account *gap,*** or ***excess surplus/deficit or imbalance,*** is the difference between the actual current account (stripped of cyclical and temporary factors) and the level assessed by IMF staff to be consistent with fundamentals and desirable medium-term policies. This staff-assessed gap reflects policy distortions vis-à-vis other economies identified in the External Balance Assessment models as well as other policy and structural distortions not captured by the model. A current account balance that is *"higher"* ("*lower*") than implied by fundamentals and desired medium-term policies corresponds to a positive (negative) current account gap. Eventual elimination of such a gap is desirable over the medium term, although there may be good reasons to have a temporary gap and/or to adjust gradually. Note that 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)**—normally consistent with the assessed current account gap. A positive (negative) **REER gap** implies an overvalued (undervalued) exchange rate. REER gaps do not predict future exchange rates and may occur in any economy, including those with floating exchange rates.

Although the overall assessment of a country's external position hinges on the current account and real exchange rate in a given year, it 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 when the current account balance is *low* (*high*) and/or the REER is deemed overvalued (undervalued). 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 staff-assessed norms. Assessments strive to be multilaterally consistent, meaning that *negative* IMF staff–assessed current account/REER gaps in some economies are matched by *positive staff-assessed* gaps in others.

Recent External Developments, 2018–19

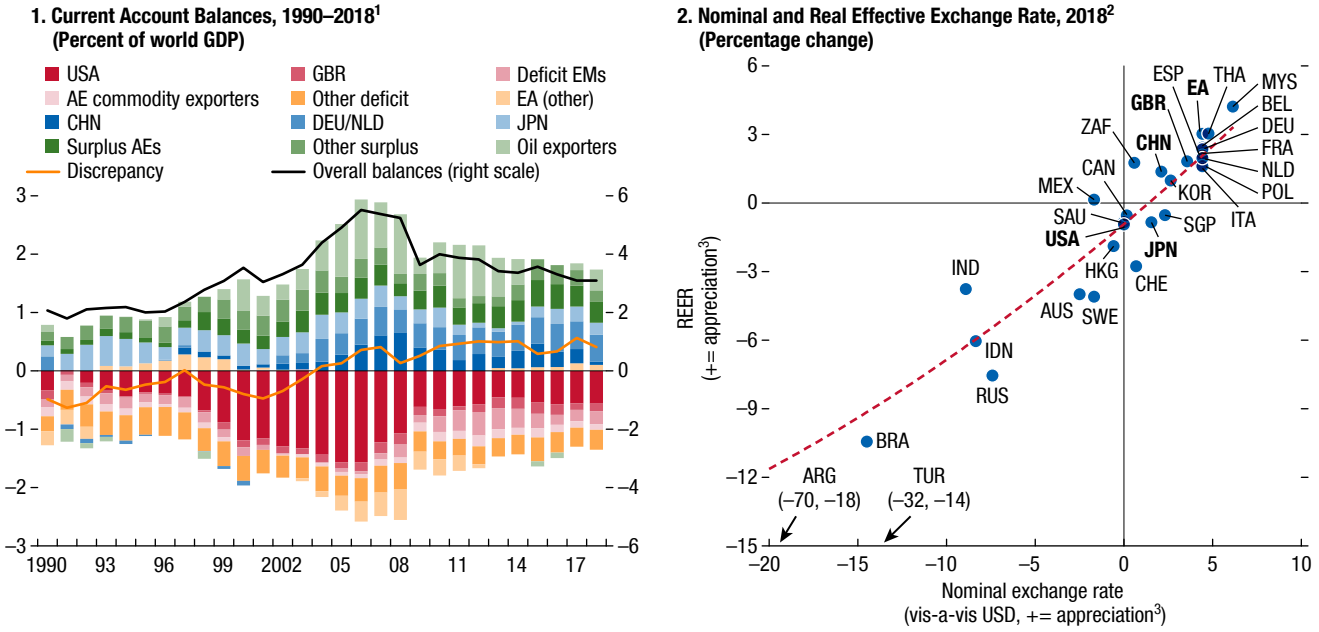
Global current account surpluses and deficits narrowed marginally in 2018, with some reconfiguration largely reflecting higher energy prices and continued external rebalancing in China (Figure 1.1 and Table 1.1). Overall, global current account balances (the absolute sum of surpluses and deficits) inched down last year to about 3 percent of global GDP. Larger current account surpluses in oil-exporting economies in 2018 were largely matched by a sharp narrowing in China's current account surplus (from 1.4 percent to 0.4 percent of GDP), with more minor reductions in current account surpluses in some advanced (euro area, Japan) and developing economies, mainly on account of higher oil prices. In the United States, despite the sizable fiscal impulse, the current account deficit was broadly unchanged at 2.3 percent of GDP in 2018, due to a smaller investment response than expected and lower oil imports.[1] Meanwhile, in more vulnerable emerging market and developing economies (Argentina, Turkey), current account deficits narrowed as financial conditions tightened, portfolio capital inflows slowed sharply, and currencies weakened.

Currency movements were generally supportive of the observed current account changes in 2018, although the implications of recent currency volatility, largely responding to shifting cyclical conditions and trade tensions, remain uncertain.

- During 2018 currency movements were generally supportive of a minor narrowing of imbalances. The euro and renminbi appreciated slightly against the US dollar, translating into moderate average annual appreciations in real effective terms (ranging between 1½ percent and 3 percent), with the yen remaining generally unchanged (Figure 1.1, panel 2). Movements were larger in key emerging market and developing economies' currencies, which came under pressure in the second half of 2018 from a combination of higher US interest rates and increased trade tensions, supporting a reduction in

[1]Kopp and others (2019) find that investment has fallen short of predictions based on the postwar relationship between tax cuts and investment. They attribute the lower sensitivity of investment to tax policy changes to increased corporate market power, although policy uncertainty may have played a small role in dampening investment growth.

Figure 1.1. Evolution of Current Account Balances and Exchange Rates



Sources: IMF, Information Notice System; IMF, *International Financial Statistics*; IMF, *World Economic Outlook*; and IMF staff calculations.
Note: Data labels in the figure use International Organization for Standardization (ISO) country codes. AEs = advanced economies; EA = euro area; EMs = emerging markets; REER = real effective exchange rate.
[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]2018 average relative to 2017 average.
[3]Values larger than zero represent appreciation of the exchange rate.

Table 1.1. Selected Economies: Current Account Balance, 2015–18[1]

	In Billions of USD				In Percent of World GDP				In Percent of GDP			
	2015	2016	2017	2018	2015	2016	2017	2018	2015	2016	2017	2018
Top 15 Surplus Economies in 2018												
Germany	288	294	296	291	0.4	0.4	0.4	0.3	8.5	8.4	8.0	7.3
Japan	136	198	202	175	0.2	0.3	0.3	0.2	3.1	4.0	4.2	3.5
Russia	68	24	33	114	0.1	0.0	0.0	0.1	5.0	1.9	2.1	6.9
Netherlands	49	63	87	99	0.1	0.1	0.1	0.1	6.3	8.0	10.5	10.8
Korea	105	98	75	76	0.1	0.1	0.1	0.1	7.2	6.5	4.6	4.4
Saudi Arabia	–57	–24	10	72	–0.1	0.0	0.0	0.1	–8.7	–3.7	1.5	9.2
Switzerland	76	63	45	72	0.1	0.1	0.1	0.1	11.2	9.4	9.8	10.2
Taiwan Province of China	75	73	83	68	0.1	0.1	0.1	0.1	14.2	13.7	14.4	11.6
Singapore	53	56	55	65	0.1	0.1	0.1	0.1	17.2	17.5	16.4	17.9
Italy	27	47	54	53	0.0	0.1	0.1	0.1	1.5	2.5	2.8	2.6
China	304	202	195	49	0.4	0.3	0.2	0.1	2.7	1.8	1.6	0.4
Thailand	32	48	50	35	0.0	0.1	0.1	0.0	8.0	11.7	11.0	7.0
Norway	31	15	23	35	0.0	0.0	0.0	0.0	7.9	4.0	5.6	8.1
Ireland	13	–13	28	34	0.0	0.0	0.0	0.0	4.4	–4.2	8.5	9.1
United Arab Emirates	18	13	26	28	0.0	0.0	0.0	0.0	4.9	3.7	6.9	6.6
Top 15 Deficit Economies in 2018												
United States	–408	–433	–449	–478	–0.5	–0.6	–0.6	–0.6	–2.2	–2.3	–2.3	–2.3
United Kingdom	–142	–139	–88	–109	–0.2	–0.2	–0.1	–0.1	–4.9	–5.2	–3.3	–3.9
India[2]	–22	–14	–49	–68	0.0	0.0	–0.1	–0.1	–1.0	–0.6	–1.8	–2.5
Canada	–55	–49	–46	–45	–0.1	–0.1	–0.1	–0.1	–3.5	–3.2	–2.8	–2.6
Indonesia	–18	–17	–16	–31	0.0	0.0	0.0	0.0	–2.0	–1.8	–1.6	–3.0
Australia	–57	–42	–35	–29	–0.1	–0.1	0.0	0.0	–4.6	–3.3	–2.6	–2.0
Argentina	–18	–15	–32	–27	0.0	0.0	0.0	0.0	–2.7	–2.7	–4.9	–5.2
Turkey	–32	–33	–47	–27	0.0	0.0	–0.1	0.0	–3.7	–3.8	–5.6	–3.5
Mexico	–31	–24	–20	–22	0.0	0.0	0.0	0.0	–2.6	–2.3	–1.7	–1.8
Pakistan	–3	–5	–13	–20	0.0	0.0	0.0	0.0	–1.0	–1.7	–4.1	–6.3
Algeria	–27	–26	–22	–16	0.0	0.0	0.0	0.0	–16.4	–16.5	–13.2	–9.1
Lebanon	–10	–12	–14	–15	0.0	0.0	0.0	0.0	–19.3	–23.1	–25.7	–27.0
Brazil	–54	–24	–7	–15	–0.1	0.0	0.0	0.0	–3.0	–1.3	–0.4	–0.8
Colombia	–19	–12	–10	–13	0.0	0.0	0.0	0.0	–6.3	–4.3	–3.3	–3.8
France	–9	–19	–15	–9	0.0	0.0	0.0	0.0	–0.4	–0.8	–0.6	–0.3
Memorandum item:												
Euro Area	313	370	410	395	0.4	0.5	0.5	0.5	2.7	3.1	3.2	2.9
Statistical Discrepancy	207	240	436	328	0.3	0.3	0.5	0.4	. . .	. . .	. . .	. . .
Overall Surpluses	1,432	1,373	1,479	1,475	1.9	1.8	1.9	1.7	. . .	. . .	. . .	. . .
Of which: Advanced Economies	953	1,025	1,066	1,052	1.3	1.4	1.3	1.2	. . .	. . .	. . .	. . .
Overall Deficits	–1,224	–1,133	–1,042	–1,147	–1.6	–1.5	–1.3	–1.4	. . .	. . .	. . .	. . .
Of which: Advanced Economies	–689	–710	–649	–704	–0.9	–0.9	–0.8	–0.8	. . .	. . .	. . .	. . .

Source: IMF, *World Economic Outlook*; and IMF Staff calculations.
[1]Sorted by size (in US dollars) of surplus and deficit in 2018.
[2]For India, data are presented on a fiscal year basis.

their deficits. There was considerable heterogeneity among this group, however, largely reflecting cross-country differences in external vulnerabilities and associated policy responses. For example, while the real effective exchange rate (REER) for Argentina and Turkey weakened on average by about 20 and 15 percent, respectively, these changes were more contained in other emerging market and developing economies (Brazil, India, Indonesia, Russia), ranging between 3 percent and 10 percent on average, although with significant intrayear volatility.

- During the first half of 2019 currency movements were volatile and generally less supportive of a further narrowing of imbalances. After weakening in early 2019 following the Federal Reserve's decision to pause the pace of monetary policy normalization, the US dollar has strengthened again in recent months in response to rising trade tensions and risk aversion.[2]

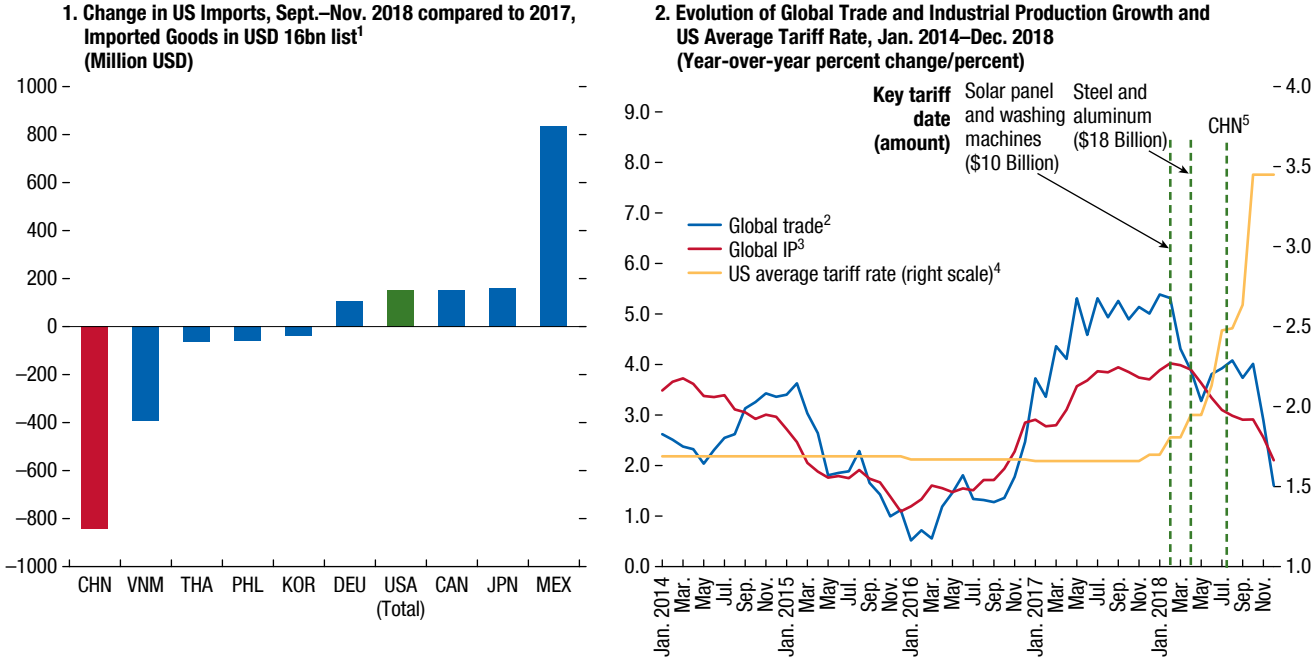
[2]The imposition of bilateral tariffs generally leads to an appreciation (depreciation) of the currency of the importing (exporting) country, as prices adjust to offset the intended effect of the tariff.

Estimates through the end of May suggest that the real appreciation of the US dollar and yen (about 3 percent relative to the average for 2018 in both cases) has been accompanied by a weakening of the euro (2½ percent) and currencies of other advanced economies (Australia, Canada, Korea, Sweden), reflecting softer domestic demand and below-target inflation. Meanwhile, emerging market and developing economies currencies and capital flows remain volatile. After rebounding in the first quarter of 2019, many emerging market and developing economies have experienced capital outflows and exchange rate depreciations since May on trade-related uncertainties, especially those with weaker fundamentals and more directly exposed to trade with China and the United States

Meanwhile, intensified trade tensions are weighing on global trade and investment, without materially affecting imbalances thus far. Over the course of 2018 the United States raised tariffs on imported aluminum and steel and on a subset (worth $250 billion) of Chinese imports. In May 2019 the United States raised tariffs on the portion of the same subset of Chinese imports, with threats of further protectionist measures weighing on financial markets. Canada, China, the European Union, and Mexico all responded by raising tariffs on US exports. Evidence from the first round of bilateral US-China tariff increases suggests that these actions had only a small impact on the overall US trade balance and imports for 2018 because of trade diversion effects through third countries (Figure 1.2, panel 1).[3] That said, these trade actions and related uncertainties have already led to a sharp slowdown in global trade and industrial production (Figure 1.2, panel 2) and are weighing on investment and business sentiment, especially in sectors

[3]See also Cerutti, Gopinath, and Mohommad (2019).

Figure 1.2. The Impact of Recent Trade Actions and Tensions



Sources: Amiti, Redding, and Weinstein (2019); CPB World Trade Monitors; US Department of Commerce; World Integrated Trade Solution (WITS) system; and IMF staff calculations.
Note: Data labels in the figure use International Organization for Standardization (ISO) country codes.
[1]See also Cerutti, Gopinath, and Mohommad (2019).
[2]Monthly year-over-year growth (three-month monthly average) is based on world trade in volumes, seasonally adjusted, fixed based 2010.
[3]Monthly year-over-year growth (three-month monthly average) is based on world industrial production volume (excluding construction), seasonally adjusted, fixed based 2010, production weighted.
[4]US average tariff rate is calculated using Amiti, Redding, and Weinstein (2019) and WITS. Tariff rate from December 2017 through December 2018 is spliced by applying the amount of change suggested by Amiti, Redding, and Weinstein (2019) to the annual average from WITS. Tariff implemented after the 15th of the month is counted for the subsequent month.
[5]New tariffs on China include three waves in 2018: July 6 ($34 billion), August 23 ($16 billion), September 24 ($200 billion).

integrated into global supply chains. IMF staff simulations suggest that:

- The recently announced and envisaged tariffs could reduce global GDP by an *additional* 0.3 percent in 2020 (on top of the impact of the 2018 tariffs, which have been projected to lower global GDP by 0.2 percent in 2020; see the 2019 *G-20 Surveillance Note* and Scenario Box 1 of the October 2018 *World Economic Outlook*).[4] That said, the overall impact of trade tensions on growth will depend on the associated confidence effects and offsetting policy responses.
- The impact of the trade dispute between the United States and China would be felt not only in countries directly involved, but also in other countries through cross-border investment and global supply chains, given their fairly inflexible nature (see also Box 2.4). In particular, it would lead to sizable shifts in manufacturing capacity away from China and the United States, and toward Mexico, Canada, and east Asia, as well as sizable job losses in certain sectors, particularly in China and the United States (for details, see Box 4.4 in the April 2019 *World Economic Outlook*).

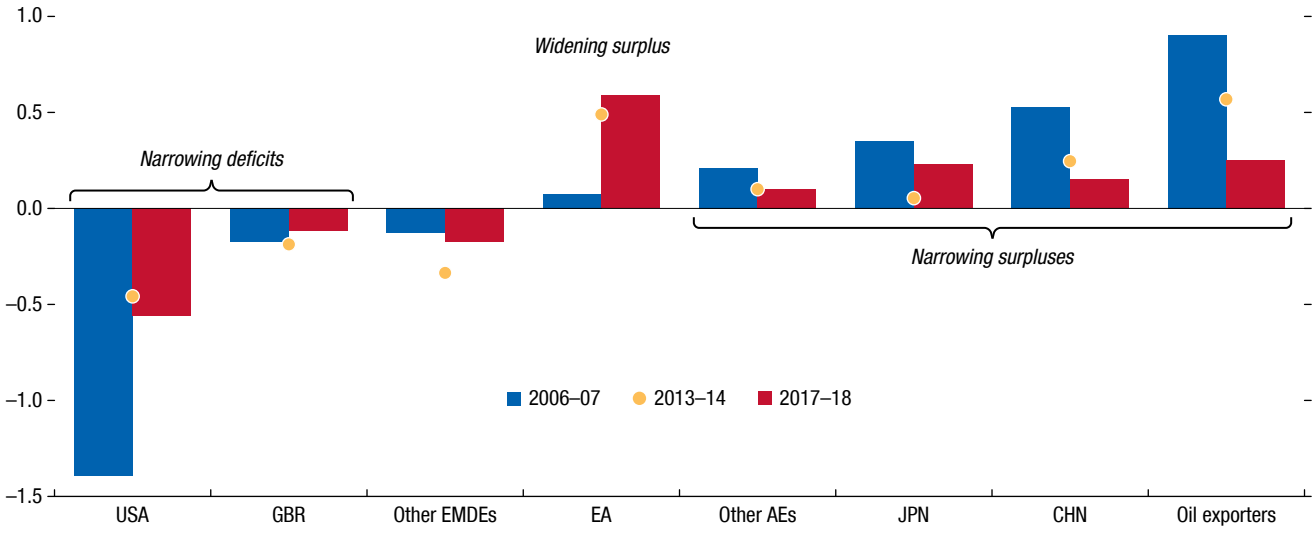
[4]*Announced* tariffs relate to the increase in tariffs from 10 percent to 25 percent on $200 billion of US imports from China as of May 8, 2019. *Envisaged* tariffs are the *possible* 25 percent tariffs on the remaining $267 billion of US imports from China. The simulations assume retaliatory actions by China.

A Longer-Term View on External Positions

After narrowing sharply in the aftermath of the global financial crisis, global current account surpluses and deficits have declined marginally since 2013 and have become increasingly concentrated in advanced economies (Figure 1.3).

