REPORT TO CONGRESS

Macroeconomic and Foreign Exchange Policies of Major Trading Partners of the United States

U.S. DEPARTMENT OF THE TREASURY
OFFICE OF INTERNATIONAL AFFAIRS

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Contents

This Report reviews developments in international economic and exchange rate policies and is submitted pursuant to the Omnibus Trade and Competitiveness Act of 1988, 22 U.S.C. § 5305, and Section 701 of the Trade Facilitation and Trade Enforcement Act of 2015, 19 U.S.C. § 4421.[1]

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[1] The Treasury Department has consulted with the Board of Governors of the Federal Reserve System and International Monetary Fund (IMF) management and staff in preparing this Report.

Executive Summary

The global economy accelerated in 2017 to its fastest pace of growth since the post-crisis rebound in 2011. The broad-based strengthening of growth was led by the United States, where domestic demand growth averaged 3 percent over the last three quarters of the year, and by a synchronized expansion in Europe. The Administration's economic focus is on laying the foundation for sustained faster growth and higher real median incomes. The new tax reform package, along with ongoing regulatory initiatives, aims to raise investment, increase productivity, and facilitate small business formation and expansion. Reforms are being pursued in many advanced and emerging market economies, and cementing these reforms would help brighten the medium-term outlook for the global economy.

Notwithstanding the pick-up in global growth, the U.S. trade deficit widened in 2017, mainly because domestic demand growth in our major trading partners lagged domestic demand growth in the United States, trade and investment barriers persist in many economies, and several surplus economies continue to have currencies that are undervalued per estimates by the International Monetary Fund (IMF).

The Administration remains deeply concerned by the significant trade imbalances in the global economy, and is working actively across a broad range of areas to help ensure that trade expands in a way that is fair and reciprocal. The United States' bilateral trade deficits with China, Japan, Germany, and Mexico are at very high levels. Further, as discussed in more detail in Annex I, current account surpluses among several major trading partners over the last two decades have proven both large and persistent. The global adjustment process has not worked effectively to promote a symmetric adjustment toward smaller imbalances in a manner that sustains – rather than inhibits – global growth. Nor are there signs that currently point toward a narrowing of external imbalances.

Achieving stronger and more balanced global growth will require that domestic demand, including consumption and investment, become the sustained engine for economic expansion in key economies that have maintained large and persistent external surpluses. This could be supported by these economies putting in place more efficient tax systems with low rates and broad bases, regulatory frameworks that support domestic investment, and sound monetary policies. The International Monetary and Financial Committee (IMFC) last fall concluded that strong fundamentals, sound policies, and a resilient international monetary system are essential to the stability of exchange rates, contributing to strong and sustainable growth and investment. In March, all G-20 members similarly endorsed this objective.

Securing faster global growth also requires that all economies durably avoid macroeconomic, foreign exchange, and trade policies that facilitate unfair competitive advantage. This Report, by monitoring where unfair currency practices may be emerging and encouraging policies and reforms to address large external surpluses, represents an important component of the Administration's strategy for securing a stronger America and a more robust and fair global economy.

Lastly, this Report contains an annex that surveys the composition and volatility of global capital flows over the last few years. Large net capital flows have been the counterpart of substantial current account imbalances across the global economy over the last few years, or in China's case large net capital outflows were the counterpart to significant reserve sales. Notwithstanding the large nominal value of these capital flows, the annex shows that the volatility of flows to emerging markets is in line with historical levels when the flows are scaled to economic activity.

Treasury Assessments of Major Trading Partners

Treasury has established thresholds for the three criteria specified in the Trade Facilitation and Trade Enforcement Act of 2015 (the "2015 Act") that determine whether enhanced analysis is necessary: (1) a significant bilateral trade surplus with the United States is one that is at least $20 billion;[2] (2) a material current account surplus is one that is at least 3 percent of gross domestic product (GDP); and (3) persistent, one-sided intervention occurs when net purchases of foreign currency are conducted repeatedly and total at least 2 percent of an economy's GDP over a 12-month period.[3] In 2017, the $20 billion bilateral trade surplus threshold captured almost 80 percent of the value of all trade surpluses with the United States, while the 3 percent current account threshold captured more than three-fourths of the nominal value of global current account surpluses.

Pursuant to the 2015 Act, Treasury has found in this Report that no major trading partner met all three criteria during the four quarters ending December 2017.

Similarly, based on the analysis in this Report, Treasury also concludes that no major trading partner of the United States met the standards identified in Section 3004 of the Omnibus Trade and Competitiveness Act of 1988 (the "1988 Act") for currency manipulation in the second half of 2017.

Because the standards and criteria in the 1988 Act and the 2015 Act are distinct, it is possible that an economy could be found to meet the standards identified in one of the Acts without being found to have met the standards identified in the other. In particular, a finding that an economy met the standards in the 1988 Act of manipulating its currency would require Treasury to examine a wider array of additional facts such as foreign exchange reserve coverage, capital controls, monetary policy, or inflation developments.

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[2] Given data limitations, Treasury focuses in this Report on trade in goods, not including services. The United States has a surplus in services trade with many economies in this report, including Canada, China, Japan, Korea, Mexico, Switzerland, and the United Kingdom. Taking into account services trade would reduce the bilateral trade surplus of these economies with the United States.

[3] In assessing the persistence of intervention, Treasury will consider an economy that is judged to have purchased foreign exchange on net for 8 of the 12 months to have met the threshold. These quantitative thresholds for the scale and persistence of intervention are considered *sufficient* on their own to meet the criterion. Other patterns of intervention, with lesser amounts or less frequent interventions, might also meet the criterion depending on the circumstances of the intervention.

Treasury has established a Monitoring List of major trading partners that merit close attention to their currency practices and macroeconomic policies. An economy meeting two of the three criteria in the 2015 Act is placed on the Monitoring List. Once on the Monitoring List, an economy will remain there for at least two consecutive Reports to help ensure that any improvement in performance versus the criteria is durable and is not due to temporary factors. As a further measure, this Administration will add and retain on the Monitoring List any major trading partner that accounts for a large and disproportionate share of the overall U.S. trade deficit even if that economy has not met two of the three criteria from the 2015 Act. **In this Report, the Monitoring List comprises China, Japan, Korea, Germany, Switzerland, and India, the latter being added to the Monitoring List in this Report.**

With regard to the six economies on the Monitoring List:

- China has an extremely large and persistent bilateral trade surplus with the United States, by far the largest among any of the United States' major trading partners, with the goods trade surplus standing at $375 billion over the four quarters through December 2017, an increase of $28 billion over 2016. Over 2017, the Chinese currency generally moved against the dollar in a direction that should, all else equal, help reduce China's trade surplus with the United States; however, on a broad, trade-weighted basis, the renminbi was broadly unchanged on net over 2017. Moreover, the increasingly non-market direction of China's economic development poses growing risks to its major trading partners and the long-term global growth outlook. China should advance macroeconomic reforms that support greater household consumption growth and help rebalance the economy away from investment. Treasury also places significant importance on China adhering to its G-20 commitments to refrain from engaging in competitive devaluation and to not target China's exchange rate for competitive purposes; and on greater transparency of China's exchange rate and reserve management operations and goals.

- Japan's goods trade surplus with the United States did not diminish in 2017, and stood at a still-large $69 billion over the four quarters through December 2017. Japan's current account surplus, meanwhile, grew over this period to 4 percent of GDP, its highest level since 2010. Japanese officials have publicly voiced concern over the appreciation of the yen this year, but Japan has not intervened in the foreign exchange market in over six years. Treasury's expectation is that in large, freely-traded exchange markets, intervention should be reserved only for very exceptional circumstances and with appropriate prior consultations. Japan should take advantage of the current window of steady growth to enact critical structural reforms that can support sustained faster expansion of domestic activity, create a more sustainable path for long-term growth, and help reduce Japan's public debt burden and trade imbalances.

- Korea maintains large external imbalances, with a current account surplus standing at 5.1 percent of GDP in 2017, its sixth straight year over 3 percent of GDP. Korea's goods trade surplus with the United States registered $23 billion in 2017, contracting nearly

$5 billion from its 2016 level. The won appreciated by 13 percent against the dollar in 2017. There was a notable and concerning pick-up in intervention in November 2017 and January 2018 that appears to have been for the purpose of slowing won appreciation against the dollar, although these purchases were partially reversed through foreign exchange sales in February. The IMF continues to describe Korea's current account surplus as larger, and its exchange rate as weaker, than justified by medium-term economic fundamentals. Further, despite real effective appreciation in 2017 of 3.6 percent, the won is not notably strong compared to levels it has been over the last couple decades. It is important that the Korean authorities act to strengthen domestic demand and avoid reverting to excessive reliance on external demand for growth. Treasury will continue to monitor closely Korea's currency practices and urges the authorities to report its exchange rate intervention in a transparent and timely manner.

- India increased its purchases of foreign exchange over the first three quarters of 2017. Despite a sharp drop-off in purchases in the fourth quarter, net annual purchases of foreign exchange reached $56 billion in 2017, equivalent to 2.2 percent of GDP. The pick-up in purchases came amidst relatively strong foreign inflows, both of foreign direct investment and portfolio investment. Notwithstanding the increase in intervention, the rupee appreciated by more than 6 percent against the dollar and by more than 3 percent on a real effective basis in 2017. India has a significant bilateral goods trade surplus with the United States, totaling $23 billion in 2017, but India's current account is in deficit at 1.5 percent of GDP and the exchange rate is not deemed to be undervalued by the IMF. Given that Indian foreign exchange reserves are ample by common metrics, and that India maintains some controls on both inbound and outbound flows of private capital, further reserve accumulation does not appear necessary.

- Germany has the world's largest current account surplus in nominal dollar terms, $299 billion in 2017, and has had the world's largest surplus in most years since 2011. There has been little to no progress in reducing this massive surplus the past three years, in part because domestic demand in Germany has not been sufficiently strong to facilitate external rebalancing and because Germany's low inflation rate has contributed to a weak real effective exchange rate. As it now stands, these surpluses represent a substantial excess of income over spending, which translates into weaker imports by Germany than could be, and thus very large capital outflows. As noted in Annex I, Germany's accumulation of foreign assets has increased markedly over the last ten years as a result of these large and persistent surpluses. Among these large surpluses is a sizable bilateral goods trade surplus with the United States, at $64 billion over the four quarters through December 2017. Germany should take policy steps to unleash domestic investment and consumption – including meaningful fiscal reforms to minimize burdens from elevated labor and value-added taxes – which would narrow the gap between domestic income and spending and help reduce large external imbalances. The European Central Bank (ECB) has not intervened unilaterally in foreign currency markets in over 15 years.[4]

- Switzerland's foreign exchange purchases, which had been used persistently over the past few years to help counter pressures from safe haven inflows and deflationary forces, declined notably over the last three quarters of 2017. Treasury estimates that net annual purchases of foreign exchange in 2017 totaled $44.9 billion, equivalent to 6.6 percent of GDP. Treasury estimates that purchases in the first quarter of 2017 accounted for almost all of the annual total. The Swiss franc depreciated in both nominal and real effective terms over the second half of the year, with the real effective exchange rate ending 2017 less than 3 percent above its 20-year average level. Switzerland had a very large current account surplus at 9.8 percent of GDP over the four quarters through December 2017. To help narrow the large and persistent trade and current account surpluses, Switzerland should adjust macroeconomic policies to more forcefully support domestic economic activity. Further, with inflation having turned positive in 2017 and safe haven capital inflow pressures having abated, the current window offers an opportunity to consider how to unwind the large stock of foreign assets the central bank has accumulated on its balance sheet over the last few years. Treasury also urges the Swiss authorities to enhance the transparency of exchange rate intervention.

Treasury continues to track carefully the foreign exchange and macroeconomic policies of its trading partners, and is considering whether a future expansion in the number of economies covered in this Report to include more economies as 'major trading partners' would be helpful in achieving the Administration's objectives of more fair and reciprocal trade and stronger, more balanced global growth.

[4] For the purposes of Section 701 of the 2015 Act, policies of the ECB, which holds responsibility for monetary policy for the euro area, will be assessed as the monetary authority of individual euro area countries.

Section 1: Global Economic and External Developments

This Report covers economic, trade, and exchange rate developments for the last six months of 2017 and, where data are available, developments through end-March 2018. This Report covers developments in the 12 largest trading partners of the United States, as well as Switzerland, which is currently the United States' 15th largest trading partner.[5] These economies' total goods trade with the United States amounted to $2.8 trillion over the four quarters through December 2017, over 70 percent of all U.S. goods trade during that period. For some parts of the analysis, especially those parts having to do with Section 701 of the 2015 Act, data over the most recent four quarters for which data are available are considered (typically up through the fourth quarter of 2017).

U.S. Economic Trends

The U.S. economic expansion picked up speed in the second half of 2017, growing at an annual rate of 3.0 percent, compared with 2.1 percent in the first half, and pushing through the serious hurricanes and wildfires of the third quarter. Growth of private domestic final demand remained strong in the latter half of the year, rising by 3.5 percent compared with a rate of 3.2 percent in the first half of 2017. When measured on a year-over-year basis, the U.S. economy's growth has strengthened every quarter since mid-2016, and the recovery has now entered its ninth consecutive year.

The underpinnings of growth remain sound and include a healthy pace of job creation, strong labor markets, positive consumer sentiment, solid household finances, and an upbeat outlook for business activity. These factors boosted private domestic demand to a 4.8 percent pace in the final quarter of 2017, an acceleration that likely augurs well for private demand in coming quarters. Inflation ticked up but remained moderate, and interest rates, including mortgage rates, held mostly steady through the second half of 2017. As of early April 2018, a consensus of private forecasters predicted that real GDP would expand at a rate of 2.8 percent in 2018, measured on a year-over-year basis.

Recent U.S. Growth Performance

Real GDP expanded at an average annual rate of 3.0 percent over the second half of 2017, accelerating noticeably from the 2.1 percent rate in the first half of the year. Domestic final demand firmed further, and in the fourth quarter of 2017, reached its fastest pace in three years. Consumer spending contributed 2.1 percentage points to GDP growth in the second half of 2017, a bit higher than the 1.8 percentage points added in the first half of 2017. Business fixed investment contributed 0.7 percentage point to growth in the second half of 2017, a tick lower than the 0.8 percentage point addition made in the first half of the year. Residential investment made a modest contribution of roughly 0.1 percentage point in each half of the last year. Net exports posed a drag on growth of 0.4 percentage point in the

[5] Switzerland is included in this Report as it has previously appeared on Treasury's Monitoring List in the October 2016, April 2017, and October 2017 Reports.

second half of 2017, after making a 0.2 percentage point addition to growth in the first half of the year. Inventory accumulation added 0.1 percentage point to growth in the final two quarters of 2017, after subtracting 0.7 percentage point from growth in the first two quarters of the year. Government spending had held down growth by 0.1 percentage point in the first half of 2017, but contributed 0.3 percentage point in the second half of 2017.

Sound Fundamentals

Payroll employment continued to grow at a firm pace in 2017, and the unemployment rate fell further. Nonfarm payroll employment added 182,000 jobs per month, on average, during 2017. Over the first three months of 2018, however, the average pace increased to 202,000 per month. The unemployment rate stands at 4.1 percent as of March 2018, a seventeen- year low, and well below the 10 percent peak of 2009. Other measures of labor market conditions continue to improve, including signs of faster growth in wages and further declines in the rates of long-term unemployment as well as involuntary part-time employment.

Measures of consumer mood remain near multi-year highs according to recent surveys, with households continuing to express positive views about current economic conditions. Compensation growth has begun to firm recently: average hourly earnings for production and nonsupervisory workers rose 2.4 percent over the twelve months through March 2018, stepping up from the rates that prevailed from 2011 through 2015 and accelerating from the pace seen in the second half of 2017. Total compensation costs for civilian workers advanced 2.6 percent over the four quarters ending in December 2017, 0.4 percentage point higher than the year-earlier pace. Moreover, the debt-service ratio facing households is near historical lows, and household net worth stands at a record high.

Business activity is also expanding at a healthy pace. According to the most recent survey of the Institute for Supply Management (ISM) in March, the composite index for the manufacturing sector remains near the seventeen-year high in February. Seventeen of 18 industries reported expansion, while only one industry reported contraction. The ISM's non-manufacturing index also pointed to faster expansion in the services sector in March, remaining close to the twelve-year high reached in January. After several weak quarters in 2015 and early 2016, business fixed investment began firming last year, growing at 6.9 percent in the first half of the year and 5.6 percent in the second half.

