# Report to Congress on International Economic and Exchange Rate Policies

U.S. Department of the Treasury
Office of International Affairs

October 19, 2015

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 (the "Act").[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 management and staff in preparing this Report.

## Contents

## KEY FINDINGS

The Omnibus Trade and Competitiveness Act of 1988 (the "Act") requires the Secretary of the Treasury to provide semiannual reports on the international economic and exchange rate policies of the major trading partners of the United States. Under Section 3004 of the 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."

This Report covers developments in the first half of 2015, and where pertinent and available, data through early October 2015. This Report reviews the macroeconomic and exchange rate policies of economies accounting for 75 percent of U.S. foreign trade and assesses global economic developments more broadly.

In the United States, second quarter growth confirmed a strong trajectory for the U.S. economy following a weak first quarter. Growth in the first quarter was just 0.6 percent (annualized) due in part to harsh winter weather and several other one-off factors. This was followed by a robust second quarter, during which growth was 3.9 percent (annualized). Domestic demand was solid both quarters, but net exports subtracted an average of 0.9 percentage point per quarter from GDP growth. Unemployment has decreased from 5.6 percent of the civilian labor force at the start of 2015 to 5.1 percent as of September. The U.S. current account deficit climbed over the first half of the year from 2.2 percent of GDP in 2014 to 2.6 percent for the first half of 2015. The federal budget deficit for FY 2015 was 2.5 percent of GDP, its lowest level since 2007.

Global economic growth in the first half of 2015 has been modest, despite strengthening demand in the United States. On its current course, the global economy in 2015 is set to grow roughly in line with the subpar outcomes for 2013 and 2014. One reason for the lack of acceleration in global growth is that policy measures to support demand have been limited mostly to monetary accommodation, as fiscal policy has been either neutral or restrictive in many parts of the world. Additional fiscal actions would deliver a stronger boost to domestic demand. If combined with structural reforms to enhance productivity and financial stability, these policies would result in a stronger and better balanced composition of global GDP growth, and would mitigate the risk that growth in certain countries and regions becomes excessively reliant on exports.

The euro area has emerged from recession, but its growth is highly uneven and too soft overall, and is characterized either by pockets of quite high unemployment, as in Spain and Greece, or very large current account surpluses, as in Germany and the Netherlands. A major concern in the euro area is that demand is not stronger despite the extent of cyclical stimulus now in place. The euro area's aggregate current account surplus is expected to exceed 3 percent of GDP this year, an increase of nearly $400 billion from the small deficit it ran as recently as 2011. Boosting demand growth through increased fiscal support for infrastructure investment and greater private consumption is essential to sustaining the recovery of the euro area and for the euro area's peripheral countries in particular. The adjustment process, both within the euro area and globally, would function much better if countries with large current account surpluses took strong action to boost investment and domestic demand.

A weaker outlook is evident across emerging market economies, which, at more than half of the world economy, exert a growing influence over global economic prospects. The slowdown in domestic Chinese investment and Chinese demand for imported commodities and components is having wide-ranging implications for other economies. The volume of goods China imported from abroad fell 5 percent in the first half of 2015 year-over-year. A further slowdown would add to these concerns, as was evident this August when doubts from investors about China's growth momentum and policy measures spilled over to global financial markets. Korea's economy was weak in the first half of 2015 as sluggish domestic demand growth was insufficient to offset weaker external demand. Brazil is entering its second year of recession and will not be a source of growth in Latin America. Russia is struggling due to economic mismanagement, lower oil prices, and the impact of economic sanctions. On a positive note, India's recovery has strengthened under a new reform agenda; since it is not a large importer, however, it is not yet a major driver of global growth.

The sharp drop in the price of oil is having a large impact on global current account imbalances. On an annualized basis, the roughly $50 per barrel decline in the price of oil is generating shifting income of over $600 billion annually from oil exporters to oil importers, holding all else constant, with Europe and Asia the key beneficiaries (see Annex 1). In many cases, this shift is boosting already very large current account surpluses: Germany's surplus is projected to rise to 8.5 percent of GDP this year, or around $335 billion; Korea's surplus is on track to be around 8 percent of GDP; and Taiwan's surplus is well over 10 percent of GDP. Though significantly lower than its 10 percent of GDP peak in 2007, China's current account surplus in the first half of 2015 topped 3 percent of GDP and the full year surplus is likely to reach $350 billion. These growing surpluses have added to national incomes in parts of Asia and Europe, but demand growth in Europe remains too sluggish and has weakened in Asia. Rather than absorb demand from the rest of the world, economies with large current account surpluses should take supplemental policy actions, including fiscal actions, to provide added support to domestic demand and give impetus to global rebalancing.

Many emerging market economies have seen their currencies depreciate in 2015. Weaker currencies make their exports more competitive and can help commodity exporters cope with large falls in the price they receive for their exports, but also add to inflationary pressures and increase the risks from foreign-currency denominated debts. Foreign exchange reserves held by emerging markets declined nearly $250 billion in the first half of 2015 as some countries sought to slow depreciation, and emerging market reserves continued to decline in July and August.

On August 11, China announced a change in how it sets the daily reference rate of its exchange rate regime. The move surprised markets, underscoring the importance of conducting macroeconomic policy transparently. Since this move, the RMB depreciated 2.3 percent against the dollar through September. The change in the foreign exchange regime, together with signs of slowing growth in China, created market expectations that the RMB would depreciate further against the dollar in the short-run. The fall in headline reserves suggests that China sold a significant amount of reserves in August to stem the RMB decline. Proxies for intervention and balance of payments data indicate that China was a net seller of reserves over the course of the year through September, and that capital outflows from China currently exceed the growing surplus in China's current account and ongoing net inflows from foreign direct investment.

Treasury is carefully monitoring the implementation of the new exchange rate policy approach and how it will work in practice—specifically, whether China will allow the RMB to respond to market forces for appreciation as well as for depreciation. Before the recent shift in exchange rate policy, the RMB had remained largely unchanged relative to the dollar, and thus had appreciated in real effective terms, along with the dollar, over the course of 2015. All told, the RMB has appreciated nearly 30 percent in real effective terms since June 2010.

The core factors that have driven RMB appreciation remain in place: strong external balances which include a sizeable and growing current account surplus, sharply improved terms of trade, and ongoing net inflows of foreign direct investment. In addition, the fundamental challenge of economic rebalancing in China remains. The share of investment in Chinese GDP is still high and the share of household consumption low. China needs to meaningfully shift its domestic economy towards greater reliance on household consumption. A variety of policies will be necessary to bring this rebalancing about and the government has scope, alongside other measures, to provide additional fiscal support for household consumption. But further currency appreciation is also key to this process and will support the purchasing power of Chinese consumers and help shift production towards non-traded goods and services. Given economic uncertainties, volatile capital flows, and prospects for slower growth in China, the near-term trajectory of the RMB is difficult to assess. However, our judgment is that the RMB remains below its appropriate medium-term valuation.

In Japan, domestic demand has not fully recovered since the consumption tax was increased in March 2014, and contracted further in the second quarter of 2015. Private consumption is still below its end-2013 level. In this environment, strict adherence to deficit-reduction targets could result in prematurely aggressive fiscal consolidation and threaten Japan's economic recovery and escape from deflation. Recalibrating fiscal policy to support economic growth and minimize fiscal drag would help avoid overburdening monetary policy and reliance on yen depreciation to support externally-driven growth. Over the medium-term, ambitious structural reforms facilitated by the Trans-Pacific Partnership, including in the agricultural and services sectors, are needed to raise productivity and boost potential growth.

In Korea, a number of factors continue to point to an undervalued won. Korea's current account surplus is large and growing, reaching 8.2 percent of GDP in the first half of 2015. Over the last four quarters, the surplus topped $100 billion and is poised to rise further as a result of the fall in commodity prices and weak domestic demand. In the year through September, the won depreciated by 7.7 percent against the dollar, and 2.0 percent on a real trade-weighted basis. Treasury estimates of foreign exchange intervention using valuation-adjusted reserves indicate that Korea continued to intervene to resist pressure for the won to appreciate against the dollar in the first half of 2015 but then sold foreign exchange in July and August to limit won depreciation, so that intervention over the calendar year to date appears roughly balanced. Treasury has urged Korea to limit its foreign exchange intervention only to circumstances of disorderly market conditions. Appreciation of the won over the medium-term would help Korea reorient its economy away from its current heavy reliance on exports by encouraging the reallocation of resources to the non-tradables sector. In addition, the Korean authorities should increase the transparency of their foreign exchange operations.

Based on the analysis in this report, Treasury has concluded that no major trading partner of the United States met the standard 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 as identified in Section 3004 of the Act during the period covered in the Report. Treasury continues to closely monitor developments and policy implementation in economies where growth is weak and exchange rate adjustment is incomplete, and continues to push for comprehensive adherence to all G-7, G-20 and IMF commitments. These include the G-7 commitments to orient fiscal and monetary policies towards domestic objectives using domestic instruments and to not target exchange rates. They also include the G-20 commitments, which were re-affirmed in Ankara in September, to move more rapidly toward market-determined exchange rate systems and exchange rate flexibility, to avoid persistent exchange rate misalignments, to refrain from competitive devaluation, and to not target exchange rates for competitive purposes.

## Introduction

This report focuses on international economic and foreign exchange developments in the first half of 2015. Where pertinent and when available, data and developments through end-September 2015 are included.

Exports and imports of goods to and from the ten economies analyzed in this report accounted for 75 percent of U.S. merchandise trade in 2014.

## U.S. Macroeconomic Trends

U.S. economic growth picked up strongly in the second quarter as exports rebounded and consumer spending strengthened. This increase in growth follows a pronounced slowdown in real GDP growth in the first quarter driven by unusually severe winter weather, a labor dispute at West Coast ports, and lackluster growth abroad. Nonetheless, labor market conditions continued to improve, with employment rising at a solid pace and the unemployment rate moving closer to its pre-recession level. Inflation slowed, largely reflecting steep declines in energy prices in the latter half of 2014 and early 2015. Favorable underlying fundamentals suggest that economic growth will accelerate during the latter half of 2015 and will remain fairly strong through the end of 2016.

*U.S. GDP Growth Decelerated in the First Half of 2015*

Real GDP expanded at a 2.3 percent annual rate over the first two quarters of the year after rising 3.2 percent in the second half of 2014. Slower growth of consumption and non-residential fixed investment accounted for much the slowdown in the first half of 2015. Net exports were a large drag on economic activity, as exports fell during the first half of 2015 and import growth accelerated slightly. Altogether, net exports subtracted an average of 0.9 percentage point per quarter from GDP growth in the first half of 2015, compared with a subtraction of 0.3 percentage point in the latter half of 2014. The change in private inventories provided a moderate boost to GDP growth in the first half of this year, after making essentially no contribution to growth in the second half of 2014.

The deceleration in GDP growth during the first half of 2015 largely reflected a sharp slowing of growth in the first quarter, which in part reflected the temporary effects of severe winter weather. Growth rebounded strongly in the second quarter, and an array of higher frequency economic indicators suggests that the economy continued to expand at a robust pace in the third quarter. A consensus of private forecasters is projecting real GDP growth of 2.6 percent over the second half of 2015 and of 2.7 percent over the four quarters of 2016.