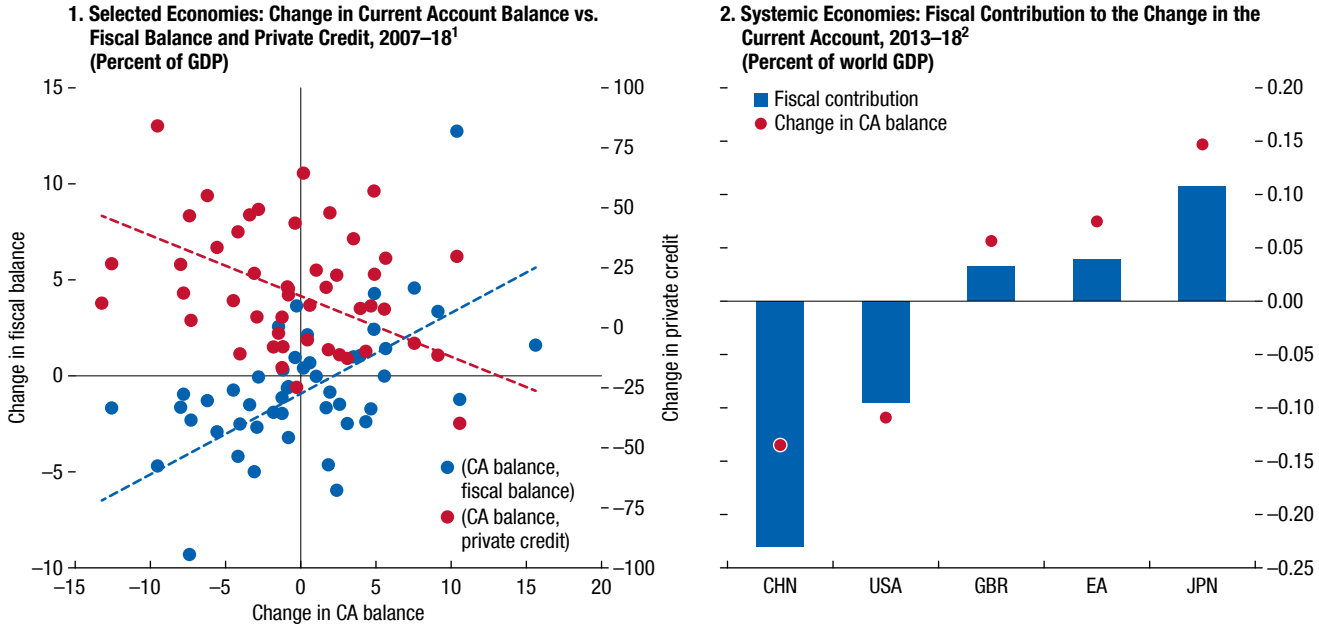
- In the aftermath of the global financial crisis, global current account balances (the absolute sum of surpluses and deficits) declined sharply from about 6 percent of global GDP in 2007 to about 3½ percent in 2013. The narrowing of aggregate current account balances was led by the United States on the deficit side and by China, Japan, and oil exporters on the surplus side. Meanwhile, the current account balance of the euro area moved from a close balance in 2007 to a surplus of about 2½ percent of GDP in 2013, driven mainly by sharp external adjustments in most euro area debtor economies, while surpluses in Germany and the Netherlands remained large. In key emerging market and developing economies, current account deficits expanded, supported by easy global financing conditions enabled by quantitative easing policies in advanced economies.

Figure 1.3. Change in Global Current Account Imbalances, 2006–18[1]
(Percent of world GDP)



Sources: IMF, *World Economic Outlook*; and IMF staff calculations.
Note: Each data point includes an average of the current account (as a percent of world GDP) in the two years referenced in the legend. AEs = advanced economies; EA = euro area; EMDEs = emerging market and developing economies. Data labels use International Organization for Standardization (ISO) country codes.
[1]Country groupings follow WEO definitions. Oil exporters include countries in the WEO definition plus Norway.

Figure 1.4. Current Account Drivers: The Role of Fiscal and Credit Policy



Sources: Bank for International Settlements; IMF, *World Economic Outlook*; World Bank, Global Financial Development Database; and IMF staff calculations.
Note: Data labels use International Organization for Standardization (ISO) country codes. CA = current account; EA = euro area.
[1]Panel 1 comprises all 49 economies in the External Balance Assessment (EBA) model.
[2]The fiscal contribution is calculated by multiplying the coefficient on the fiscal balance from the EBA current account model with the change in the fiscal balance relative to world GDP between 2013–18. Fiscal balance refers to the cyclically adjusted general government balance.

- Since 2013 global current account surpluses and deficits have gradually narrowed to about 3 percent of world GDP and are now increasingly concentrated in advanced economies. Emerging market and developing economies have seen both a narrowing of current account deficits (Brazil, India, Indonesia, South Africa, Turkey) as real GDP growth recovered and monetary policy changed course in advanced economies (see also the 2016 October *World Economic Outlook*) as well as a further narrowing in the surpluses of oil exporters and China (see Box 1.2 for external developments in China). Meanwhile, advanced economies on aggregate have seen some increase in their current account deficits, led primarily by the United States, and a rise in current account surpluses, mainly in the euro area and Japan (although the latter's surplus remains below precrisis levels).

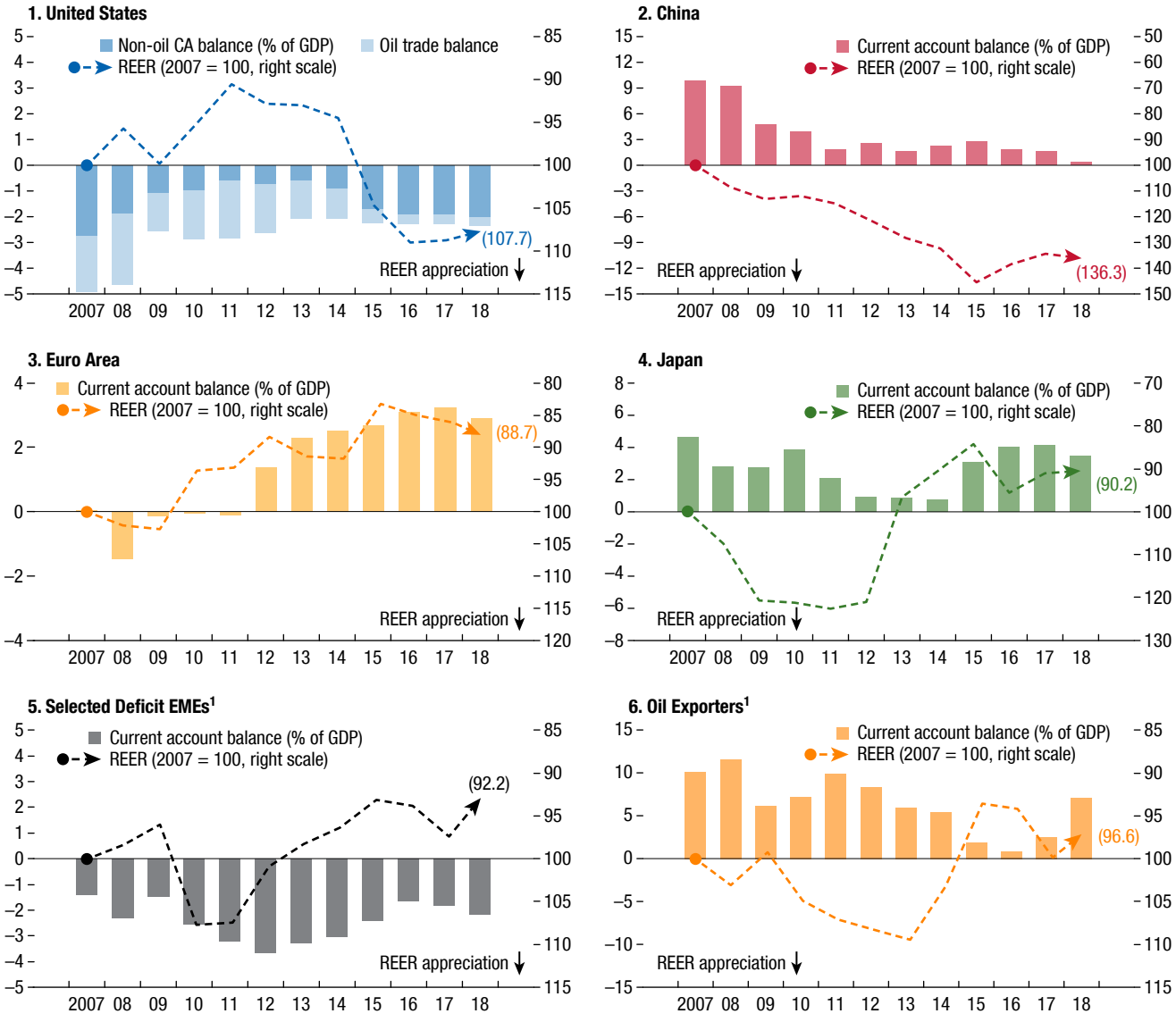
The decline and reconfiguration of current account balances over the past decade reflect a combination of macroeconomic policies and terms-of-trade effects. Fiscal policy and credit conditions have been key drivers of current account dynamics since the crisis, such that economies with tight (easy) fiscal policies and credit contractions (expansions) have generally experienced an increase (decline) in their current account balances (Figure 1.4, panel 1). However, the policy drivers have shifted, contributing to the observed reconfiguration:

- In the aftermath of the global financial crisis, the narrowing of deficits in advanced economies was driven mainly by private sector demand compression and deleveraging, and despite countercyclical fiscal policy efforts. This was mirrored by lower current account balances in surplus economies, largely reflecting a collapse in global demand and trade.
- Since 2013 divergent fiscal policy stances and credit conditions in key economies have contributed to the rotation of imbalances toward advanced economies. Advanced economies' aggregate current account surpluses (euro area, Japan) have remained large or risen further since 2013, reflecting a combination of lower energy prices, tighter fiscal policy, and continued private sector deleveraging in some cases (see Box 1.3 for external developments in the euro area). Meanwhile, aggregate current account deficits of advanced economies rose slightly, underpinned by renewed fiscal easing in the United States, with increased shale oil and gas production playing a mitigating role.

Emerging market and developing economies' aggregate current account surpluses and deficits narrowed, reflecting (1) an additional reduction of surpluses in oil exporters and China as its fiscal and credit policies were eased further; and (2) lower deficits in key emerging market and developing economies following tighter global financial conditions, starting with the 2013 taper tantrum episode and continuing with subsequent US monetary policy normalization.

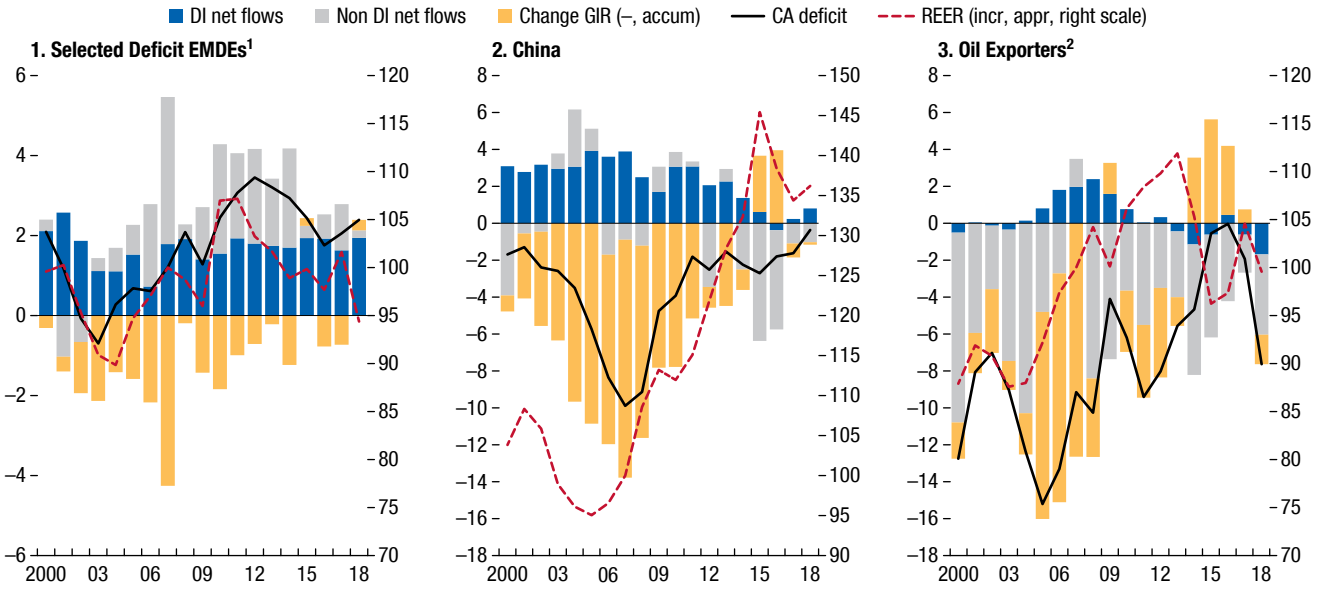
Real exchange rate movements have generally supported these current account trends over the past decade, with foreign exchange intervention playing a much more muted role in recent years. The large reduction in China's current account surplus—from more than 10 percent of GDP in 2007 to 0.4 percent in 2018—was accompanied by a cumulative 35 percent real appreciation of the renminbi over that period (Figure 1.5). Similarly, the increase in

Figure 1.5. Current Account Balances and Real Effective Exchange Rate, 2007–18



Sources: IMF, Information Notice System; and IMF, *World Economic Outlook*.
Note: CA = current account; EMEs = emerging market economies; REER = real effective exchange rate.
Numbers in parentheses report REER (2007 = 100) in 2018. Darker bars represent the non-oil CA balance (percent of GDP), which subtracts the oil trade balance from the current account balance; lighter bars represent the oil trade balance.
[1]GDP-weighted average of economies. Selected deficit EMEs comprise Brazil, India, Indonesia, Mexico, South Africa, and Turkey. Oil exporters comprise Malaysia, Norway, Russia, and Saudi Arabia.

Figure 1.6. Selected Emerging Market and Developing Economies: Current and Financial Accounts, 2000–18
(Percent of GDP)



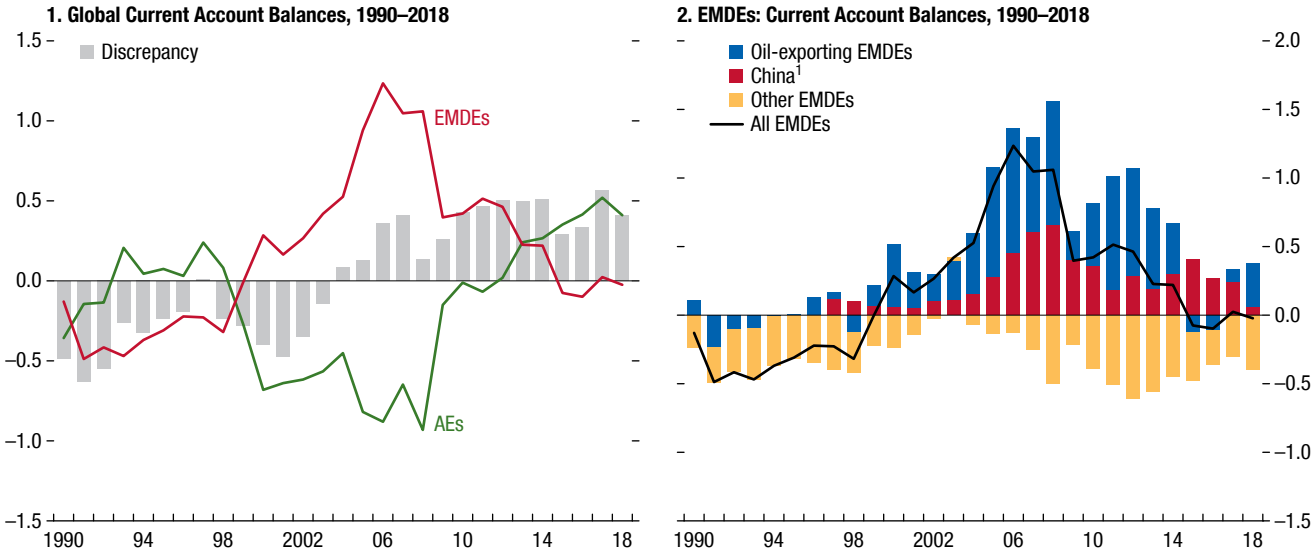
Sources: IMF, *World Economic Outlook*; and IMF staff calculations.
Note: CA = current account; EMDEs = emerging market and developing economies; DI = direct investment; Non-DI = portfolio and other investment; GIR = gross international reserves; REER = real effective exchange rate.
[1]Argentina, Brazil, India, Indonesia, Mexico, South Africa, and Turkey; weighted average (share of GDP and REER index).
[2]Russia and Saudi Arabia; weighted average (share of GDP and REER index).

the overall euro area current account balance—from close to zero in 2007 to a surplus exceeding 3 percent of GDP in 2018, which reflects in part the relative cyclical weakness of the currency area—was accompanied by a cumulative 10 percent real depreciation of the euro during that period. Meanwhile, international reserves accumulation has tapered off significantly since 2013, playing a limited role in driving current account dynamics in emerging market and developing economies, including China (see Table 1.3 and Figure 1.6).

Emerging market and developing economies' capital flows and their composition have shifted largely in response to changes in global financial conditions and relative growth differentials compared with advanced economies. Following quantitative easing programs in advanced economies in the aftermath of the global financial crisis, portfolio and other investment capital flows to emerging market and developing economies intensified, which, together with accommodative macroeconomic policies, contributed to currency appreciation pressures and larger current account deficits (Figure 1.6). These trends, however, started to reverse beginning with the 2013 taper tantrum episode as growth differentials between advanced and emerging market economies narrowed and the prospects of monetary policy normalization in advanced economies gathered strength (see also the October 2016 *World Economic Outlook*). Current account deficits of key emerging market and developing economies have generally narrowed since 2013, supported by currency depreciations and sharply lower portfolio and other investment capital flows (Figure 1.6, gray bars). Direct investment remained relatively stable and less sensitive to changes in global financial conditions and US dollar movements (see also Avdjiev and others 2018). Meanwhile, in China, lower current account surpluses were accompanied during 2015–16 by substantial capital outflows and a loss of international reserves that has since stabilized. Lower world oil prices have supported lower current account surpluses and reserve accumulation in oil-exporting economies since 2013, with bouts of geopolitical tensions contributing to outflows in Russia.

From a global capital allocation perspective, after flowing "uphill" from poorer to richer countries during the 2000s, capital flows started to reverse course more recently (Figure 1.7). Since 2013 advanced economies as a whole have been running

Figure 1.7. The Global Allocation of Capital: From Uphill to Downhill Flows, 1990–2018
(Percent of world GDP)



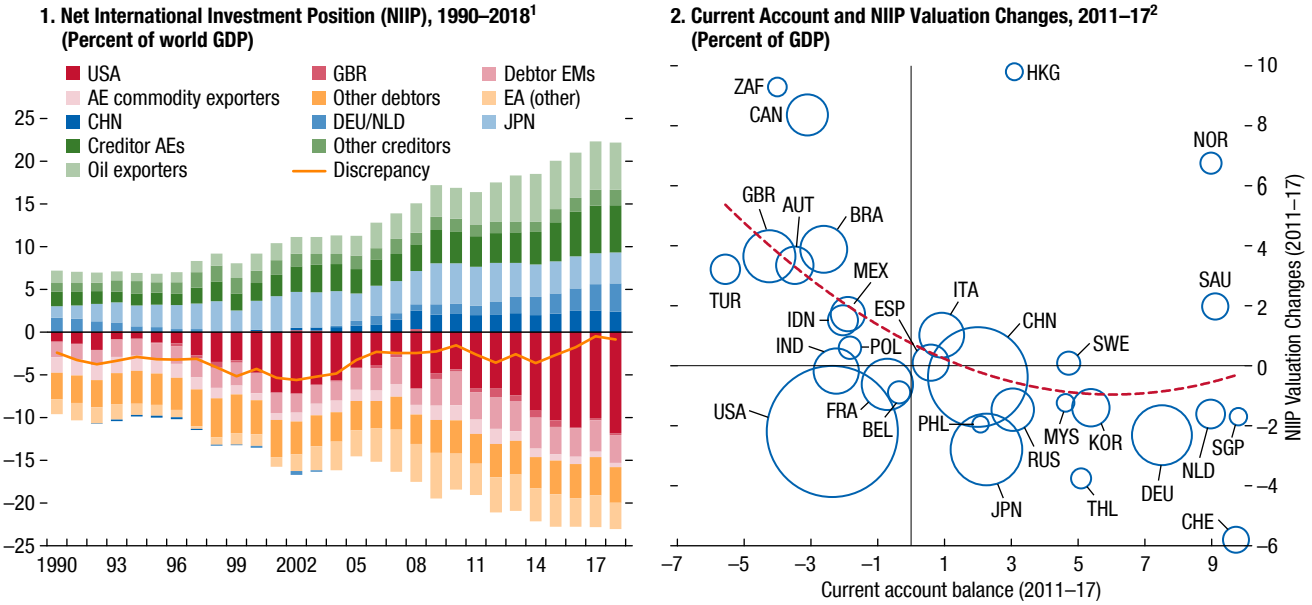
Sources: IMF, *World Economic Outlook*; and IMF staff calculations.
Note: AE = advanced economy; EMDEs = emerging market and developing economies.
[1]EMDEs include oil-exporting EMDEs. China's current account data are available starting in 1997.

small current account surpluses, with emerging market and developing economies on aggregate running a small current account deficit. These recent shifts reflect, on one hand, lower surpluses from China and oil-exporting emerging market and developing economies and, on the other hand, higher current account balances in most advanced economies.[5] That said, these aggregate trends hide a great deal of heterogeneity—leaving aside China and oil-exporting emerging market and developing economies, capital (especially in the form of direct investment) has been flowing downhill for the bulk of emerging market and developing economies since the 1990s, and a greater share of these economies are currently running current account deficits (85 percent) compared to the early 2000s (70 percent). Estimates for 2018 suggest that the aggregate net external asset positions of advanced economies and emerging market and developing economies are nearly balanced, with large heterogeneity within each group. While aggregate measures suggest that capital flows have done little to support income convergence over the past decades, a more detailed analysis of the impact of these aggregate flows on overall investment in emerging and developing economies is required (see Boz, Cubeddu, and Obstfeld 2017 for a preliminary analysis).