Although headline inflation turned up in mid-2016 with the recovery in energy prices, a pullback in oil prices caused a deceleration starting in spring 2017 that continued for much of last year. The consumer price index (CPI) for all items rose 2.4 percent over the twelve months through March 2018, matching the rate seen over the year through March 2017. Growth in the core CPI (which excludes food and energy prices) has been stable and relatively low, but in March 2018 moved up to 2.1 percent, above the 2.0 percent rate seen over the year through March 2017.

Fiscal Policy and Public Finances

In December 2017, the United States enacted the first major re-write of the U.S. tax code in three decades. The new tax code is designed to markedly strengthen incentives for business investment and to deliver tax relief to middle income households. The new tax law lowered the U.S. corporate tax rate from one of the highest in the developed world to near the average of other advanced economies; it allows businesses to immediately deduct 100 percent of the cost of most of their new capital investments for the next five years; and it delivers relief to working families through lower income tax rates, a larger standard deduction, and an expanded child tax credit. Combined with regulatory reforms and infrastructure initiatives, tax reform should encourage people to start new businesses, draw workers into the labor market, and support a sustained increase in productivity.

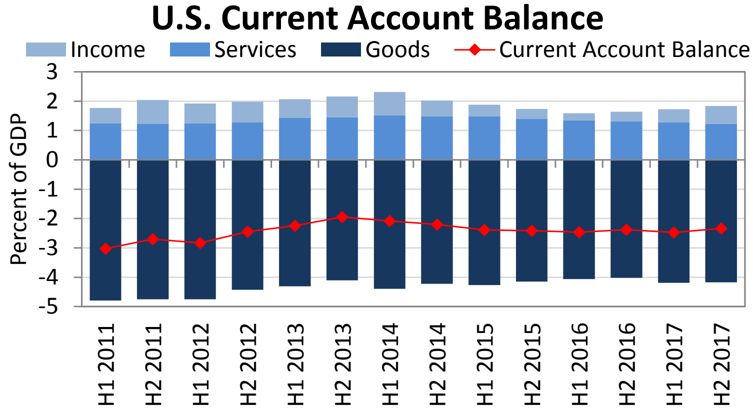
The Administration's FY 2019 Budget, released in February, aims to expand economic growth while trimming wasteful spending and putting the United States on a sustainable fiscal path over the medium term. In particular, the Administration's Budget proposal would restrain non-defense discretionary spending relative to current baseline levels, with the addendum to the Administration's Budget targeting a lower level of non-defense discretionary spending in FY 2019 than envisioned under the Bipartisan Budget Act of 2018 signed in February of this year. As a result, the Administration's FY 2019 Budget (as addended) projects that the Federal government budget deficit will rise to above 4 percent of GDP in FY 2018 (up from 3½ percent of GDP in FY 2017) and then peak as a share of output at around 5 percent of GDP in FY 2019 before decreasing steadily thereafter. The Administration expects federal debt held by the public to rise from 77 percent of GDP at the end of FY 2017, to above 80 percent of GDP in FY 2022, before gradually declining thereafter.

U.S. Current Account and Trade Balances

The U.S. current account was in deficit by 2.3 percent of GDP in the second half of 2017, shrinking modestly from 2.5 percent of GDP in the first half of 2017. This narrowing of the current account deficit was driven primarily by the income balance, as the primary income surplus grew by $14 billion in the second half of 2017 compared to the first half of the year. A slight deterioration of the trade balance (both for goods and services) offset a portion of the larger income surplus.

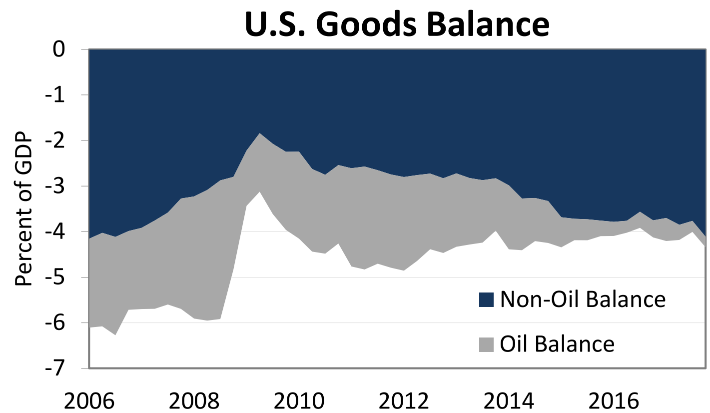
After narrowing in the post-crisis era to just below 2 percent of GDP in the second half of 2013, the headline U.S. current account deficit has been quite stable since 2015 in the ballpark of 2½ percent of GDP. Similarly, the goods trade balance has been relatively stable in recent years, in the range of 4-4½ percent of

U.S. Current Account Balance



Sources: Bureau of Economic Analysis, Haver

GDP. But significant shifts have occurred within the goods balance. The U.S. petroleum deficit has fallen to its lowest level in decades – it averaged 0.2 percent of GDP in the second half of 2017 – due to higher domestic production and also supported by the lower level of oil prices since 2014. The non-oil goods deficit, by comparison, is now approaching its peak historical levels: whereas as recently as 2013 the non-oil goods balance remained below 3 percent of GDP, it has steadily widened over the last four years and in the fourth quarter of 2017 grew beyond 4 percent of GDP for the first time since 2006. This deterioration in the non-oil goods balance has been driven by strong import growth combined with very sluggish export growth.[6] This pattern of strong imports and weak exports has reflected relatively stronger domestic demand growth in the United States compared to its recent trading partners over the last few years, as well as the impact of the broad strengthening of the dollar from 2014 to early 2017.



Source: Bureau of Economic Analysis

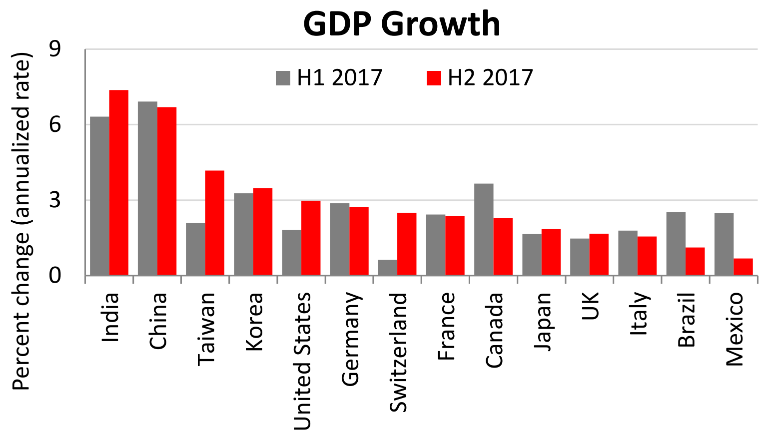
At the end of 2017, the U.S. net international investment position stood at a deficit of $7.8 trillion (40.5 percent of GDP), an improvement of more than $470 billion compared to end-2016. The value of U.S.-owned foreign assets was $27.6 trillion, while the value of foreign-owned U.S. assets stood at $35.5 trillion. Recent improvement in the net position has been supported by valuation effects (e.g., euro appreciation) that increased the dollar value of U.S. assets held abroad, as well as the strong relative performance of foreign equity markets in 2017, which also boosted the value of U.S. assets held abroad.

International Economic Trends

The global economy in 2017 achieved its strongest expansion since 2011. The nascent global pickup evident early in 2017 took hold firmly as the year progressed, with second-half growth accelerating particularly in the United States and Asia. Over the whole of 2017, Europe experienced a strong, synchronized expansion, reflecting delayed catch-up after years of lethargic post-crisis growth. Buoyed by stronger-than-expected growth in China and a pick-up in investment, global trade expanded by 4.7 percent in volume terms in 2017, nearly double the pace of growth in 2016. Major economies also saw substantial gains in employment, with unemployment rates in the United States, Japan, and the United Kingdom now below their pre-crisis levels and the euro area having made substantial progress toward pre-crisis rates. The cyclical upswing is helping narrow output gaps that have lingered since the global financial crisis, with the World Bank forecasting that the

[6] Comparing the second half of 2017 to the second half of 2013, nominal U.S. goods imports excluding industrial supplies grew by almost 17 percent, whereas nominal U.S. goods exports excluding industrial supplies expanded by less than 2 percent.

global output gap will close in 2018. Responding to the strong momentum in the global economy, forecasters have raised their near-term growth projections: the IMF in January upgraded its global growth forecast to 3.9 percent for both 2018 and 2019, with a large portion of the upward revision attributable to positive spillovers from the recent U.S. tax reform legislation.



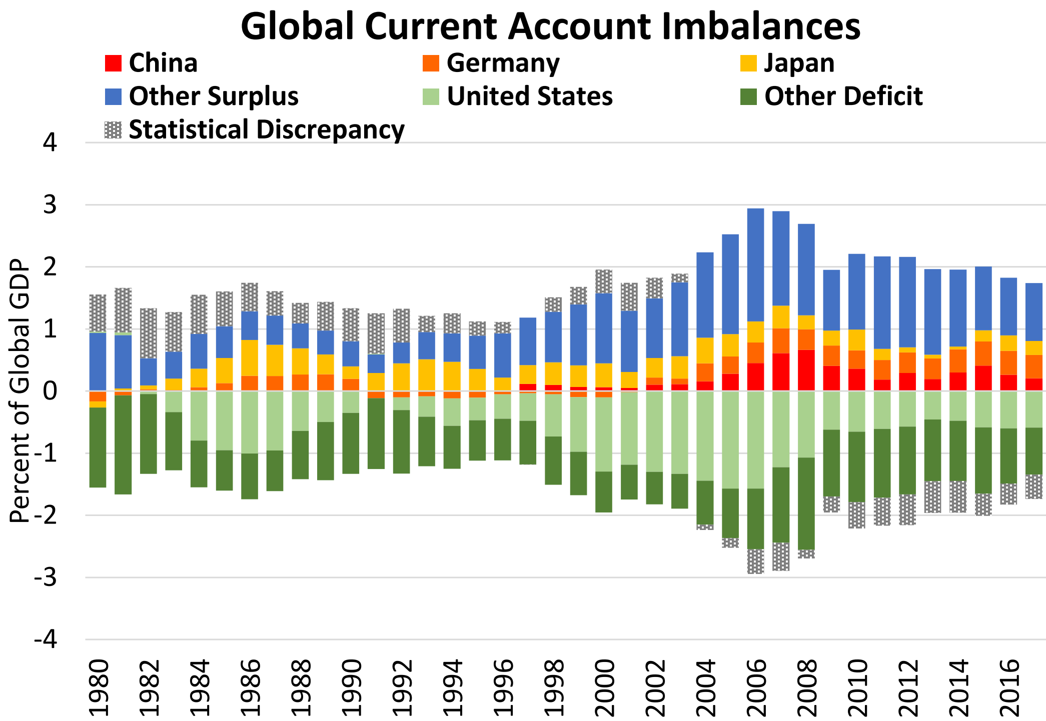
Sources: National Authorities, Haver

The medium-term outlook for the global economy, however, is clouded by several challenges. Wage growth (in nominal and real terms) in many economies remains muted, which has been one contributing factor to persistently low global inflation. Lackluster productivity growth has dampened upward pressures on both wages and inflation. Further, while growth in business investment strengthened notably among advanced economies in 2017, the level of investment (as a share of GDP) remains quite weak among advanced economies compared to pre-crisis levels. Reviving business investment and raising productivity growth would help entrench growth over the medium term and support stronger expansion of median incomes.

Global Imbalances

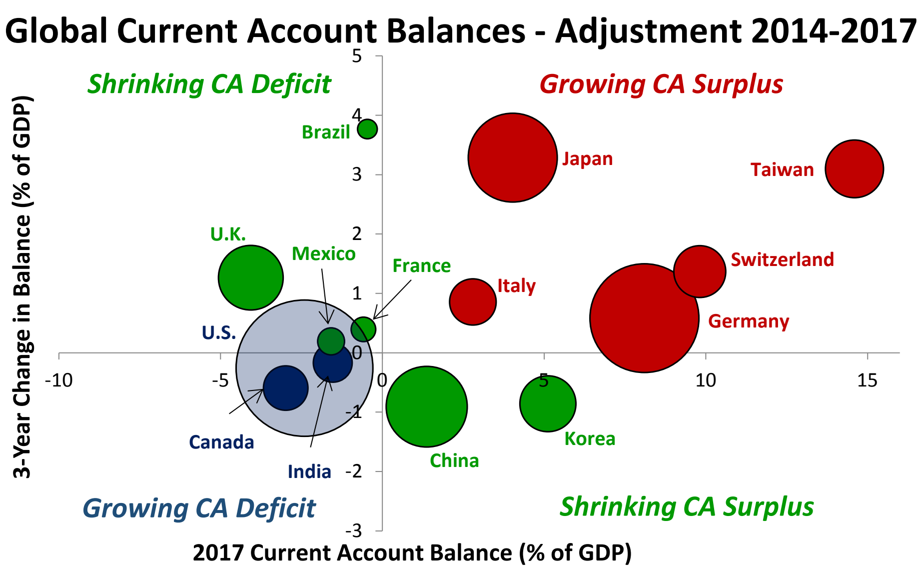
Global current account imbalances narrowed marginally in 2017, coming down to 1.7 percent of global GDP, the lowest level since 2003. As discussed in Annex I, however, imbalances remain large from a longer run perspective: prior to 2000, there was no period in the last several decades during which imbalances had reached 2 percent of global GDP. Further, the post-crisis landscape has been marked by persistent and concentrated imbalances, particularly in the surplus economies of Asia and northern Europe. In part, this has reflected a rotation of surpluses from oil exporting economies (as global energy prices fell) into oil-importing industrial economies.

Beyond the recent shift in terms of trade, the persistence of imbalances has also reflected the failure of real exchange rates and domestic demand to promote symmetric global adjustment. The composition of global growth in recent years bears out this asymmetry: Asian and European economies, where persistent surpluses are concentrated, relied heavily on positive contributions from net exports to drive growth between 2010 and 2015. Growth in North and Latin America since the crisis, by comparison, has been led by domestic demand, with the strengthening of U.S. demand being central to the recent global growth uptick. In order to reduce the risk of a future adjustment in external balances that weighs on global growth, major economies need to put in place a more symmetric rebalancing process that entails all economies carrying a share of the adjustment.



Sources: IMF WEO, Haver

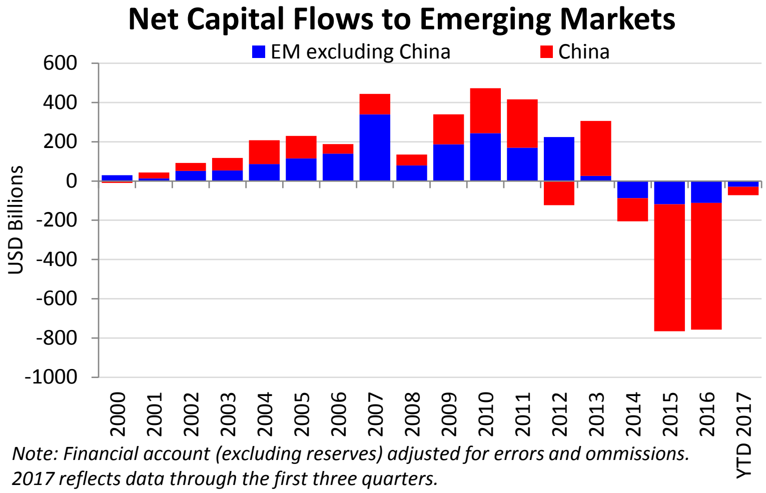
Looking over the last three years, most of the United States' major trading partners have seen current account imbalances widen, though with some notable exceptions. Among surplus economies, both China and Korea saw smaller surpluses in 2017 than in the recent past, while deficits have narrowed in a few economies.



Sources: Haver, IMF WEO, National Authorities
Note: Size of bubble is relative to share of global imbalances

A more in-depth discussion of the global adjustment process can be found in Annex I.

Capital Flows



Note: Financial account (excluding reserves) adjusted for errors and ommissions. 2017 reflects data through the first three quarters.
Source: National Authorities, U.S. Department of the Treasury Staff Calculations

Following three years of sizeable outflows, private net capital flows out of China slowed significantly in 2017. Although China remained a net capital exporter over the first three quarters of 2017, stronger-than-expected domestic growth, tighter capital controls, and a more balanced renminbi outlook helped stem resident outflows while boosting foreign inflows. Elsewhere, private capital continued leaving emerging markets, albeit at a slightly slower pace than in prior years.