*Fiscal Headwinds Have Diminished*

The rapid pace of fiscal consolidation in recent years has weighed on economic activity in the United States, but it has moderated recently. With a strengthening of the state and local sectors, fiscal policy actions have contributed positively, on net, to economic growth in the first half of 2015. At the federal level, government expenditures were essentially neutral for growth, on average, over the first two quarters of 2015, after subtracting just slightly from real GDP growth in the second half of 2014, and federal fiscal policy has not changed appreciably. Fiscal conditions at the state and local level continued to recover in 2014 after four years of subtracting from growth.

*Labor Market Conditions Continued to Improve and Inflation Slowed*

Although the pace of job creation has slowed somewhat from last year, it remained solid during the first nine months of 2015, and the unemployment rate and broader measures of labor market utilization moved lower. Nonfarm payroll employment increased by 198,000 per month on average during the first nine months of 2015, compared with average monthly gains of 281,000 over the last six months of 2014. Between July 2014 and December 2014, the unemployment rate fell 0.5 percentage point to 5.6 percent. The unemployment rate has continued to decline this year, falling an additional 0.5 percentage point to 5.1 percent as of September 2015. Two-thirds of the improvement in the unemployment rate over the past year was due to declining long-term unemployment. The long-term unemployment rate, which stood at 1.3 percent in September, is still elevated but closing in on its 2001-2007 average of 1.0 percent.

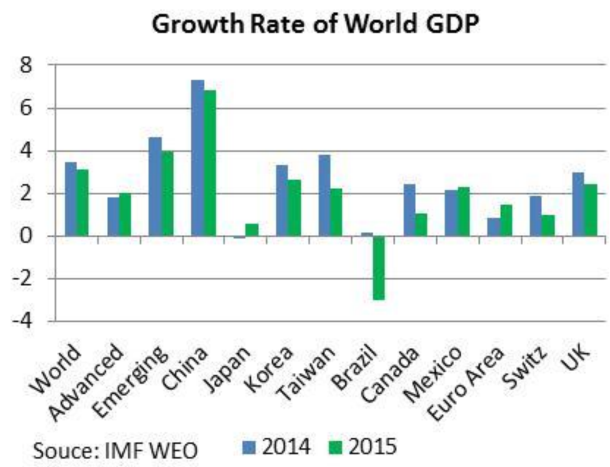
Headline CPI inflation has slowed sharply since mid-2014, reflecting steep declines in energy prices, while core inflation (excluding food and energy prices) has remained low and stable. The consumer price index was flat during the year ending in September 2015, compared with a 1.7 percent advance in the year through September 2014. Core consumer inflation was 1.9 percent over the year ending in September 2015, up slightly from 1.7 percent over the year-earlier period. Core inflation has hovered around its current level for three years. Wage pressures remained subdued. The Employment Cost Index (ECI) for private-industry workers rose 1.9 percent over the year ending in June 2015, remaining well below gains averaging 3½ percent in the decade prior to the last recession. Growth in private-sector compensation costs has been held down by broader labor market slack.

*Putting Public Finances on a Sustainable Path Remains a Priority*

The federal budget deficit continued to narrow in FY2015, declining to 2.5 percent of GDP from 2.8 percent of GDP FY 2014. Since peaking in 2009, the deficit has fallen by 7.3 percentage points—the most rapid pace of fiscal consolidation for any six-year period since the demobilization following World War II. The Mid-Session Review of the Administration's FY 2016 Budget shows the deficit declining slightly further to 2.2 percent of GDP in FY 2017 and stabilizing at 2.7 percent of GDP from FY 2021 to FY 2025—well below the 40-year average of 3.2 percent of GDP. The primary deficit (non-interest outlays less receipts) is projected to narrow steadily and become a surplus in FY 2024, at which point it will no longer be adding to federal debt. Publicly-held debt as a share of the economy declined to 73.8 percent of GDP in FY 2015; it is projected to stabilize at 74.6 percent of GDP in FY 2018.

## The Global Economy

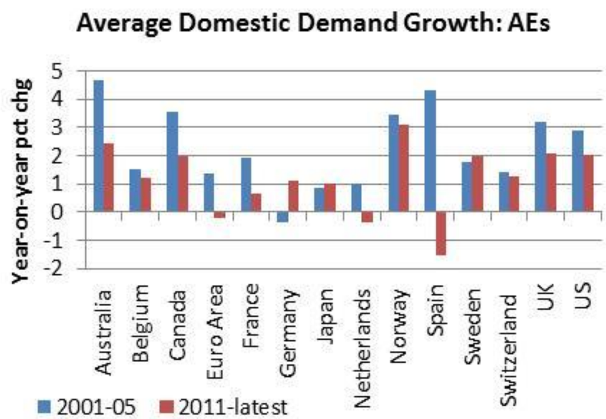
Global economic momentum in the first half of 2015 failed to gain speed over the modest outcomes of 2013 and 2014. Some parts of the world are seeing a little improvement (the euro area), other parts are doing worse (Brazil and Canada), and some are showing signs of slowing (several other emerging economies, most notably China). Concerns over the pace of global growth appear to have been the catalyst contributing to considerable volatility in equity, bond, and currency markets in August.

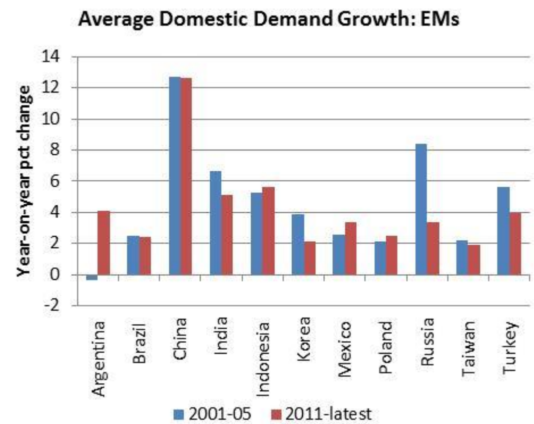



The consensus of major forecasts foresees slightly lower growth this year relative to last, with a modest acceleration of growth in 2016. Continuing the trend from 2013, a slight but continuing rise in growth in most advanced economies is being offset by slower growth in many large emerging economies. The euro area, which has averaged growth of just 0.4 percent over the last four years, is projected to grow about 1.5 percent in 2015. The Japanese economy, which contracted in 2014, and also in the second quarter of 2015, is expected by most forecasters to resume modest growth in 2015. And economic activity in the United States has strengthened significantly in recent months following a slow start earlier in 2015 due in part to transitory factors (e.g., harsh weather and the West Coast ports labor dispute). On the downside, Canada has fallen into technical recession with two consecutive quarters of negative growth, reflecting weakness in oil prices.

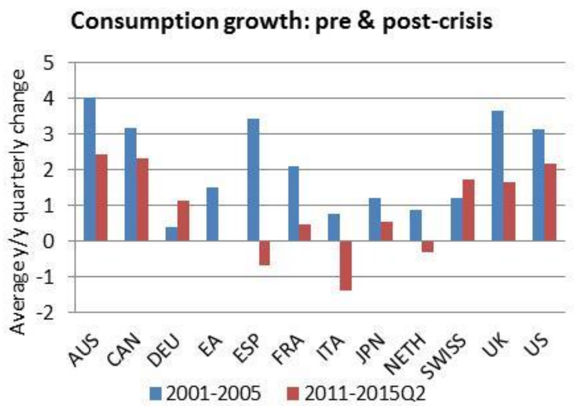
Though the slowdown in China garners the most attention given the country's considerable weight in the global economy, the slowdown in emerging market growth is broad-based. Russia is experiencing a severe economic contraction due to economic mismanagement, lower commodity prices, and the impact of sanctions. Low commodity prices, though a positive for the global economy in the aggregate, are negatively impacting growth in the Middle East and North Africa regions as well as several countries in other regions, particularly Latin America. The IMF currently projects that growth will slow in 2015 in all regions except emerging and developing Europe.

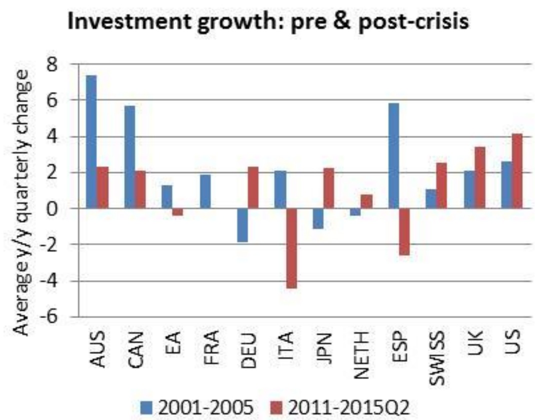
A critical element of robust global growth is the need to strengthen domestic demand. While the *level* of domestic demand now exceeds pre-crisis demand levels in most, but not all, economies, the *pace* of domestic demand growth is, on average, weaker than pre-crisis pace of demand growth almost across the board.



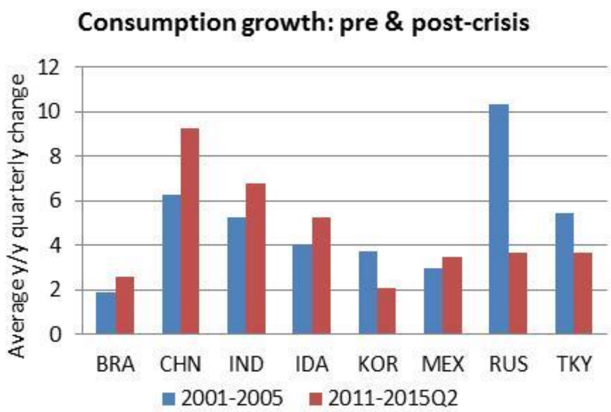




In the advanced economies, both post-crisis consumption and post-crisis investment growth have been notably weaker than in the pre-crisis period. Restrained disposable income growth and household deleveraging have weighed on consumption growth in many economies. Regarding investment, the IMF has highlighted that the bulk of the weakness in business investment since the crisis reflects slow economic activity, with financial constraints and policy uncertainty playing a role in certain economies.

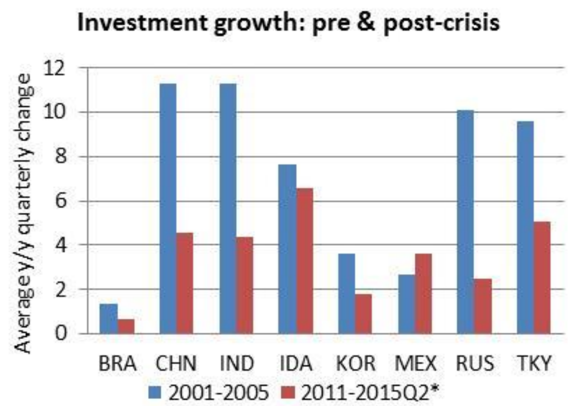



The picture is somewhat more mixed in emerging market economies. Consumption growth is stronger post-crisis in about half of the largest emerging market economies. Chinese consumption growth is stronger than before the crisis, but the acceleration was not enough to reverse the fall in consumption's share of GDP. Investment growth, on the other hand, is weaker in almost all of the largest emerging market economies. For commodity exporters, this reflects the investment reaction to the decline in commodity prices, but weaker investment in recent years is not limited to commodity exporters.