Despite the narrowing of global current account imbalances, stock imbalances have continued to widen to reach record levels. At 40 percent of world GDP, the world's net international investment position—the sum of net creditor and net debtor positions—is now at a historical peak and four times larger than in the early 1990s (Figure 1.8, panel 1). Among the top debtors (Table 1.2), the net international investment position of the United States is now close to –50 percent of GDP, down about 40 percentage points since 2007. Other large debtor economies include Australia and Spain, while the largest creditors include Japan, Germany, and China. The wider stock positions reflect, generally, the increased concentration of current account deficits (surpluses) in debtor (creditor) countries (with a few exceptions, such as most euro area debtor countries), which has been partly mitigated by valuation effects in most cases, both in the form of exchange rate and asset price movements (Figure 1.8, panel 2). A notable exception to this pattern has been the United States, with cumulative current account deficits and valuation losses over the same period, primarily linked to the cumulative US dollar appreciation and relatively higher equity prices. The recent buffer-

[5]Capital outflows from emerging and developing economies during the first decade of the 2000s were dominated by official reserve accumulation and the demand for safe assets.

Figure 1.8. Net International Investment Position and Valuation Changes, 1990–2018



Sources: External Wealth of Nations database, IMF, *World Economic Outlook*; Updated and extended version of data set constructed by Lane and Milesi-Ferretti (2007); and IMF staff calculations.
Note: AEs = advanced economies; EA = euro area; EMs = emerging market economies; NIIP = net international investment position. Data labels in the figure use International Organization for Standardization (ISO) country codes.
[1]AE commodity exporters comprise Australia, Canada, and, New Zealand; Debtor EMs comprise Brazil, India, Indonesia, Mexico, South Africa, and Turkey; Oil exporters comprise WEO definition plus Norway. Creditor AEs comprise Hong Kong SAR, Korea, Singapore, Sweden, Switzerland, and Taiwan Province of China. Other debtor (creditor) comprise all other economies with negative (positive) NIIP positions.
[2]See the methodology in Adler and Garcia-Macia (2018).

ing effect of exchange rate fluctuations on valuation changes in the net international investment position in many emerging market and developing economies reflects improvement in their net foreign currency positions (see Box 1.4). That said, gross external liability positions of emerging market and developing economies are at historic peaks (at about 30 percent of world GDP), driven by a rise in corporate and sovereign borrowing, especially from nonbank sources (BIS 2018).

Normative Assessment of External Positions

The assessment of external positions requires a multilateral approach, where positive and negative excess external imbalances match each other. 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.[6] The latter is necessary as the model may not capture all relevant country characteristics and potential policy distortions. A brief summary of the assessment process follows, and Chapter 3 includes details of each of the 30 individual economy assessments for 2018.

- *The EBA models provide multilaterally consistent estimates for current account and real exchange rate norms,* which depend on country fundamentals and desired policies. As such, these norms vary substantially across countries (Figure 1.9). For example, advanced economies—whose populations are aging faster and whose growth prospects are weaker—have positive current account norms, as they need to invest and accumulate funds abroad that they can draw down once their workers retire. Conversely, current account norms are negative for most emerging market and developing economies, reflecting their higher growth potential, greater investment opportunities, and younger populations. Other characteristics, which lead to differentiated

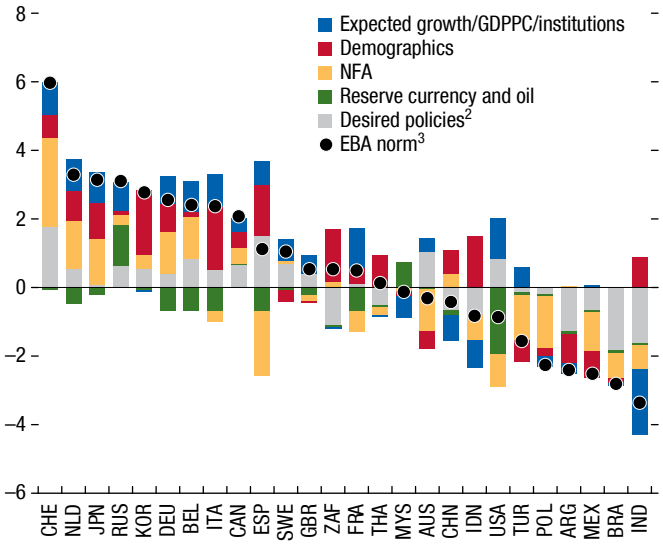
[6]See Cubeddu and others (2019). The EBA current account and REER models estimate the average historical relationship between the current account or real exchange rates and a set of country fundamentals and policy variables from a panel of 49 countries for the period 1986–2016. A detailed description of the external assessment process can also be found in Obstfeld (2017).

norms within these groups, include factors such as institutional strength, the ability to issue reserve currencies (both of which affect borrowing capacity), and the presence of nonrenewable commodity exports (which may call for higher levels of saving to address intergenerational equity objectives). For the few *External Sector Report* economies not included in the EBA model (Hong Kong SAR, Saudi Arabia, Singapore), indirect model-based approaches are used. See Chapter 3, as well as Box 1.6, which includes a discussion of external assessments of large nonrenewable commodity exporters.

- Analytically grounded IMF staff judgment is often applied evenhandedly and transparently to arrive at a more accurate picture of the so-called norm and underlying current account (Tables 1.4 and 1.5). Adjustments to the current account norm were required to address external financing risk considerations (Brazil, India, Poland, Spain) and country-specific demographic (for example, migration projection uncertainties in Germany and high mortality risk in Indonesia and South Africa) and structural features (for example, large investment needs in Australia) not fully captured by the model. Adjustments to the underlying current account were also required to tackle measurement biases (Canada, Netherlands, South Africa, Switzerland, United Kingdom)[7] and temporary factors not captured by the model (for example, effects of adverse weather conditions in Argentina and Australia on agricultural exports, a temporary surge in gold imports in Turkey) and better reflect the cyclical contribution of terms-of-trade changes (Russia, United States).
- *Arriving at a view of excessive imbalances requires comparing actual current accounts and REERs, stripped of cyclical and temporary factors, with IMF staff–assessed current account and REER norms, respectively.* These staff-assessed gaps reflect both domestic policy distortions (defined as the difference between actual and staff-assessed medium-term desired policies) and distortions that come from the rest of the world. For example, excessive fiscal deficits in the United States and other economies can help explain excess surpluses elsewhere. It is worth noting that, even in countries where there are no overall external gaps, domestic policies have a role to play, as different macroeconomic and structural policy distortions could be offsetting each other. Finally, IMF staff–assessed gaps are (1) presented in ranges to recognize the inherent uncertainties of the exercise (these ranges are generally anchored around the standard errors of the estimated EBA norms); and (2) multilaterally consistent, such that excess current account surpluses generally match excess current account deficits (see Table 1.5).[8]

[7]Adjustments for measurement biases were guided by the complementary tools introduced as part of the refinements of the EBA methodology in 2018. These tools were also relevant for Hong Kong SAR and Singapore.

Figure 1.9. External Balance Assessment Current Account Norms, 2018[1]
(Percent of GDP)



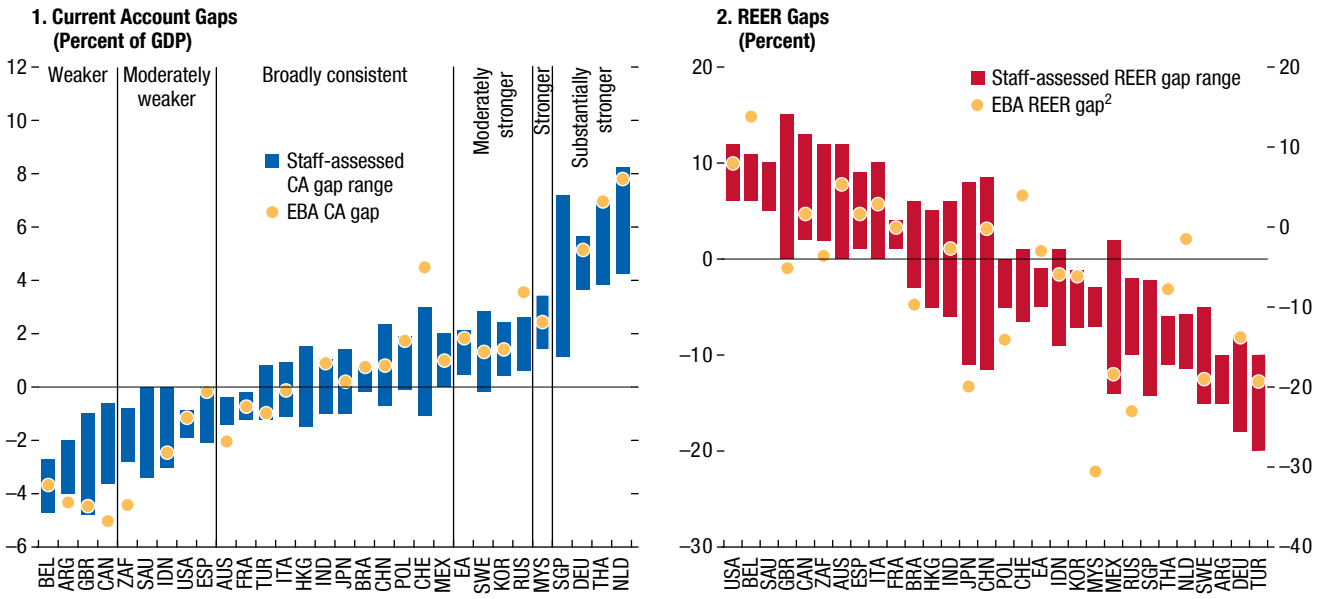
Source: External Balance Assessment (EBA) estimates.
Note: GDPPC = GDP per capita; NFA = Net Foreign Assets. Data labels in the figure use International Organization for Standardization (ISO) country codes.
[1]Excludes Hong Kong SAR, Saudi Arabia, and Singapore.
[2]"Desired policies" also includes intercept and multilateral consistency contribution.
[3]"Norms" are multilaterally consistent and cyclically adjusted.

Overall excess deficits and surpluses narrowed somewhat in 2018, with China's external assessment moving from "*moderately stronger*" to "*broadly in line*" (Figure 1.10; Table 1.5).

- **Stronger positions:** External positions were deemed "*substantially stronger*" than warranted by medium-term fundamentals and desirable policies (current account gaps of more than 4 percentage points of GDP) in Germany, the Netherlands, Singapore, and Thailand; "*stronger*" (2–4 percentage points of GDP) in Malaysia; and "*moderately stron-*

[8]For details on implementing multilateral consistency, see Cubeddu and others (2019).

Figure 1.10. IMF Staff–Assessed and External Balance Assessment Estimated Current Account and Real Effective Exchange Rate Gaps in 2018[1]



Sources: IMF External Balance Assessment (EBA) estimates and staff assessments.
Note: CA = current account; REER = real effective exchange rate. Data labels in the figure use International Organization for Standardization (ISO) country codes.
[1]Sorted by the midpoint of the IMF staff–assessed gap. Hong Kong SAR, Saudi Arabia, and Singapore are not in the EBA model.
[2]EBA REER gap is defined as the average gap from the REER-index, REER-level and REER-implied approach (applying estimated elasticities).

ger" (1–2 percentage points of GDP) in Korea, Russia, and Sweden. As was the case last year, the euro area's external position was assessed to be "*moderately stronger,*" reflecting asymmetric intra-area adjustment since the global financial crisis (see Box 1.3) and driven by large positive gaps in creditor economies and generally balanced or small negative current account gaps in debtor economies.

- **Weaker positions:** Conversely, external positions were assessed to be "*weaker*" (negative current account gaps in the range of 2–4 percent of GDP) in Argentina, Belgium, Canada, and the United Kingdom and "*moderately weaker*" (1–2 percent of GDP) in Indonesia, Saudi Arabia, South Africa, Spain, and the United States.
- **Broadly-in-line positions:** External positions were deemed to be "*broadly in line*" with medium-term fundamentals in Australia, Brazil, China, France, Hong Kong SAR, India, Italy, Japan, Mexico, Poland, Switzerland, and Turkey. That said, for many of these economies, avoiding a resurgence of external imbalances requires addressing offsetting policy distortions.
- **Changes since 2017:** The small overall reduction in excess imbalances is largely attributed, on one hand, to China's move from "*moderately stronger*" in 2017 to "*broadly in line*" in 2018 and, on the other hand, to a reduction in excess deficits in a few advanced and emerging market economies (Canada, France, Turkey, United Kingdom). The US external position was unchanged despite significant fiscal easing. Meanwhile, Indonesia's external position weakened, moving from "*broadly in line*" to "*moderately weaker.*" Difficulties in accurately estimating relative output gaps and temporary terms-of-trade changes add to uncertainties about the size and permanent nature of the observed narrowing of excess imbalances.

Current account and REER assessments were generally consistent, except in a few cases reflecting lags in the response of quantities to prices. In general, countries with current account balances higher (lower) than warranted by fundamentals and desirable policies were deemed to have an undervalued (overvalued) exchange rate (Figures 1.10 and 1.11; Tables 1.4 and 1.7).[9]

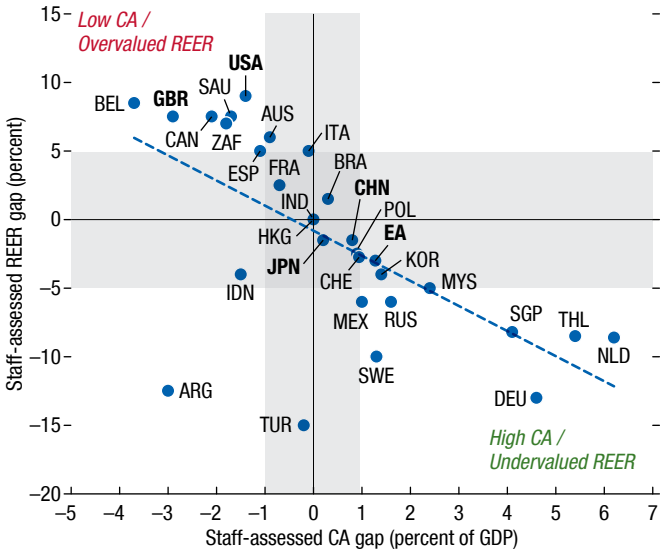
[9]REER assessments are arrived at using multiple inputs, including (1) estimates derived from the mapping of IMF staff views on the current account gap using trade elasticities; (2) estimates from EBA REER index and level models; and (3) estimates from alternative sources, including unit-labor-cost-based exchange rates. Generally, staff places more weight on the first input, since the current account

In some cases, including a few key emerging market economies, discrepancies between the current account and exchange rate assessments in 2018 reflect sharp REER depreciations that were not yet fully reflected in a reduction in current account deficits (because of lags in the transmission of exchange rates to trade volumes and prices). This is notably the case in Argentina, where the exchange rate was deemed to have overshot following the large depreciation in 2018 despite a still large negative current account gap. Similar disconnects are found for Turkey, where the earlier and continued overshooting of the lira led to a sharp correction of the current account deficit in 2018; and in Indonesia, where the sharp rupiah depreciation had yet to translate into a lower current account deficit in 2018.

Although drivers of excess surpluses and deficits vary across countries, some common patterns related to policy distortions can be identified. IMF staff–assessed gaps can be decomposed into "*identified policy gaps*" and "*other gaps*" (or residual). The former refers to the differences between actual and desired policies in the medium term, when output gaps are closed (Table 1.6), and include both domestic and foreign policy gaps. Identified policy gaps for the structural fiscal balance, public health spending, foreign exchange intervention, capital controls, and the credit cycle are captured within the EBA model. *Other gaps* tends to reflect policy distortions affecting saving and investment decisions, which are not explicitly modeled as a result of data and conceptual limitations.[10] Overall, while positive (negative) *identified policy gaps* are associated with positive (negative) current account gaps, identified policies fall significantly short of explaining external imbalances (Figure 1.12, panel 1; Table 1.6). In such cases, *structural distortions* likely play an important role, as described below.[11]

- In many countries with ***higher-than-warranted current account balances*** (Germany, Korea, Netherlands, Thailand), a tighter-than-desirable fiscal stance contributed to those external imbalances, with other identified policies, such as insufficient health care spending, also playing a role in Korea, Malaysia, Russia, and Thailand (Figure 1.12, panel 2, Table 1.6).
- On the flip side, many countries with ***lower-than-warranted current account balances*** had a looser-than-desirable fiscal policy, compared to its medium-term desirable level (Argentina, South Africa, Spain, United Kingdom, United States), with credit excesses contributing to the negative current account gaps in others (Canada).
- Meanwhile, even countries ***with external positions that are broadly in line*** need to deal with offsetting policy distortions. In China, negative contributions from undesirably easy fiscal and credit policies from a medium-term perspective were largely offset by positive contributions from weak social safety net coverage and structural distortions (that is, state-owned-enterprise subsidies) that limit rebalancing toward consumption and services. Similarly, in Japan, looser-than-warranted fiscal policy (from a medium-term perspective) have been masking structural distortions that are constraining investment. In other economies (Brazil, Italy), undesirable credit weaknesses that are holding back investment and pushing up current account balances are masking underlying competitiveness problems.

Figure 1.11. IMF Staff–Assessed Current Account and Real Effective Exchange Rate Gaps[1]



Source: IMF staff assessments.
Note: CA = current account; REER = real effective exchange rate. Data labels in the figure use International Organization for Standardization (ISO) country codes.
[1]Grey bands depict broadly-in-line ranges for the IMF staff–assessed CA and REER gaps. REER gap is based on 2018 average REER.

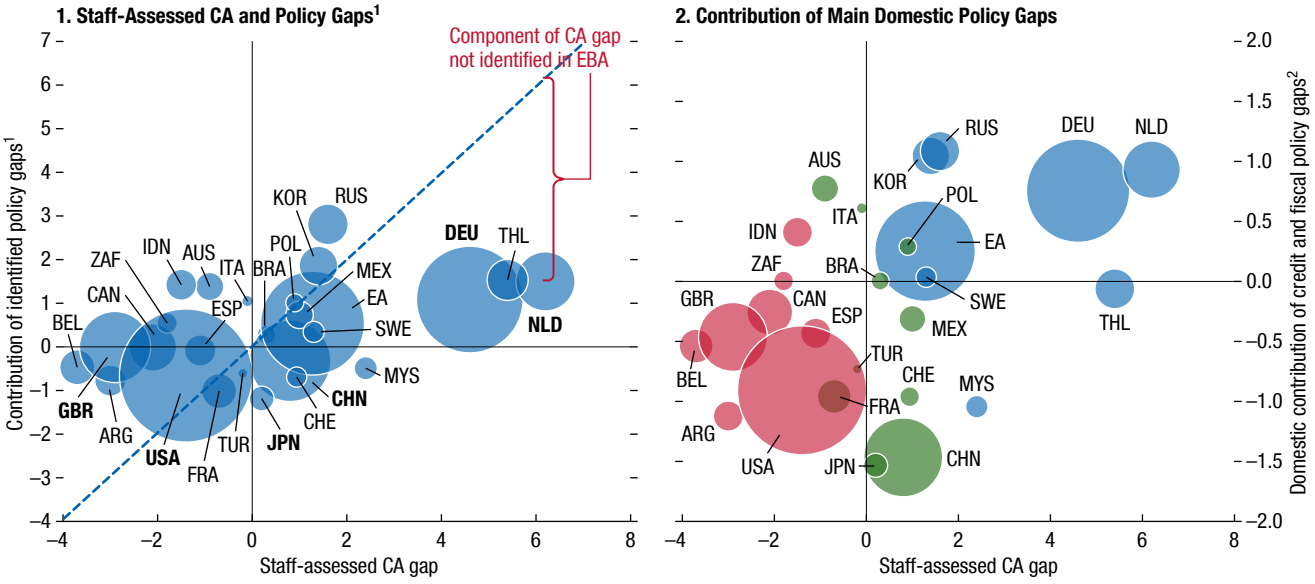
model exhibits a more stable relationship, while exchange rates are inherently more volatile and difficult to model.