Aggregate net direct investment inflows to emerging markets were roughly 30 percent higher over the first three quarters of 2017 than during the same timeframe in 2016. China and Indonesia both saw an increase in net direct investment inflows over the prior year, as did several smaller economies undertaking structural reforms (Lithuania, Pakistan, Serbia, Georgia).

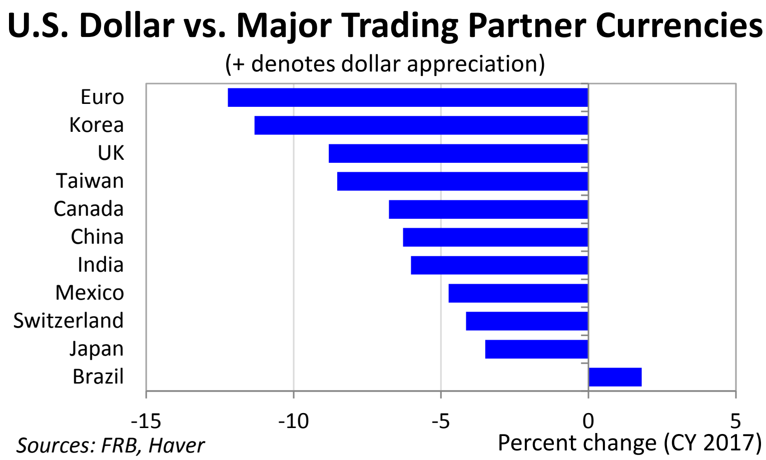
Portfolio outflows from emerging markets – also a key characteristic of capital flow trends in recent years – declined substantially in the first three quarters of 2017. Notably, several major emerging market economies saw an increase in positive net portfolio inflows, including China (registering the first positive net inflow since 2014), India, Russia, and Turkey.

A more in-depth discussion of global capital flow trends can be found in Annex I.

Foreign Exchange Markets

The U.S. dollar depreciated by 6 percent on a nominal effective basis in 2017, the largest annual decline in a decade. After strengthening markedly in 2016, the dollar fell gradually over the first three quarters of 2017 as growth in major foreign economies accelerated, expectations for the timing of monetary policy normalization in Europe and the United Kingdom were brought forward, and prospects for U.S. tax reform appeared to waver temporarily in the middle of the year. The dollar rebounded modestly in the fourth quarter, as growing expectations for higher U.S. interest rates and ultimate passage of U.S. tax reform supported the dollar. On net, the dollar appreciated 1.7 percent in the fourth quarter, trimming the dollar's 7.5 percent nominal effective decline over the first nine months of the year.

The dollar's nominal decline in 2017 reflected a broad depreciation against both major and emerging market currencies. Notably, the dollar depreciated against the euro amid strengthening European growth and shifting expectations for the potential timeline for policy normalization by the European Central Bank. The dollar fell against the British pound and the Canadian dollar as the central banks in both those economies raised interest rates in response to rising inflation and positive growth momentum. The dollar also depreciated notably against key emerging market currencies in Asia, as those economies benefitted from the synchronized global growth upswing and related pickup in global trade.



The nominal dollar decline was closely mirrored by a depreciation in the real trade-weighted dollar (which adjusts for relative price inflation). In real effective terms, the dollar depreciated 6.8 percent over 2017, ending the year at a level in line with its 20-year average. Among the United States' major trading partners, real effective exchange rates appreciated across much of Europe and emerging Asia (excluding China), and declined in some key surplus economies (China, Japan, and Switzerland) and the United Kingdom. Looking across changes in the real effective exchange rates during 2017, few economies saw their currencies move in a direction that corrected for pre-existing misalignments. Compared to the IMF's exchange rate assessment in its 2017 External Sector Report, misalignment widened particularly for Switzerland and Japan; in Japan's case, the real effective rate declined in 2017 to nearly 25 percent below its 20-year average.

Treasury judges that foreign exchange markets continued to function smoothly over the course of 2017, including as the Federal Reserve raised the interest rate corridor three times (March, June, and December) and began reducing the size of its balance sheet. The dollar continues to be the world's principal currency in international foreign exchange markets, reflecting its dominant global position both in terms of market turnover (being bought or sold in 88 percent of all currency trades) and trade settlement.[7]

Foreign Exchange Reserves

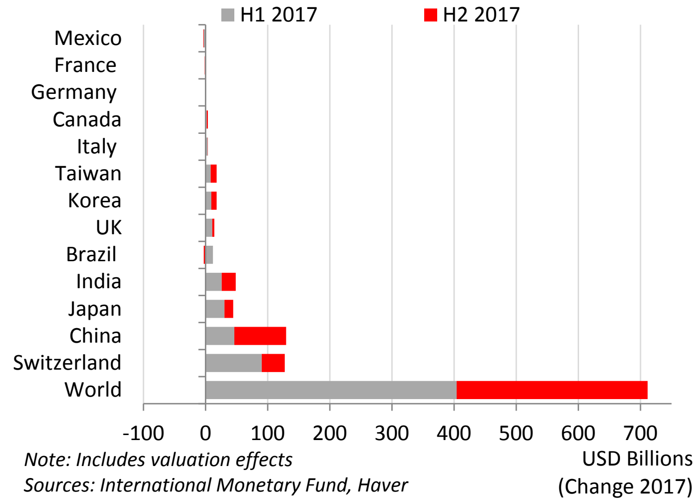
Global foreign currency reserves increased by $711 billion over 2017, reaching more than $11.4 trillion as of December. The net reserve accumulation over the past year reversed a portion of the preceding multi-year decline (nearly $1.3 trillion between mid-2014 and the

[7] Currency market turnover according to the 2016 Bank for International Settlement *Triennial Central Bank Survey of Foreign Exchange and OTC Derivatives*.

end of 2016) that was associated with many economies' reserve asset sales to stem or slow local currency depreciation. The majority of the increase in global reserves took place in the first half of 2017, coinciding with the largest sustained decline in the dollar. On net, the majority of the increase in headline reserves in 2017 was due to valuation effects.

At an individual level, the increase in headline reserves was concentrated among several economies included in this Report. Switzerland's reserves increased by $130 billion on net in 2017, the majority of which took place in the first half of the year (in part because the dollar value of its euro holdings increased), while China's reserves expanded by nearly $130 billion over the year. Changes in headline reserve levels in these economies reflected primarily valuation changes rather than (estimated) foreign exchange intervention.

Change in Foreign Currency Reserves



Note: Includes valuation effects
Sources: International Monetary Fund, Haver

Table 1: Foreign Exchange Reserves

	FX Reserves (% of GDP)	FX Reserves (% of ST debt)
Switzerland	112%	72%
Taiwan	80%	278%
China	26%	307%
Korea	25%	319%
Japan	25%	45%
Brazil	18%	687%
India	15%	415%
Mexico	14%	321%
Canada	5%	13%
UK	5%	2%
Italy	2%	4%
France	1%	2%
Germany	1%	2%

Foreign exchange reserves as of Dec 2017.
Sum of rolling 4Q GDP through Q4-2017.
Short-term debt consists of gross external debt with original maturity of one year or less, as of the end of Q3-2017.
Sources: National Authorities, World Bank, IMF

The economies covered in this Report continue to maintain ample – or more than ample – foreign currency reserves compared to standard adequacy benchmarks.[8] Reserves in most economies are more than sufficient to cover short-term external liabilities and anticipated import costs. Excessive reserve accumulation imposes costs both on the local economy (in terms of sterilization costs and foregone domestic investment) and the world. Economies should focus on enhancing resilience through stronger policy frameworks, as recommended by the IMF, rather than through continued reserve accumulation.[9]

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[8] "Annex I: Foreign Exchange Reserves – Recent Developments and Adequacy Measures," Report to Congress on Foreign Exchange Policies of Major Trading Partners of the United States (October 2017).

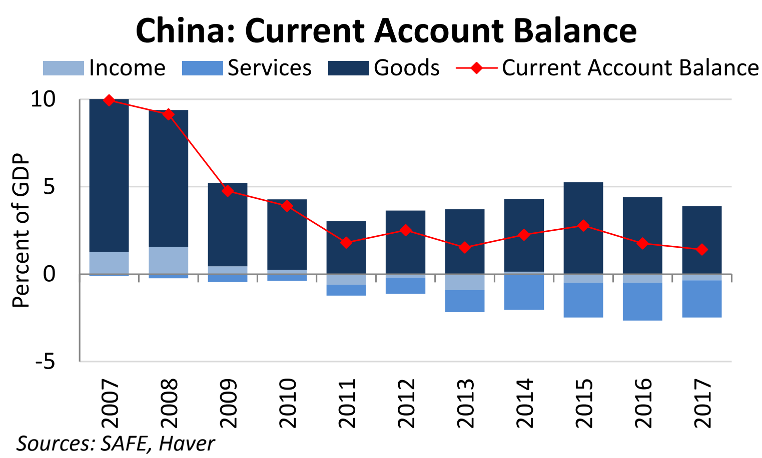
[9] International Monetary Fund, 2011, "Assessing Reserve Adequacy," IMF Policy Paper, February (Washington: International Monetary Fund).

Economic Developments in Selected Major Trading Partners

China

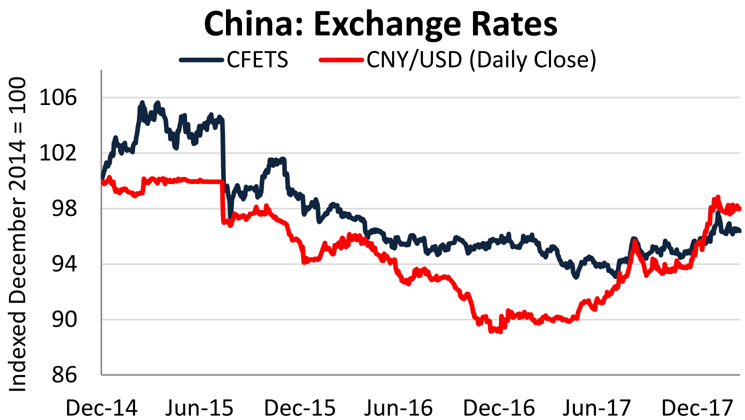
China's goods trade surplus with the United States amounted to $375 billion in 2017, by far the largest of any major trading partner of the United States. Treasury is strongly concerned by the lack of progress by China in correcting the bilateral trade imbalance and urges China to create a more level and reciprocal playing field for American workers and firms. Further opening of the Chinese economy to U.S. goods and services, as well as reducing the role of state intervention and allowing a greater role for market forces, would provide more opportunities for American firms and workers to compete in Chinese markets and facilitate a reduction in the bilateral trade imbalance. These adjustments should be paired with macroeconomic reforms that support greater consumption growth in China.

The growth in China's goods surplus with the United States accelerated in the second half of 2017, expanding by $18.4 billion relative to the same period in 2016 to reach $205 billion. Despite the growth in U.S. exports of agricultural products, oil and gas, and chemicals to China, growth in overall U.S. exports to China moderated in the second half of 2017. U.S. imports from China picked up, driven almost entirely by sharp increases in computer, computer accessory, and cell phone imports. The U.S. services trade surplus with China grew slightly over the previous year to reach $38.5 billion by the end of 2017.



In contrast to the large bilateral surplus with the United States, China runs trade deficits with many other economies, and as such, has a smaller overall trade and current account surplus. China's current account surplus expanded in nominal terms in the second half of 2017 to $96 billion (1.4 percent of GDP) from $90 billion (1.5 percent of GDP) in the second half of 2016, but it remains significantly below its 2007 half year peak of over 10 percent of GDP. Of the $6 billion increase, the largest share ($5 billion) reflected an increase in overseas investment income. The goods trade surplus expanded modestly by around $2 billion, as increased exports were largely matched by increased imports.

Treasury places significant importance on China adhering to its G-20 commitments to refrain from engaging in competitive devaluation and to not target China's exchange rate for competitive purposes; and on greater transparency of China's exchange rate and reserve management operations and goals. Over 2017, the Chinese currency generally moved against the dollar in a direction that should, all else equal, help reduce China's trade surplus with the United States; however, on a broad, trade-weighted basis the RMB was broadly unchanged on net over 2017. More recently, since the beginning of 2018, the renminbi (RMB) has continued to strengthen against the dollar, up 3.7 percent as of end-March 2018, while it has appreciated 2.0 percent against China's CFETS nominal basket.[10]



Sources: CFETS, Bloomberg

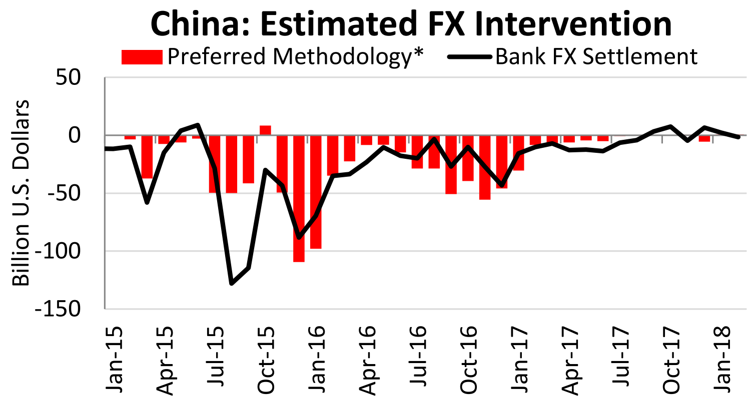
Despite some recent appreciation, China's real effective exchange rate remains over 6 percent below its peak level in mid-2015. The decline in the real effective exchange rate since 2015 broke a general trend of the RMB strengthening on a real effective basis over the previous two decades. China's real effective exchange rate appreciated from 1995 to 2002 but declined from 2002 through 2005, contributing to record current account surpluses in 2005 -2007. The RMB resumed its appreciation trend in 2005 when the central bank eliminated the RMB's peg to the dollar. As of February 2018, the RMB on a real effective basis is more than 25 percent above its 20-year average and 44 percent above where it stood in July 2005.

After significant capital outflows since late 2015 over concerns related to China's slowing growth and financial stability risks, the pace of capital outflows from China slowed in 2017. Broad U.S. dollar weakness, an improved near-term Chinese economic growth outlook, and higher interest rate differentials likely contributed to the relative stabilization of the currency and to a decline in net Chinese capital outflows. The reduction in outflows was also likely aided by a tightening of certain capital controls, for example, revised sectoral restrictions on overseas direct investment by Chinese state-owned enterprises. Treasury estimates that, in the second half of 2017, net outflows (excluding the trade surplus and net direct investment inflows) declined to an estimated $140 billion, compared to $350 billion during the same period in 2016.

China does not publish its foreign exchange market intervention, but Treasury estimates that Chinese authorities significantly curtailed intervention in the second half of 2017 that they had been undertaking to support the value of the RMB. Foreign exchange reserves sold in the second half of the year are estimated at $6 billion, a significant decline compared to estimated sales of close to $250 billion during the second half of 2016. As of March 2018, Chinese foreign exchange reserves were valued at $3.1 trillion, which is above standard measures of reserve adequacy.

[10] The China Foreign Exchange Trade System (CFETS) RMB index is a trade-weighted basket of 24 currencies published by the People's Bank of China.

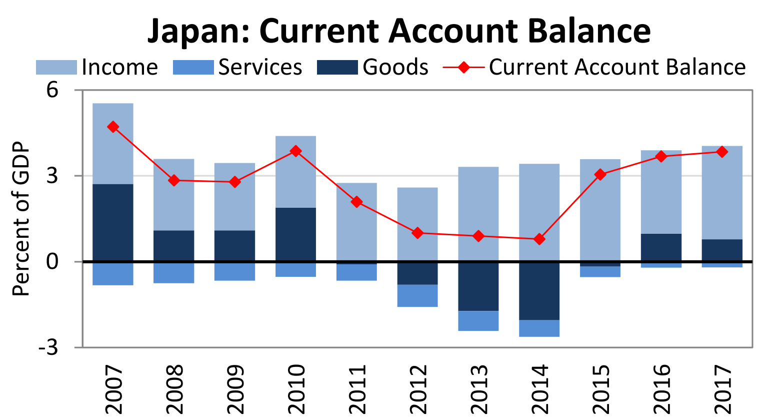
Real GDP in the second half of 2017 grew 6.8 percent relative to the same period in 2016, slightly lower compared to growth of 6.9 percent in the first half of 2017, but higher than the annual rate of 6.7 percent in 2016. Economic momentum has remained solid despite monetary and financial regulatory tightening, as fiscal policy and strong external demand have been supportive of growth. Though consumption represented the largest contributor to China's economic growth in the second half of 2017, indicating some progress toward rebalancing the economy, it continues to represent a relatively low share of GDP relative to fixed investment. Higher frequency data suggest that economic momentum is slowing at a moderate pace, given the slowdown in credit expansion – particularly shadow credit growth – as a result of the needed deleveraging campaign to address financial stability risks. Treasury staff estimate that total nominal credit growth, after factoring in local government bond swaps and shadow credit activity, was close to 13 percent in February 2018, suggesting that credit buildup is still outpacing nominal economic growth. Meanwhile, new lending to the real economy remains strong due to corporate and household borrowing.