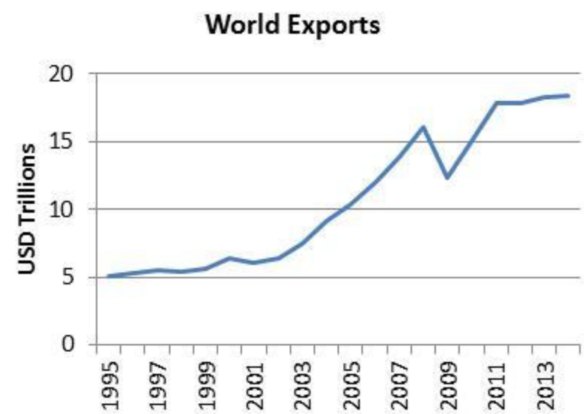



*Data for China is through Q4 2014



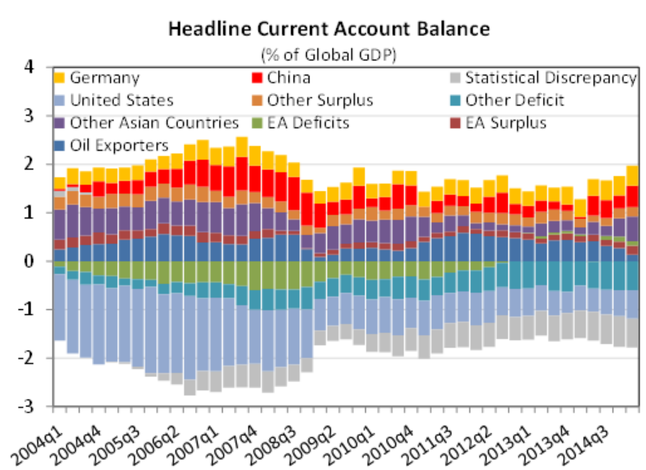

* Data for China is through Q4 2014

Given the forward-looking nature of investment decisions, policies to improve the broader economic outlook could stimulate investment spending in many countries, which would have a mutually reinforcing impact on growth. Monetary policy responses have been forceful in general if somewhat slow on occasion. These monetary measures need to be supported with additional fiscal actions where possible to deliver a stronger boost to domestic demand. Such a policy mix, plus structural reforms, would better enable a stronger and better balanced composition of global GDP growth, and would mitigate the risks that have arisen in certain countries and regions which have become excessively reliant on the external sector for growth.




Slower growth of global demand has adversely affected the pace of global trade growth, which has averaged just one percent per year over the past three years compared to an annual rate of about six percent from 1992-2002 before accelerating further just before the crisis. Trade growth has been much weaker post-crisis in both advanced and emerging market economies.

In the aggregate, the size of global imbalances decreased immediately following the crisis but since 2009-10 progress has stalled. In 2015, several countries with already large or persistent current account surpluses—notably Germany, China, Japan, and Korea—are seeing their current account surpluses rise further. Each of those four countries benefits from the lower price of oil. China and Korea's respective goods surpluses rose over the course of 2014 and even more in the first half of 2015, driven primarily by a sharp decline in import values. Germany is



also benefitting from real effective exchange rate depreciation over the past year. To the extent growing surpluses reflect a reluctance to consume or invest domestically they should be a red flag to policymakers that domestic demand is lagging growth of national income. As part of the G-20 objective of securing strong, sustainable, and balanced global growth, stronger demand growth in all countries with large current account surpluses is needed.

*Foreign Exchange Reserves*

Global foreign-currency reserves declined in dollar terms in the first half of 2015, due entirely to valuation effects associated with non-dollar exchange rate depreciations. Measured foreign exchange reserves fell over $200 billion in the first half of 2015. Once the impact of exchange rate adjustments are taken into account, however, allocated reserves appear to have *increased.* Based on changes in China's headlines reserves adjusted for exchange rate changes, balance of payments data, and proxies for Chinese reserve growth followed by the market, China is widely understood to have been a seller of reserves in the first half of 2015, though China's reserves remain at a very high level relative to the rest of the world. Similar estimates of Korean foreign exchange data suggest large foreign exchange purchases in January, more modest purchases in February, and further substantial purchases in March through June. India's foreign exchange reserves reached an all-time high in June 2015 as the central bank purchased foreign currency to moderate appreciation pressures from foreign investment inflows on the rupee, particularly in the first quarter of the year.

**Foreign Currency Reserves: Major Holders**

| | Latest | Average Monthly Change | | |
|---|---|---|---|---|
| | Reserves $ billions | 2014 | H1 2015 | Since June 2015 |
| Global | 11,446 | -0.5 | -34.8 | n.a. |
| China | 3,557 | 1.8 | -24.9 | -68.2 |
| Japan | 1,188 | -0.2 | -2.3 | 1.0 |
| Saudi Arabia | 660 | 0.7 | -9.9 | -3.2 |
| Switzerland | 555 | 0.9 | 9.3 | 0.8 |
| Taiwan | 425 | 0.2 | 0.4 | 1.7 |
| Brazil | 359 | 0.5 | 0.9 | -0.9 |
| Korea | 358 | 1.5 | 1.9 | -3.4 |
| India | 328 | 2.2 | 5.9 | -1.1 |
| Russia | 308 | -10.7 | -4.2 | 2.6 |
| Singapore | 248 | -1.3 | -0.6 | -1.4 |

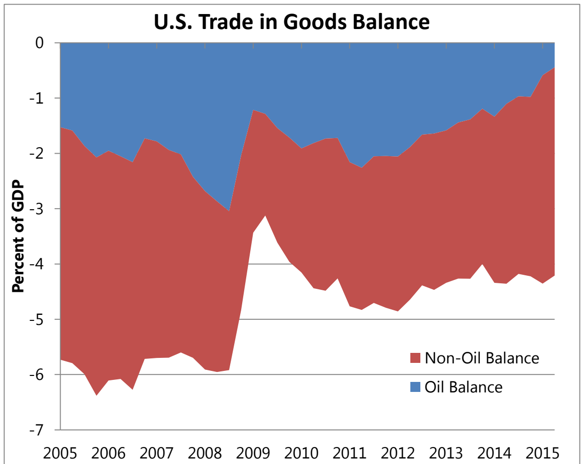
Data is available through August 2015 except for Saudi Arabia & Switzerland (through July) and the Global Total (through June 2015).

Since June, however, many central banks have been intervening not to depreciate—but rather to *support* their currencies. After relatively little intervention in either direction in the second quarter of 2015, China appears to have intervened heavily in the third quarter to prevent RMB depreciation. In July and August, estimates suggest that the Korean authorities intervened substantially to support the won as the won fell to a two and a half year low against the dollar, and the Central Bank of Brazil has been intervening in support of the *real* consistently since May.

## U.S. International Accounts

*Current Account*

In the first half of 2015, the U.S. current account deficit was 2.6 percent of GDP. This marks an increase relative to the annual deficit of 2.2 percent of GDP recorded in 2014, which was the smallest annual deficit since 1997. The significant improvement in the oil balance following the sharp fall in oil prices has helped to contain the current account deficit. But much of the improvement in the oil balance has been offset by a sizable deterioration in the non-oil goods balance. A drop in the primary income surplus (investment income and compensation) also drove the current account deficit larger relative to 2014. The surplus on trade in services remained sizeable, but relatively flat over the past year.



*Source:* U.S. Bureau of Economic Analysis

At the end of the second quarter of 2015, the U.S. net international investment position was a deficit of $6.7 trillion (37 percent of GDP), an increase of nearly 3 percentage points of GDP from the end of 2014. The value of U.S.-owned foreign assets was $24.5 trillion, while the value of foreign-owned U.S. assets was $31.2 trillion. The fall in the net international investment position was driven in part by valuation effects that lowered the dollar value of U.S. assets held abroad, and the continued accumulation of foreign-owned U.S. assets.

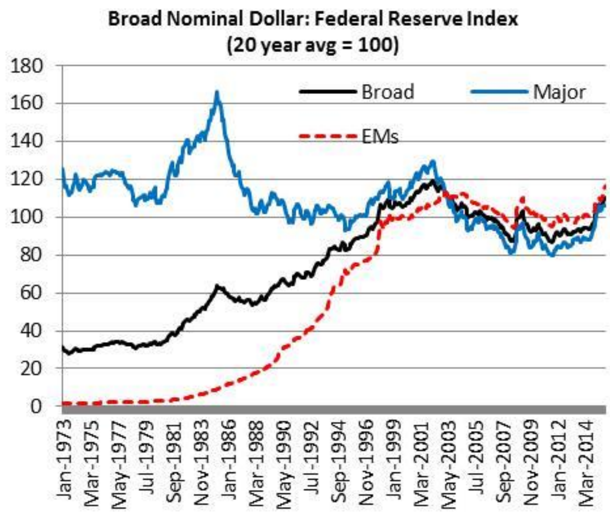
| **U.S. Balance of Payments and Trade**<br>($ billions, seasonally adjusted unless indicated) | **2013** | **2014** | **Q2-14** | **Q3-14** | **Q4-14** | **Q1-15** | **Q2-15** |
|---|---|---|---|---|---|---|---|
| **Current Account** | | | | | | | |
| Balance on goods (for details, see lower half of table) | -702.6 | -741.5 | -188.1 | -183.1 | -186.0 | -192.2 | -188.4 |
| Balance on services | 224.2 | 233.1 | 59.4 | 57.2 | 57.6 | 57.9 | 58.4 |
| Balance on primary income | 224.5 | 238.0 | 57.9 | 61.7 | 60.0 | 49.7 | 50.6 |
| Balance on secondary income (unilateral transfers) | -122.9 | -119.2 | -21.3 | -33.8 | -34.8 | -33.8 | -30.3 |
| ***Balance on current account*** | ***-376.8*** | ***-389.5*** | ***-92.0*** | ***-97.9*** | ***-103.1*** | ***-118.3*** | ***-109.7*** |
| ***Balance on current account as % of GDP*** | ***-2.3*** | ***-2.2*** | ***-2.1*** | ***-2.2*** | ***-2.3*** | ***-2.7*** | ***-2.5*** |
| **Capital and Financial Account** (net borrowing = -) | | | | | | | |
| Net capital transfers | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Net direct investment flows | 112.0 | 225.4 | 11.9 | -7.2 | 60.2 | -122.8 | 22.9 |
| Net portfolio flows--equity | 351.8 | 281.5 | 75.6 | 56.0 | 166.1 | 136.3 | 133.9 |
| Net portfolio flows--debt | -377.5 | -448.4 | 30.9 | -134.0 | -218.0 | -3.8 | -238.6 |
| Net other investment flows--loans | -155.2 | -20.7 | -52.4 | 87.8 | 22.0 | 2.0 | 86.7 |
| Net other investment flows--currency, trade credit, etc. | -326.1 | -219.4 | -110.9 | -6.6 | -43.8 | -27.6 | -65.6 |
| Net reserve asset flows* | -3.1 | -3.6 | 0.8 | -0.9 | -2.5 | -4.2 | -0.9 |
| Derivatives | 2.2 | -54.4 | -4.5 | -24.3 | -31.7 | -40.1 | 1.8 |
| ***Balance on capital and financial account*** | ***-395.4*** | ***-239.6*** | ***-48.6*** | ***-29.2*** | ***-47.8*** | ***-60.3*** | ***-59.7*** |
| **Memo Items** | | | | | | | |
| Statistical discrepancy** | -18.7 | 149.9 | 43.4 | 68.7 | 55.4 | 58.0 | 49.9 |
| Change in foreign official assets in the United States | 309.5 | 100.4 | 44.1 | 50.8 | -14.9 | 44.7 | 77.3 |
| **Current Account Detail: Trade in Goods** | | | | | | | |
| Exports of goods | | | | | | | |
| Agricultural products | 136.2 | 143.8 | 36.4 | 34.7 | 36.0 | 32.7 | 32.3 |
| Industrial supplies and materials (including petroleum) | 492.3 | 500.0 | 127.2 | 128.8 | 120.4 | 107.9 | 110.4 |
| Capital goods except autos | 534.5 | 551.3 | 137.3 | 139.2 | 139.9 | 135.6 | 136.4 |
| Automotive products | 152.7 | 159.7 | 39.9 | 41.6 | 40.3 | 36.9 | 37.8 |
| Consumer goods except autos and food | 188.4 | 198.3 | 49.8 | 49.9 | 50.1 | 50.5 | 48.7 |
| Other goods plus nonmonetary gold | 88.0 | 79.6 | 18.5 | 18.8 | 22.4 | 19.2 | 19.2 |
| ***Total exports of goods*** | ***1,592.0*** | ***1,632.6*** | ***409.2*** | ***412.9*** | ***409.1*** | ***382.8*** | ***384.8*** |
| Imports of goods | | | | | | | |
| Agricultural products | 116.0 | 126.7 | 32.3 | 32.0 | 32.1 | 32.5 | 32.9 |
| Industrial supplies and materials (including petroleum) | 686.7 | 672.6 | 169.9 | 166.8 | 160.6 | 132.7 | 125.3 |
| Capital goods except autos | 557.9 | 595.7 | 148.7 | 151.3 | 152.5 | 153.2 | 153.2 |
| Automotive products | 309.6 | 328.5 | 83.0 | 83.4 | 83.9 | 84.2 | 88.4 |
| Consumer goods except autos and food | 534.0 | 559.4 | 140.3 | 139.1 | 143.4 | 148.0 | 149.1 |
| Other goods plus nonmonetary gold | 90.5 | 91.2 | 23.1 | 23.2 | 22.5 | 24.3 | 24.3 |
| ***Total imports of goods*** | ***2,294.6*** | ***2,374.1*** | ***597.3*** | ***596.0*** | ***595.1*** | ***575.0*** | ***573.1*** |
| ***Balance of trade in goods*** | ***-702.6*** | ***-741.5*** | ***-188.1*** | ***-183.1*** | ***-186.0*** | ***-192.2*** | ***-188.4*** |