[10]Given uncertainties in the identification the other policy gaps, staff-assessed gaps are presented in ranges.

[11]The latest vintage of the EBA methodology includes complementary tools to help quantify the extent to which structural distortions can explain model residuals (see also Box 3 of the 2018 *External Sector Report*). Results suggest that alleviating product market distortions—proxied by the licenses and permits system burden (from the Organisation for Economic Co-operation and Development)—can boost investment and reduce the current account balance; reforms that reduce labor market rigidities—proxied by employment protection laws (from the World Economic Forum)—would do the opposite.

Figure 1.12. Current Account Gap Contributions, 2018

(Percent of GDP)



Source: IMF staff assessments and calculations.
Note: CA = current account; EBA = External Balance Assessment. Data labels in the figure use International Organization for Standardization (ISO) country codes.
[1]Bubble size is proportional to external imbalances in percent of world GDP. The contribution of (domestic and external components of) identified policy gaps to the current account gap is based on the estimated EBA coefficient and IMF staff–assessed desirable policies.
[2]Domestic component of identified policy gap only.

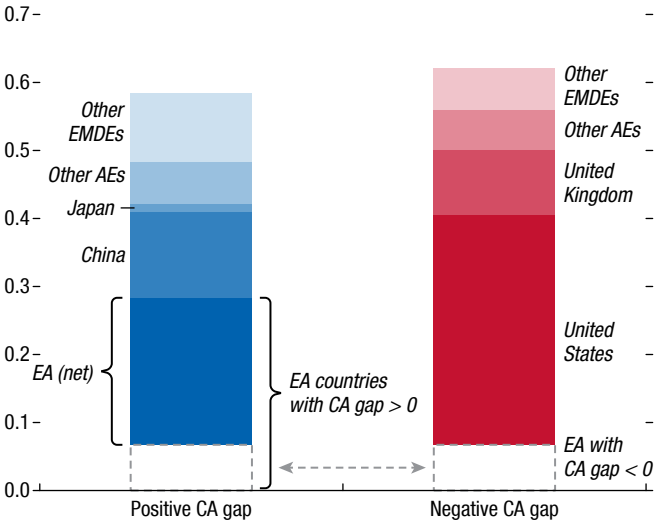
Foreign exchange intervention appears to have been limited in 2018, although some emerging markets and developing economies sold reserves in the face of market pressures (Tables 1.3 and 1.6). Capital outflow pressures in mid-2018 led to foreign exchange sales in some emerging market and developing economies (Brazil, India, Indonesia, Malaysia, Turkey) to avoid disorderly market conditions and financial risks from exchange rate overshooting. Meanwhile, foreign exchange intervention in economies with exchange-rate-based monetary policy regimes (Hong Kong SAR, Saudi Arabia, Singapore) reflected standard operations of their regimes.[12] The impact on staff-assessed current account gaps was generally limited.

Overall, excess current account imbalances narrowed moderately in 2018 to about 35–45 percent of global current account surpluses and deficits, becoming even more concentrated in a few large advanced economies (Figure 1.13). At the global level, excess current account imbalances narrowed

[12]Availability of official foreign exchange intervention data, including frequency of publication, timeliness, and granularity is uneven across economies. In the absence of data, IMF staff relies on its own estimates.

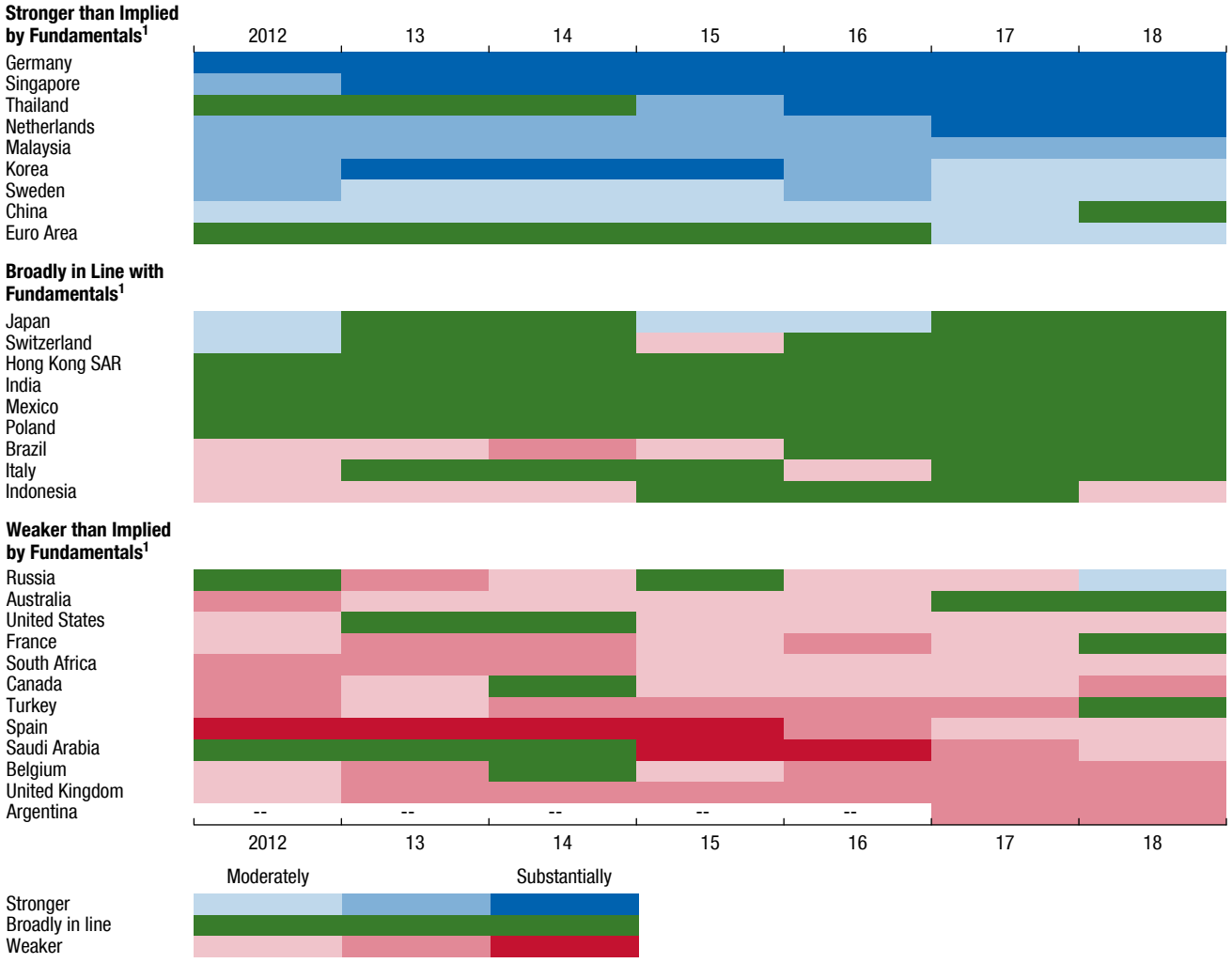
Figure 1.13. Distribution of Excess External Surpluses and Deficits, 2018[1]

(Percent of world GDP)



Source: IMF staff assessments and calculations.
Note: AEs = advanced economies; CA = current account; EA = euro area; EBA = External Balance Assessment; EMDEs = emerging market and developing economies.
[1]*External Sector Report* economies only. China, the Euro Area, Japan, the United Kingdom and United States are reported individually. EA economies with positive (negative) CA gaps include Germany and the Netherlands (Belgium, France, Italy, Spain).

Figure 1.14. The Evolution of External Sector Assessments, 2012–18



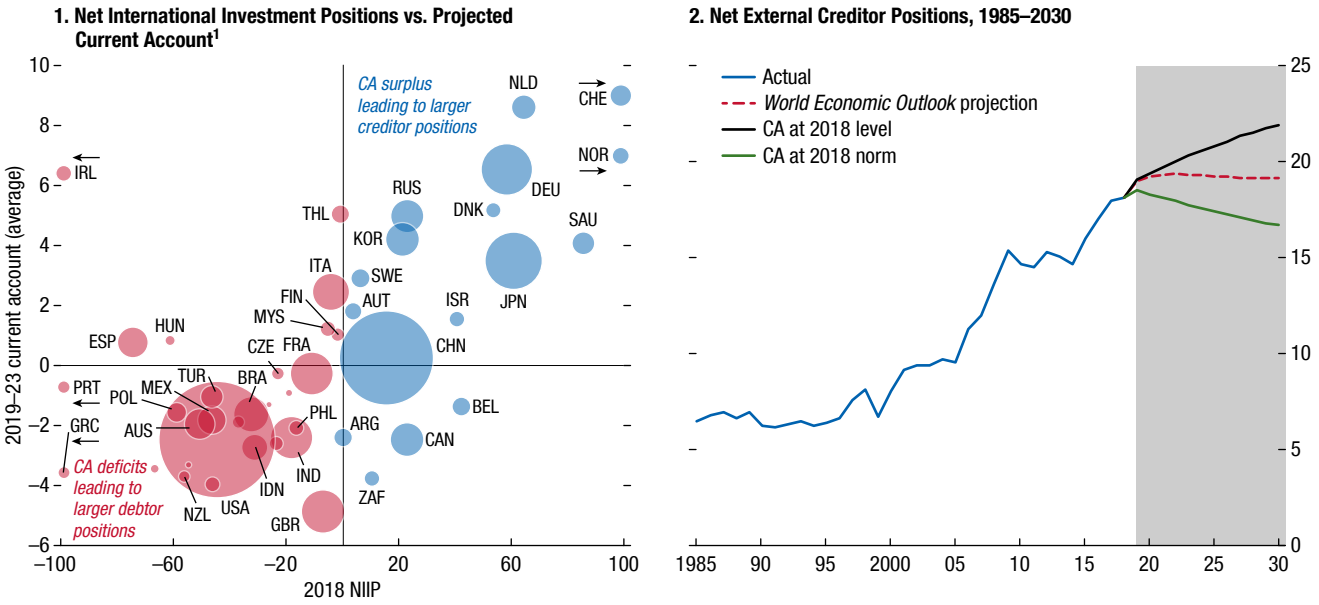
Source: IMF staff assessments.
[1]Grouping and ranking based on economies' average excess imbalance during 2016–18. Coverage of Argentina started in the 2018 *External Sector Report*.

somewhat, from about 1.4 percent of global GDP in 2017 to about 1.2 percent in 2018.[13] Smaller positive gaps in China were generally matched by smaller negative gaps in a few advanced (Canada, United Kingdom), oil-exporting (Saudi Arabia), and emerging market economies (Brazil, Turkey). These developments led to a further concentration of excess imbalances in advanced economies, with lower-than-desirable current account balances centered in the United Kingdom and the United States and higher-than-desirable balances increasingly centered in the euro area and other advanced economies (Korea, Singapore, Sweden).

Despite narrowing somewhat in recent years, excess surpluses in some key advanced economies remain large and persistent (Figure 1.14). This is especially true for northern Europe (Germany, Netherlands, Sweden) and some advanced Asian economies (Korea, Singapore), where surpluses tend to be associated with rising and high levels of corporate saving. On the deficit side, there is less persistence (except the United Kingdom and the United States); sudden changes in

[13] In the 2018 *External Sector Report*, the excess current account imbalance measure was estimated at about 1.5 percent of world GDP in 2017. Data revisions (both in current account and GDP data) are responsible for this change.

Figure 1.15. Selected Economies: Current Account and Net International Investment Position Projections
(Percent of GDP)



Sources: IMF, *World Economic Outlook*; and IMF staff calculations.
Note: Data labels use International Organization for Standardization (ISO) country codes. CA = current account.
[1]Bubble sizes are proportional to US dollar GDP.

capital flows and market financing conditions forced adjustments (Argentina, Brazil, Indonesia, Turkey).

Outlook and Risks

External flow and stock imbalances could widen again, although this will much depend on the assumed policy response. Under baseline policies, the projected fiscal easing in the United States is expected to lead to a larger US current account deficit over the medium term—with a projected increase in current account balances elsewhere as a result. While current account surpluses of China, Northern Europe (Germany, Netherlands), the euro area, and Japan are all projected to narrow gradually, supported by policies to encourage domestic demand, there are risks that demand strength may prove weaker than projected. The implications for the evolution of stock imbalance will depend not only on the policy assumptions underpinning the current account projections, but also on other factors, including the growth–interest-rate differential. To illustrate this three scenarios are considered:[14]

- Under *baseline policies* consistent with the latest IMF staff forecast in the *World Economic Outlook* (Figure 1.15, panel 1), where most creditor (debtor) countries continue to run current account surpluses (deficits), stock imbalances are projected to remain generally unchanged over the medium term, despite a modest rise in the US current account deficit.
- Meanwhile, under an *unchanged current account scenario*, in which current account balances remain constant as a share of GDP at 2018 levels over the projection period, creditor and debtor positions expand by an additional 5 percentage points of world GDP by 2030.
- It is only under a *current account at the norm scenario*, in which countries' current account gaps close, that creditor and debtor positions narrow

[14]Simulations do not include valuation effects and, as such, may understate the actual impact on stock imbalances (for example, under active policies, exchange rate movements would likely support a narrowing of stock positions). In the baseline simulation, the current account is projected to be unchanged (as percent of GDP) at the 2023 level (as projected by the *World Economic Outlook*) through 2030. Under the *baseline policies* and *unchanged current account* scenarios, the creditor positions of Germany, Japan, Netherlands, and Singapore keep expanding, while China's current account position stabilizes.

over time (by about 2 percentage points of world GDP by 2030).

While near-term financial risks from the current configuration of external imbalances are generally contained, policy actions are required, especially to contain risks from a further buildup in external leverage in some cases.

- **In the short term,** while increased concentration of debtor positions in reserve currency-issuing advanced economies lowers financing risks, an intensification of trade and geopolitical tensions, or a disorderly Brexit scenario—with repercussions for global growth and global risk aversion—could adversely impact some economies, especially those highly reliant on foreign demand and external financing (to meet both net import and debt service obligations). As shown in Box 1.5, the likelihood of a sudden stop or external crisis increases not only with the size of current account deficits, but also depends on the size and composition of net and gross external liabilities.
- **In the medium term,** and in the absence of corrective policies, creditor and debtor stock positions would likely widen further from historically high levels (see Figure 1.15), raising the likelihood of a disruptive adjustment in large debtor economies—with global spillovers, including large valuation losses in creditor economies. For instance, a sudden reassessment of long-term real interest rates and growth rates prospects in large debtor economies (the "r-g" relationship, which is key to both fiscal and external debt sustainability), triggered by domestic or global macro-financial conditions, could precipitate such disruption. Meanwhile, gradually tackling high sovereign and corporate foreign currency leverage is required in some advanced and emerging market economies to stem vulnerabilities from rapid shifts in global financial conditions or faster-than-expected monetary policy normalization. This is especially important in China, where a sudden deleveraging would not only have large knock-on effects on global growth and productivity through global value chain interlinkages, but would also lead to rapidly widening global imbalances (see the April 2019 *World Economic Outlook*). In the euro area, a prolonged period of anemic growth and inflation could slow down rebalancing and lead to a rise in overall currency area surpluses.

Policy Challenges

Against a backdrop of escalating trade tensions, greater urgency is needed in tackling persistent excess imbalances. Even though overall imbalances have come down, they still show strong persistence and little rotation between deficit and surplus economies, and the sum of creditor and debtor positions is at record levels. Faced with the risks of escalating trade tensions, stronger commitments to tailored macrostructural policies and to further trade liberalization are essential to support a more sustainable rules-based multilateral trading system.

Policies that distort trade should be avoided. Specifically, countries should refrain from using tariffs to target bilateral trade balances, as they are costly for global trade, investment, and growth, and are generally not effective in reducing external imbalances (April 2019 *World Economic Outlook*; Boz, Li, and Zhang 2019; 2018 *External Sector Report*).[15] Similarly, managed trade agreements are a very costly means to influencing bilateral trade relationships and they introduce distortions to the global trading system without necessarily addressing aggregate saving and investment imbalances. Instead, efforts should be concentrated on reviving liberalization efforts and modernizing the multilateral rules-based trading system to capture the increasing importance of e-commerce and trade in services, strengthen rules in areas such as subsidies and technology transfer, and assure continued enforceability of World Trade Organization (WTO) commitments through a well-functioning WTO dispute settlement system.

With most economies operating near potential, carefully calibrated macroeconomic policies to reduce excess external imbalances remain essential. In general, *excess surplus* economies should make use of available fiscal space to boost potential growth while reducing overreliance on accommodative monetary policies. In the euro area, where accommodative monetary conditions remain necessary to support the return of area-wide inflation to its target, fiscal policy in key creditor economies could be used to boost potential growth through infrastructure investments and greater support for innovation (Germany, Netherlands). In Germany, where the current account surplus has been

[15]For estimates of the effects of higher tariffs on trade, see Crucini and Kahn (1996); for an analysis of tariff increases in the 1930s, see Madsen (2001).

associated with rising top income inequality, further tax relief for low-income households could boost their disposable income and support domestic demand, while property and inheritance tax reform could help reduce excess saving and wealth concentration (see also Box 1.7 and IMF 2019c). Meanwhile, *excess deficit* countries should adopt gradual growth-friendly fiscal consolidation while allowing monetary policy to be guided by inflation developments and expectations (United Kingdom, United States). In some cases, macroprudential policies may need to be tightened to help slow excessive credit growth, especially in the real estate sector (Canada).

Structural reforms have a key role to play in addressing persistent external imbalances while boosting potential growth (see Table 1.8). Boosting potential growth and achieving rebalancing will require policies that incentivize higher levels of private investment, particularly in those countries where demographics are weighing on potential growth and reducing incentives for domestic investment. While, in general, removing structural policy distortions is a desirable policy goal (see Banerji and others 2017), careful sequencing of structural reforms is needed to achieve sustained global rebalancing in a growth-friendly fashion, particularly since reform payoffs are often gradual and fully materialize only in the medium term (see the technical supplement to the 2018 *External Sector Report*; and Cubeddu and others 2019).

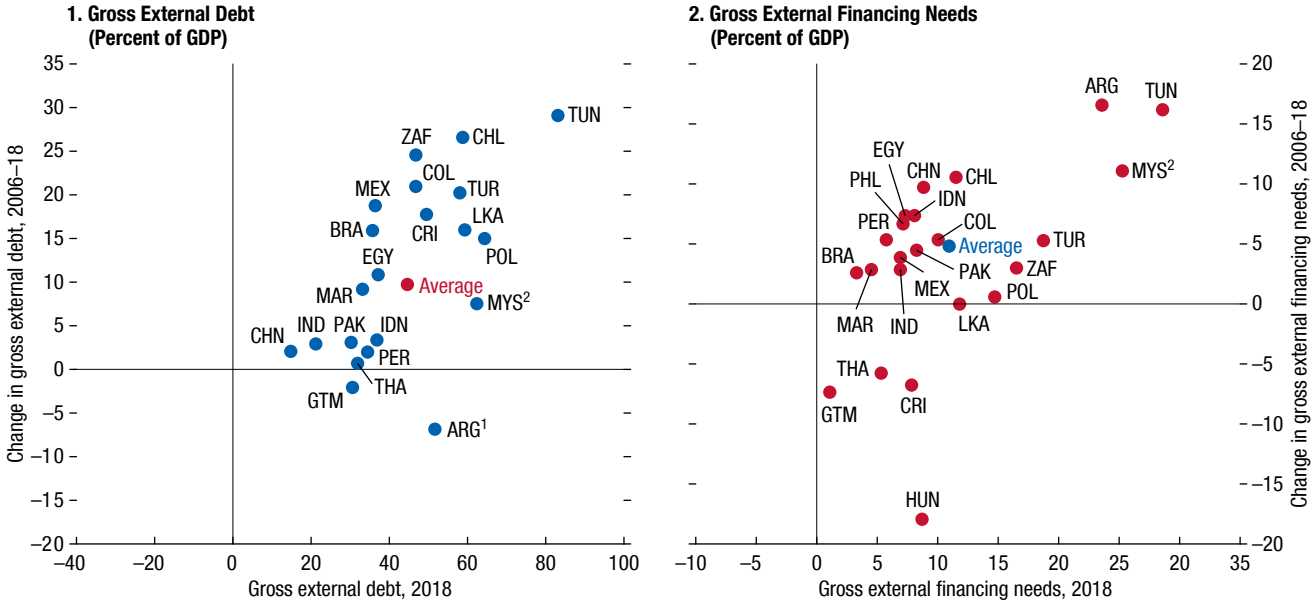
- *Excess surplus economies* should prioritize reforms that encourage investment by incentivizing research and development spending, ensuring financing for investment in innovative activities (for example, by increasing access to venture capital), and deregulating the service sector (Germany, Korea). Steps should also be taken to discourage excessive saving by expanding the social safety net (Korea, Malaysia, Thailand) and prolonging working lives (Germany). The ongoing gradual realignment of price competitiveness in euro area surplus countries could be supported by policies that incentivize stronger wage growth to facilitate an internal revaluation and rebalancing. Moreover, at the euro area level, efforts to further strengthen banking, fiscal, and capital market integration would help support investment while improving the resilience of the currency union.
- *Excess deficit economies* should focus on reforms that boost saving and competitiveness. Greater efforts are needed to strengthen the skill base of workers (Canada, Indonesia, South Africa, Spain, United Kingdom, United States). In some cases, increasing saving requires safeguarding the sustainability of public pension systems (Spain) and strengthening the depth and inclusion of financial systems (Indonesia, South Africa). Resource-rich economies should accelerate their efforts to diversify export markets and strengthen productivity in non-oil sectors (Canada, Saudi Arabia).