Sources: PBOC, SAFE, U.S. Treasury Estimates
**Based on change in FX-denominated assets on PBOC balance sheet*

Japan

Japan's current account surplus increased to $197 billion in 2017 (4 percent of GDP) from $189 billion in 2016 (3.8 percent of GDP). The elevated current account surplus continues to be driven primarily by high net foreign income, which accounted for over 80 percent of the overall surplus in 2017. Many past years of surpluses have produced sizable net foreign assets: Japan's net international investment position stood at 64 percent of GDP in 2017, the highest in the G-7, and the IMF projects it will rise to 80 percent of GDP in the medium term, suggesting sizable net foreign income flows for years to come. These foreign income flows are potential spendable income that could be used to bolster demand growth and help reduce Japan's sizeable current account surplus.

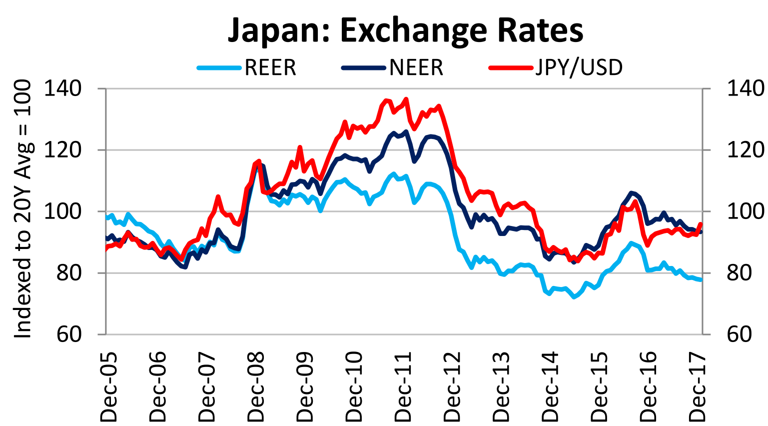


Sources: Bank of Japan, Ministry of Finance, Cabinet Office

Japan's bilateral goods trade surplus with the United States has been roughly steady for the past four years, coming in at nearly $70 billion in 2017. Japan ran a services trade deficit with the United States of $13.6 billion, resulting in an overall trade surplus (goods *plus* services, seasonally adjusted) of $56 billion in 2017, slightly lower than the previous year. Treasury remains concerned by the persistence of this large bilateral trade imbalance between the United States and Japan.

Both inflation and growth picked up in 2017. Year-over-year inflation reached 1 percent at the end of 2017, an improvement from 0.3 percent at the end of 2016, though still well below the target of two percent. The Bank of Japan (BOJ) has maintained a policy of "Quantitative and Qualitative Easing with Yield Curve Control" since September 2016. The BOJ maintains the overnight policy rate at negative 10 basis points and purchases Japanese Government Bonds so that the 10-year yield remains "around" zero percent. In order to maintain that target on 10-year yields as upward pressure on yields increased, the BOJ announced on four occasions "fixed-rate purchase operations", in which the Bank pledged to buy unlimited amounts of specific Japanese Government Bonds within a particular maturity range.

Real growth, meanwhile, nearly doubled from its 2016 pace of 0.9 percent to 1.7 percent in 2017. This marked eight consecutive quarters of economic growth, Japan's longest expansion in nearly thirty years. But the underpinnings of growth are not yet broad-based. Exports were a main driver of economic growth in 2017 – supported by the improved global environment – and while domestic demand picked up, the economy remains vulnerable to a slowdown in private consumption.



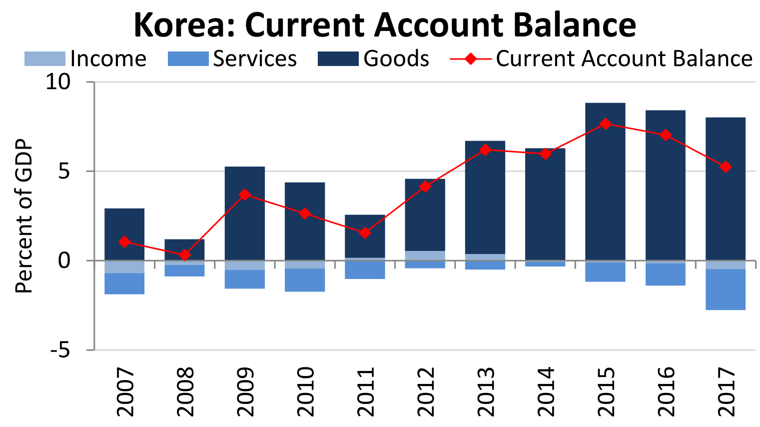
Sources: Bank of Japan, Bank for International Settlements

The improvement in growth and inflation in 2017 helped drive a modest nominal appreciation of the yen, which strengthened 3.6 percent against the dollar over the year. The yen appreciated further against the dollar in early 2018, moving up 6.1 percent from January through end-March. Safe-haven inflows amid heightened geopolitical tensions have played a role in recent nominal appreciation. On a real effective basis, however, the yen *depreciated* by 2.4 percent from the start of 2017 through February of this year. This brought the real effective exchange rate to nearly 25 percent below its 20-year average. Viewed over the horizon of the last decade, the nominal exchange rate has been weaker than historical average levels since the first half of 2013.

Looking forward to reforms that could entrench stronger growth, the authorities should aim in the interim fiscal review they are conducting this year to pursue necessary fiscal consolidation – gross public debt reached 240 percent of GDP in 2017 – over the medium term in a manner that minimizes any negative impacts on overall growth.

Korea

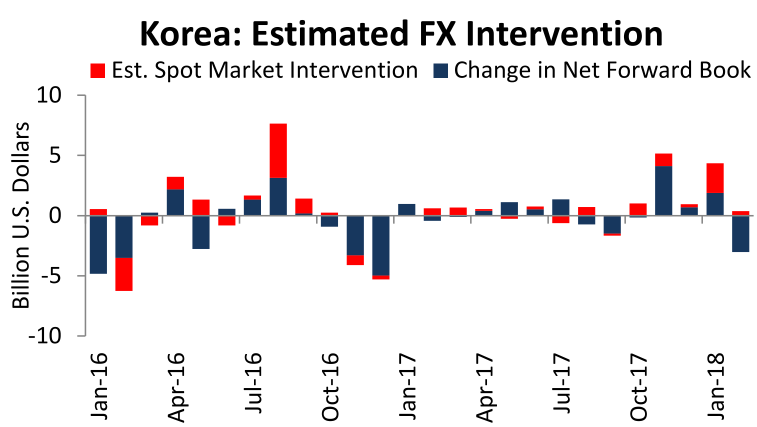
Korea's current account surplus declined from 7 percent of GDP in 2016 to 5.1 percent of GDP in 2017. Domestic demand expanded by more than 5 percent, its fastest pace since 2010, which helped prompt a notable widening of the services trade deficit. Notwithstanding this pick-up in domestic demand, however, there has been relatively limited adjustment in the last couple years in Korea's goods trade surplus, which remains very high at nearly 8 percent of GDP. The IMF in its most recent analysis continued to describe Korea's current account surplus as stronger than justified by medium-term fundamentals.



Sources: Bank of Korea, Haver

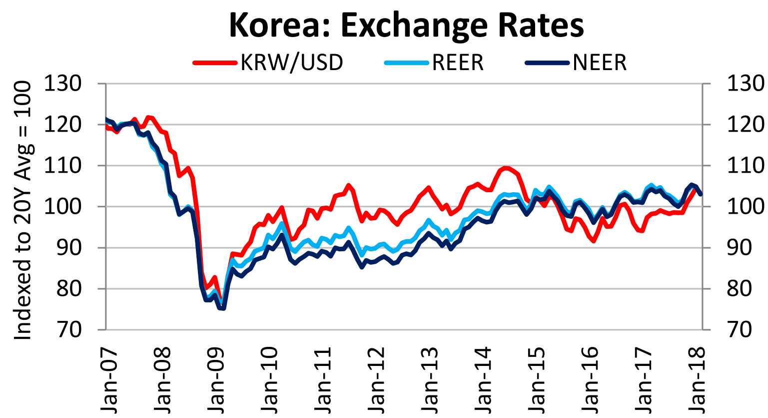
Korea's goods trade surplus with the United States remains high at $23 billion in 2017, though down from $28 billion in 2016. Most of the decline between 2016 and 2017 occurred because Korea's bilateral trade surplus had ballooned through the first half of 2016; the progress on reducing the bilateral trade surplus has been more modest over the last 18 months. The United States runs a services surplus with Korea, so Korea's overall goods and services trade surplus was lower at $10.3 billion in 2017.

Korea does not publish its foreign exchange market intervention. Treasury estimates that in 2017 Korean authorities made net purchases of foreign exchange of $9 billion (0.6 percent of GDP), including activity in the forward market. Much of this occurred in the last six months of 2017 when the won appreciated 7.2 percent against the dollar and 1.8 percent on a real effective basis. In response to this appreciation pressure, Korea's foreign exchange intervention picked up between November 2017 and January 2018, totaling $10 billion during that timeframe. A small portion of these foreign exchange purchases were reversed in February 2018, as the Bank of Korea's net forward position fell by $3 billion and the won depreciated by 1.8 percent on a real effective basis.



Sources: Bank of Korea, U.S. Treasury estimates

The IMF has considered the Korean won to be undervalued every year since 2010, and in its most recent evaluation considered the won to be undervalued by 1-12 percent. In terms of evaluation, Korea has well-developed institutions and markets and should limit currency intervention to only truly exceptional circumstances of disorderly market conditions. Korea maintains ample reserves at $386 billion as of January 2018, equal to more than three times gross short-term external debt and 25 percent of GDP. Treasury also urges the authorities to promptly begin reporting foreign exchange intervention in a transparent and timely manner.



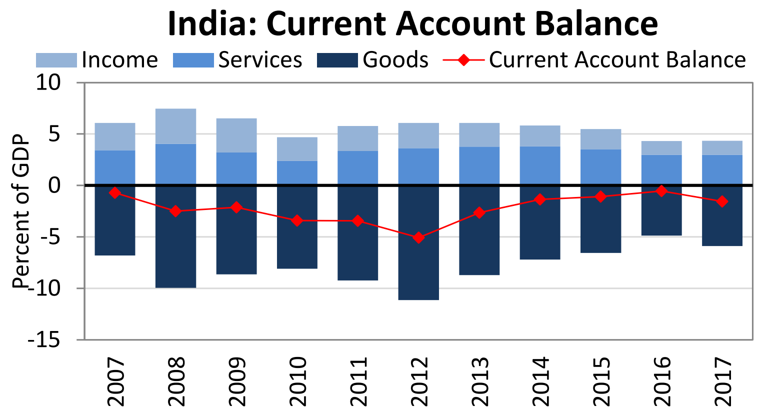
Sources: Bank of Korea, Bank for International Settlements

Though Korea's external position has adjusted somewhat since the peak of the current account surplus in 2015, there remains scope for policy reforms that would support a more durable strengthening of domestic demand. Korea was strongly reliant on external demand in the first few years after the global financial crisis, with net exports accounting for more than one-third of cumulative growth over 2011-2014. Since 2015, however, domestic demand has been stronger, averaging above 4 percent growth annually and expanding faster than overall growth. This trend will need to be continued for a few years in order to decisively rebalance the economy and reduce the still-large trade and current account surpluses. Korea maintains sufficient policy space to support domestic demand, particularly as public sector debt remains relatively low at around 40 percent of GDP. A significantly more expansionary fiscal policy would help support the recovery and reduce external imbalances. Increased social spending, which remains well below most other OECD economies, could be particularly helpful for supporting stronger domestic consumption.

India

India's current account deficit widened modestly in 2017 to 1.5 percent of GDP, following several years of narrowing from its 2012 peak. The current account deficit has been driven by a large and persistent goods trade deficit, which has in turn resulted from substantial gold and petroleum imports. The goods trade deficit has fallen over the last few years as policy changes limited gold imports and the decline in oil prices narrowed the oil balance from 2014, though the goods trade deficit widened in 2017 to 5.9 percent of GDP. The IMF projects the current account deficit to widen to about 2 percent of GDP over the medium term as domestic demand strengthens further and given the rebound in commodity prices.

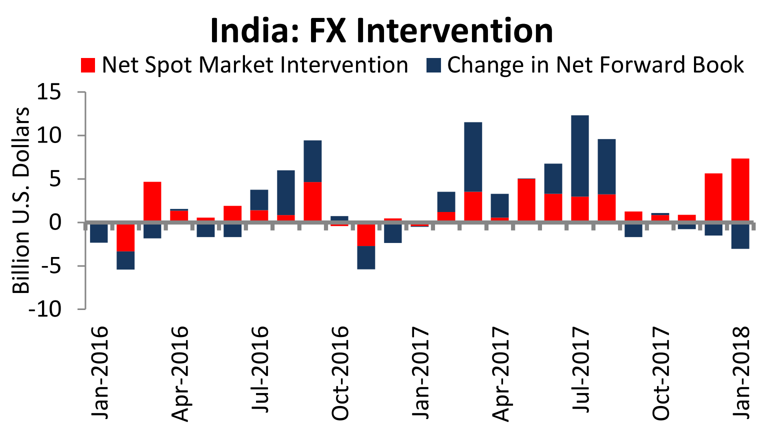
India's goods trade surplus with the United States was $23 billion in 2017, the highest level on record. Given that India also runs a services surplus with the United States of $6 billion, India's combined goods and services trade surplus with the United States was $28 billion in 2017. India's exports to the United States are concentrated in sectors that reflect India's global specialization (notably pharmaceuticals and IT services), while U.S. exports to India are dominated by key service trade categories, particularly travel and higher education.



Sources: Reserve Bank of India

India has been exemplary in publishing its foreign exchange market intervention. According to the authorities' data, India has generally been a net purchaser of foreign exchange since late 2013, when the Reserve Bank of India (RBI) sought to build a stronger external buffer in the wake of large emerging market outflows globally. Prior to 2013, intervention for several years had generally been less frequent, and when it had occurred it had been broadly symmetric, as for example during 2007 and 2008 when the RBI engaged in both purchases and sales of foreign exchange at various points in the midst of volatile global financial markets.

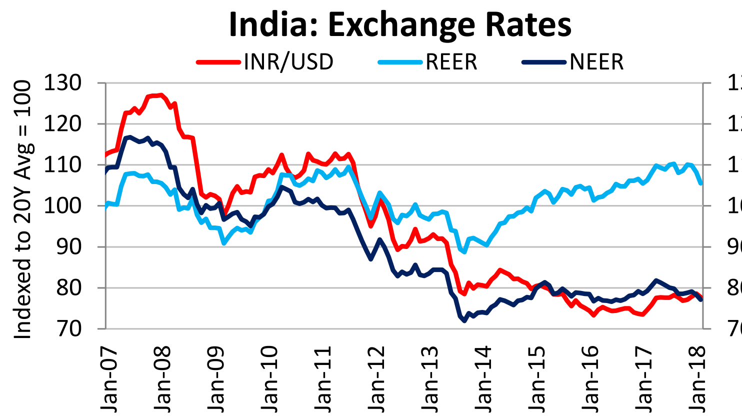
The RBI has noted that the value of the rupee is broadly market-determined, with intervention used only during "episodes of undue volatility." Foreign exchange intervention picked up in the first three quarters of 2017. According to the RBI's published intervention data, net purchases of foreign exchange over 2017 as a whole totaled $56 billion (2.2 percent of GDP), including activity in the forward market. The increase in intervention came in the context of strong capital inflows, with FDI of $34 billion and foreign portfolio flows of $26 billion over the first three quarters of the year. This mirrored the pattern of the last few years, in which intervention has typically tracked FDI and institutional portfolio flows.