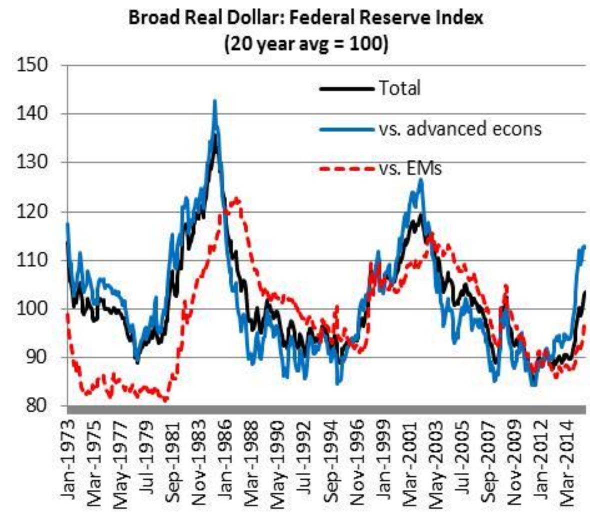
*Source:* Bureau of Economic Analysis (BEA) via Haver Analytics.

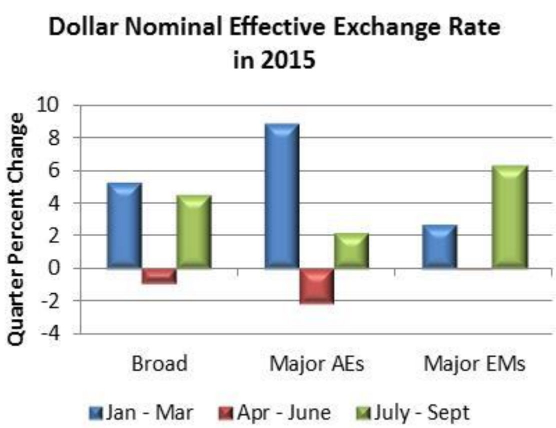
*Notes:* *Includes only US acquisition of assets and has no direct liability counterpart.
**Amount needed to make the current account balance with the capital and financial account; by definition, current account - capital and financial account + statistical discrepancy = 0.

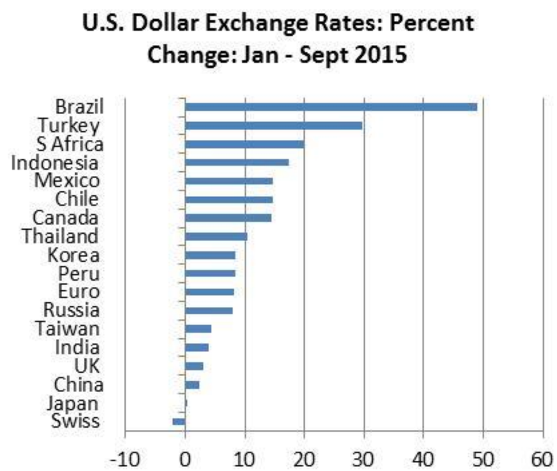
## The Dollar in Foreign Exchange Markets

In the face of relatively strong U.S. economic performance and prospects, the dollar has seen a sharp appreciation since June 2014. In the first half of 2015, the dollar appreciated against both major and emerging market currencies. On a broad, trade-weighted basis, the dollar appreciated 4.3 percent between end December 2014 and end-June 2015 in nominal terms. This appreciation occurred in January through March, and then paused in the second quarter of 2015. Most of the appreciation over this period occurred against the major advanced economies, though there was some appreciation against the major emerging market economies. Among the advanced economies, the dollar appreciated the most against the euro—8.6 percent between end-December 2014 and end-June 2015, followed closely by a 7.5 percent appreciation against the Canadian dollar. The dollar appreciated a more modest 2.3 percent against the Japanese yen and depreciated about 1 percent against the pound sterling. Among emerging market economies, the change in the dollar was more mixed. The dollar appreciated strongly against the Brazilian real and Turkish lira, and more moderately against most others. The dollar *depreciated* against the Ruble and the New Taiwan Dollar.




From end-June through end-September, which includes the period following China's small step depreciation of the RMB and growing uncertainties about emerging market growth prospects, the dollar saw renewed appreciation once again; it rose 4.5 percent on a nominal effective basis, reflecting a 6.3 percent appreciation against major emerging market currencies and a 2.2 percent appreciation against advanced economy trading partners.

## Analyses of Individual Economies

### *Asia*

### <u>China</u>

China is the world's second largest economy at market exchange rates and the world's largest importer of commodities. Events in China can have important economic implications globally, both positive and negative. This summer, a sharp correction in China's stock market and shift in the manner in which China sets the daily reference rate of its exchange rate regime have drawn increased attention to China's policies and underlying fundamentals, and underscore the importance of adopting policies that can support consumer-led growth. Therefore, implementing the economic reform agenda—to open Chinese markets to greater competition and allow market forces to determine prices and resource allocation—is crucial to sustained and balanced growth in China and the rest of the world.

China's annual GDP growth rate slowed in the first half of 2015 to 7 percent year-over-year, from average growth of nearly 9 percent in 2009-2014. A sharp slowdown in industrial and non-infrastructure investment activity has prompted downward revisions in the consensus growth forecast, from 7 percent in January—China's official 2015 growth target—to 6.8 percent in September. Other high frequency indicators, such as the monthly purchasing managers index (PMI), corporate earnings, and housing construction, also point to a more pronounced slowdown. The correction in China's stock market may depress growth through its impact on financial sector activity and on consumer confidence.

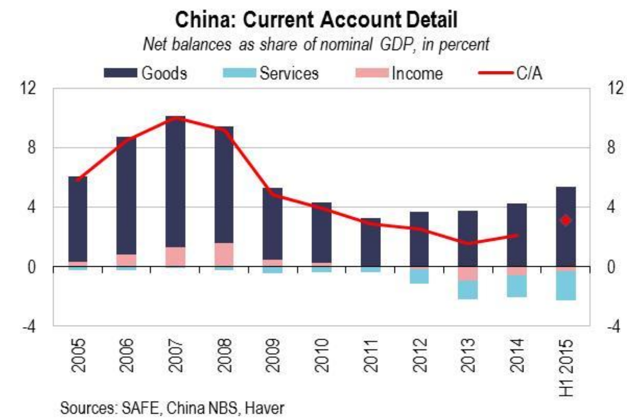
China's authorities have sought to strengthen near-term growth with a series of policy measures, including five interest rate cuts since November 2014, a reduction in bank reserve requirements, and liquidity injections. Despite its long-standing emphasis on monetary and credit policy, China has the policy space to take further action to support demand and growth; in particular, the authorities should focus on fiscal measures that assist in rebalancing the economy toward consumption, such as strengthening the social safety net and alleviating the tax burden on workers and households.

China's national savings rate remains exceptionally high. Despite an investment-to-GDP ratio that is one of the highest among both industrial countries and emerging market economies at 46 percent, savings still exceeded investment in 2014.[2] Meanwhile, household consumption was only 38 percent of GDP in 2014, hardly changed from its 2012 level (37 percent of GDP). A variety of factors, including declining labor force growth and a shift toward less capital-intensive sectors, suggest that Chinese investment growth will slow in the future. Without a significant and sustained rise in household consumption, China will not be able to sustain the momentum of domestic demand growth and avoid too rapid a slowdown in the economy.

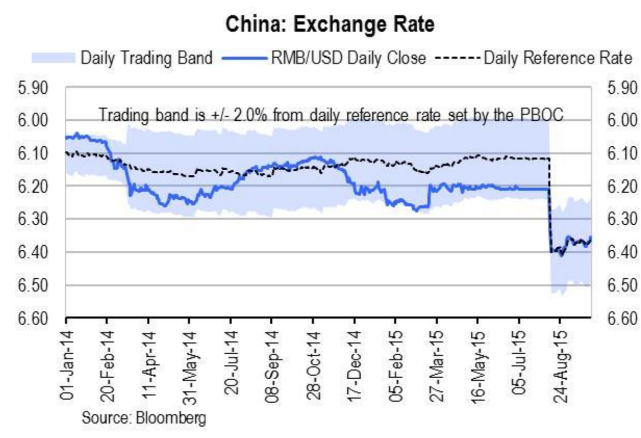
[2] China's incremental capital output ratio - which measures the marginal amount of capital necessary to generate the next unit of production - has risen from 2.4 in 2004 to 5.3 in 2014, indicating falling returns to growth from investment.