Even where external positions are assessed to be broadly in line with fundamentals, policies are necessary to tackle domestic imbalances and avoid a resurgence of external imbalances. Former excess surplus countries (China, Japan) should address domestic imbalances by gradually reducing vulnerabilities from high levels of public debt and/or excessive credit while engaging in reforms that ease entry barriers in certain sectors and strengthen the safety net, where relevant. Former excess deficit countries (Brazil, France, Italy) should both improve their business climate and ease impediments to credit and investment while also increasing saving and competitiveness by strengthening public finances and increasing human capital investment.

There is a growing need to better understand and address high and rising levels of corporate saving in some advanced economies. While the rise in net corporate saving has been a common phenomenon across many advanced economies, predating the global financial crisis, it has been especially noticeable in a group of surplus economies (such as Germany, Korea, Japan, Netherlands) where higher levels of corporate saving was not offset by lower household saving at the aggregate level (see Box 1.7). Research is ongoing to better understand the drivers behind these trends, with evidence suggesting that these relate to a combination of factors including (1) increased concentration of wealth and firm ownership, (2) reduced wage compensation and top income inequality (see IMF 2019c), and (3) lower domestic investment. Although further analysis is needed, especially at the country level, findings imply that tax and structural policies that encourage domestic demand, and support higher labor compensation and disposable income of lower-income households, may have a role to play.

Exchange rate flexibility remains key to supporting external adjustment, despite varying effects across

Figure 1.16. Selected Emerging and Developing Economies: Evolution of Gross External Debt and Gross External Financing Needs, 2006–18



Source: IMF, *World Economic Outlook.*
Note: Gross external financing needs = current account deficit plus short-term external debt.
[1]Argentina's external debt excludes holdouts from debt restructuring.
[2]Malaysia's change is calculated since 2010 given data redefinition.

countries and over time. As highlighted in Chapter 2, although evolving features of international trade—including dominant currency invoicing and global value chain integration—may alter the mechanisms of external adjustment in the short term, conventional exchange rate channels regarding trade flows remain at play in the medium term. The sluggish short-term export response to the exchange rate points to the need to support exchange rate flexibility with other macroeconomic policies in the near term. Meanwhile, structural policies could boost exchange rate mechanisms. These include measures to improve export infrastructure, expand access to export credit, and lower regulatory barriers and red tape—all of which tend to be more binding for small and medium-sized enterprises.

Vulnerabilities associated with rising external liability positions need to be addressed. While net foreign currency-denominated external debt has fallen since the early 2000s for emerging market and developing economies as a whole (Box 1.4), overall gross external debt and gross external financing needs have increased in most these economies (Figure 1.16), reaching record highs, both as a share of their own GDP and global GDP. This rapid rise of gross external indebtedness by sovereigns and corporates of emerging market and developing economies, as well as of some advanced economies, warrants careful monitoring, especially of currency and maturity mismatches (Bruno and Shin 2018; October 2018 and April 2019 *Global Financial Stability Reports*). Special attention should be given to (1) reducing foreign-currency-denominated debt through targeted macroprudential policies; (2) encouraging more inward direct investment by ensuring equal treatment of domestic and foreign investors (Argentina, India, Indonesia); (3) deepening financial markets, including aiding the development of foreign exchange hedging instruments (Indonesia); and (4) closely monitoring activities of the less regulated nonbank financial sector. In some cases, foreign exchange intervention might be necessary should disorderly exchange rate movements threaten economic and financial stability.

Finally, continued efforts are required to strengthen the analysis of global imbalances, including to account for the growth and complexity of cross-border flows and positions. The assessment of external positions will continue to evolve, drawing on the latest advances

in the literature and lessons learned in the implementation process. In this regard, a better understanding of the risks from growing stock imbalances and their shifting composition is of essence. Moreover, data collection efforts need strengthening to account for the rising cross-border activities of multinationals, as the boundaries between residents and nonresidents, and the corresponding attribution of income across countries, have become blurred (Zucman 2014). These issues are particularly relevant for financial centers (countries with large gross assets and liabilities) and tax havens (whose statistics are disproportionally affected by profit-shifting practices).[16] Rigorous, evenhanded, and multilaterally consistent analysis of external positions remains key to promote growth-friendly policy actions by both excess surplus and deficit countries to rebalance the global economy.

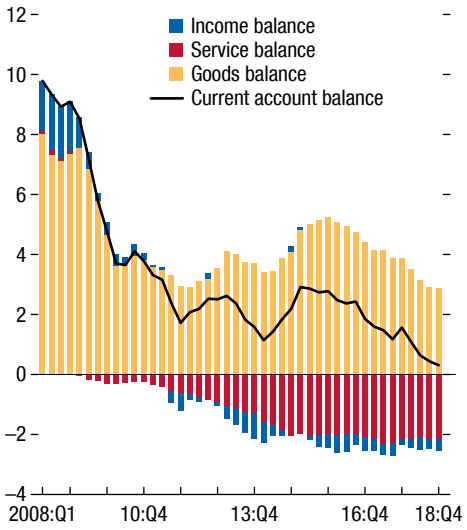
[16]The IMF Committee on Balance of Payments Statistics, led by the Organisation for Economic Co-operation and Development and the IMF's Statistics Department, is spearheading efforts to identify the role of multinational companies in current account transactions, as well as improving data availability on global value chains and on offshore centers and special purpose entities.

Box 1.2. China: Understanding the Decline in the Current Account Surplus

The sharp decline in China's current account surplus from its pre–global financial crisis peak has been associated with significant compositional shifts (Figure 1.2.1). The *services trade balance* swung from a small surplus of 0.1 percent of GDP in 2007 to a deficit of 2.2 percent in 2018, mainly on account of a massive (fourfold) increase in outbound tourism. The *income balance* has also turned negative, despite China's net creditor position, reflecting a combination of falling global interest rates and rising returns on equity liabilities. Finally, the goods surplus has fallen, although its decline has been far more volatile, responding to changes in commodity prices as well as macroeconomic policy support. In terms of composition, while imports of raw materials have risen, the manufacturing balance, although sizable, has plateaued, consistent with the pace of trade integration. From a trading country perspective, the trend has been toward greater balance, with a reduction in

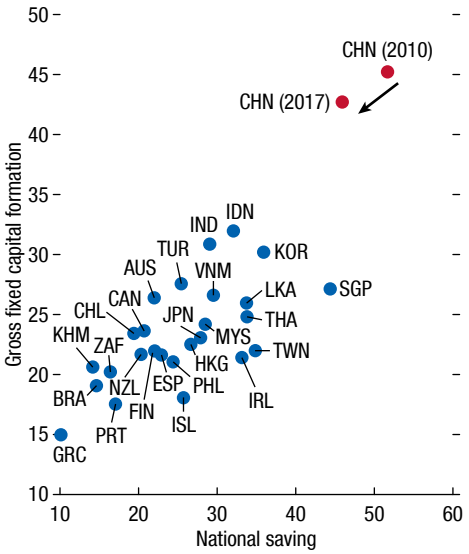
The authors of this box are Pragyan Deb and Swarnali Ahmed Hannan.

Figure 1.2.1. China: Current Account, 2008–18
(Percent of GDP, four-quarter moving-average)



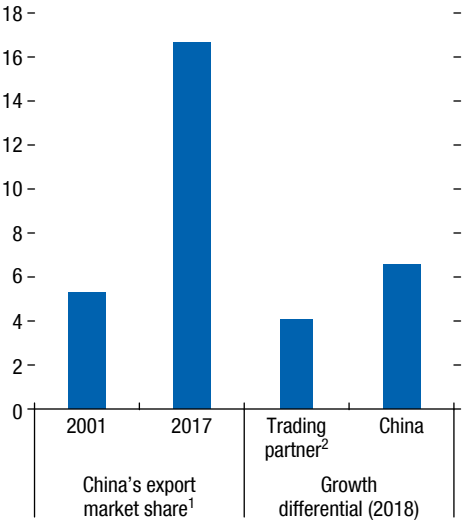
Source: CEIC.

Figure 1.2.2. Selected Economies: Saving vs. Investment in 2017
(Percent of GDP)



Sources: IMF, *World Economic Outlook*; and IMF staff calculations.
Note: Data labels in the figure use International Organization for Standardization (ISO) country codes.

Figure 1.2.3. China Export Market Saturation



Sources: IMF, *World Economic Outlook*; and IMF staff calculations.
[1]China manufactured exports in percent of world exports.
[2]Real GDP growth of key trading partners is purchase power parity GDP weighted.

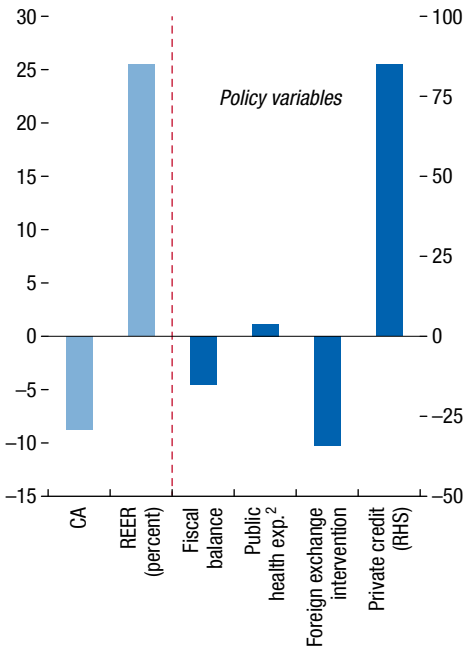
Box 1.2 *(continued)*

goods trade surpluses with the European Union and the United States and a moderation of deficits vis-à-vis Japan and Korea.

The current account surplus decline was driven by a modest reduction in still-high levels of saving, along with market saturation. China's saving rate, driven by household saving, has declined from its peak, while rebalancing has led to a slow shift from investment to consumption (Figure 1.2.2). Looking ahead, growth differentials between China and trading partners suggest that import growth will outpace export growth, especially given difficulties in further increasing market share now that China has become the world's largest goods exporter (Figure 1.2.3).

Domestic policies have supported the current account surplus decline, but at the expense of internal imbalances (Figure 1.2.4). Relative to 2008, China's structural fiscal balance (share of GDP) has deteriorated by 4.5 percentage points, private credit (share of GDP) has expanded by 85 percentage points (which has contributed to a decline in net corporate saving), and reserves (share of GDP) have declined by 10.3 percentage points, all of which contributed to the narrowing of the current account surplus. The appreciation of the currency also supported the lowering of the surplus. However, such expansionary credit and fiscal policies contributed to the buildup of leverage and vulnerabilities. Achieving a lasting external balance would thus require that the gradual reining in of expansionary macroeconomic policies be accompanied by structural reforms (for example, improving the social safety net, undertaking state-owned-enterprise reforms, and opening markets) that place China on a sustainable path, with higher consumption and lower overall saving.

Figure 1.2.4. China: Changes in Key Variables, 2008–18[1]
(Percent of GDP, unless otherwise stated)



Sources: IMF, *World Economic Outlook*; IMF, Information Notice Systems; World Development Indicators (WDI); Bank of International Settlements (BIS); and IMF staff calculations.
Note: RHS = right-hand scale.
[1]All variables (except real effective exchange rate [REER]) are expressed as a share of GDP. Fiscal balance refers to cyclically adjusted general government balance, general government health expenditure (WDI; May 2019), foreign exchange intervention includes off-balance sheet intervention, private credit is credit to private nonfinancial sectors, excluding cross-border claims on nonbank sector (BIS).
[2]Change from 2008–16.

Box 1.3. Euro Area External Adjustment and Intra-Area Asymmetries

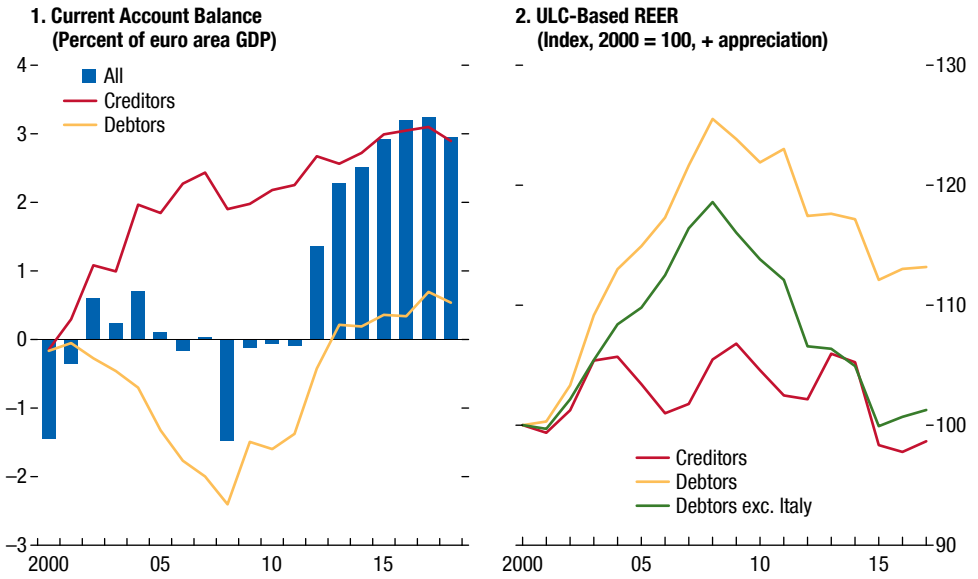
Adjustment and intra-euro-area asymmetries. The rise in the euro area current account surplus since the global financial crisis reflects a combination of strong deleveraging in most debtor countries and persistent large surpluses in creditor countries (Figure 1.3.1, panel 1). In the decade leading up to the crisis, the aggregate euro area current account fluctuated around a balanced position, although it masked large intra-area asymmetries, with intra-euro-area imbalances reaching about 4½ percent of euro area GDP in 2007–08. Since the crisis, however, large external adjustments by debtor countries (close to 3 percent of euro area GDP) reduced the overall asymmetries by half, even though these were associated with mildly larger surpluses in creditor countries. In fact, with declining demand from debtor euro area economies, creditor countries redirected their goods exports to countries outside the euro area, while their goods imports from debtor countries stagnated (relative to GDP). Meanwhile, debtor countries increased their exports outside the euro area, notably through an expansion of tourism (especially in Greece, Portugal, and Spain). The adjustment was supported by a large internal devaluation in most debtor countries from their precrisis peaks (Figure 1.3.1, panel 2), although the unit-labor-cost-based real effective exchange rate also fell slightly in most creditor economies, leaving their consumer price index–based real effective exchange rate below the level warranted by fundamentals and desired policies, according to the External Balance Assessment model.

Sectoral decomposition and policies. The rise in the euro area current account balance since the crisis has been driven mainly by an across-the-board increase in net corporate saving, with public saving also playing a role, especially in debtor economies (see Figure 1.3.2).

- *In debtor countries*, the credit boom and bust largely underpinned the buildup and subsequent reversal of external imbalances, which was also reflected in the observed leveraging and deleveraging behavior

The authors of this box are Christina Kolerus and Cyril Rebillard.

Figure 1.3.1. Euro Area: Current Account Balance and ULC-Based REER, 2000–18[1]



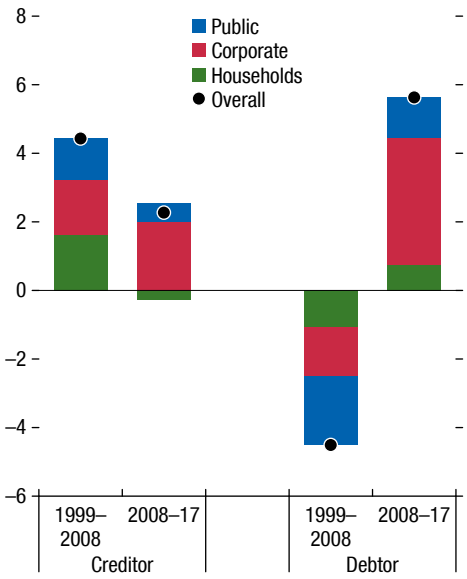
Sources: IMF, *World Economic Outlook*; and IMF staff estimations.
Note: REER = real effective exchange rate; ULC = unit labor cost.
[1]Creditor countries include Austria, Belgium, Finland, Germany, and the Netherlands. Debtors include Greece, France, Ireland, Italy, Portugal, and Spain.

Box 1.3 *(continued)*

of households and firms before and after the crisis. Corporate deleveraging was supported by a sharp contraction in investment, and a reduction in interest payments helped by accommodative monetary conditions. Meanwhile, fiscal consolidation since 2010 supported the increase in net public saving, although these efforts have waned somewhat in recent years.

- *In creditor countries*, net saving by firms increased even further in the postcrisis period, supported by declines in investment as well as lower interest and dividend payments, which more than offset somewhat higher wage compensation. Meanwhile, public saving continued to rise, driven by continued fiscal consolidation, while households offset only a small portion of the improved corporate and public balance sheets. Private credit, which contracted in the precrisis period, has recovered only mildly since the crisis, doing little to support household and corporate investment and aggregate demand in creditor countries.

Figure 1.3.2. Euro Area: Change in Current Account by Sector, 1999–2017[1]
(Percent of group GDP)



Sources: AMECO database; OECD National Accounts dataset; IMF, *World Economic Outlook*; and IMF staff calculations.
[1]GDP-weighted averages of each country group. Creditor (debtor) Euro area countries refer to their net foreign asset position in 2017. Creditor countries include Austria, Belgium, Finland, Germany, and the Netherlands. Debtors include Greece, France, Ireland, Italy, Portugal, and Spain.

Box 1.4. Emerging Market and Developing Economies' Growing Financial Integration: Trends in Balance Sheet and Currency Exposures

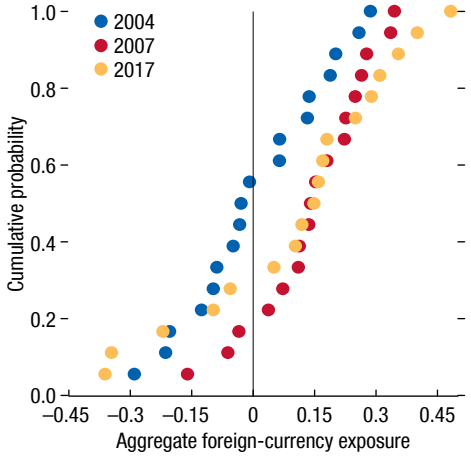
Background. Over the past two decades, emerging market and developing economies have become more financially integrated with the rest of the world. With a history of borrowing heavily in foreign currency (Eichengreen, Hausmann, and Panizza 2007), these trends have raised questions about emerging market and developing economies' vulnerability to external shocks, particularly those associated with sharp currency movements. To shed light on this issue, this box presents some stylized facts for a group of 18 large emerging market and developing economies (included in the *External Sector Report*) based on new estimates of international investment position currency composition that build on Lane and Shambaugh (2010a, 2010b) and Bénétrix, Lane, and Shambaugh (2015).

Evolution of foreign exchange exposures. Emerging market and developing economies' aggregate foreign currency exposure, defined as the net position in foreign currency (as a share of total assets and liabilities) has shifted significantly since 2004 against a backdrop of surging cross-border financial flows. Most emerging market and developing economies moved from being short on foreign currency (negative *x*-axis values in Figure 1.4.1) to being long, and significantly so, on foreign currency, as illustrated by a movement of the curve to the right, although much of this shift took place between 2004 and 2007. This pattern reflects a strong change in the currency composition of foreign liabilities away from foreign currency and toward local currency instruments (Figure 1.4.2)—both on account of greater reliance on equity financing and a shift in currency composition of debt instruments toward domestic currency—as well as a sustained accumulation of foreign currency assets.