Source: Reserve Bank of India

Direct intervention has supported a steady increase in foreign exchange reserve levels. At the end of 2013, foreign currency reserves were $268 billion, or 2.3 times short-term external debt, 6 months of import cover, and 14 percent of GDP. Further, headline reserves at end-2013 had been temporarily boosted through borrowed resources by mobilizing $34 billion in three-year fixed term foreign currency deposits from non-resident Indians, which rolled off the RBI's foreign exchange portfolio as they matured. By comparison, at end-2017 foreign currency reserves were valued at $385 billion, equal to 3.5 times gross short-term external debt, 9 months of import cover, and 15 percent of GDP.[11] India maintains ample reserves according to IMF metrics for reserve adequacy, particularly given that India maintains some controls on both inbound and outbound flows of private capital.

Notwithstanding the pick-up in intervention, the rupee appreciated 6.4 percent against the dollar over 2017, while the real effective exchange rate also continued its general uptrend from the last few years, appreciating by 3.1 percent. In its most recent analysis, the IMF maintained its assessment that the rupee is moderately overvalued. The RBI's most recent annual report assessed the rupee to be "closely aligned to its fair value over the long term."



Sources: Reserve Bank of India, Bank for International Settlements

The Euro Area and Germany

The euro area posted its strongest overall performance in a decade in 2017, exhibiting broad-based output growth across both countries and sectors. That said, the cyclical positions of individual member economies within the currency union remain widely divergent, owing largely to differences in the depth and intensity of the impact of the euro area crisis across various members and structural differences that affect competitiveness. This dynamic has weighed on the value of the euro, making the euro's real effective exchange rate appear undervalued for some of the strongest-performing individual member countries in the currency union (e.g., Germany).

The euro has appreciated markedly over the past 12 months, but is not notably strong from a historical perspective. Through the end of February 2018, the euro appreciated by 15.7 percent against the dollar year-over-year and 8.6 percent on a nominal effective basis. Real effective appreciation over the same time period was more modest, at 5.7 percent through end-February. Further, in spite of this recent appreciation, the euro remains 3 percent weaker than its 20-year average in real effective terms, while it is roughly 1 percent stronger on a bilateral basis against the dollar versus its 20-year average. The recent strengthening of the euro follows several years of weakness, due initially to concerns about the resilience of the monetary union in the midst of the regional crisis and more recently to monetary policy. The ECB's quantitative easing and negative interest rate policy opened a

[11] Gross short-term external debt reflects external debt with remaining maturity of one year or less, as reported by the Joint External Debt Hub.

sizable gap in bond market yields between the United States and the euro area, which contributed to the euro's weakness versus its historical level through 2016. More recently, however, the euro area's improved economic performance and shifts in expectations for the ECB policy outlook contributed to euro appreciation in 2017.

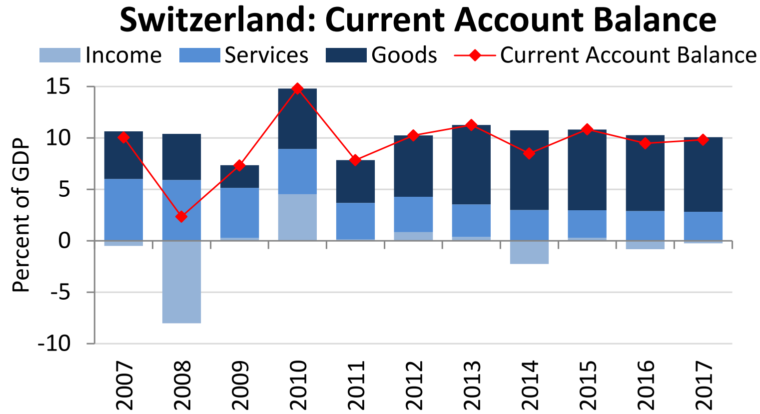
The combination of lower oil prices and German economic policies supporting high domestic saving and low consumption and investment has led to a rapid increase in Germany's current account surplus, which is now the largest nominal surplus in the world at $299 billion over the four quarters through December 2017. Over the long run, there has been a meaningful divergence between German domestic inflation and wage growth and (faster) average euro area inflation and wage growth. This has contributed to a general rise in Germany's competitiveness vis-à-vis its euro area neighbors. However, given the wide dispersion of economic performance across the euro area, the euro's nominal exchange rate has not tracked this rise in German competitiveness. Consistent with this, the IMF estimates that Germany's external position remains substantially stronger than implied by economic fundamentals (whereas the euro area as a whole is assessed by the IMF to have an external position broadly in line with economic fundamentals).

A number of German economic policies have restrained domestic consumption and investment, including elevated labor and value-added taxes and strict fiscal rules. Growth was strongly supported by net exports for several years following the crisis, which led to a substantial widening of the current account surplus. Since 2015, growth has been more balanced, with German domestic demand largely accounting for growth over the last three years. This has helped stall the growth in the current account surplus, but it has not been sufficient to appreciably reduce external imbalances. The most recent data point to a sharp weakening of domestic demand in recent quarters and declining personal consumption as a share of GDP. Demand growth needs to accelerate substantially for a sustained period for external rebalancing to proceed at a reasonable pace, which would be supported by growth-friendly tax and other policy reforms.

Germany's bilateral trade surplus with the United States is excessive and a matter of significant concern. Treasury recognizes that Germany does not exercise its own monetary policy and that the German economy is near full employment. Nevertheless, Germany has a responsibility as the fourth-largest economy globally and as an economy with a very large external surplus to contribute to more balanced demand growth and to more balanced trade flows. Allowing an increase in domestic demand against relatively inelastic supply should help push up wages, domestic consumption, relative prices against many other euro area members, and demand for imports; and higher relative prices would help appreciate Germany's undervalued real effective exchange rate. This would contribute to both global and euro area rebalancing.

Switzerland

Switzerland has for several years faced persistent pressures from safe haven capital inflows. These pressures subsided in the second half of 2017 as euro area economic activity accelerated and prospects for ECB policy normalization appeared to advance. At the same time, Swiss domestic economic activity has been relatively subdued and the current account surplus remains elevated. The current account surplus in 2017 was 9.8 percent of GDP, up marginally from 9.4 percent of GDP in 2016. Switzerland's role as an international trading and financial services hub contributes to its large current account surplus: For example, the Swiss brokerage industry (which facilitates trade in goods) constitutes 3-4 percent of GDP, but accounted for half of Switzerland's trade surplus in 2017 even though the actual merchandise may not physically pass through Switzerland. The United States' goods trade deficit with Switzerland was $7.7 billion in the second half of 2017, up from $6.9 billion compared to a year earlier.



Sources: Swiss National Bank, Haver

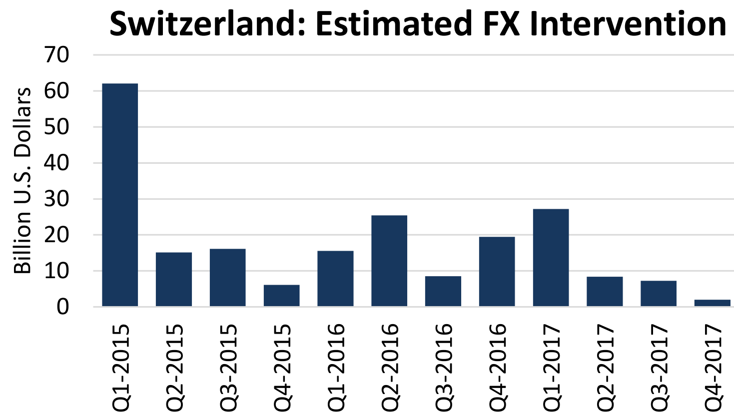
Reflecting the fall in safe haven inflow pressures, the Swiss franc depreciated 7.4 percent against the euro and 1.6 percent against the dollar in nominal terms during the second half of 2017. Further, both the nominal and real effective exchange rate (REER) depreciated over the second half of the year, by 5.2 percent and 6.3 percent, respectively. This decline brought the REER a bit below where it had stood in January 2015 prior to the surprise removal of the floor on the franc that the Swiss National Bank (SNB) had maintained (vis-à-vis the euro) for several years. The floor's removal led to a sharp appreciation of the REER in early 2015. Following that appreciation, the SNB for a couple years consistently characterized the franc as "significantly overvalued." The depreciation of the franc over the second half of 2017 led the SNB to shift its assessment of the franc and state that it remained "highly valued." Nonetheless, by the end of 2017, franc depreciation had brought the REER to within 3 percent of its 20-year average.

Switzerland has used both negative policy rates and intervention in foreign exchange markets, as needed, over the last few years to contain appreciation pressures on the franc and combat deflation. After remaining in negative territory for more than two years, year-over-year inflation turned positive in 2017, with both headline and core inflation moving higher.

While Swiss authorities do not publish monthly intervention data, Treasury estimates that SNB purchases of foreign currency in 2017 totaled $44.9 billion (6.6 percent of GDP).[12] Treasury estimates that most net purchases of foreign exchange occurred over the first half of 2017, in response to European political uncertainty leading up to the French Presidential

[12] The SNB publishes a single annual figure for net intervention in its Annual Report. The SNB reported that it purchased 48 billion francs (about $48 billion) in foreign currency in 2017 to influence the exchange rate. Swiss National Bank, *110th Annual Report*, 2017, p.57

election. Interventions tapered off after the French election and appeared to be minimal, or possibly non-existent, during the second half of 2017.[13]



Sources: SNB, Haver, U.S. Treasury estimates based on sight deposits

As a result of interventions and valuation changes, the SNB's stock of foreign reserves has grown to 113 percent of GDP by end-2017. With inflation now positive and safe haven pressures having abated (at least temporarily), the current window offers an opportunity to consider how to unwind this large stock of foreign assets on the central bank's balance sheet. Further, given that economic activity remains subdued and both trade and current account surpluses are very large, Switzerland should adjust macroeconomic policies to more forcefully support domestic economic activity. For example, Switzerland appears to have ample fiscal space – with the budget broadly balanced and public debt around 40 percent of GDP – and could pursue tax or other structural reforms aimed at durably raising investment and productivity. Treasury also encourages the Swiss authorities to publish all intervention data on a higher frequency basis.

[13] Given uncertainties in estimating monthly or quarterly intervention from published sight deposit data, the range of possible net intervention for the second half of 2017 encompasses zero.

Section 2: Intensified Evaluation of Major Trading Partners

Together, the Omnibus Trade and Competitiveness Act of 1988 (the "1988 Act") and the Trade Facilitation and Trade Enforcement Act of 2015 (the "2015 Act") require the Secretary of the Treasury to provide semiannual reports on the foreign exchange policies of the major trading partners of the United States. Under Section 3004 of the 1988 Act, the Report must consider "whether countries manipulate the rate of exchange between their currency and the United States dollar for purposes of preventing effective balance of payments adjustment or gaining unfair competitive advantage in international trade." Section 701 of the 2015 Act requires that Treasury undertake an enhanced analysis of exchange rates and externally-oriented policies for each major trading partner "that has—(1) a significant bilateral trade surplus with the United States; (2) a material current account surplus; and (3) engaged in persistent one-sided intervention in the foreign exchange market." Additionally, the 2015 Act establishes a process to engage economies that may be pursuing unfair practices and impose penalties on economies that fail to adopt appropriate policies.[14]

Key Criteria

Pursuant to Section 701 of the Trade Facilitation and Trade Enforcement Act of 2015, this section of the Report seeks to identify any major trading partner of the United States that has: (1) a significant bilateral trade surplus with the United States, (2) a material current account surplus, and (3) engaged in persistent one-sided intervention in the foreign exchange market. Section 701 requires data on each major trading partner's bilateral trade balance with the United States, its current account balance as a percentage of GDP, the three-year change in the current account balance as a percentage of GDP, foreign exchange reserves as a percentage of short-term debt, and foreign exchange reserves as a percentage of GDP. Data for the most recent four-quarter period (January to December 2017, unless otherwise noted) are provided in Table 1 (on p. 14) and Table 2 (below).

As noted earlier, Treasury's focus is on the 12 largest trading partners of the United States; these economies account for more than 70 percent of U.S. trade in goods. Additionally, this Report covers Switzerland, which is currently the United States' 15th largest trading partner, but has previously been among the 12 largest trading partners and has appeared on Treasury's Monitoring List. Treasury's goal is to focus attention on those economies whose bilateral trade is most significant to the U.S. economy and whose policies are the most material for the global economy.

The results of Treasury's latest assessment pursuant to Section 701 of the 2015 Act are discussed below.

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[14] Because the standards and criteria in the 1988 Act and 2015 Act are distinct, it is possible that an economy could be found to meet the standards identified in one of the Acts without being found to have met the standards identified in the other. In particular, a finding that an economy met the standards in the 1988 Act of manipulating its currency would require Treasury to examine a wider array of additional facts such as foreign exchange reserve coverage, capital controls monetary policy, or inflation developments.

Table 2. Major Foreign Trading Partners Evaluation Criteria

	Bilateral Trade	Current Account			Foreign Exchange Intervention			
	Goods Surplus with United States (USD Bil., Trailing 4Q) (1)	Balance (% of GDP, Trailing 4Q) (2a)	3 Year Change in Balance (% of GDP) (2b)	Balance (USD Bil., Trailing 4Q) (2c)	Net Purchases (% of GDP, Trailing 4Q) (3a)	Net Purchases (USD Bil., Trailing 4Q) (3b)	Net Purchases (USD Bil., Trailing 2Q) (3c)	Net Purchases 8 of 12 Months† (3d)
China	375	1.4	-0.9	168	-0.6	-68	-6	No
Mexico	71	-1.6	0.2	-18	-0.2	-2	0	No
Japan	69	4.0	3.3	197	0.0	0	0	No
Germany	64	8.1	0.6	299	..	..	..	..
Italy	32	2.8	0.9	54	..	..	..	..
India	23	-1.5	-0.2	-39	2.2	56	27	Yes
Korea	23	5.1	-0.9	78	0.6	9	6	Yes
Canada	18	-3.0	-0.6	-49	0.0	0	0	No
Taiwan	17	14.6	3.1	84	1.3	7	5	Yes
France	15	-0.6	0.4	-15	..	..	..	..
Switzerland	14	9.8	1.4	67	6.6	45	9	Yes
United Kingdom	-3	-4.1	1.3	-107	0.0	0	0	No
Brazil	-8	-0.5	3.8	-9	0.1	2	-3	No
Memo : Euro Area	133	3.5	1.0	440	0.0	0	0	No

Sources: U.S. Census Bureau; Haver Analytics; National Authorities; U.S. Department of the Treasury Staff Estimates

†In assessing the persistence of intervention, Treasury will consider an economy that is judged to have purchased foreign exchange on net for 8 of the 12 months to have met the threshold.

Criterion (1) – Significant bilateral trade surplus with the United States:

Column 1 in Table 2 provides the bilateral goods trade balances for the United States' 12 largest trading partners and Switzerland for the four quarters ending December 2017.[15] China has the largest trade surplus with the United States by far, after which the sizes of the bilateral trade surpluses decline notably. Treasury assesses that economies with a bilateral goods surplus of at least $20 billion (roughly 0.1 percent of U.S. GDP) have a "significant" surplus. Highlighted in red in column 1 are the seven major trading partners that have a bilateral surplus that meets this threshold over the most recent four quarters. Table 3 provides additional contextual information where available on bilateral services trade with these trading partners.

Table 3. Major Foreign Trading Partners - Expanded Trade Data

	Bilateral Trade			
	Goods Surplus with United States (USD Bil., Trailing 4Q) (1a)	Goods Trade (USD Bil., Trailing 4Q) (1b)	Services Surplus with United States (USD Bil., Trailing 4Q)* (1c)	Services Trade (USD Bil., Trailing 4Q)* (1d)
China	375	636	-38	74
Mexico	71	557	-7	60
Japan	69	204	-14	79
Germany	64	171	3	66
Italy	32	68	3	22
India	23	74	6	52
Korea	23	119	-12	34
Canada	18	582	-26	92
Taiwan	17	68	-2	18
France	15	82	-2	37
Switzerland	14	58	n.a.	n.a.
United Kingdom	-3	109	-11	122
Brazil	-8	67	-19	32
Memo : Euro Area	133	554	n.a.	n.a.

Source: U.S. Census Bureau

*Services data is reported on a balance of payments basis (not seasonally adjusted), while goods data is reported on a census basis (not seasonablly adjusted). Bilateral services trade data through Q4 2017 is not yet available from the Census Bureau for some trading partners.

[15] Although this Report does not treat the euro area itself as a major trading partner for the purposes of the 2015 Act – this Report assesses euro area countries individually – data for the euro area are presented in Table 2 and elsewhere in this Report both for comparative and contextual purposes, and because policies of the ECB, which holds responsibility for monetary policy for the euro area, will be assessed as the monetary authority of individual euro area countries.