On the production side, growth in the services sector outpaced growth in manufacturing and construction in the first half of the year, continuing a trend that began in 2011. Strong growth in services output is important both as a sign of, and force for, rebalancing, since services firms pay out a higher share of revenue in wages, generate more employment, and are driven by domestic demand. Since 2013, the services sector has been the largest industry component of GDP, at nearly 50 percent, compared to just over 40 percent for manufacturing and construction.

After peaking at 10 percent of GDP in 2007, China's current account surplus fell as a share of GDP for six consecutive years, reaching 1.6 percent in 2013. Since 2013, the current account surplus has rebounded, and was $149 billion in the first half of 2015, or approximately 3.1 percent of GDP, up from 2.1 last year and 1.6 in 2013. The IMF currently forecasts China's full-year current account surplus will be 3 percent of GDP on a growing trade (goods and services) surplus, driven primarily by a projected sharp decline (-8.9 percent) in import values on a slowing Chinese economy and fall in commodity prices, and so far, China's actual surplus is on pace to exceed the IMF's forecast[3].




China runs a merchandise trade surplus and a services deficit with the United States. China's bilateral merchandise trade surplus was $185 billion in the first half of the year, up from $167 billion during the same period last year, according to seasonally-adjusted U.S. Census data. For the first half of 2015, China's total goods and services trade surplus with the United States was $170 billion, up from about $153 billion in the first half last year.




On August 11, China announced a change in how it sets the daily reference rate of its exchange rate regime. The move surprised markets, underscoring the importance of clear communication of policy actions. Since the move, the RMB depreciated 2.3 percent against the dollar through September. China announced that the reference rate[4] would more closely reflect the previous day's closing spot rate, linking it more closely to market forces than previously. Since August 11, and in contrast to

[3] Since December of 2014, the goods surplus—measured as a trailing 12-month sum with data through August—has increased by $165 billion, or 1.5 percent of GDP, driven both by a rise in China's manufacturing surplus and a fall in China's commodity import bill. Some of the rise in the goods surplus has been offset by a rise in the services deficit, including a sharp rise in "travel services." The rise in imports of travel services has been far faster than the rise in the number of Chinese visitors in the main destination countries, which suggests the rise in the services deficit may be capturing unrecorded capital outflows.

[4] This represents the midpoint of the daily ± 2 percent renminbi-dollar trading band.

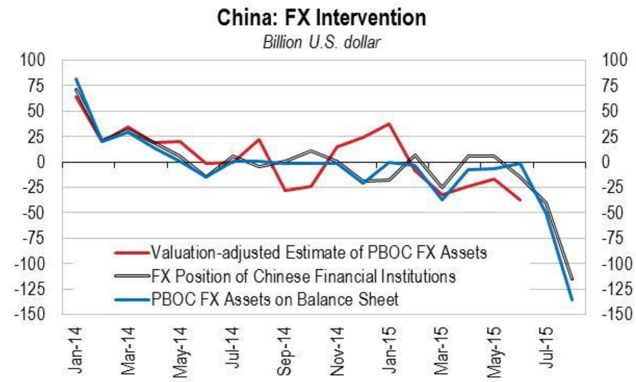
most of this year and last, the PBOC's reference rate has deviated little from the previous day's closing spot, although the spot rate remains subject to PBOC foreign exchange intervention (see graph). Although the IMF cautiously welcomed the change as consistent with China's commitment to a more flexible, market-determined exchange rate, some analysts interpreted the move as an effort to weaken the RMB in order to support growth. Ultimately, the implementation of the mechanism—and specifically, whether China allows the RMB to respond flexibly to appreciation as well as depreciation pressures—will indicate how responsive the new mechanism is to market forces. Further exchange rate policy transparency would be welcome.

Before the recent shift in exchange rate policy, the RMB had remained largely unchanged relative to the dollar, and thus had appreciated in real effective terms along with the dollar in 2015. In the year-to-date through September, China's real effective exchange rate (REER) has appreciated by 3.6 percent. All told, the RMB has appreciated nearly 30 percent since June 2010.


China's commitments—including in the U.S.–China 2015 Strategic and Economic Dialogue (S&ED)—to intervene only when justified by disorderly market conditions and allow the market to play a greater role in determining the exchange rate, remain critical. China also acknowledged that it is in its own interest to adopt the transparency standards of major reserve currencies. In October, China subscribed to the IMF's Special Data Dissemination Standard (SDDS), a much-needed step toward increasing the transparency of China's foreign exchange reserves and exchange rate policy.[5] In another step toward greater transparency, the September 30, 2015 release of the IMF's Currency Composition of Official Foreign Exchange Reserves (COFER) database included for the first time data on reserves from China. To further increase transparency, China should disclose foreign exchange market intervention regularly, including a description of transfers to finance policy bank capitalization and other official efforts and their impact on reserves and participate in the Bank for International Settlements cross-border banking and securities statistical initiatives.

While China does not publish its foreign exchange intervention, it is possible to construct estimates of foreign exchange market intervention using data that China does publish. Foreign exchange intervention proxies[6] indicate that PBOC intervention was relatively modest from mid-2014 to the end of June 2015, with official intervention (foreign exchange sales) at times to counter RMB weakness. After relatively little intervention in either direction in the second quarter of 2015, China also appears to have intervened heavily in July ($50 billion), August ($136 billion), and September ($43 billion) to prevent RMB depreciation.

[5] See Box 1 in the October 2014 Report.
[6] Analysts look closely at several estimates from publicly available data, including: net foreign exchange assets of the PBOC, which excludes valuation changes (i.e., booked at historical cost); valuation-adjusted estimates of the net foreign exchange assets of PBOC; and the foreign exchange position of Chinese financial institutions (banks and the PBOC). All three estimates are included in the chart on monthly foreign exchange intervention proxies.



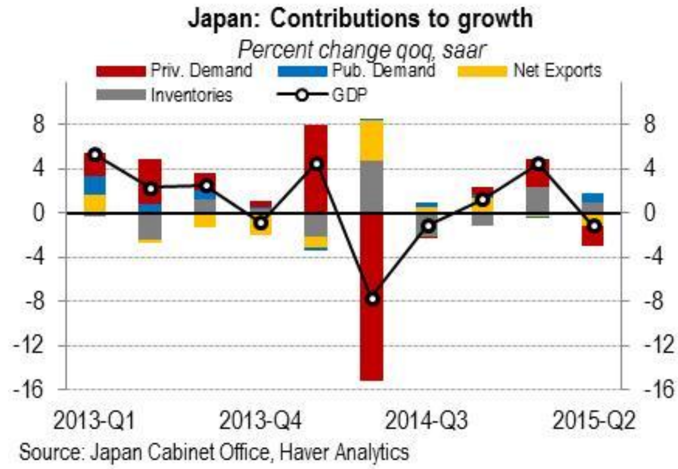
Sources: PBOC, SAFE, U.S. Treasury estimates. Valuation-adjusted estimate based on data released quarterly through June 2015.

Market factors are exerting downward pressure on the RMB at present, but these are likely to be transitory. The RMB foreign exchange market remains highly sensitive to the authorities' signals on the desired exchange rate, including changes in the PBOC's daily reference rate. Heightened volatility in the Chinese stock market and investor concerns about a slowing Chinese economy have accelerated capital outflows since July, continuing a trend since the third quarter of 2014, adding to current market pressure for a weaker exchange rate. Based on Chinese balance of payments (BOP) data, Treasury estimates non-FDI capital outflows of $250 billion in the first half of the year, compared with outflows of $26 billion in the same period last year. Detailed BOP data available through June suggest the unwinding of carry trades previously based on relatively high expected financial returns drove such outflows. Using monthly proxies, Treasury estimates that non-FDI capital outflows in July—when uncertainty in China's stock market intensified—reached $70-80 billion. These likely reached $200 billion in August following the shift in China's exchange rate regime.

While the RMB has come under near-term depreciation pressure, short-term market pressures are not always synonymous with the medium-term fundamentals that determine an equilibrium exchange rate. The core factors that have long driven RMB appreciation remain. The IMF assessed that China's external position remains moderately stronger than warranted by medium-term fundamentals and desirable policies even though it judged that the RMB is no longer undervalued due to substantial real effective RMB appreciation over the past year. For their part, senior PBOC officials in mid-August underlined a current account surplus and expectations for relatively strong GDP growth in China as factors that support the RMB. China's basic balance (current account surplus plus net foreign direct inflows)—a measure of stable net balance of payments inflows—was $241 billion in the first half of this year, or 5 percent of GDP, up from $173 billion in the first half of last year. Finally, to continue to grow in the future, China needs to meaningfully shift its domestic economy away from reliance on investment and towards greater reliance on household consumption. A variety of policies will be necessary to bring this rebalancing about, and the government has scope, alongside other measures, to provide additional fiscal support for household consumption. But currency appreciation is also key to this process and will support the purchasing power of Chinese consumers and helps shift production towards non-traded goods and services. Given economic uncertainties, volatile capital flows, and prospects for slower growth in China, the near-term trajectory of the RMB is difficult to assess. However, our judgment is that the RMB remains below its appropriate medium-term valuation.

## Japan

Japan has been beset with wide swings in GDP growth, leading up to and following the increase in the consumption tax in the second quarter of 2014. After the sharp decline in the second quarter and a further fall in the third quarter of 2014, growth turned positive in the fourth quarter. GDP growth increased to an annualized 4.5 percent in the first quarter of 2015, although driven primarily by a buildup in inventories. GDP contracted, however, an annualized 1.2 percent in the second quarter on weak exports and weak private consumption. Domestic demand remains 0.7 percentage points of GDP below its level at the end of 2013 and private consumption 1 percentage point weaker.

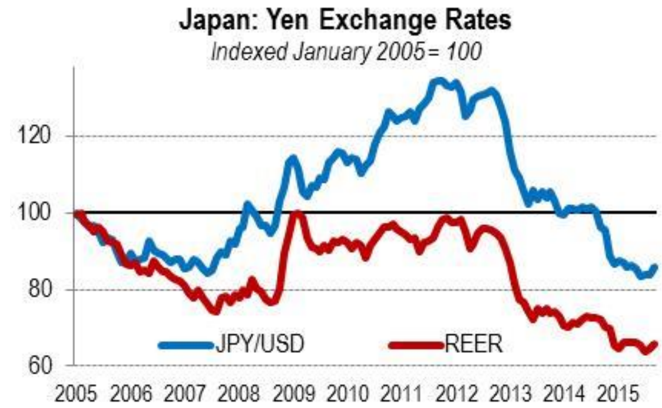



Japanese economic policy has centered around the "three arrows" of the Abe Administration—monetary easing, a flexible fiscal policy, and structural reform. The Bank of Japan (BOJ) continues to provide aggressive monetary stimulus under its quantitative and qualitative monetary easing (QQE) framework, where it committed to increase the monetary base through the purchase of government bonds to achieve its 2 percent inflation target. Core inflation initially rose, before being pushed below 1 percent in October 2014 due to lower oil prices and weak domestic demand.[7] This prompted the BOJ to expand the QQE program in October 2014 by raising the annual growth target of the monetary base from ¥60-70 trillion to ¥80 trillion per year. Subsequently, the BOJ announced it would delay the timeframe for reaching its inflation target from fiscal year 2015 to "around the first half of fiscal year 2016"[8] and since July it has been emphasizing a new inflation measure that excludes both fresh food and energy prices. While core inflation hovered around zero in June and July, the new measure as calculated by the BOJ was up 0.9 percent in July and 1.1 percent in August (all data are year-on-year).