Valuation effects. Stronger net foreign currency positions have helped mitigate risks associated with domestic currency depreciations, on average, with national balance sheets providing aggregate insurance (see Adler and Garcia-Macia 2018) as negative shocks associated with a weakening of domestic currencies now entail positive and economically meaningful valuation changes in the external balance sheet. For example, in 2004 a 10 percent depreciation led, all else equal, to a *median* valuation *loss* of 0.3 percent of GDP, but in 2017 this median effect was *positive* and equivalent to 1.8 percent of GDP (Figure 1.4.3). More generally, the proportion of the analyzed emerging market and developing economies with buffering valuation effects increased from 44 percent in 2004 to 72 percent in 2017.

The authors of this box are Deepali Gautam and Luciana Juvenal, in collaboration with Agustín Bénétrix (Trinity College, Dublin).

Figure 1.4.1. Selected EMDEs: Cumulative Distribution of Aggregate Foreign-Currency Exposure[1]

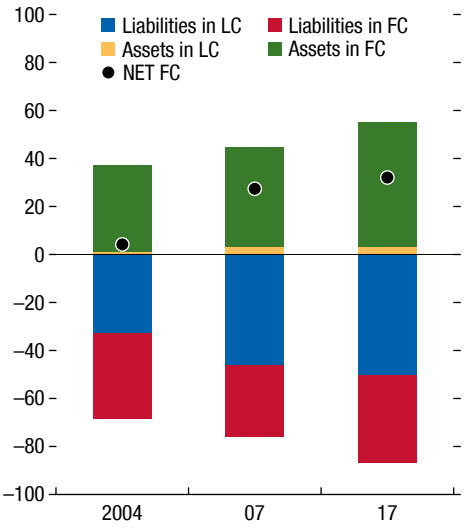


Sources: External Wealth of Nations (Lane and Milesi-Ferretti, 2007); the BIS banking and international debt issuance statistics; Arslanalp and Tsuda (2014); Coordinated Portfolio Investment Survey (CPIS); Coordinated Direct Investment Survey (CDIS); U.S. Portfolio Holdings of Foreign Securities (published by the US Treasury); World Bank International Debt Statistics, Country Authorities and IMF staff calculations.
Note: EMDEs = emerging markets and developing economies.
[1]Aggregate foreign-currency exposure is defined as net foreign assets denominated in foreign currency as a share of total assets and liabilities. It ranges from –1 (case of zero percent of foreign assets and 100 percent of foreign liabilities in foreign currency), to +1 (100 percent of foreign assets and 0 percent of foreign liabilities in foreign currency).

Box 1.4 *(continued)*

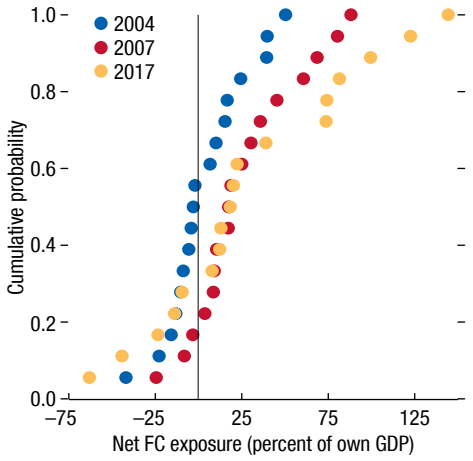
Figure 1.4.2. Selected EMDEs: Assets and Liabilities in Local and Foreign Currency[1]

(Percent of GDP)



Sources: External Wealth of Nations (Lane and Milesi-Ferretti, 2007); the BIS banking and international debt issuance statistics; Arslanalp and Tsuda (2014); CPIS; CDIS; U.S. Portfolio Holdings of Foreign Securities (published by the US Treasury); World Bank International Debt Statistics, Country Authorities and IMF staff calculations.
Note: EMDEs = emerging markets and developing economies; FC = foreign currency; LC = local currency. Net FC measures size of the external balance sheet scaled by GDP.
[1]Simple cross-country average are reported.

Figure 1.4.3. Selected EMDEs: Cumulative Distribution of Net FC Exposure[1]



Sources: External Wealth of Nations (Lane and Milesi-Ferretti, 2007); the BIS banking and international debt issuance statistics; Arslanalp and Tsuda (2014); CPIS; CDIS; U.S. Portfolio Holdings of Foreign Securities (published by the US Treasury); World Bank International Debt Statistics, Country Authorities and IMF staff calculations.
Note: EMDEs = emerging and developing economies; FC = foreign currency.
[1]Net foreign assets denominated in foreign currency as a share of GDP.

Risks from gross positions. The strengthening of net foreign currency positions may mask underlying vulnerabilities in cases where foreign currency liabilities as a share of GDP have grown, and foreign currency assets and liabilities pertain to different sectors or economic agents. Some economies now have substantial *gross* foreign currency liabilities making them vulnerable to external financing risks (see Box 1.5).

Box 1.5. International Investment Position and External Financing Risks

Financial integration in emerging market and developing economies has risen substantially over the past two decades, delivering benefits but also posing new challenges. External balance sheets (sum of assets and liabilities) have increased by an average of 85 percentage points of GDP since 1996, yet this trend has varied substantially across countries and has tended to be the strongest in emerging European and Latin American economies. Although financial integration can improve risk sharing and the ability to absorb shocks, it can also pose risks, depending on the size and composition of liabilities, currency mismatches, and the depth of domestic financial markets.

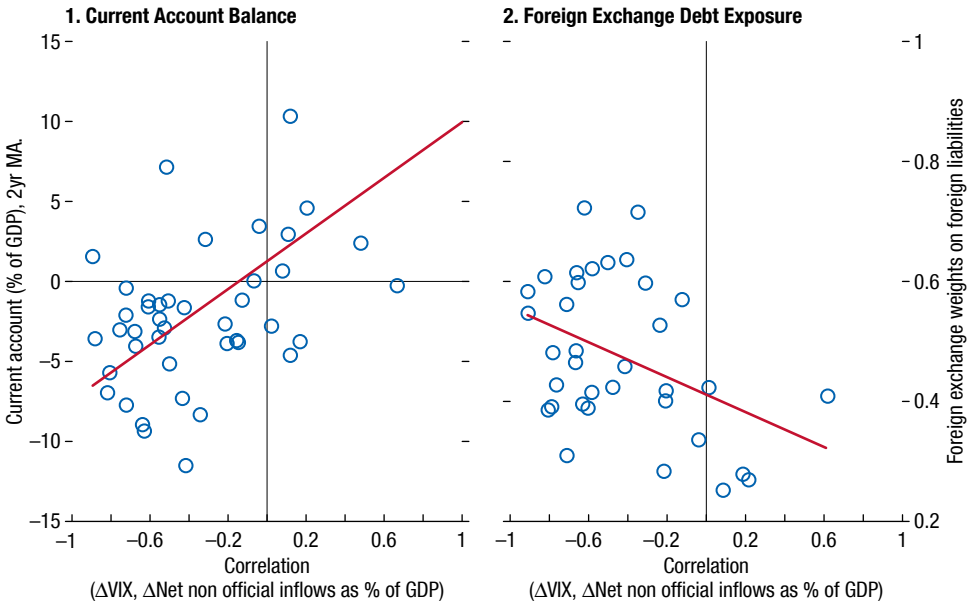
With greater financial integration, emerging market and developing economies have become more susceptible to shifts in global sentiment, although the impact depends on other external fundamentals. Specifically, across emerging market and developing economies, net private capital inflows are more sensitive to spikes in global risk aversion (*x*-axis) in countries with greater current account deficits (Figure 1.5.1, panel 1), higher levels of foreign exchange debt exposure (Figure 1.5.1, panel 2), and higher levels of net external debt (not shown). The sensitivity of capital flows to the Chicago Board Options Exchange Volatility Index appears to have grown with financial integration.

Guarding against a sudden stop or external crisis requires carefully monitoring different aspects of flow and stock imbalances. Findings based on a probit model (estimated using data for 70 advanced and emerging market economies during 1991–2016) to study the relationship between external balance sheets and episodes of sudden stops with large output declines and external crises[1] suggest that (1) interna-

The authors of this box are Swarnali Ahmed Hannan and Zijiao Wang.

[1]Sudden stops are episodes during which net private capital inflows are either (1) 1½ standard deviations below their mean and the annual decline is ¾ standard deviation from the previous year, or (2) have declined by at least 3 percentage points of GDP relative to the previous year and 2 percentage points from two years earlier. A large output decline is an episode during which real GDP growth, relative to the previous five-year average, ranks in the bottom 5th percentile of the distribution (across time and across countries). An external crisis is an episode of private or public external debt default or restructuring or an IMF-supported program. Regression also includes standard controls used in the literature (see Catão and Milesi-Ferretti 2014).

Figure 1.5.1. Selected Emerging and Developing Economies: Sensitivity of Private Flows to Global Risk Aversions vs. Flow and Stock



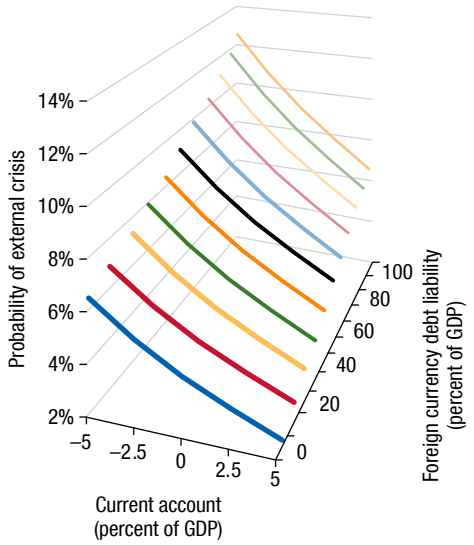
Sources: Bank for International Settlements; IMF's Financial Flows Analytics; Haver Analytics; and IMF staff calculations.

Box 1.5 *(continued)*

tional investment position size and currency composition matter—higher levels of gross external debt increase the likelihood of external crises, and higher levels of foreign exchange external debt increase the chances of sudden stops; (2) higher levels of foreign reserve assets lower the likelihood of external crises, although with diminishing returns; and (3) larger current account deficits increase the likelihood of external crises, while overvalued currencies increase the likelihood of sudden stops. Finally, all else equal (for example, income per capita, which proxies institutions), financial deepening reduces the likelihood of both sudden stops and external crises, likely reflecting the ability to hedge against external risks.

The combination of large current account deficits and high levels of foreign currency debt can amplify such risks (Figure 1.5.2). For example, although the probability of an external crisis for a country with a median level of foreign exchange debt (42 percent of GDP) increases by about 3½ percentage points when the current account moves from a surplus to a deficit of 3 percent of GDP, this probability increases by 4½ percentage points when foreign exchange debt is in the top 90 percentile (111 percent of GDP). While these exercises are illustrative and carry no presumption that countries should achieve higher current account surpluses (if not warranted by fundamentals), they do show that, if left unchecked, external flow and stock vulnerabilities can greatly amplify external financing risks.

Figure 1.5.2. Model-Predicted Probability Margins[1]



Sources: Lane and Milesi-Ferretti (2007); Asonuma and Trebesch (2016); Paris Club; Bénétrix, Lane, and Shambaugh (2015); and IMF staff calculations.
[1]The vertical axis shows external crisis probability conditional on current account and foreign currency debt, with other covariates constant.

Box 1.6. Nonregression Approaches for Assessing External Balances of Large Exporters of Exhaustible Resources

Exhaustible resources can generate potentially very large and temporary income streams. Given the exhaustible nature of these resources, countries may benefit from smoothing their domestic absorption. Reflecting this consideration, the External Balance Assessment (EBA) and EBA-Lite models include—for oil and gas exporters—a measure of oil and gas exports' temporariness, which is proportional to the stock of proven reserves. In other words, countries with large resource wealth are expected to save a higher portion of current income when resources are more temporary.

Nonregression approaches can usefully complement estimates from regression models. These nonregression approaches have recently been applied to various countries (such as Saudi Arabia and several EBA-Lite countries). They feature certain advantages, such as allowing for linkages between resource temporariness and fiscal policy and modeling the interaction between different parts of countries' balance sheets, such as below-the-ground wealth and financial asset positions. Because these approaches do not explicitly account for various other policy and nonpolicy determinants included in EBA and EBA-Lite regressions, they can only complement—not substitute for—the information provided by regression models.

Consumption allocation rules that distribute resource wealth across periods can be used to derive current account and fiscal policy gaps. Reflecting the high incidence of exporters of exhaustible resources in its sample of countries, the revised EBA-Lite methodology incorporates two models to capture the aforementioned considerations (IMF 2019d). In the consumption allocation rules framework (Bems and de Carvalho Filho 2009), countries are assumed to consume an annuity out of their resource wealth, defined as the sum of below-the-ground wealth (the present value of exports of exhaustible commodities) plus above-ground wealth (net foreign assets). This annuity yields a norm for consumption from which a saving norm can be readily derived. An extension consists in deriving fiscal saving norms by defining an annuity for fiscal expenditures that draws from the government's resource wealth, defined as the sum of the present value of resource-related revenues plus net government assets.

Models that account for investment needs can lead to lower current account norms in resource-rich developing economies. In lower-income countries where capital is scarce and investment needs high, it might be desirable to allocate part of the resource wealth to finance investment. The consumption allocation rules described above do not take these needs explicitly into account and may therefore overstate saving-investment norms. Araujo and others (2016) propose a small open economy model that explicitly incorporates the role of investment. Incorporating investment alongside capital scarcity and credit constraints naturally leads to lower current account norms. Current account gaps derived through this approach, however, depend on the calibration of inefficiencies in investment, which can be large in many resource-rich developing economies (Pritchett 2000; IMF 2012). Larger inefficiencies in investment will lead to lower levels of optimal investment, and therefore to higher current account norms.

The authors of this box are Diego Cerdeiro and Mitali Das.

Box 1.7. What is Driving the Rise in Corporate Saving in Advanced Economies?

Although net corporate saving—the difference between corporate saving and investment—has risen across most advanced economies since the mid-1990s, the increase has been especially pronounced in a subset of advanced economies with large and persistent surpluses (for example, Austria, Denmark, Germany, Japan, Korea, Netherlands). In these surplus advanced economies, the level of public net saving has also been higher and households' offsetting role has been smaller (Figure 1.7.1), the latter suggesting that there may be impediments for households to offset corporate behavior (or "pierce the corporate veil").

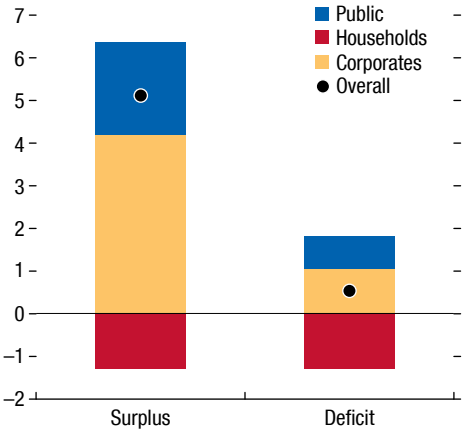
These differences in net corporate saving largely reflect differences in labor compensation, investment, and dividend payments (Figure 1.7.2). Interest payments and taxation have played a more limited *direct* role in explaining the differences in corporate behavior among advanced economies (see also Dao and Maggi 2018).

- *Labor compensation:* Although labor shares have fallen across most advanced economies, these declines have been largest in advanced economies with faster-rising corporate saving (see also Chen, Karabarbounis, and Neiman 2017). That said, the extent to which the decline in labor shares reflects technological progress (see Dao and others 2017) or labor market institutions (Redeker 2019 argues that reduced union density and worker bargaining power increase net corporate saving) is an open question.
- *Investment:* Declines in corporate investment have been strongest in economies with fast-rising net corporate saving, although it remains unclear the extent to which these trends reflect weaker growth prospects (Gruber and Kamin 2016) or more binding investment barriers (2018 *External Sector Report*) in those economies.
- *Dividends:* The rise in net corporate saving has been strongest in countries with more pronounced shifts away from dividend payouts and toward retained earnings and share buybacks (Gutiérrez and Philippon 2016). These trends may have contributed to current account dynamics, as risk-averse agents tend to choose to consume more out of actual income (dividends) than out of latent income in the form of retained earnings (see Baker, Nagel, and Wurgler 2006 on US data and Di Maggio, Kermani, and Majlesi 2018 on Swedish data).

The strong correlation between net corporate saving and net aggregate saving suggests that distributional and structural issues may be playing a role.

- *Wealth inequality:* Aspects related to the distribution of wealth and firm ownership may explain the strong link between corporate saving and the current account (Figure 1.7.3). Specifically, if the rise in corporate profits and saving accrues mainly to wealthy households with a low propensity to consume, aggregate private saving may comove strongly with corporate saving (see IMF 2019c). In recent cross-country empirical work, Behringer and van Treeck (2018) show that countries with declining labor shares have larger current account balances, as a shift in income from workers

Figure 1.7.1. Selected Advanced Economies: Change in Current Accounts by Sector, 1995–2017[1]
(Percent of group GDP)

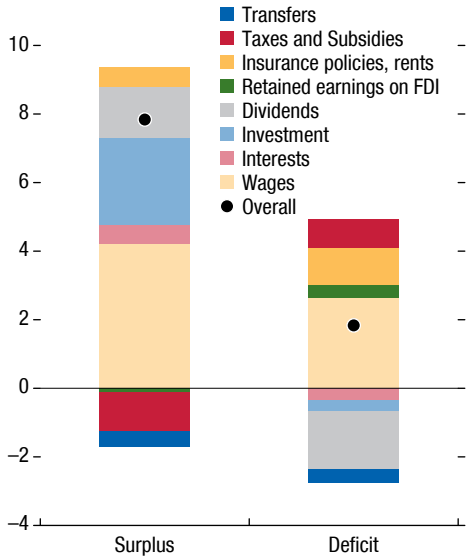


Sources: IMF, *World Economic Outlook*; AMECO database; OECD National Accounts dataset; and IMF staff calculations.
[1]Surplus (deficit) advanced economies are those that ran surpluses (deficits) in 2008. Surplus advanced economies include Austria, Denmark, Finland, Germany, Japan, Korea, Luxembourg, Netherlands, Norway, and Sweden. Deficit advanced economies include Belgium, Cyprus, Czech Republic, Estonia, France, Greece, Ireland, Italy, Latvia, Lithuania, Portugal, Slovakia, Slovenia, Spain, the United Kingdom, and the United States.

The author of this box is Cyril Rebillard, with inputs from Callum Jones, and research assistance from Deepali Gautam.

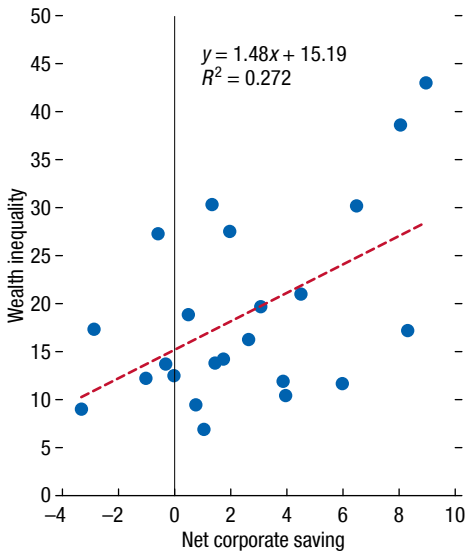
Box 1.7 *(continued)*

Figure 1.7.2. Selected Advanced Economies: Change in Net Corporate Saving, 1995–2017
(Percent of group corporate value-added)



Sources: IMF, *World Economic Outlook*; AMECO database; Chen and others (2017) online database; OECD National Accounts dataset; and IMF staff calculations.
[1]Surplus (deficit) advanced economies are those that ran surpluses (deficits) in 2008. Surplus advanced economies include Austria, Denmark, Finland, Germany, Japan, Korea, Luxembourg, Netherlands, Norway, and Sweden. Deficit advanced economies include Belgium, Cyprus, Czech Republic, Estonia, France, Greece, Ireland, Italy, Latvia, Lithuania, Portugal, Slovakia, Slovenia, Spain, the United Kingdom, and the United States.

Figure 1.7.3. Selected Advanced Economies: Wealth Inequality[1] vs. Net Corporate Saving, 2012–16
(Percent of GDP)



Source: OECD.
[1]Wealth Inequality is the share of individuals with equivalized net wealth <50% of income poverty line.

(with a high marginal propensity to consume) to shareholders (with a low marginal propensity to consume) can depress aggregate consumption and imports.

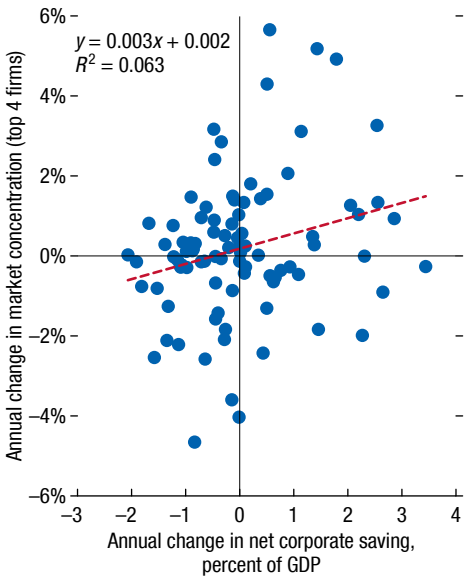
- *Corporate market power:* The rise in corporate saving across Group of Seven countries has coincided with an increase in the average concentration ratio of firms across broadly defined industries (Figure 1.7.4). While rising corporate market power seems, so far, more reflective of a "winner-takes-most" pattern by more productive and innovative firms (Chapter 2 of the April 2019 *World Economic Outlook*), the role of procompetition policies in reducing corporate net saving and current account imbalances deserves further investigation. For example, Dao and others (2019) argue that trends that make borrowing constraints less binding benefit large firms disproportionately, leading to both rising corporate saving and concentration.