Criterion (2) – Material current account surplus:

Treasury assesses current account surpluses in excess of 3 percent of GDP to be "material" for the purposes of enhanced analysis. Highlighted in red in column 2a of Table 2 are the five economies that had a current account surplus in excess of 3 percent of GDP for the four quarters ending December 2017. In the aggregate, these five economies accounted for more than half of the value of global current account surpluses as of the end of 2017. Column 2b shows the change in the current account surplus as a share of GDP over the last three years, although this is not a criterion for enhanced analysis.

Criterion (3) – Persistent, one-sided intervention:

Treasury assesses net purchases of foreign currency, conducted repeatedly, totaling in excess of 2 percent of an economy's GDP over a period of 12 months to be persistent, one-sided intervention.[16] Columns 3a and 3d in Table 2 provide Treasury's assessment of this criterion.[17] In economies where foreign exchange interventions are not published, Treasury uses estimates of net purchases of foreign currency to proxy for intervention. Switzerland and India meet this criterion for the four quarters ending December 2017, per Treasury estimates.

Summary of Findings

Pursuant to the 2015 Act,[18] Treasury finds that no major trading partner of the United States met all three criteria in the current reporting period. Five major trading partners of the United States, however, met two of the three criteria for enhanced analysis in this Report. Additionally, one major trading partner, China, constitutes a disproportionate share of the overall U.S. trade deficit. **These six economies – China, Japan, Korea, India, Germany, and Switzerland – constitute Treasury's Monitoring List.** Japan, Germany, and Korea have met two of the three criteria in every Report since the April 2016 Report (the initial Report based on the 2015 Act), having material current account surpluses combined with significant bilateral trade surpluses with the United States. Switzerland has met two of the three criteria in every Report since the October 2016 Report, having a

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[16] Notably, this quantitative threshold is sufficient to meet the criterion. Other patterns of intervention, with lesser amounts or less frequent interventions, might also meet the criterion depending on the circumstances of the intervention.

[17] Treasury used publicly available data for intervention on foreign asset purchases by authorities, or estimated intervention based on valuation-adjusted foreign exchange reserves. This methodology requires assumptions about both the currency and asset composition of reserves in order to isolate returns on assets held in reserves and currency valuation moves from actual purchases and sales, including estimations of transactions in foreign exchange derivatives markets. Treasury also used alternative data series when they provide a more accurate picture of foreign exchange balances, such as China's monthly reporting of net foreign assets on the PBOC's balance sheet and Taiwan's reporting of net foreign assets at its central bank. To the extent the assumptions made do not reflect the true composition of reserves, estimates may overstate or understate intervention. Treasury strongly encourages those economies in this Report that do not currently release data on foreign exchange intervention to do so.

[18] Section 701 of the Trade Facilitation and Trade Enforcement Act of 2015, 19 U.S.C. § 4421.

material current account surplus and having engaged in persistent, one-sided intervention in foreign exchange markets. China has met one of the three criteria in every Report since the October 2016 Report, having a significant bilateral trade surplus with the United States, with this surplus accounting for a disproportionate share of the overall U.S. trade deficit. India met two of the three criteria for the first time in this Report, having a significant bilateral surplus with the United States and having engaged in persistent, one-sided intervention in foreign exchange markets. **Treasury will closely monitor and assess the economic trends and foreign exchange policies of each of these economies.**

Regarding the 2015 Act, while no economy met all three of the criteria for the current reporting period, Treasury remains deeply concerned by the significant and persistent trade imbalances in the global economy. The global adjustment process has not worked effectively to promote a symmetric adjustment toward smaller imbalances in a manner that sustains – rather than inhibits – global growth.

Achieving stronger and more balanced global growth will require that domestic demand become the sustained engine for economic expansion in key economies that have maintained large and persistent external surpluses. This could be supported by them putting in place more efficient tax systems with low rates and broad bases, regulatory frameworks that support domestic investment, and sound monetary policies. Strong economic fundamentals will help support greater stability in exchange rates, contributing to stronger growth and investment. Securing faster global growth also requires that all economies durably avoid macroeconomic, foreign exchange, and trade policies that facilitate unfair competitive advantage.

Based on the analysis in this Report, Treasury has also concluded that no major trading partner of the United States met the standard in the 1988 Act of manipulating the rate of exchange between its currency and the United States dollar for purposes of preventing effective balance of payments adjustments or gaining unfair competitive advantage in international trade during the period covered in the Report.

Annex I: Rebalancing the Global Economy – Progress Report[19]

The persistence and concentration of large trade and current account imbalances is a key motivation behind policy efforts to combat unfair currency practices and address distortionary macroeconomic and trade policies. The United States has long been a trade and current account deficit economy, mirrored by long-running trade and current account surpluses in other key economies. This historical imbalance – where one economy, or group of economies, does much of the net buying while others do much of the net selling – inevitably raises concerns about the sustainability of global economic momentum. Following the global crisis in 2008-09, G-20 Leaders set out to create a process of economic cooperation based on the goals of achieving strong, sustainable, and balanced growth, premised on the notion that deficit economies would do more to boost their saving and surplus economies would do more to boost demand. Relative shifts in demand would support global trade adjustments in a way that would be least disruptive to aggregate demand and the global economy. Given the endogeneity of exchange rates, relative prices also would adjust and reinforce the new patterns of trade and demand.

This annex reviews the evolution of global account imbalances, and looks at how demand, national saving, and exchange rate patterns have behaved across the largest trade deficit and surplus economies in the post-crisis period. With this context, it assesses how well the global adjustment process has worked, and considers some of the implications of imbalances were they to persist.

In general, current account surpluses among several major trading partners over the last two decades have proven both large and persistent. The global adjustment process has not worked effectively in the post-crisis era to promote a symmetric adjustment toward smaller imbalances in a manner that sustains – rather than inhibits – global growth. Nor are there signs that typical adjustment mechanisms – most notably real exchange rates and relative rates of demand growth – are currently pointing toward a narrowing of external imbalances.

Global Imbalances in Perspective

Global imbalances stayed around 1.5 percent of global GDP for much of the 1980s and 1990s. Oil exporting and East Asian economies (mostly Japan) accounted for much of the total surplus during that period. The United States was a major deficit economy through most of the period, with an average current account deficit of 1.6 percent of U.S. GDP (and 0.5 percent of global GDP).

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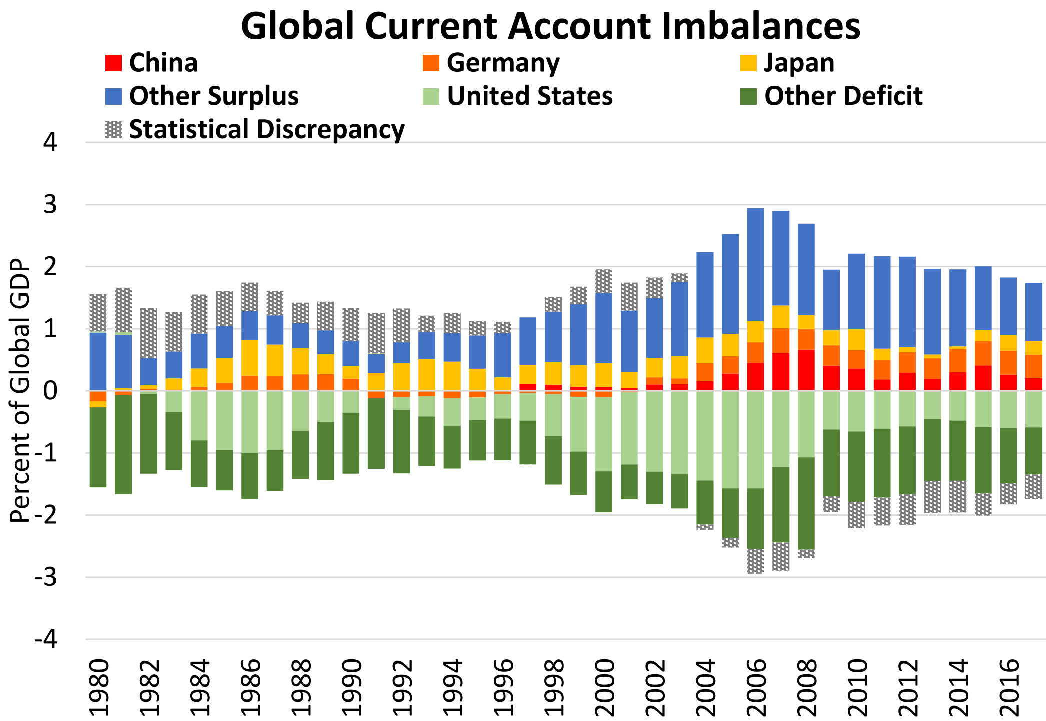
[19] This annex was prepared by Alexandra Altman and Daniel Hall.



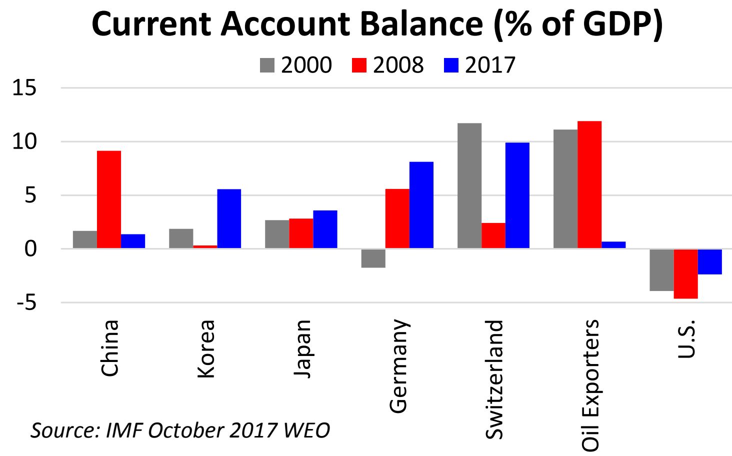
Sources: IMF WEO, Haver

The late 1990s marked a turning point in the evolution of global imbalances, as imbalances doubled in size in less than a decade, reaching 3 percent of global GDP by 2006. Much of the growth on the surplus side was concentrated among East Asian economies, particularly those leveraging growth models heavily reliant on net exports. China was the leading exemplar, as rapidly escalating trade surpluses pushed China's share of global surpluses from a negligible level in the late 1990s to nearly one-quarter of the global total by 2008. Outside of Asia, surpluses began accumulating over the 2000s in northern Europe, as the initial decade after the creation of the euro saw a rapid build-up of external imbalances within the currency union between deficit economies in peripheral Europe and surplus economies in the northern core (most significantly, Germany). Surpluses also grew in the oil exporting economies, as rising energy prices pushed their collective current account surpluses to more than 30 percent of the global total.

The 2008-09 financial crisis triggered a collapse in global demand, which exerted a sizable drag on global trade.[20] Global imbalances decreased immediately to around 2 percent of global GDP, where they have remained largely unchanged to the present day. Despite the post-crisis improvement, the outstanding gap of roughly ½ percent of global GDP between the average level of imbalances over the last few years and the 1980-2000 average is not trivial, equivalent to nearly $400 billion.

[20] Real global GDP declined in 2009 for the first time since 1991 in per capita terms, and in overall terms for the first time since World War II.

Further, imbalances in the post-crisis period have become, from a historical perspective, unusually concentrated in a relatively small number of countries, mostly in East Asia and northern Europe. Two facts largely account for this. First, the rebalancing process within the euro area was asymmetric, with peripheral European economies closing their external deficits but Germany and other northern European economies continuing to run large trade surpluses with the rest of the world. Second, the sharp fall in commodity prices led to a rotation of surpluses out of oil exporters and into oil importing economies in Asia and Europe, pushing existing surpluses higher.



The major deficit economies have remained largely the same over the past several decades, with the United States accounting for roughly half the global deficit, and the remainder spread across a number of economies (notably the United Kingdom and the larger economies in the Western Hemisphere).

Trends in Global Demand Growth

The post-crisis G-20 compact to support strong, sustainable, and balanced growth by raising demand in surplus economies and raising saving in deficit economies generally fell short of its aims. Saving rates underwent limited adjustment across both deficit and surplus economies. Further, there was a broad-based fall in demand across most economies – and with it, a fall-off in global growth – rather than a boost to domestic demand in most surplus economies, which would have led to a stronger and more balanced global recovery:

- In the smaller industrialized economies of Asia (e.g., Korea, Taiwan), domestic demand growth actually decelerated, while saving rates and current account surpluses were generally stable or rising.

- Germany did see a modest increase in domestic demand relative to its very weak pre-crisis trend. However, domestic demand growth in Germany fell short of real GDP growth in six of the last eight years, meaning that net exports have made a substantial cumulative contribution to Germany's growth since the crisis. Further, Germany's saving rate rose significantly compared to the pre-crisis average, as did its trade and current account surpluses. Thus, while German demand strengthened relative to its pre-crisis trend, the gains were largely captured domestically rather than spilling over to the rest of the world.

- In Japan, domestic demand ticked up from its modest pre-crisis average, exceeding GDP growth for the first few years after the crisis and facilitating some external adjustment. The trade balance was also impacted by exogenous events, as it declined notably – falling into deficit – after the 2011 earthquake and tsunami, which sharply pushed up energy imports. These factors played into the decline in the saving rate in the first few years after the crisis. In the last couple of years, this adjustment has partially reversed, with domestic demand weakening, the trade balance returning to surplus (aided by the fall in energy prices in 2014), and the saving rate ticking up.

- China is the most successful example of external rebalancing in the post-crisis period among the major surplus economies. Domestic demand pulled back slightly from the very strong pre-crisis level, but headline trend growth was also slowly coming down over this period. As a result, domestic demand growth exceeded GDP growth in 5 of the last 8 years, and the cumulative contribution to growth from domestic demand exceeded GDP growth over this period, meaning that at least a portion of Chinese demand was spilling over to the rest of the global economy. China's immense pre-crisis current account trended down. Where China has been much less successful is in achieving internal domestic adjustments that would make external rebalancing more sustainable, particularly with regard to the very high saving rate. External rebalancing after the crisis was not a function of a fall in the saving rate; instead, it was facilitated by a massive rise in credit-fueled investment, which more-than-offset a sharp rise in the saving rate. China needs to lower domestic saving – allowing household consumption to take the place of investment – to sustain growth momentum and ensure current (necessary) deleveraging efforts do not ultimately lead to a reemergence of large external surpluses.

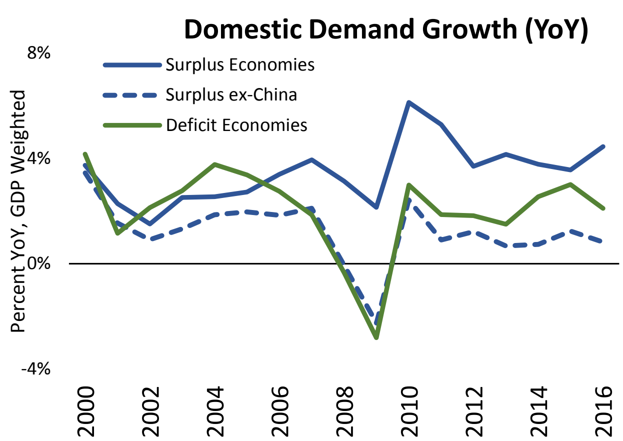
The upshot is that domestic demand growth has been persistently weak, and weaker than GDP growth, across surplus economies (excluding China). Moreover, demand growth across surplus economies (excluding China) has been even slower on average than that of deficit economies, as seen in the chart on the following page, and the gap has been widening due to a further slowdown among surplus economies over the last two years.

Among the deficit economies post crisis, the United States experienced the most dramatic decline in demand growth, as national saving recovered to around its average level from 1995-2005 (which was well above its crisis low around 14 percent). Outside of India, no other deficit economy managed to substantially raise national saving in the aftermath of the crisis.