As the impact of the consumption tax has made clear, fiscal policy plays an important role in the near-term outlook. The Abe government delayed a second scheduled increase in the consumption tax from October 2015 to October 2017, but it has maintained a fiscal target inherited from the previous government to halve the primary structural deficit from 6.6 percent of GDP in fiscal year 2010 to 3.3 percent in fiscal year 2015. According to the IMF's most recent projections for Japan in its Fiscal Monitor (October 2015), current policies imply a structural primary deficit reduction of 1.1 percent of GDP in 2015 and a further 1.1 percent in 2016, which would lower the structural deficit to 4.0 percent of GDP in 2016.[9] Strict adherence

[7] The Bank of Japan measure of core inflation excludes fresh food, but includes energy prices, which are also subject to wide swings. As a result, analysts have recently been referring to a "core-core" or "BOJ core" price index introduced by the BOJ in its July report, which excludes both fresh food *and* energy.
[8] Japan follows a fiscal year that runs from April 1 through March 31.
[9] IMF calculations of the primary deficit include social security and reconstruction revenues and expenditures, which are excluded from the authorities' fiscal targets.

to past deficit-reduction targets could result in prematurely aggressive fiscal consolidation, threatening a needed recovery in domestic demand and escape from deflation. A fiscal strategy better calibrated to support economic growth and minimize fiscal drag would be consistent with the Abe administration's goal of employing a "flexible fiscal policy" to provide room for monetary stimulus and structural reform to have maximum impact. It would also help avoid overburdening monetary policy and reliance on yen depreciation to support externally-driven growth.



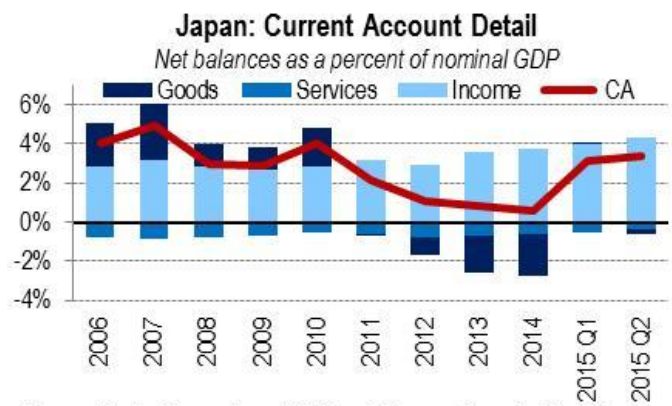
Source: Bank of Japan, Bank for International Settlements

Implementing ambitious structural reform is also essential to supporting growth. There are a variety of steps that Japan could take to deregulate industries and increase competition, particularly in agriculture and services, free up restrictions on land use, change tax and other policies that discourage labor force participation. The Abe administration has so far prioritized the Trans-Pacific Partnership (TPP) as a catalyst to achieving ambitious structural reform. The TPP would increase foreign investment and introduce greater competition to the agricultural and service sectors, thereby raising productivity. In addition to the TPP, the administration has also prioritized corporate governance reforms to provide incentives for corporates to raise their return on equity and introduce outside directors; and to urge financial institutions to sell strategic shareholdings. In addition, reforms that (1) make it easier for part-time and other non-regular workers to transition to regular jobs, and raise female participation in the full-time workforce; (2) facilitate the use of foreign workers for sectors facing acute labor shortages such as long-term care; (3) encourage more effective land use; and (4) further deregulate the domestic product market to boost aggregate productivity would have a clear positive impact on potential growth. These measures should be combined with continued steps to urge firms to raise nominal wages, including through the spring labor negotiations.

Japan maintains a floating exchange rate regime and has not intervened in foreign exchange markets since November 2011. Along with other G-7 countries, Japan committed to direct its economic policies to domestic objectives using domestic instruments, and has committed, with other G-20 countries, to refrain from competitive devaluations, and resist all forms of protectionism. As of August 2015, Japan had at its disposal the second largest stock of foreign exchange reserves in the world at $1.19 trillion, or about 25 percent of GDP.

Aggressive monetary stimulus by the Bank of Japan, combined with the relatively more favorable growth outlook in the United States, put downward pressure on the yen against the U.S. dollar and most trading partners. Over 2014, the yen depreciated 12 percent against the dollar and 8.1 percent on a real, trade-weighted basis (REER). In 2015, through July, the yen was 3.4 percent weaker against the dollar, but appreciated in August and was flat against the dollar overall in the year through end-September. Over the same period, the yen has risen 4.9 percent on a real, trade-weighted basis. In its most recent Japan Article IV Report (July 2015), the IMF assessed the yen to have moved toward a level "moderately weaker" than that which would be consistent with economic fundamentals. Other estimates also point to some degree of undervaluation.[10]

Exports have been slow to respond to the weaker yen, in part due to structural issues (production offshoring and maturation of Asia's supply chains). Export volumes of merchandise goods increased modestly by nearly 4 percent in 2014, but as of July were roughly flat from a year earlier. Japan's overall trade balance improved in the same period, in large part due to falling import volumes (down 1.8 percent in 2014 and by 3 percent in July from a year earlier) and the fall in oil and commodities prices. Japan's current account surplus has increased substantially in the first half of 2015, rising from 0.5 percent of GDP in 2014 to 3.2 percent of GDP as of June 2015 (see chart). The rise reflects an improving trade balance and strong net foreign income. Japan's bilateral merchandise trade surplus with the United States totaled $68.7 billion in 2014, and for the first half of 2015 was $36.4 billion, up 4.2 percent from the same period last year (all data seasonally-adjusted).



Source: Bank of Japan, Japan Ministry of Finance, Japan Cabinet Office. Figures are seasonally adjusted and "Income" is primary income only.

Looking ahead, it is critical that Japan adopt policies that can restore growth and allow Japan to durably escape from deflation. This will require application of all policy arrows in order to avoid an overreliance on monetary policy and external demand to drive growth. Fiscal policy should be calibrated to avoid subtracting from growth in the near-term, ensuring that a return to domestic demand-driven growth can support consolidation efforts over the medium-term. Real wages need to rise to support domestic demand and help drive trend inflation. Structural reforms, including further liberalization associated with the TPP trade agreement, should be prioritized and remain essential to increase domestic demand and raise potential growth.

**South Korea**

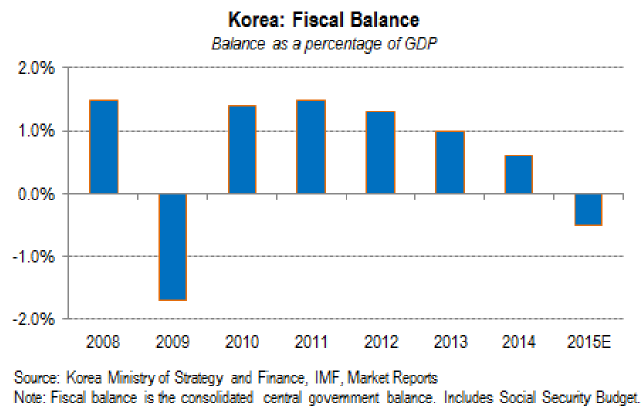
Source: Bank of Korea

Korean economic growth remains weak following the recent Middle East Respiratory Syndrome (MERS) outbreak, waning fiscal stimulus, and stagnant exports. In addition, Korea's household debt remains elevated, weighing on consumer spending. Real GDP growth came in at 3.3 percent in 2014, and has slowed to an annualized rate of 2.3 percent through the first half of 2015. Economic growth began to decelerate in 2012, after averaging

[10] Cline, William. *Estimates of Fundamental Equilibrium Exchange Rates*, Washington; Peterson Institute of International Economics, May 2015 http://www.iie.com/publications/pb/pb15-8.pdf

close to 5 percent in the initial post-crisis period (2009-2011).

Korea's current account surplus is quite large, absolutely and relative to Korea's GDP. During the first half of 2015, the current account surplus reached $57 billion (8.4 percent of GDP) compared to $46 billion (6.5 percent of GDP) in the same period last year. This widening of the current account surplus primarily reflects lower import prices, particularly for energy and other commodities, though import volumes are weak due to slow domestic demand growth. Exports, which are equivalent to 50 percent of GDP, have been falling over the course of the year as a result of lower export prices and weaker Chinese demand. Korea's bilateral trade surplus in goods with the United States totaled $14.7 billion in the first half of 2015, larger than the $11 billion surplus from the same period the year before.



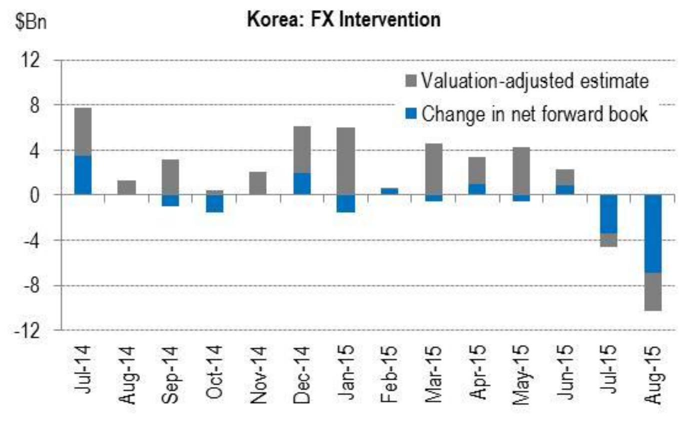

Following the May 2015 outbreak of MERS, the government announced in July a $10.5 billion (11.8 trillion won) supplemental budget in response to the fall in private consumption triggered by the MERS outbreak.[11] Nearly one-half of the borrowing for the supplemental budget will be used to compensate for a shortfall in tax revenues. The remaining portion, allocated to new spending, will total $5.5 billion (6.2 trillion won, or 0.5 percent of GDP.) Analysts estimate that the supplemental budget will result in an overall fiscal deficit, including the social security budget, of 0.5 percent of GDP in 2015, the first budget deficit since 2009. In August, the government announced further measures to spur private consumption, including a temporary reduction in consumption taxes on cars and large household appliances, and the lifting of restrictions on reverse mortgages for the elderly. These measures will help support domestic demand.


South Korea officially maintains a market-determined exchange rate, and its authorities intervene with the stated objective of smoothing won volatility. In February 2013, Korea joined the rest of the G-20 in committing to refrain from competitive devaluation and to not target its exchange rate for competitive purposes, a commitment reaffirmed at the G20 Finance Ministers and Central Bank Governors Meeting in Ankara, Turkey in September. Over 2014, the won depreciated by 3.5 percent against the U.S.