Potential policy response. Understanding the extent to which the rise in corporate saving reflects policy distortions remains a work in progress and requires tailored analysis at the country level, including of distributional issues. That said, some additional policy aspects deserve consideration:

- *Product markets.* Countries could foster domestic business investment by relaxing certain product market regulations, including for example by reducing burdens in the license and permit system and/or procedures to start a business (see 2018 *External Sector Report*).
- *Taxation.* Consideration could be given to strengthening property and inheritance taxation, especially where increased wealth concentration is leading to excess aggregate saving (see IMF 2019c). A more

Box 1.7 *(continued)*

Figure 1.7.4. Selected Advanced Economies: Net Corporate Saving vs. Market Concentration, 1998–2014[1]



Sources: Thomson Reuters World Scope; OCED National Accounts Dataset; and IMF staff calculations.
[1]Includes Germany, Japan, Canada, the UK, and US.

equal tax treatment of dividends and retained earnings could in certain circumstances discourage the retention of profits and foster consumption, although this much depends on the extent to which households consume more out of actual than latent income. Finally, it is worth clarifying that while changes in corporate taxation can affect the *composition* of the current account and the relative importance of net exports and income (Guvenen and others 2018), they tend not to impact (all else equal) the overall current account level.

Table 1.2. Selected Economies: Net International Investment Position, 2015–18[1]

	In Billions of USD				In Percent of World GDP				In Percent of GDP			
	2015	2016	2017	2018	2015	2016	2017	2018	2015	2016	2017	2018
Top 15 Creditor Economies in 2018												
Japan	2,684	2,902	2,915	3,034	3.6	3.8	3.6	3.6	61.1	58.9	60.0	61.0
Germany	1,537	1,693	2,110	2,424	2.1	2.2	2.6	2.9	45.4	48.4	57.0	60.6
China	1,673	1,950	2,101	2,130	2.2	2.6	2.6	2.5	14.9	17.4	17.4	15.9
Hong Kong SAR	1,003	1,154	1,421	1,295	1.3	1.5	1.8	1.7	324.2	359.2	417.0	356.7
Taiwan Province of China	1,081	1,107	1,181	1,260	1.4	1.5	1.5	1.5	205.6	208.3	205.4	213.9
Switzerland	596	728	801	902	0.8	1.0	1.0	1.1	87.7	108.7	118.0	128.2
Norway	706	740	873	819	0.9	1.0	1.1	1.0	182.5	199.3	218.6	188.4
Singapore	647	726	803	812	0.9	1.0	1.0	1.0	210.1	228.4	237.4	223.0
Saudi Arabia	690	597	624	669	0.9	0.8	0.8	0.8	105.4	92.6	90.6	85.5
Netherlands	369	446	553	609	0.5	0.6	0.7	0.7	48.2	56.9	66.4	66.7
Korea	204	281	262	413	0.3	0.4	0.3	0.5	13.9	18.7	16.1	24.0
Canada	280	189	340	395	0.4	0.2	0.4	0.5	18.0	12.3	20.6	23.1
Russia	332	211	273	371	0.4	0.3	0.3	0.4	24.3	16.5	17.3	22.4
Belgium	205	256	272	226	0.3	0.3	0.3	0.3	45.0	54.4	54.9	42.4
Kuwait	183	178	185	201	0.2	0.2	0.2	0.2	159.4	162.4	154.5	143.3
Top 15 Debtor Economies in 2018												
United States	–7,462	–8,182	–7,725	–9,717	–10.0	–10.8	–9.6	–11.4	–41.0	–43.7	–39.6	–47.4
Spain	–1,052	–1,006	–1,153	–1,061	–1.4	–1.3	–1.4	–1.3	–87.7	–81.3	–87.5	–74.3
Australia	–669	–711	–740	–717	–0.9	–0.9	–0.9	–0.8	–54.2	–56.0	–53.4	–50.5
Brazil	–375	–567	–642	–600	–0.5	–0.7	–0.8	–0.7	–20.8	–31.6	–31.3	–32.1
Mexico	–601	–532	–559	–567	–0.8	–0.7	–0.7	–0.7	–51.3	–49.3	–48.3	–46.4
Ireland	–566	–491	–519	–516	–0.8	–0.6	–0.6	–0.6	–194.7	–162.5	–156.5	–137.1
India	–364	–371	–438	–431	–0.5	–0.5	–0.5	–0.5	–17.3	–16.2	–16.5	–15.9
Turkey	–385	–370	–458	–366	–0.5	–0.5	–0.6	–0.4	–44.8	–42.8	–53.8	–47.8
Poland	–287	–274	–348	–345	–0.4	–0.4	–0.4	–0.4	–60.0	–58.1	–66.2	–58.8
Indonesia	–377	–334	–323	–318	–0.5	–0.4	–0.4	–0.4	–43.8	–35.8	–31.8	–30.5
France	–309	–350	–546	–317	–0.4	–0.5	–0.7	–0.4	–12.7	–14.2	–21.1	–11.4
Greece	–265	–261	–306	–298	–0.4	–0.3	–0.4	–0.4	–134.6	–133.8	–150.6	–136.4
Portugal	–226	–218	–230	–240	–0.3	–0.3	–0.3	–0.3	–113.2	–105.5	–104.9	–100.8
United Kingdom	–582	–64	–213	–191	–0.8	–0.1	–0.3	–0.2	–20.1	–2.4	–8.1	–6.7
Colombia	–120	–135	–148	–154	–0.2	–0.2	–0.2	–0.2	–40.7	–47.8	–47.5	–46.2
Memorandum item:												
Euro Area	–1,327	–832	–940	–520	–1.8	–1.1	–1.2	–0.6	–11.3	–6.9	–7.4	–3.8
Statistical discrepancy	–2,766	–1,811	–793	–882	–3.7	–2.4	–1.0	–1.0	. . .	. . .	. . .	. . .
Overall Creditors	12,775	13,825	15,435	16,301	17.1	18.3	19.3	19.2	. . .	. . .	. . .	. . .
Of which: Advanced Economies	9,518	10,555	11,949	12,618	12.8	13.9	14.9	14.9	. . .	. . .	. . .	. . .
Overall Debtors	–15,541	–15,635	–16,228	–17,183	–20.8	–20.7	–20.3	–20.3	. . .	. . .	. . .	. . .
Of which: Advanced Economies	–11,810	–11,766	–11,884	–12,832	–15.8	–15.5	–14.8	–15.1	. . .	. . .	. . .	. . .

Source: Bureau of Economic Analysis; IMF, *World Economic Outlook*; and IMF staff calculations.
Note: 2018 US net international investment position is sourced from US Bureau of Economic Analysis.
[1]Sorted by size (in US dollars) of creditor and debtor positions in 2018. The net international investment position data from the WEO database is calculated using assets and liabilities reported by country teams. Reserve assets include monetary gold.

Table 1.3. Selected Economies: Foreign Reserves, 2016–18[1]

	Gross Official Reserves[2] (in Billions of USD)			Gross Official Reserves[2] (Percent of GDP)			IMF Staff Estimated Change in Official Reserves[3] (Percent of GDP)			Gross Official Reserves in Percent of ARA metric (2018)[4]	FXI Data Publication
	2016	2017	2018	2016	2017	2018	2016	2017	2018		
Emerging Market Economies											
China	3,098	3,236	3,168	27.6	26.8	23.6	–4.4	1.1	0.1	143.0	No
Saudi Arabia	547	509	495	84.9	74.0	63.2	–12.4	–5.8	0.1	414.0	No
Russia	377	433	469	29.4	27.4	28.3	0.7	1.7	2.0	275.2	Yes/Daily
India	362	413	399	15.8	15.6	14.7	0.9	2.6	–1.9	187.0	Yes/Monthly
Brazil	365	374	375	20.3	18.2	20.1	5.1	0.3	–2.2	163.1	Yes/Daily
Thailand	172	203	206	41.6	44.5	40.7	6.5	8.1	0.8	206.0	No
Mexico	178	175	176	16.5	15.2	14.4	0.0	–0.4	0.0	116.8	Yes/Monthly
Indonesia	116	130	121	12.5	12.8	11.8	1.4	1.7	–1.4	118.0	No
Poland	114	113	117	24.2	21.5	20.0	4.8	–1.5	1.1	114.7	No
Malaysia	94	102	101	31.4	32.1	28.3	–0.3	0.7	–2.5	107.7	No
Turkey	106	108	93	12.3	12.6	12.1	0.1	–1.1	–1.4	75.6	Yes/Monthly
Argentina	38	55	66	6.9	8.6	12.8	5.4	2.3	–3.4	95.2	Yes/Daily
South Africa	47	51	52	15.9	14.5	14.0	1.0	0.4	–0.1	62.7	No
Advanced Economies											
Japan	1,217	1,264	1,270	24.7	26.0	25.6	0.0	0.3	0.5	. . .	Yes/Monthly
Euro Area	742	803	823	6.2	6.3	6.0	0.3	0.1	0.3	. . .	Yes/Weekly
Switzerland	679	811	788	101.3	119.4	114.0	11.5	9.2	–1.9	. . .	Yes/Annual
United States	406	451	450	2.2	2.3	2.2	0.0	0.0	0.1	. . .	Yes/Quarterly
Hong Kong SAR	386	431	425	120.4	126.3	117.0	–2.2	9.3	0.6	. . .	Yes/Daily
Korea	370	389	403	24.7	23.9	23.4	–0.4	0.7	0.1	106.2	Yes/Semiannual[6]
Singapore	251	285	288	78.9	84.2	79.0	1.9	14.7	5.1	. . .	Yes/Semiannual
United Kingdom	135	151	173	5.1	5.7	6.1	0.4	0.4	0.9	. . .	Yes/Monthly
Canada	83	87	84	5.4	5.3	4.9	0.4	0.0	–0.1	. . .	Yes/Monthly
Sweden	59	62	61	11.6	11.6	11.0	0.8	0.0	–0.4	. . .	No
Australia	54	67	54	4.2	4.8	3.8	0.0	–0.1	0.1	. . .	Yes/Daily
Memorandum item:											
Aggregate[5]	9,996	10,703	10,655	13.2	13.3	12.6	–0.1	0.6	0.0	. . .	. . .
EMDEs	5,615	5,902	5,837	7.4	7.4	6.9	–0.3	0.4	–0.1	. . .	. . .
AEs	4,381	4,801	4,818	5.8	6.0	5.7	0.2	0.2	0.1	. . .	. . .

Sources: IMF, Assessing Reserve Adequacy dataset; IMF, International Reserves and Foreign Currency Liquidity; IMF, *International Financial Statistics*; IMF, *World Economic Outlook*; and IMF staff calculations.

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

[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 EBA model estimates. Estimated change in official reserves is equivalent to the change in reserve assets in the financial account series from 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 and minus net credit and loans from the IMF.

[4]ARA metric reflects potential balance-of-payment 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 and India. Additional adjusted figures are available in the Individual Country Pages in Chapter 3.

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

[6]Korea will start publishing FXI data on a quarterly basis in the third quarter of 2019.

Table 1.4. External Sector Report Economies: Summary of External Assessment Indicators, 2018

Economy	Overall Assessment	Current Account (% GDP)		Staff-Assessed CA Gap (% GDP)		Staff-Assessed REER Gap (Percent)		Int'l Investment Position (% GDP)[1]			CA NFA Stabilizing (% GDP)[2]	CA/REER Elasticity[3]	SE of CA Norm (%)[4]
		Actual	Cycl Adj.	Midpoint	Range	Midpoint	Range	Net	Liabilities	Assets			
Argentina	Weaker	–5.2	–6.8	–3.0	+/–1	–12.5	+/–2.5	12	58	70	0.1	0.14	0.9
Australia	Broadly in line	–2.0	–2.4	–0.9	+/–0.5	6.0	+/–6	–51	182	131	–2.7	0.20	1.0
Belgium	Weaker	–1.3	–1.3	–3.7	+/–1	8.5	+/–2.5	42	377	419	2.0	0.42	0.6
Brazil	Broadly in line	–0.8	–2.1	0.3	+/–0.5	1.5	+/–4.5	–32	80	48	–1.4	0.11	1.1
Canada	Weaker	–2.6	–3.0	–2.1	+/–1.5	7.5	+/–5.5	23	212	235	0.9	0.27	1.0
China	Broadly in line	0.4	0.3	0.8	+/–1.5	–1.5	+/–10	16	39	55	1.5	0.23	1.5
Euro Area[5]	Moderately stronger	2.9	2.9	1.3	+/–0.8	–3.0	+/–2	–4	232	228	–0.4	0.40	0.8
France	Broadly in line	–0.3	–0.3	–0.7	+/–0.5	2.5	+/–1.5	–11	301	290	–0.9	0.27	0.5
Germany	Substantially stronger	7.3	7.6	4.6	+/–1	–13.0	+/–5	61	192	253	1.9	0.38	0.9
Hong Kong SAR	Broadly in line	4.3	4.5	0.0	+/–1.5	0.0	+/–5	357	1154	1510	. . .	. . .	. . .
India	Broadly in line	–2.5	–2.5	0.0	+/–1	0.0	+/–6	–16	38	22	–2.8	0.18	1.4
Indonesia	Moderately weaker	–3.0	–3.3	–1.5	+/–1.5	–4.0	+/–5	–30	64	33	–2.4	0.18	1.4
Italy	Broadly in line	2.6	2.2	–0.1	+/–1	5.0	+/–5	–4	157	152	–0.3	0.26	0.8
Japan	Broadly in line	3.5	3.3	0.2	+/–1.2	–1.5	+/–9.5	61	121	182	2.0	0.13	1.2
Korea	Moderately stronger	4.4	4.2	1.4	+/–1	–4.0	+/–3	24	64	88	0.8	0.36	0.8
Malaysia	Stronger	2.1	2.3	2.4	+/–1	–5.0	+/–2	–5	119	114	–0.2	0.46	0.7
Mexico	Broadly in line	–1.8	–1.6	1.0	+/–1	–6.0	+/–8	–46	93	47	–2.5	0.16	1.2
Netherlands	Substantially stronger	10.8	11.0	6.2	+/–2	–8.6	+/–2.8	67	995	1062	2.2	0.72	0.9
Poland	Broadly in line	–0.7	–0.6	0.9	+/–1	–2.5	+/–2.5	–59	107	48	–3.1	0.44	0.6
Russia	Moderately stronger	6.9	6.6	1.6	+/–1	–6.0	+/–4	22	58	81	0.6	0.27	1.6
Saudi Arabia	Moderately weaker	9.2	8.9	–1.7	+/–1.7	7.5	+/–2.5	86	. . .	. . .	. . .	. . .	. . .
Singapore	Substantially stronger	17.9	18.4	4.1	+/–3	–8.2	+/–6	223	830	1053	. . .	. . .	. . .
South Africa	Moderately weaker	–3.5	–3.9	–1.8	+/–1	7.0	+/–5	10	122	132	–1.4	0.27	1.2
Spain	Moderately weaker	0.9	0.9	–1.1	+/–1	5.0	+/–4	–74	231	156	–1.8	0.22	0.7
Sweden	Moderately stronger	2.0	2.3	1.3	+/–1.5	–10.0	+/–5	7	243	250	0.2	0.35	1.1
Switzerland	Broadly in line	10.2	10.4	0.9	+/–2	–2.8	+/–3.75	128	565	694	10.9	0.52	1.3
Thailand	Substantially stronger	7.0	7.0	5.4	+/–1.6	–8.5	+/–2.5	0	97	96	–0.6	0.64	1.6
Turkey	Broadly in line	–3.5	–2.5	–0.2	+/–1	–15.0	+/–5	–48	78	30	–2.8	0.22	1.9
United Kingdom	Weaker	–3.9	–3.9	–2.9	+/–1.9	7.5	+/–7.5	–7	528	522	–0.3	0.24	0.7
United States	Moderately weaker	–2.3	–2.1	–1.4	+/–0.5	9.0	+/–3	–47	171	124	–0.9	0.12	1.0

Sources: US, Bureau of Economic Analysis; IMF, *World Economic Outlook*; IMF, *International Financial Statistics*; and IMF Staff assessments.
Note: CA = current account; NFA = net foreign assets; REER = real effective exchange rate; NIIP = net international investment position. 2018 US net international investment position is sourced from US Bureau of Economic Analysis.
[1]The NIIP estimates come from World Economic Outlook. Country team estimates (reported in External Sector Report pages) could differ.
[2]The current account balance that would stabilize the ratio of NFA to GDP at the benchmark NFA/GDP level.
[3]Assumed elasticity linking a change in the current account (as percent of GDP) to a change in the REER (percent).
[4]The standard error of the 2018 estimated current account norms.
[5]The staff-assessed euro area CA and REER gaps are calculated as the GDP-weighted averages of staff-assessed CA and REER gaps for the 11 largest euro area economies.

Table 1.5. External Sector Report Economies: Summary of Staff-Assessed Current Account Gaps and Staff Adjustments, 2018

(Percent of GDP)

Economy	Assessment 2018	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]	Staff Adjustments[3] Other [G]	Staff Adjustments[3] Norm [H]	Comments
Argentina	Weaker	–5.2	–6.8	–2.5	–4.3	–3.0	1.3	1.3	. . .	Impact of the draught on agricultural exports
Australia	Broadly in line	–2.0	–2.4	–0.4	–2.0	–0.9	1.1	0.1	–1.0	Impact of adverse weather conditions on exports; large investment needs
Belgium	Weaker	–1.3	–1.3	2.4	–3.7	–3.7	0.0	. . .	. . .	. . .
Brazil	Broadly in line	–0.8	–2.1	–2.9	0.8	0.3	–0.5	. . .	0.5	NIIP/financing risks considerations
Canada	Weaker	–2.6	–3.0	2.0	–5.0	–2.1	2.9	2.6	–0.3	Measurement biases and terms-of-trade; demographics
China	Broadly in line	0.4	0.3	–0.4	0.8	0.8	0.0	. . .	. . .	. . .
Euro Area[4]	Moderately stronger	2.9	2.9	1.1	1.8	1.3	–0.5	–0.1	0.4	Country-specific adjustments
France	Broadly in line	–0.3	–0.3	0.5	–0.7	–0.7	0.0	. . .	. . .	. . .
Germany	Substantially stronger	7.3	7.6	2.5	5.1	4.6	–0.5	. . .	0.5	Demographics (uncertainty related to large/sudden immigration)
India	Broadly in line	–2.5	–2.5	–3.4	0.9	0.0	–0.9	. . .	0.9	NIIP/financing risks considerations
Indonesia	Moderately weaker	–3.0	–3.3	–0.9	–2.4	–1.5	0.9	. . .	–0.9	Demographics (high mortality risk)
Italy	Broadly in line	2.6	2.2	2.3	–0.1	–0.1	0.0	. . .	. . .	. . .
Japan	Broadly in line	3.5	3.3	3.1	0.2	0.2	0.0	. . .	. . .	. . .
Korea	Moderately stronger	4.4	4.2	2.7	1.4	1.4	0.0	. . .	. . .	. . .
Malaysia	Stronger	2.1	2.3	–0.2	2.4	2.4	0.0	. . .	. . .	. . .
Mexico	Broadly in line	–1.8	–1.6	–2.6	1.0	1.0	0.0	. . .	. . .	. . .
Netherlands	Substantially stronger	10.8	11.0	3.3	7.7	6.2	–1.5	–1.5	. . .	Measurement biases (new)
Poland	Broadly in line	–0.7	–0.6	–2.3	1.7	0.9	–0.8	. . .	0.8	NIIP/financing risks considerations
Russia	Moderately stronger	6.9	6.6	3.1	3.5	1.6	–1.9	–1.9	. . .	Adjustment to terms-of-trade to better capture full impact of oil price increase
South Africa	Moderately weaker	–3.5	–3.9	0.5	–4.4	–1.8	2.6	1.5	–1.1	Measurement biases; demographics (high mortality risk)
Spain	Moderately weaker	0.9	0.9	1.1	–0.2	–1.1	–0.9	. . .	0.9	NIIP/financing risks considerations
Sweden	Moderately stronger	2.0	2.3	1.0	1.3	1.3	0.0	. . .	. . .	. . .
Switzerland	Broadly in line	10.2	10.4	5.9	4.5	0.9	–3.5	–3.5	. . .	Measurement biases
Thailand	Substantially stronger	7.0	7.0	0.1	6.9	5.4	–1.5	–1.5	. . .	Adjustment to terms-of-trade weights; political uncertainty
Turkey	Broadly in line	–3.5	–2.5	–1.6	–0.9	–0.2	0.7	0.7	. . .	Temporary surge in gold imports
United Kingdom	Weaker	–3.9	–3.9	0.5	–4.4	–2.9	1.5	1.5	. . .	Measurement biases
United States	Moderately weaker	–2.3	–2.1	–0.9	–1.2	–1.4	–0.2	–0.2	. . .	Adjustment to terms-of-trade weights to capture changes in US oil production
Hong Kong SAR	Broadly in line	4.3	4.5	. . .	. . .	0.0	. . .	. . .	. . .	Measurement biases
Singapore	Substantially stronger	17.9	18.4	. . .	. . .	4.1	. . .	. . .	. . .	. . .
Saudi Arabia	Moderately weaker	9.2	8.9	. . .	. . .	–1.7	. . .	. . .	. . .	. . .
Discrepancy[5]	. . .	. . .	. . .	. . .	. . .	. . .	**–0.05**	. . .	. . .	. . .	. . .