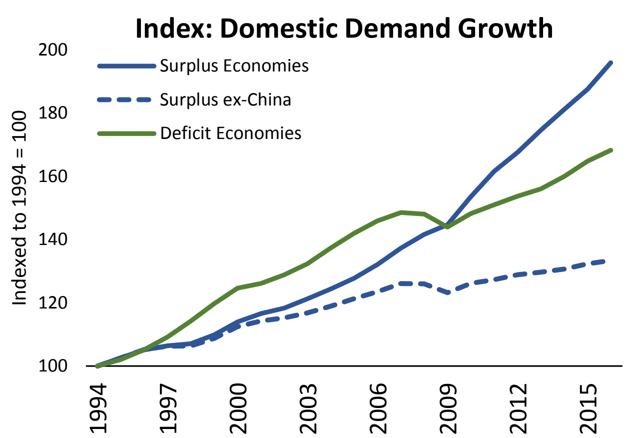
Rebalancing in a manner that is supportive of global growth will require further policy action by surplus economies to durably strengthen domestic investment and consumption. In economies where investment has been weak (e.g., Germany), this could mean tax and other fiscal reforms alongside structural changes that aim to raise both public and private investment. In economies with still-low rates of household consumption (e.g., China, Korea), this could mean expansions of the social safety net and other tax or fiscal reforms that boost the spending power of households, along with structural reforms that support greater entrepreneurship.

	Domestic Demand Growth (GDP-Weighted Average, YoY)			Gross National Saving (GDP-Weighted Average)		
	1995-2005	*2010-2015*	*2016-2017*	*1995-2005*	*2010-2015*	*2016-2017*
Surplus Economies	**2.3%**	**4.4%**	**4.4%**	**28%**	**36%**	**36%**
Surplus ex-China	**1.8%**	**1.2%**	**0.8%**	**27%**	**27%**	**28%**
China	9.0%	8.5%	8.1%	41%	49%	46%
Japan	1.1%	1.5%	0.8%	30%	25%	27%
Germany	0.8%	1.5%	2.4%	22%	27%	28%
Korea	4.3%	3.4%	4.6%	35%	35%	37%
Italy	1.8%	-0.9%	1.2%	21%	18%	20%
Switzerland	1.5%	1.1%	0.3%	34%	35%	34%
Taiwan	4.1%	3.0%	1.4%	29%	34%	35%
Deficit Economies	**3.2%**	**2.3%**	**2.1%**	**20%**	**19%**	**19%**
Canada	3.4%	2.4%	2.3%	21%	21%	20%
Mexico	2.7%	2.9%	2.3%	21%	21%	21%
UK	3.4%	2.3%	1.9%	17%	13%	13%
France	2.4%	1.2%	1.9%	23%	22%	22%
India	6.5%	6.8%	7.0%	26%	33%	29%
Brazil	2.5%	2.5%	-2.2%	16%	18%	16%
United States	3.8%	2.3%	2.0%	19%	18%	18%

Note: Total domestic demand for all economies, excluding Brazil (only final domestic demand is available). Aggregate groups are weighted by nominal U.S. dollar GDP at market exchange rates.
Source: National Authorities, IMF, U.S. Department of the Treasury Staff Calculations



Source: National Authorities, IMF, Treasury Calculations

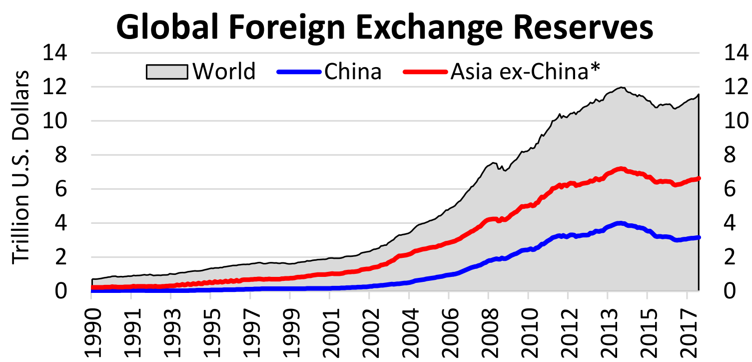


Source: National Authorities, IMF, Treasury Calculations

Real Effective Exchange Rate Adjustments

Ideally, real exchange rates over the medium term should move in directions that reinforce rebalancing of global trade and demand. This means that exchange rates should generally appreciate in surplus economies so that higher consumption of foreign goods is encouraged in those economies; and the currencies of deficit economies should generally depreciate to improve their export competitiveness.

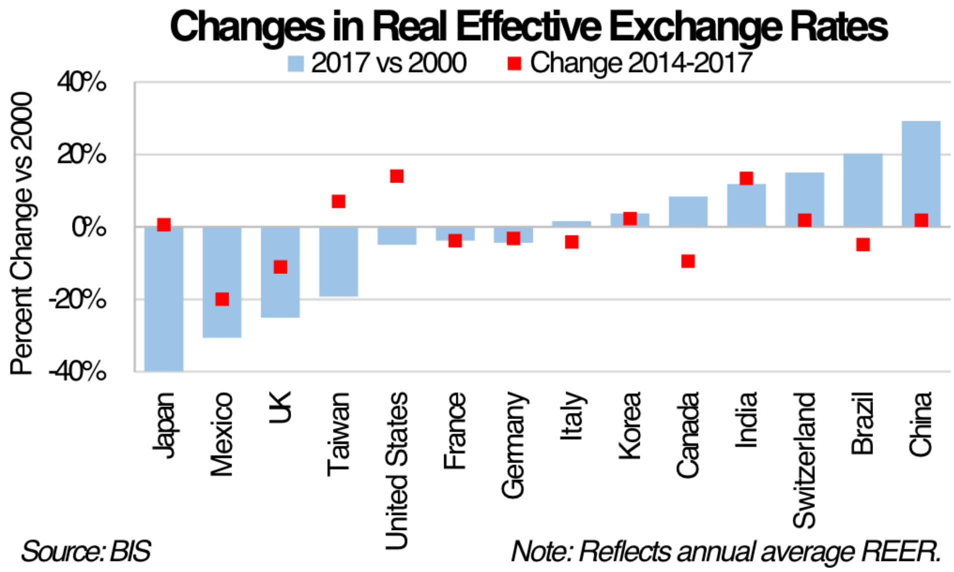
The record on exchange rates adjusting in ways to support rebalancing has been spotty over the last couple of decades. Part of this is due to very substantial exchange rate intervention over the last twenty years, which prevented exchange rates from adjusting as fully or as rapidly as external imbalances might dictate. This intervention is reflected in the massive increase in global foreign exchange reserves since the end of the 1990s, with global reserves rising by $9.8 trillion over the last two decades (to $11.4 trillion as of December 2017). Much of this increase in reserves has been concentrated in Asia: China's reserves grew by $3 trillion between 1997 and 2017 (as of end-2017, China's reserves accounted for almost 30 percent of global reserves), while reserves in Asia excluding China also rose by nearly $2.9 trillion. Though the trend of large and rapid reserve accumulation has shifted in recent years – largely associated with the decline in Chinese reserves amid significant capital outflows – it is important that further currency interventions and reserve accumulation that hinder market-driven exchange rate adjustment be avoided.



*Note: Includes valuation effects; *Includes Hong Kong, India, Japan, Korea, Malaysia, Singapore, Taiwan, Thailand, and Vietnam.*
Sources: IMF, Haver

Past intervention notwithstanding, real effective exchange rates (REER) in several key regions have adjusted in the direction that would narrow imbalances over a longer horizon. China's REER appreciated nearly 30 percent from 2000 to 2017. Switzerland's REER has increased as well, 15 percent on net between 2000 and 2017. Given that both economies maintain current account surpluses – Switzerland's surplus in particular is very large as a share of GDP – some continued real effective appreciation would be consistent with a narrowing of external imbalances.

Japan and Taiwan, on the other hand, now have REERs that are far below their level in 2000, by 40 percent and 20 percent, respectively. In addition, Germany – as a member of the euro area – has benefitted from an undervalued real effective exchange rate relative to the strength of the German economy, particularly in the post-crisis era. The value of the euro has not kept pace with the increase in Germany's competitiveness vis-à-vis its neighbors, as discussed in this Report, due to the wide dispersion of economic performance across the euro area.

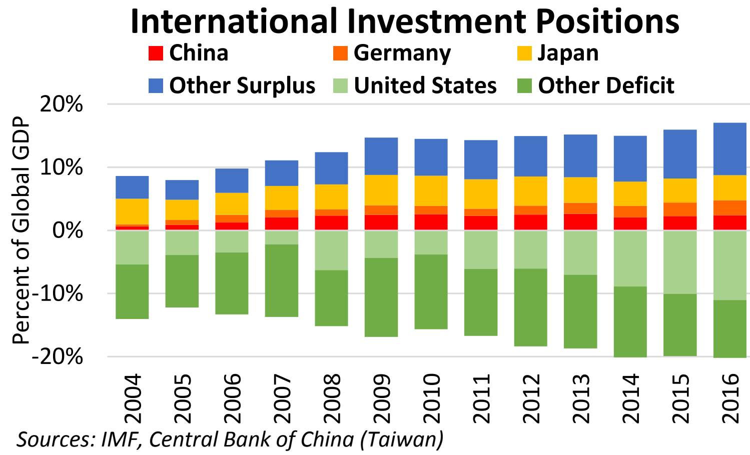


Exchange rates have moved in a direction consistent with rebalancing across most of the deficit economies, particularly in recent years. Between 2014 and 2017, annual average REERs in Canada, Mexico, the United Kingdom, France, and Brazil depreciated between 4 and 20 percent, in many cases reflecting domestic political developments (Brexit; U.S.-Mexico trade policy risks; Petrobras scandal and recession in Brazil). The recent depreciations in Mexico and the United Kingdom are part of a substantial longer-run fall in exchange rates which would be expected to contribute to external adjustment in both economies, as real effective rates are now nearly 30 percent below their level in 2000. Conversely, the U.S. dollar has appreciated sharply since 2014 on a real effective basis, erasing the move down in the dollar witnessed in the immediate post-crisis period and bringing the U.S. REER back broadly in line with its pre-crisis average.

In sum, adjustments in exchange rates in recent years among then United States' major trading partners offer mixed support for rebalancing U.S. external accounts. While exchange rates have shifted in recent years to facilitate rebalancing among deficit economies, there has been generally limited adjustment among major surplus economies.

Implications of Persistent Imbalances

The key global adjustment mechanisms have not worked over the post-crisis to effectively rebalance and sustain growth: domestic demand and national saving rates have not for the most part facilitated transition toward a more balanced pattern of global demand that would support stronger global growth, nor have there been supportive exchange rate adjustments. This has meant that imbalances have remained not only large but also unusually persistent. This in turn has widened stock imbalances, reflecting large net foreign asset accumulations among northern European and Asian surplus economies and growing liabilities among deficit economies, primarily the United States. In nominal terms, net international assets increased between \$1.5 and \$1.9 trillion in Germany, Japan, and China from 2000 to 2016. Net foreign liabilities of the United States, the world's largest debtor, have more than quadrupled over the last two decades, rising from $1.5 trillion in 2000 (15 percent of U.S. GDP) to $7.8 trillion in 2017 (40 percent of U.S. GDP).[21]



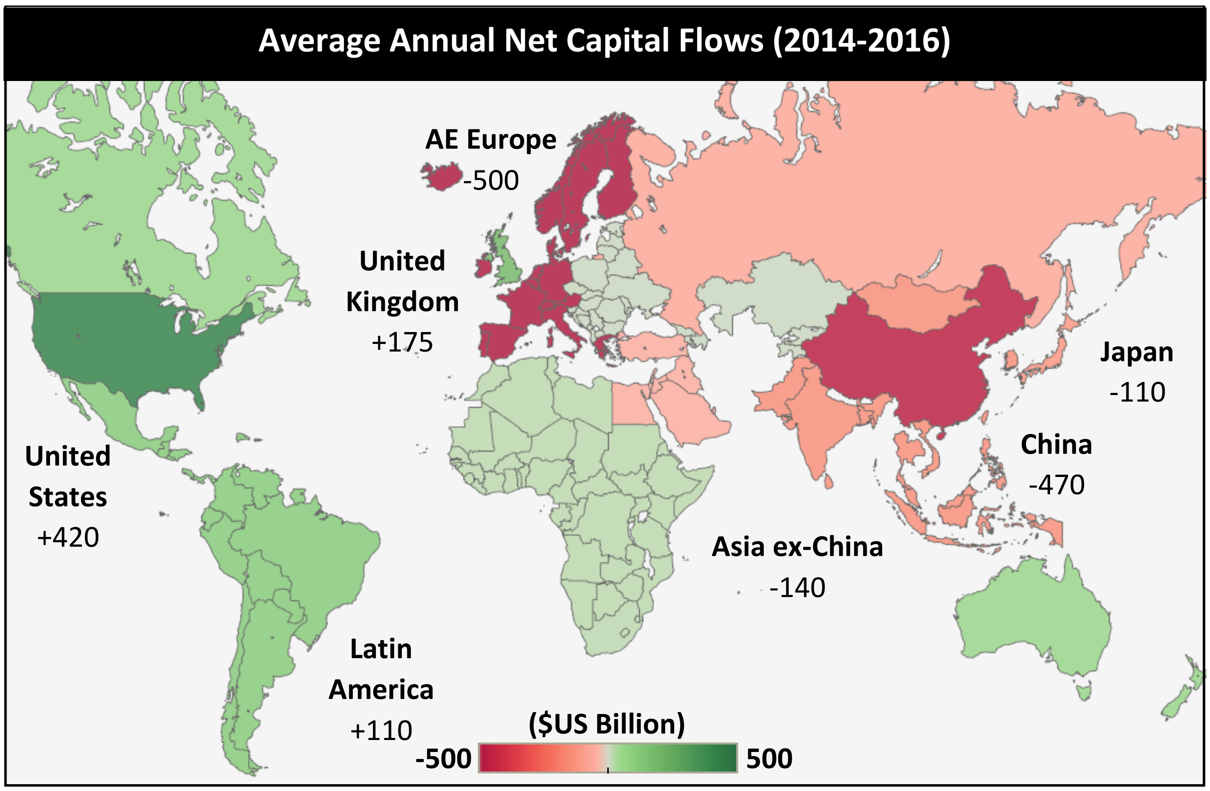
As highlighted by the IMF in the 2017 External Sector Report, excess imbalances are likely to widen further over the medium term absent policy actions and reforms to make external adjustment more effective. Further, large (and growing) stock positions can perpetuate global imbalances and pose risks to global growth over the longer run. Recent BIS work finds that stock imbalances may have a destabilizing impact on creditor economies' accumulation of external wealth – that is, positive stocks of net foreign assets have not historically led to adjustments in the trade balance, and ultimately contribute to larger future current account surpluses.[22] History suggests that large external stocks will, at some point, be unwound (at least partially). Whether the adjustment process that is involved in the decline of those stocks is a drag on the global economy – as it proved to be in the global financial crisis – or can be done in a way that maintains global economic momentum will depend on whether major economies can put in place a more symmetric rebalancing process that entails all economies carrying a share of the adjustment.

[21] Note that changes in the net international investment position reflect both flow effects (current account imbalances) as well as valuation effects; valuation changes in the post-crisis period have had significant effects in the United States, Germany, Japan, China (reducing the value of net international assets), and in Canada and the United Kingdom (increasing the value of the net international assets).

[22] Alberola, Estrada, and Viani. (March 2018). BIS Working Papers No 707: *Global Imbalances From a Stock Perspective. The Asymmetry Between Creditors and Debtors.* Monetary and Economic Department. Stock imbalances of debtor economies, by contrast, generally have a stabilizing impact on external imbalances, as they tend to reduce trade imbalances, limit current account deficits, and curb future debt accumulation.

Annex II: Global Capital Flows – Recent Trends and Volatility[23]

Two predominant trends have shaped global (non-reserve) capital flows in recent years: most notably, capital fled out of China rapidly from mid- 2014 to early 2017, an abrupt shift following a decade of rising inflows. In addition, capital outflows from the euro area and, to a lesser degree, Japan accelerated as central banks in these economies employed unconventional monetary policy. In the background, the United States continued to attract the largest capital inflows globally, a trend which persisted through both the global financial crisis and recent regional swings. Despite these developments, most emerging markets aside from China have not experienced greater volatility of capital flows (when measured as a share of GDP) compared to the previous decade.