[11] During the second quarter, private consumption contracted by 0.3 percent of GDP, compared to an expansion of 0.6 percent the previous quarter. Sectors particularly vulnerable due to MERS contracted strongly. Retail and wholesale sales, hotels, and transportation, for instance, fell by 0.5 percent quarter over quarter. One hundred and eighty six people were infected with MERS from May 2015 to July 2015, the second largest outbreak of MERS after Saudi Arabia.

dollar, but strengthened by 1.8 percent on a real, trade-weighted basis. In the year through end-September, the won has depreciated by 7.7 percent against the dollar, and 2.0 percent on a real trade-weighted basis. The Korean authorities have a policy of intervention on both sides of the market, but the sustained rise in reserves and net forward position indicates that they have intervened on net to resist won appreciation fairly consistently since late 2012. In contrast to many other major emerging markets and industrialized economies, Korea does not publicly report foreign exchange market intervention. Nevertheless analysts estimate intervention from Korea's balance of payments data and changes in Korea's published foreign exchange reserves and forward positions.

Valuation-adjusted estimates of foreign exchange purchases together with the evolution of the Bank of Korea's forward book indicate that during the first half of 2015 Korea continued to purchase foreign exchange, on net, limiting won appreciation.[12] In July and August, however, the authorities intervened substantially to support the won as the won fell to a two and a half year low against the dollar amid emerging market stress. As a result, intervention over the 2015 calendar year appears to be roughly balanced.



Source: Bank of Korea, FRB, U.S. Treasury estimates.

In June, Korea announced a series of steps to facilitate capital outflows, which would reduce underlying pressure for won appreciation stemming from its current account surplus. On June 29, the Korean Ministry of Strategy and Finance announced a series of measures to "promote Korean Foreign Portfolio Investment and Overseas Mergers & Acquisitions."[13] Key measures include: (1) the creation of a Foreign Portfolio Investment Fund with tax exemptions on capital and foreign exchange gains for a maximum of 10 years, (2) relaxed regulation of foreign exchange hedging and overseas investments by insurance firms, (3) $5 billion in government support for cross-border overseas investments, (4) a higher ceiling on personal foreign exchange transactions requiring documentation, and (5) the removal of repatriation requirements on foreign debt securities. The monthly balance of payments data also show an uptick in purchases by the Korean government of foreign equity securities in June and July. Efforts by the government to diversify its national pension fund assets began in 2008.[14]

[12] Korean intervention can manifest itself either as a rise in headline reserves or as a rise in the central bank's forward position. (A long forward position indicates a future inflow of foreign exchange reserves, and consists of the long position in forwards and futures in foreign currencies, including the forward leg of currency swaps.)

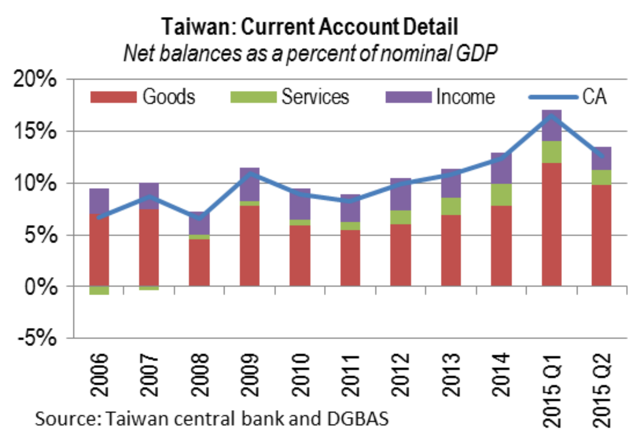
[13] According to Korea's balance of payments, government purchases of overseas equity and debt securities totaled $21.6 billion in 2014 and $7.1 billion in the year through July 2015. Large overseas investment by the government reflects, for the most part, efforts since 2008 to diversify Korea's national pension assets.

[14] On June 1, 2015, Korea's National Pension Fund Service, citing disappointing growth and record low interest rates in Korea, announced that it would raise its foreign asset allocation target to 30 percent in 2020, from the previous target of 20 percent.

The most recent IMF assessment found that the Korean won was undervalued in 2014 by 5 to 13 percent. In 2014 the current account surplus was 6 percent of GDP, and it is on track to rise to 8 percent of GDP this year. While weak domestic demand has reduced import demand, Korea has also benefitted from an improvement in its terms of trade due to the continued decline in oil prices. The growing current account surplus, together with the won's real effective depreciation in 2015, continues to point to undervaluation of the currency.

Korea faces challenges to restoring economic growth. Continued reliance on external demand for growth is not a viable solution, either for Korea or for the global economy. Korea should instead take further steps to strengthen domestic demand. Korea has substantial fiscal space to provide support for demand, with public debt at only 38 percent of GDP; it should be ready to provide additional support to demand as needed and be careful not to withdraw fiscal support too quickly. This should be supplemented by structural reform measures, particularly aimed at increasing productivity growth in the services sector, as well as reducing labor market rigidities and increasing female labor force participation. Given its undervalued currency, Korea should not intervene in the foreign exchange market to limit the won's appreciation should market pressure for appreciation return, and limit its intervention in the foreign exchange market to the exceptional circumstance of disorderly market conditions. Appreciation of the won would help with rebalancing Korea's economy away from excessive reliance on exports and encourage a reallocation of production resources to the non-tradables sector. The Korean authorities should also increase transparency of foreign exchange operations, as Korea is among the largest economies in the world not to disclose foreign exchange intervention even with a lag.

## Taiwan

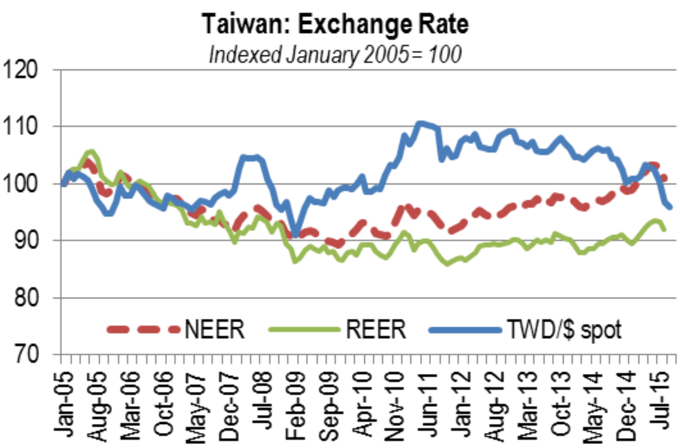



Weak growth in the first half of the year in Taiwan primary reflected a lackluster external environment, with offsetting policy support announced only late in the first half. Taiwan's GDP growth slowed sharply to 0.5 percent year on year in the second quarter from 3.8 percent in the first quarter, with net exports subtracting 2.2 percentage points. In response, Taiwan's central bank cut its policy interest rate by 12.5 basis points to 1.75 percent on September 24. The cabinet also announced in June a lending program equivalent to 3 percent of GDP aimed at boosting capital for investments by small and medium-sized companies, and in August proposed a 13 percent increase in public investment spending in the 2016 budget. Taiwan's public debt level is relatively low; the authorities' willingness to provide additional fiscal stimulus is constrained by concerns about high future pension liabilities and a legislatively mandated limit of 40.6 percent of GDP on central fiscal borrowing. The tight constraints within which Taiwan conducts its fiscal policy underscore the need for implementation of growth-enhancing structural reforms, as well as moving towards a more fully market-determined exchange rate, to support consumption and more balanced growth.

Despite the drag on growth from net exports, Taiwan's very large current account surplus rose further in the first half of 2015, reaching 14.5 percent of GDP compared with 12.4 percent in 2014. Taiwan's goods and services trade surplus totaled $32.0 billion in the first six months of 2015, up 40 percent from the same period a year before, owing to a positive terms of trade shock. Taiwan's merchandise trade surplus with the United States was $7.8 billion in the first half of 2015, compared with $6.8 billion in the first half of 2014.[15]

Much of Taiwan's current account surplus continues to be offset by significant, policy-driven capital outflows. In early 2015, Taiwan's legislature approved amendments making it easier for banks and insurance companies to acquire assets abroad. On July 29, Taiwan's Financial Supervisory Commission issued licenses to 14 insurance companies to establish offshore insurance units. Residents (including banks and insurance companies) increased their overseas assets by $50 billion in the first half of 2015. Reflecting large current account surpluses, Taiwan has a large net international investment asset position equal to 180 percent of GDP.

Taiwan maintains a managed floating exchange rate regime, and the central bank states that the new Taiwan dollar (NTD) exchange rate is determined by the market, except when the market is disrupted by seasonal or irregular factors. The NTD has depreciated by 4.3 percent against the dollar in the first nine months of 2015 compared to a 5.7 percent depreciation in 2014, although it has depreciated to a lesser extent than many emerging market currencies. The real effective exchange rate appreciated 1.2 percent in the first nine months of 2015, compared to a 0.1 percent appreciation in 2014. Taiwan's headline foreign exchange reserves increased by $7 billion to $426 billion in the first nine months of 2015. Taiwan's foreign exchange reserves are equivalent to 80 percent of GDP, 20 months of imports, and 2.6 times short-term external debt—well in excess of adequate levels by any metric.

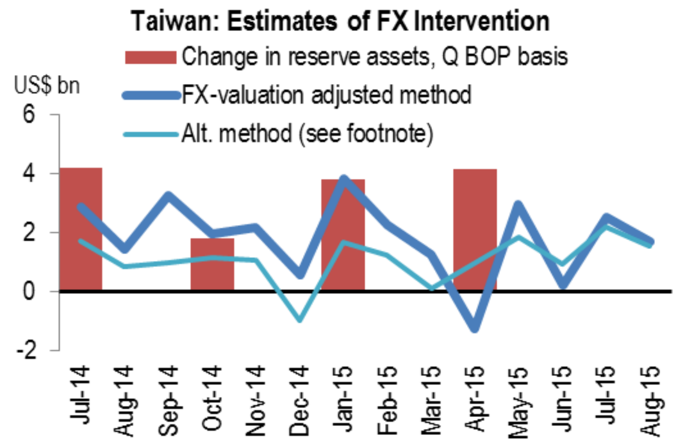


Source: Taiwan central bank

Although not a member of the IMF, Taiwan uses the IMF's Special Data Dissemination Standard (SDDS) framework to provide data on many aspects of its economy, including the real, fiscal, financial, and many of the external sector accounts. Taiwan does not, however, publish data on the full details of its international reserves in accordance to the SDDS reserves template. Now that mainland China has begun to provide such data, Taiwan is the only major emerging market economy in Asia not to report reserves data based on the SDDS template.

[15] Data for bilateral services balance is not available. Taiwan ran an overall services deficit of 2.1 percent of GDP in 2014; and 1.8 percent of GDP for the first half of 2015.

Taiwan also does not disclose its foreign exchange market intervention. Looking at publicly available banking sector and balance of payments data, Taiwan appears to intervene on both sides of the market but, on net, intervenes much more to resist appreciation. Treasury estimates that average monthly intervention in the first eight months of 2015 was approximately $1.3 billion, up from an average of $0.9 billion per in 2014.[16] Allowing greater exchange rate flexibility would counter the need for persistent and largely one-sided (net) intervention and continued accumulation of reserves.



Source: Taiwan central bank, U.S. Treasury estimates

Apart from actual foreign currency purchases by the central bank, market expectations of regular intervention, particularly at certain values or in response to large transactions, also can shape the pattern of capital flows and obscure the price-clearing mechanism of the exchange rate. For example, looking at intra-day data, the central bank appears to have sold NTD in the last hour of the trading day as much as 75 percent of the time in the first seven months of 2015—signaling to the market the central bank's targeting of a given closing level for the exchange rate. Additionally, local media has reported that the central bank has asked banks to delay or space out certain foreign exchange transactions.