Source: IMF staff estimates.

Note: EBA = external balance assessment; CA = current account.

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

[2]Refers to the mid-point of the staff-assessed CA Gap.

[3]Total staff adjustments include rounding in some cases. Breakdown between norm and other factors (which affect the underlying CA) are 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 0.6 percent of GDP in 2018). 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.

Table 1.6. Selected External Sector Report Economies: EBA Current Account Regression Policy Gap Contributions, 2018

(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	–4.3	–0.8	–1.1	–3.5	–0.1	–0.8	0.3	–3.7	–1.2	–0.1	0.0	–0.4	6.5	6.5	–0.4	–0.3	–0.1	2.9	0.0	0.0	0.0	0.8	–3.4	0.0	–0.1	0.0
Australia	–2.0	1.4	1.0	–3.4	0.5	–0.2	0.3	–0.6	0.0	0.2	0.3	–0.4	6.3	6.9	0.8	1.0	–0.1	–9.3	0.0	0.0	0.0	0.8	0.1	0.0	–0.1	0.0
Belgium	–3.7	–0.5	–0.8	–3.2	0.4	–0.3	0.3	–0.9	0.0	–0.4	–0.3	–0.4	7.9	7.2	–0.4	–0.3	–0.1	2.5	0.0	0.0	0.0	0.8	–0.1	0.0	–0.1	0.0
Brazil	0.8	0.3	–0.1	0.5	0.1	–0.6	0.3	–6.2	–4.5	0.1	0.2	–0.4	3.9	4.4	0.4	0.6	–0.1	–5.4	0.0	–0.4	–0.4	0.8	–2.2	0.0	0.0	0.1
Canada	–5.0	0.0	–0.4	–5.0	0.8	0.2	0.3	–0.2	–0.7	–0.2	–0.1	–0.4	7.3	7.0	–0.5	–0.4	–0.1	4.0	0.0	0.0	0.0	0.8	–0.1	0.0	–0.1	0.0
China	0.8	–0.3	–0.7	1.1	–0.4	–1.1	0.3	–4.8	–1.5	0.2	0.2	–0.4	3.4	4.0	–0.5	–0.4	–0.1	3.6	0.0	0.1	0.1	0.8	0.1	0.0	0.4	0.5
Euro Area[4]	1.8	0.5	0.2	1.3	0.5	–0.2	0.3	–0.7	–0.2	–0.1	–0.1	–0.4	8.2	8.0	0.3	0.4	–0.1	–7.1	–3.1	0.0	0.0	0.8	0.2	0.0	–0.1	0.0
France	–0.7	–1.0	–1.4	0.3	–0.1	–0.7	0.3	–2.7	–0.4	–0.5	–0.4	–0.4	9.5	8.5	–0.4	–0.2	–0.1	2.1	0.0	0.0	0.0	0.8	0.4	0.0	–0.1	0.0
Germany	5.1	1.1	0.7	4.0	1.2	0.5	0.3	1.1	–0.5	–0.1	0.0	–0.4	9.6	9.5	0.1	0.2	–0.1	–6.2	–4.0	0.0	0.0	0.8	0.2	0.0	–0.1	0.0
India	0.9	0.7	0.3	0.2	0.3	–0.4	0.3	–6.9	–5.8	0.0	0.1	–0.4	1.4	1.6	0.5	0.6	–0.1	–5.8	0.0	–0.7	–0.7	0.8	–1.9	0.0	0.6	0.7
Indonesia	–2.4	1.4	1.1	–3.9	0.9	0.3	0.3	–1.7	–2.5	0.6	0.7	–0.4	1.3	3.0	0.0	0.1	–0.1	–1.4	0.0	–0.4	–0.4	0.8	–1.4	0.0	0.2	0.4
Italy	–0.1	1.0	0.7	–1.2	–0.1	–0.7	0.3	–1.7	0.5	0.0	0.1	–0.4	6.6	6.8	1.2	1.3	–0.1	–12.9	0.0	0.0	0.0	0.8	0.1	0.0	–0.1	0.0
Japan	0.2	–1.2	–1.5	1.4	–0.4	–1.1	0.3	–3.1	0.1	–0.1	0.0	–0.4	9.0	9.0	–0.6	–0.5	–0.1	4.6	0.0	0.0	0.0	0.8	0.5	0.0	–0.1	0.0
Korea	1.4	1.9	1.5	–0.5	1.6	0.9	0.3	2.7	0.0	0.4	0.5	–0.4	4.4	5.6	0.0	0.2	–0.1	–1.5	0.0	0.0	0.0	0.8	0.1	0.0	–0.1	0.0
Malaysia	2.4	–0.5	-0.8	2.9	–0.1	–0.8	0.3	–4.5	–2.0	0.7	0.8	–0.4	2.1	4.1	–0.4	–0.2	–0.1	2.2	0.0	–0.7	–0.7	0.8	–2.5	0.0	0.0	0.1
Mexico	1.0	0.7	0.4	0.2	0.7	0.0	0.3	–2.4	–2.5	0.4	0.4	–0.4	2.8	3.9	–0.5	–0.3	–0.1	3.3	0.0	0.0	0.0	0.8	0.0	0.0	0.1	0.2
Netherlands	7.7	1.5	1.2	6.2	1.1	0.4	0.3	0.8	–0.5	0.1	0.2	–0.4	8.2	8.8	0.4	0.5	–0.1	–4.8	0.0	0.0	0.0	0.8	0.1	0.0	–0.1	0.0
Poland	1.7	1.0	0.7	0.7	0.5	–0.1	0.3	–1.5	–1.0	0.0	0.1	–0.4	5.1	5.4	0.3	0.4	–0.1	–4.2	0.0	0.2	0.2	0.8	1.1	0.0	–0.1	0.0
Russia	3.5	2.8	2.5	0.7	1.0	0.3	0.3	2.9	1.9	0.9	0.9	–0.4	3.1	5.4	0.6	0.8	–0.1	–7.4	0.0	0.4	0.4	0.8	2.0	0.0	–0.1	0.1
South Africa	–4.4	0.5	0.2	–4.9	0.2	–0.5	0.3	–3.8	–2.4	0.0	0.1	–0.4	4.0	4.1	0.3	0.5	–0.1	–4.6	0.0	0.0	0.0	0.8	–0.1	0.0	0.0	0.2
Spain	–0.2	–0.1	–0.4	–0.1	–0.2	–0.8	0.3	–2.6	0.0	–0.1	0.0	–0.4	6.3	6.3	0.3	0.4	–0.1	–14.0	–10.0	0.0	0.0	0.8	0.0	0.0	–0.1	0.0
Sweden	1.3	0.3	0.0	1.0	0.7	0.0	0.3	0.4	0.3	–0.1	0.0	–0.4	9.1	9.0	–0.1	0.0	–0.1	0.0	0.0	0.0	0.0	0.8	–0.4	0.0	–0.1	0.0
Switzerland	4.5	–0.7	–1.0	5.1	1.0	0.4	0.3	1.1	0.0	–0.2	–0.1	–0.4	7.7	7.5	–1.5	–1.3	–0.1	12.7	0.0	0.0	0.0	0.8	–1.9	0.0	–0.1	0.0
Thailand	6.9	1.5	1.2	5.4	1.0	0.3	0.3	–0.2	–1.2	0.4	0.5	–0.4	2.9	4.1	–0.5	–0.4	–0.1	3.8	0.0	0.3	0.3	0.8	0.8	0.0	0.3	0.5
Turkey	–0.9	–0.6	–1.0	–0.3	0.2	–0.5	0.3	–4.4	–3.0	0.0	0.1	–0.4	3.3	3.6	–0.4	–0.3	–0.1	2.7	0.0	–0.4	–0.4	0.8	–1.4	1.0	–0.1	0.1
United Kingdom	–4.4	0.0	–0.4	–4.4	0.2	–0.5	0.3	–1.4	0.0	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	0.9	0.0	–0.1	0.0
United States	–1.2	–0.7	–1.0	–0.5	–0.6	–1.3	0.3	–5.4	–1.5	–0.2	–0.1	–0.4	8.5	8.2	0.2	0.4	–0.1	–3.5	0.0	0.0	0.0	0.8	0.1	0.0	–0.1	0.0

Source: IMF staff estimates.

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

[1] Total contribution after adjusting for multilateral consistency.

[2] Includes 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.

[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.

[5] Foreign contributions are estimated as follows: overall = 0.3 percent of GDP; fiscal = 0.7 percent of GDP; public health = –0.1 percent of GDP; private credit = –0.1 percent of GDP; foreign exchange intervention = 0.03 percent of GDP.

Table 1.7. External Sector Report Economies: Summary of Staff-Assessed REER and EBA Model Gaps, 2018

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-18/Avg-17	May-19/Avg-18
Argentina	–12.5	21.2	. . .	–5.9	0.14	–18.2	–5.3
Australia	6.0	4.4	11.3	1.7	0.20	–4.0	–4.5
Belgium	8.5	8.8	22.2	13.2	0.42	2.4	–1.2
Brazil	1.5	–2.7	2.1	–9.4	0.11	–10.4	–3.2
Canada	7.5	7.7	–6.9	2.1	0.27	–0.5	–2.3
China	–1.5	–3.5	12.6	0.0	0.23	1.4	–0.2
Euro Area[4]	–3.0	–3.3	0.8	6.0	0.40	3.0	–3.1
France	2.5	2.5	7.1	–0.4	0.27	2.2	–1.6
Germany	–13.0	–12.2	–16.1	4.9	0.38	2.4	–1.2
India	0.0	0.0	2.5	5.4	0.18	–3.8	7.7
Indonesia	–4.0	8.3	–15.5	–3.2	0.18	–6.0	5.0
Italy	5.0	0.4	6.9	9.7	0.26	1.6	–1.9
Japan	–1.5	–1.5	–17.1	–21.8	0.13	–0.8	2.9
Korea	–4.0	–3.9	–5.4	3.8	0.36	1.0	–5.1
Malaysia	–5.0	–5.2	–36.5	–25.0	0.46	4.2	–2.0
Mexico	–6.0	–6.3	–9.5	–21.0	0.16	0.1	4.3
Netherlands	–8.6	–8.6	2.2	14.5	0.72	2.0	0.1
Poland	–2.5	–2.0	–18.9	–2.7	0.44	1.7	–0.4
Russia	–6.0	–6.0	–20.4	–14.5	0.27	–7.6	3.4
South Africa	7.0	6.7	–1.8	–13.9	0.27	1.8	–3.7
Spain	5.0	5.0	6.0	6.8	0.22	2.1	–1.3
Sweden	–10.0	–3.7	–17.7	–16.7	0.35	–4.1	–5.2
Switzerland	–2.8	–1.8	16.7	11.4	0.52	–2.8	–0.1
Thailand	–8.5	–8.4	–6.1	7.3	0.64	3.0	4.1
Turkey	–15.0	0.9	–20.5	–22.5	0.22	–14.4	–10.3
United Kingdom	7.5	12.1	–8.5	–13.2	0.24	1.8	0.4
United States	9.0	11.7	11.9	8.0	0.12	–0.9	3.4
Hong Kong SAR	0.0	. . .	. . .	. . .	. . .	–1.9	4.3
Singapore	–8.2	. . .	. . .	. . .	. . .	–0.5	0.6
Saudi Arabia	7.5	. . .	. . .	. . .	. . .	–0.8	–0.7
Discrepancy[5]	1.4	. . .	. . .	. . .			

Source: IMF, Information Notice System; and IMF staff estimates.
Note: EBA = external balance assessment; REER = real effective exchange rate; CA = current account.
[1]Refers to the mid-point of 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]The euro area REER gap is calculated as the trade-weighted average of REER gaps of its 11 largest member countries.
[5]GDP-weighted average sum of staff-assessed REER gaps.

Table 1.8. 2018 Individual Country Assessments: Summary of Policy Recommendations

Economy	Overall 2018 Assessment	Policy Recommendations[1]		
		Fiscal	Monetary I Exchange Rate I Financial	Structural
Argentina	Weaker	Implement consolidation plan	Strengthen monetary and exchange policy frameworks	Eliminate trade restrictions and barriers to entry to increase productivity and competitiveness and attract FDI
Australia	Broadly in line	Provide near-term support for internal rebalancing and transition to gradual medium-term consolidation	Continue monetary accommodation to close output gap and accompany rebalancing	Structural reforms to boost non-mining productivity
Belgium	Weaker	Steady consolidation to reach balanced budget in the medium term, supported by efficieny-oriented spending reforms	–	Support labor force participation and improve business environment by simplifying regulation and strengthening competition in services and regulated professions
Brazil	Broadly in line	Consolidation, including from federal spending cap and social security reform	Remain accommodative to support fiscal consolidation; FX interventions can be appropriate to alleviate disorderly market conditions	Reduce cost of doing business to improve overall competitiveness and trade openness
Canada	Weaker	Medium-term consolidation, while increasing public infrastructure investment	Maintain tight macroprudential policies to contain credit growth and ensure financial stability	Improve labor productivity, including by investing in R&D and physical capital, promoting FDI; diversify export markets, especially into services
China	Broadly in line	Support rebalancing by gradually consolidating to reach debt-stabilizing fiscal balances in the medium term	Gradually move toward more transparent, market-based MP framework and ER flexibility while strengthening domestic financial stability	Improve social safety nets; increase competition through SOE reform and opening up markets; ensure equal treatment between foreign and domestic investors to attract more FDI
Euro Area	Moderately stronger	Strengthen centralized investment schemes and fiscal capacity for macroeconomic stabilization at regional level; address imbalances at national level by using fiscal space where available and consolidation where necessary	Remain accommodative until inflation converges to ECB's medium-term price stability objective; facilitate relative price adjustments at the national level by enabling greater inflation differentials across euro area members	Make currency union more resilient and finalize banking and capital markets union; address imbalances at the national level by raising potential growth and competitiveness
France	Broadly in line	Steady medium-term consolidation	–	Improve competitiveness by reducing corporate administrative burdens, promoting innovation, and strengthening competition in services
Germany	Substantially stronger	Growth-oriented fiscal policy using substantial fiscal space to invest in human and physical capital	–	Implement reforms to foster entrepreneurship and address aging costs by prolonging working life
Hong Kong SAR	Broadly in line	Continue prudent fiscal management	–	Continue robust and proactive financial supervision; maintain flexible wages and prices.
India	Broadly in line	Medium-term consolidation to lower public debt levels by increasing compliance and reforming income tax and fuel and food subsidies	ER should remain the main shock absorber, with FX intervention limited to addressing disorderly market concerns	Ease domestic supply bottlenecks and revamp business climate, improve competitiveness and investment prospects, to attract FDI and boost exports; gradual liberalization of portfolio flows
Indonesia	Moderately weaker	Strengthen fiscal position by mobilizing revenues while allowing for higher infrastructure and social spending	Continue ER flexibility with limited FX interventions in response to disorderly market conditions	Bolster global value chain participation; ease non-tariff trade barriers and FDI restrictions; strengthen labor markets and skills; deepen financial markets
Italy	Broadly in line	Credible, growth-friendly, and inclusive consolidation to maintain investor confidence and reduce external vulnerabilities	–	Implement reforms to better align wages with productivity at the firm level and to strengthen banks balance sheet to unlock investment potential
Japan	Broadly in line	Gradual, medium-term fiscal consolidation anchored by a credible fiscal framework	Continue accommodative stance to achieve inflation objectives	Adopt measures to boost wages and labor supply, reduce labor market duality, reduce barriers to entry in some industries, and accelerate agriculture and services sector deregulation
Korea	Moderately stronger	More expansionary fiscal policy to boost domestic demand using substantial fiscal space	Continue ER flexibility with limited intervention to address disorderly market conditions	Strengthen the social safety net to lessen incentives for precautionary savings. Address bottlenecks to investment

(*Continued*)

Table 1.8. (*continued*)

Economy	Overall 2018 Assessment	Policy Recommendations[1]		
		Fiscal	Monetary I Exchange Rate I Financial	Structural
Malaysia	Stronger	Gradual medium-term consolidation through tax revenue mobilization, while continuing to protect social and growth-enhancing spending	Continue ER flexibility with limited intervention to respond to disorderly conditions	Strengthen social protection, public healthcare spending; address structural bottlenecks (labor market skills mismatch; low female participation; weak education quality; physical infrastructure)
Mexico	Broadly in line	Increase tax revenues to make space for infrastructure investment while adhering to fiscal targets	Floating ER should continue to serve as main shock absorber with FX interventions to prevent disorderly market conditions	Structural reforms to improve competitiveness and investment climate
Netherlands	Substantially stronger	Implement envisaged expansionary fiscal policy and use additional fiscal space in the medium term	–	Structural reforms to raise the productivity of small domestic firms, encourage household and SME rebalancing, and support digitalization and lifelong learning, including through public investment
Poland	Broadly in line	Gradual fiscal consolidation to meet medium-term objective; restrain current spending while making room for priority spending such as health care and investment	Ensure monetary policy actions remain data dependent	Boost structurally low private investment and productivity: remove existing barriers to private investment through better access to skilled labor, predictability of policies affecting firms, and a level playing field for investors
Russia	Moderately stronger	Maintain discipline under the fiscal rule; rebalance expenditures towards health, education, and infrastructure in the medium term	Monitor risks from fast-growing household credit	Structural reforms to invigorate private investment and improve competitiveness, expecially in the nonoil sector
Saudi Arabia	Moderately weaker	Further consolidation to ensure savings for future generations	–	Structural reforms to diversify the economy and boost the non-oil tradeable sector over the medium term
Singapore	Substantially stronger	Use substantial fiscal space for higher public investment in physical infrastructure and human capital	FX intervention should remain targeted toward achieving inflation and output objectives	Structural reforms to improve productivity and domestic investment incentives
South Africa	Moderately weaker	Gradual consolidation while providing space for infrastructure investment and education spending	Seize opportunities to build up reserves to deal with FX liquidity shocks	Strengthen education/skills; increase financial inclusion; foster entry into key product markets; accelerate labor and product market reforms
Spain	Moderately weaker	Reduce the still-sizable structural fiscal deficit	–	Additional reforms to address labor market duality; accelerate implementation of product and service market reforms; enhance education outcomes, training for workers and firms' innovation capacity
Sweden	Moderately stronger	Adopt a mildly expansionary fiscal stance consistent with the medium-term surplus target	Defer further monetary tightening pending an inflation outlook consistent with durably meeting the inflation target	Facilitate migrant integration into the labor market to raise potential output
Switzerland	Broadly in line	Moderately loosen to reach a structurally neutral fiscal stance to address longer-term challenges	FX intervention should be reserved for addressing large exchange market pressures	Reform corporate income tax to encourage SME investment, thereby reducing net saving
Thailand	Substantially stronger	Boost public infrastructure within available fiscal space; reform and expand social safety nets	ER should move flexibly as key shock absorber, with limited intervention to avoid disorderly market conditions	Strengthen social safety nets, and reduce barriers to investment, especially in the services sector
Turkey	Broadly in line	Allow automatic stabilizers to operate while aiming at comprehensive policy package to strengthen external resilience and support rebalancing	Tighter monetary policy should aim at reanchoring inflation expectations; increase net international reserves	Structural reforms to enhance productivity and ensure more stable domestic funding, including reducing labor market rigidities and improving business climate
United Kingdom	Weaker	Fiscal consolidation with investment in public infrastructure	Maintain financial stability through macroprudential policies	Broaden skill base; improve public infrastructure
United States	Moderately weaker	Consolidate over the medium term while upgrading public infrastructure	Continue data-dependent monetary policy normalization	Enhance schooling, training and mobility of workers; promote labor force participation and roll back recently imposed tariffs

Source: 2019 Individual External Assessments.
Note: FDI = foreign direct investment; FX = foreign exchange; MP = monetary policy; ER = exchange rate; SOE = state-owned enterprises; MP = monetary policy; ECB = european central bank; R&D = research and development; SME = small and medium-sized enterprises.
[1]This nonexhaustive list focuses on key recommendations for closing external imbalances in the medium term.

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