Note: Net capital flows exclude reserves

Recent Trends in Capital Flows

China

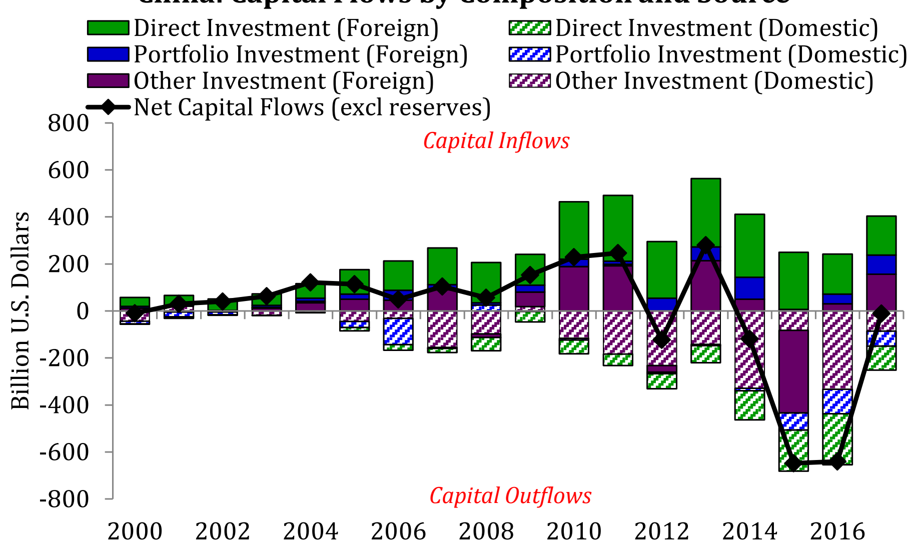
China attracted steady and rising foreign inflows over the decade prior to the global financial crisis, and foreign inflows accelerated further in the years immediately after the crisis. Though smaller in scale, investment by Chinese residents abroad also grew over this period, particularly from 2010 onwards, as the capital account was gradually liberalized.

[23] This annex was prepared by Alexandra Altman and Daniel Hall.

In mid-2014, however, this picture changed markedly. Growing concerns over the growth outlook, financial stability, and the trajectory of the renminbi in 2014 caused foreign investors to pull back: annual FDI inflows shrank each year through 2016, and non-FDI inflows reversed outright in 2015, as foreign investors withdrew $350 billion of 'other investments'.[24] At the same time, Chinese investment abroad accelerated sharply, growing to exceed $650 billion by 2016. Further, analysts have suggested that there could be large additional Chinese outflows that are not captured within the conventional components of the capital account: the 'net errors and omissions' category grew precipitously over this period – reaching over $200 billion in both 2015 and 2016 – possibly reflecting additional outflows, while research suggests that some resident outflows – possibly amounting up to 1 percent of GDP – have been disguised as tourism exports within the current account.[25]

In response to persistent outflow pressures – with $1.4 trillion having left China on net from 2014 to 2016 – Chinese regulators gradually tightened existing capital controls, effectively pausing (or reversing) the trend towards capital account liberalization. Data through the third quarter of 2017 suggest that capital restrictions, along with efforts to more clearly communicate the authorities' intentions for the exchange rate and stronger than expected growth, have helped reduce outflows: resident outflows (through Q3) show a marked deceleration from prior years (less than half of the magnitude of outflows in the first three quarters of 2016). Foreign investor sentiment toward China also improved in the midst of strong economic performance, with non-FDI inflows in the first three quarters of 2017 reaching their highest level since 2013 (though FDI inflows continued their secular decline).

China: Capital Flows by Composition and Source



Source: National Authorities

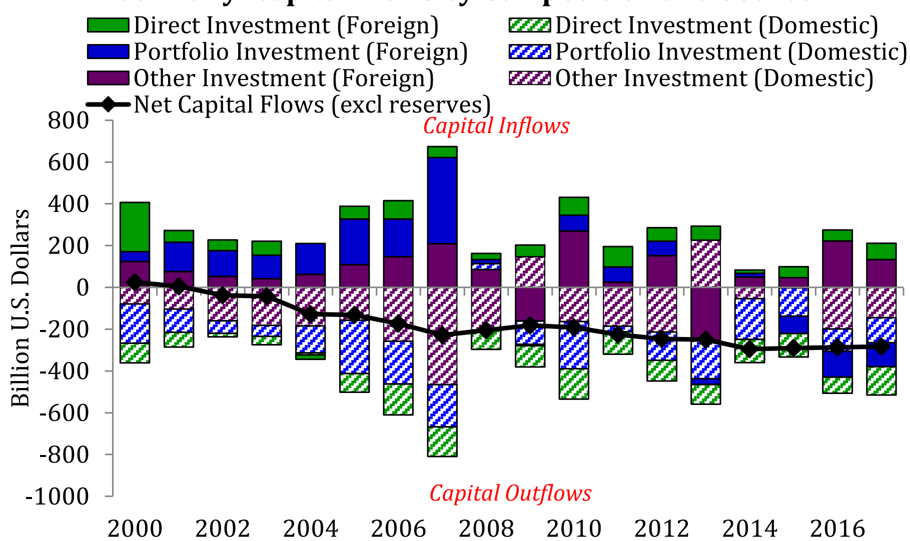
[24] In the Balance of Payments data, 'other investments' refers to a broad set of non-portfolio or direct investment activities that include bank flows, trade credits, and insurance and pension guarantee schemes.

[25] "China's Current Account: External Rebalancing or Capital Flight?" Wong, Anna (2017). International Finance Discussion Papers 1208. Board of Governors of the Federal Reserve System.

Euro Area and Japan

Net capital outflows from the euro area accelerated as the region was wracked by crisis, averaging over $400 billion per year from 2011 to 2013. Net outflows picked up further in response to the ECB's adoption of negative policy rates in 2014 and large scale asset purchases in 2015 – with $1.9 trillion leaving the region on net from 2014 to 2017 – while the composition of flows also shifted in response to unconventional policy. Germany is the key exemplar and primary driver behind the regional trend.[26] Portfolio investment inflows, which had accounted for the largest share of gross inflows pre-crisis, diminished substantially post-crisis and turned negative (foreign investors withdrawing) in almost every year since 2013, reflecting the acute effects of the ECB's asset purchase program on German government bond yields.[27]

Germany: Capital Flows by Composition and Source



Source: National Authorities

Japan, historically a net capital exporter, also saw an acceleration of net outflows following the introduction of their asset purchase program in 2013. Net portfolio outflows, in particular, grew substantially over 2015 and 2016, driven by a sharp increase in resident outflows and a collapse in foreign portfolio inflows. In 2016, following the Bank of Japan's adoption of its negative interest rate policy, net outflows peaked at $185 billion, the highest level in over two decades.

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[26] Net capital outflows from Germany account for almost 60 percent of the euro area-wide net outflows from 2011 through Q3-2017.

[27] During the ECB's asset purchase scheme, the German 10-year Bund fell to an all-time low of -0.24 basis points in July 2016. For further discussion of the composition of portfolio flows in Europe and elsewhere in response to the ECB's unconventional monetary policies, see "The International Dimension of the ECB's Asset Purchase Program", Speech by Benoît Cœuré, Member of the Executive Board of the ECB at the Foreign Exchange Contact Group meeting, July 11 2017.

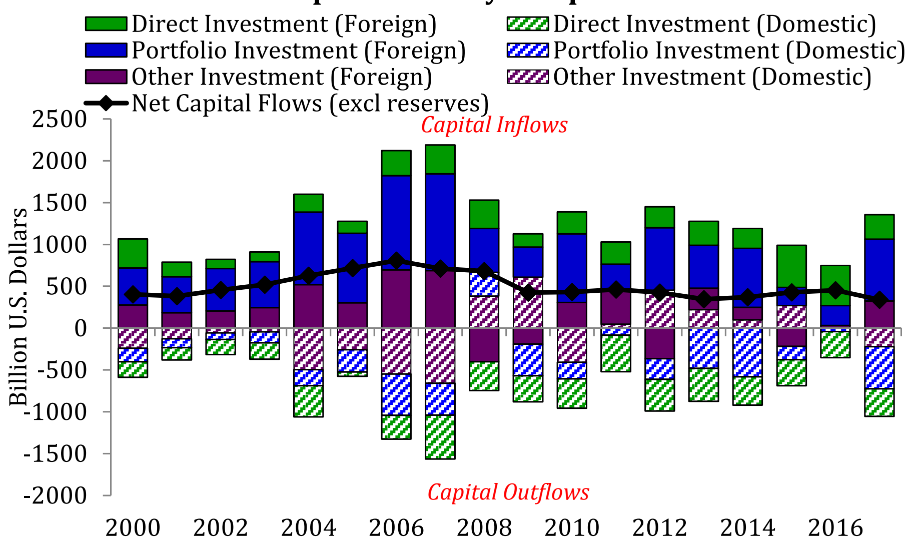
Elsewhere, oil exporters and Asia's newly industrialized economies have been net capital exporters. Across both groups of economies, outflows were driven by a strong post-crisis resurgence in domestic investor outflows, particularly in portfolio investment.

The United States, United Kingdom, and Major Emerging Markets

The counterpart to rising outflows from Europe and Japan, and more recently China, over this period has been sizeable inflows to other major economies, particularly the United States, United Kingdom, and large (non-Asian) emerging market economies. By comparison to their European and Japanese peers, accommodative monetary policies in the United States and United Kingdom ended sooner, and never pushed domestic interest rates to negative levels.

The United States continues to be by far the largest recipient of global capital, with net inflows rising gradually over the last three years, though still remaining well below their pre-crisis peak. In addition, there have been notable shifts in the composition of capital coming into the United States. Whereas net portfolio flows constituted the large majority of inward investment to the United States in the pre-crisis period, they have since declined substantially, due primarily to a substantial reduction of foreign inflows. Foreign investors actually withdrew money from U.S. equities in 2015 and 2016 (average $160 billion each year), while inflows into U.S. debt securities also declined noticeably (though debt inflows remained larger than equity outflows). The decline in portfolio debt inflows stemmed from large official sales of U.S. debt securities (corresponding to the use of reserves by China and other emerging markets to cushion external pressures), offset in part by large private purchases of debt securities, particularly corporate debt. Data through the third quarter of 2017 point to a resurgence of both U.S portfolio investment abroad and foreign inflows back to pre-crisis levels. Meanwhile, an increased share of net inflows since the crisis has been accounted for by net "other investment" flows (bank deposits), predominantly reflecting shifts in interbank funding patterns as U.S. branches of foreign banking institutions increased their reserve holdings at the Federal Reserve.

United States: Capital Flows by Composition and Source



Source: National Authorities

The United Kingdom has also attracted a growing share of global capital, driven by an increase in portfolio inflows since 2013 as well as modest inflows from domestic investors repatriating portfolio and direct investments from abroad.

For the emerging market economies receiving capital inflows, the magnitude of flows (excluding China) generally pales in comparison to flows into major advanced economies. Immediately following the crisis, emerging markets initially benefitted from a shift in capital flows away from the advanced economies, though in recent years concerns related to China's economic outlook have dampened emerging market inflows. Nevertheless, several major emerging market economies (including Brazil, India, Indonesia, Mexico, South Africa, and Turkey in the G-20) have each received small but steady net inflows over recent years, via both direct and portfolio investment. Flows into these economies have generally accounted for the large majority of capital going into their respective regions, as smaller economies have received much smaller inflows in nominal terms.

Capital Flow Volatility

Given these changes in regional flows, both policymakers and academics have confronted the question of how the volatility of capital flows has changed.[28] Looking at the experience of more than 70 emerging market economies, we find that volatility – as measured by the rolling 5-year standard deviation of an economy's gross capital flows – has increased in nominal terms (meaning the dollar amounts have swung more widely), but once the flows are scaled relative to GDP, volatility post-crisis for the 70 emerging market economies in our sample is broadly in line with volatility pre-crisis. The dispersion of volatility of both nominal flows and flows as a share of GDP, however, has increased relative to pre-crisis, highlighting that capital flow volatility has risen recently among the top quartile of economies.

As shown in the accompanying chart, capital flow volatility as a share of GDP is currently around pre-crisis levels for the median emerging market economy. Leading into the crisis, capital flow volatility rose for the majority of economies (the 25th to 75th percentile distribution shifted up), coincident with the pickup in global capital flows into emerging markets described above. At the same time, the dispersion of volatility increased, reflecting growing differences in economies' experience with cross-border capital flows. In recent years, the median level of volatility has declined to its lowest in over a decade, but dispersion remains elevated and biased upward relative to pre-crisis. In general, the increasing upward bias (as a share of GDP) reflects heightened volatility among smaller emerging market economies (Hong Kong, Latvia, Mongolia, Qatar, Slovakia), whereas capital flow volatility for many of the larger economies has remained around pre-crisis levels and even below the median (China, Korea, India, Brazil). Taiwan is a notable

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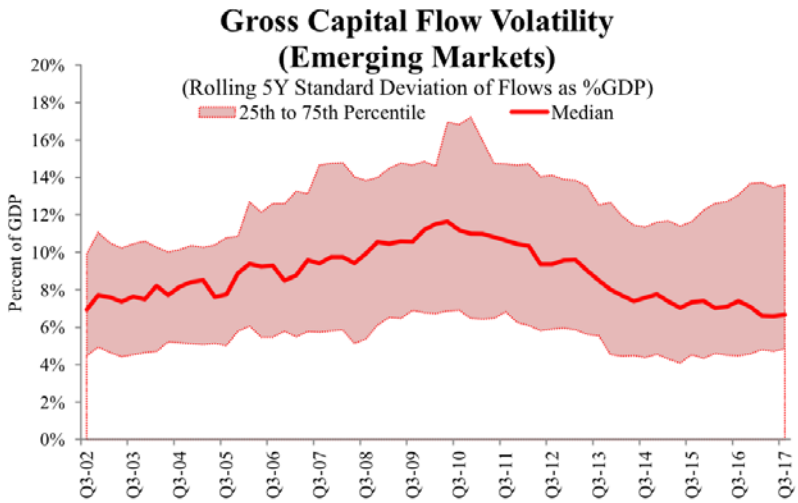
[28] For a discussion of several alternative measures of capital flow volatility, see Pagliari, Maria Sole and Swarnali Ahmed Hannan, *The Volatility of Capital Flows in Emerging Markets: Measures and Determinants*. IMF Working Paper WP/17/41 Feb 2017.

exception, where capital flow volatility (as share of GDP) has nearly doubled relative to pre-crisis, reflecting increasing volatility of both inflows and outflows.



Source: National Authorities, U.S. Treasury calculations

In line with the increase in the nominal size of capital flows, nominal volatility has risen for the vast majority of emerging markets economies. Unsurprisingly, the largest economies have tended to experience the greatest nominal volatility, including the large G-20 emerging market economies (e.g., Brazil, China, Korea, and Russia). However, the pattern of volatility has differed across economies: in China, Korea, and Brazil, volatility of capital inflows increased substantially more than that of outflows in the post-crisis period, while volatility across both inflows and outflows picked up in Mexico, Russia, and Taiwan post-crisis relative to pre-crisis.

Glossary of Key Terms in the Report

Exchange Rate – The price at which one currency can be exchanged for another. Also referred to as the bilateral exchange rate.

Exchange Rate Regime –The manner or rules under which an economy manages the exchange rate of its currency, particularly the extent to which it intervenes in the foreign exchange market. Exchange rate regimes range from floating to pegged.

Floating (Flexible) Exchange Rate – An exchange rate regime under which the foreign exchange rate of a currency is fully determined by the market with intervention from the government or central bank being used sparingly.

Foreign Exchange Reserves – Foreign assets held by the central bank that can be used to finance the balance of payments and for intervention in the exchange market. Foreign assets consist of gold, Special Drawing Rights (SDRs), and foreign currency (most of which is held in short-term government securities). The latter are used for intervention in the foreign exchange markets.

Intervention – The purchase or sale of an economy's currency in the foreign exchange market by a government entity (typically a central bank) in order to influence its exchange rate. Purchases involve the exchange of an economy's own currency for a foreign currency, increasing its foreign currency reserves. Sales involve the exchange of an economy's foreign currency reserves for its own currency, reducing foreign currency reserves. Interventions may be sterilized or unsterilized.

Nominal Effective Exchange Rate (NEER) – A measure of the overall value of an economy's currency relative to a set of other currencies. The effective exchange rate is an index calculated as a weighted average of bilateral exchange rates. The weight given to each economy's currency in the index typically reflects the amount of trade with that economy.

Pegged (Fixed) Exchange Rate – An exchange rate regime under which an economy maintains a set rate of exchange between its currency and another currency or a basket of currencies. Often the exchange rate is allowed to move within a narrow predetermined (although not always announced) band. Pegs are maintained through a variety of measures, including capital controls and intervention.

Real Effective Exchange Rate (REER) – A weighted average of bilateral exchange rates, expressed in price-adjusted terms. Unlike the nominal effective exchange rate, it is further adjusted for the effects of inflation in the countries concerned.

Trade Weighted Exchange Rate – see Nominal Effective Exchange Rate.