The IMF does not release an assessment of the valuation of Taiwan's currency. The Peterson Institute for International Economics (PIIE) estimated in May that Taiwan's real effective exchange rate was undervalued, and would need to appreciate by about 17.5 percent to bring Taiwan's current account surplus down to 3 percent of GDP.

Given Taiwan's very large current account surplus, substantial reserves, and undervalued currency, the authorities should not resist more market pressure for appreciation through intervention and limit foreign exchange interventions to the exceptional circumstances of disorderly market conditions, as well as increase the transparency of reserve holdings and foreign exchange market intervention.

### *Europe*

### Euro Area

The euro area's recovery has lagged substantially that of other developed countries, in part because euro area policymakers have not used all available policy tools to support domestic demand growth. GDP in the first half of 2015 was 1.4 percent higher than a year earlier, up from just 0.9 percent growth registered in 2014. Growth remains highly uneven, with stronger growth

[16] Treasury staff estimate based on the change in foreign assets on the central bank's reporting of Factors Responsible for Changes in Reserve Money (which excludes valuation changes resulting from foreign exchange fluctuations) minus estimated interest earned on reserve assets.

in Spain, modest growth in Germany, and weaker growth in France and Italy.  More telling, however, in terms of the euro area's overall weakness is that domestic demand across the monetary union in the first half of 2015 had yet to return to its level of 2007, pulled down by very weak investment, which in the first half of 2015 remained almost 20 percent lower than pre-crisis levels.  The European Central Bank is projecting growth for the full year at 1.4 percent.

Low inflation remains a risk and a reflection of weak domestic demand.  The decline in energy prices has put downward pressure on headline inflation while ongoing quantitative easing and depreciation of the euro have worked in the opposite direction to prevent deflation.

Over the course of 2015, through end-September, the euro has depreciated against the dollar by 8.2 percent.  Since August 11, when China devalued its currency, the euro has appreciated against the dollar by 1.2 percent.  On a real effective basis, the euro has depreciated in 2015, through September, by 4.2 percent.  Core inflation (excluding energy) was 1.0 percent year-on-year in September.

Downside risks in the near-term have diminished somewhat, though much will depend on the evolution of developments in Greece, whether fiscal policy in those countries with fiscal space becomes more supportive of growth and job creation, and the ECB's monetary stance.  The ECB's ongoing public sector purchase program (PSPP) is scheduled to last until at least September 2016.  As of end-September, the ECB holds €343.3 billion in eligible securities under the PSPP.  Credit conditions have improved and the decline in private sector credit growth is easing.  Household lending increased in the second quarter to 1.2 percent year-on-year growth.

Additionally, there remains a risk that the euro area economy could return to even lower growth as the effects of a weak euro and low oil prices fade.  The euro area remains heavily reliant on monetary policy.  It would be advisable for euro area economies to deploy a more balanced set of tools, including fiscal and structural policies, to provide support to domestic demand, particularly investment, which remains too weak.  Stronger and more balanced growth overall would support the internal rebalancing that is needed between the core and periphery countries in the euro area.

Germany has a special role to play in this regard, as it is the euro area's largest economy, continues to run a very large current account surplus, and is in the strongest fiscal position to power demand across the euro area.  Nevertheless, German domestic demand growth is highly variable, growing 2.3 annualized in the first quarter, but contracting by nearly 1.3 percent annualized in the second quarter.  Private consumption is weak, averaging just 0.9 percent growth over the three-years prior to 2015, and just 1 percent in the first half of 2015.  Weak German domestic demand combined with the lower price for oil has caused Germany's current account surplus to rise to an unprecedented 8.3 percent of GDP in the second quarter of 2015. The IMF forecasts it will grow to 8.4 percent in 2015, or $285 billion.  This increase in the current account balance comes in the context of a 5-15 percent undervalued German real effective exchange rate according to the IMF.  The macro adjustment process within the euro area is not working effectively and would be much better if Germany and other countries with current account surpluses took stronger action to boost domestic demand growth, particularly investment.  Steps to support domestic demand would also help Germany insure against the risk of further weakening in external demand.

A key priority for the euro area is to accelerate the pace of the recovery and reduce unemployment. While the PSPP program is an important part of the policy mix to increase inflation and output, a broader and more balanced approach is needed that includes increased flexibility toward fiscal targets and a focus on demand-enhancing structural reforms. Finally, deepening euro area financial, economic, and fiscal integration—more centralized risk sharing, greater resource pooling, and enhanced cost sharing—would support the ongoing adjustment and make the euro area more resilient to future shocks.

**Switzerland**

The Swiss economy has scarcely grown in the first half of 2015, contracting by 1 percent annualized in the first quarter and growing 1 percent annualized in the second quarter. The Swiss National Bank (SNB) forecasts that real GDP will grow just under 1 percent growth for the full year, and the SNB expects the pace of expansion to be just slightly faster in the second half of the year.

Switzerland has posted annual deflation since 2012. In August 2015, consumer prices decreased 1.4 percent year-on-year. The SNB forecasts deflation of 1.2 percent for 2015, and 0.5 percent for 2016, returning to inflation of 0.4 percent in 2017. With policy interest rates negative—at a 3-month Libor target range between -1.25 percent and -0.25 percent, and interest on sight deposits at the SNB at -0.75 percent—the SNB risks cash hoarding by driving rates further negative. Given that monetary policy is fully deployed, Swiss authorities should take full advantage of any room allowed under their fiscal rules.

After returning to a managed float on January 15, 2015, the SNB has maintained that policy into September. In September 2015 the SNB indicated it will "… remain active in the foreign exchange market as necessary, in order to take account of the impact of the exchange rate situation on inflation and economic developments ."[17] Switzerland has acknowledged intervening twice to prevent the franc from appreciating against the euro during the first half of 2015: first, when it abandoned the exchange rate floor of 1.20 francs per euro in mid-January; and second, on June 29, when "safe haven" capital inflows from the euro area put upward pressure on the franc. No additional details about the interventions were provided. Due to foreign exchange purchases by the SNB's foreign exchange reserves increased $55.7 billion to $554.6 billion during the first half of 2015. Additional reporting on intervention would help distinguish the drivers of reserve accumulation.

The Swiss nominal effective exchange rate has appreciated 8.3 percent in 2015, through September, while the real index has appreciated 6.4 percent in the same period. Virtually all of the appreciation occurred following the removal of the exchange rate floor in January 2015. The franc has appreciated about 1.6 percent against the dollar in the year through end-September. In its June 2015 External Sector Report, the IMF judged the Swiss franc to be broadly in line with fundamentals in 2014, but noted that overvaluation likely occurred this year due to currency appreciation.

[17] *SNB Quarterly Bulletin* 3/2015 (September), p. 5

Switzerland has a large current account surplus which exceeded 10 percent of GDP in the first half of this year. Factors behind Switzerland's persistent surplus should be interpreted with caution, as discussed in earlier versions of this Report. As an international banking hub, and home to many multinational companies, investment income (not all of which can be attributed to Swiss residents) and financial services contribute heavily to the surplus. Also contributing are the activities of commodities brokers whose trades may be outside Switzerland and transacted in dollars. The U.S. merchandise trade deficit with Switzerland was $2.7 billion in the first half of 2015. In 2014, the bilateral deficit was $9 billion.

## United Kingdom

The UK economy expanded at an annualized rate of 2.3 percent in the first half of 2015, and is expected by the Bank of England (BOE) to grow 2.5 percent overall in 2015. Private domestic demand remains robust, with household consumption and business investment continuing to make substantial contributions to growth. Household spending has been supported by the boost to real incomes from lower energy and food prices, and consumer confidence is at its highest level in over a decade. Credit conditions have continued to improve, boosting activity in the housing market and supporting investment spending.

Unemployment declined to 5.5 percent in June from its 2013 peak of 7.2 percent. Inflation has fallen sharply and remains far below the BOE inflation target of 2 percent at zero percent in August. The undershoot of the BOE target is largely attributable to low contributions from energy, food, and other imported goods. Wage growth averaged 2.6 percent January through July after stagnating in 2014, recovering to the highest levels in 6 years as the private sector competes in a tightening labor market. The appreciating British pound, however, may counter wage growth's upward pressure on inflation.

The UK fiscal deficit continues to narrow, and will narrow further per the government plan to reduce the budget deficit by an average of about 1 percent per year over the next five years and to achieve a balanced structural budget by 2018-19. Additionally, the government has proposed a new law that would require a budget surplus, which would take effect in 2018-19. Net public sector borrowing fell to 4.9 percent of GDP in fiscal year (FY) 2014-15, down from a post-crisis peak of 10.2 percent in FY 2009.[18] The Office for Budget Responsibility also estimates that the net stock of public debt peaked at 80.8 percent of GDP in FY 2014-15, and will gradually fall to 68.5 percent by FY 2020-21.

UK monetary policy remains accommodative. The BOE has maintained its policy rate at 0.5 percent since 2009 and the stock of its asset purchases under the quantitative easing program at £375 billion since 2011. BOE officials have signaled that they expect interest rates to rise over the next three years, although the timing of the first rate hike in the tightening cycle remains uncertain. BOE officials also signaled that eventual will rate hikes be gradual and to a level substantially lower than the average rate before the crisis. Market-implied measures and analysts

[18] The UK fiscal year runs from April to March.

forecasts now indicate that the first BOE rate hike will likely occur in the second quarter of 2016, with a roughly one-in-four chance of a hike this November.

The pound, which is a freely floating currency, depreciated by 2.9 percent against the dollar in the year through end-September. On a real effective basis, the pound has appreciated 4.9 percent over the same period. The reasons underlying the strengthening trend include stronger relative growth prospects and market expectations of upcoming monetary policy normalization.

The UK continues to run a large but narrowing current account deficit, which peaked at 6.3 percent of GDP in the fourth quarter of 2014—the highest level since 1989—but narrowed to 3.6 percent of GDP in the second quarter of 2015. This fluctuation reflects primary income and trade balance deficits, which reached 2.6 percent and 2.1 percent of GDP in Q4 2014, respectively, but narrowed to 1.5 percent and 0.7 percent in Q2 2015, respectively. The increase in the income deficit is being driven by a reduction in income from FDI abroad as well as an increase in income paid abroad on portfolio and direct investment liabilities. Ongoing weakness in euro area growth and appreciation of the pound could make these improvements temporary.

### *Western Hemisphere*

#### Brazil

Brazil's economy is in a recession, with the IMF forecasting a real GDP contraction of 3.0 percent in 2015, following growth of only 0.1 percent in 2014. At the same time, inflation has remained elevated, and the market consensus in the BCB's (Banco Central do Brazil) end of September survey projected inflation to increase to 9.5 percent for 2015, well above the upper bound of the BCB's ± 2 percent tolerance band around its 4.5 percent inflation target. The BCB has responded to inflationary pressures by hiking the policy interest rate to 14.25 percent as of September 2015—a 700 basis point increase since it began tightening in April 2013.

Brazil maintains a floating exchange rate regime, although the authorities have taken measures in recent years to manage the volatility of Brazil's currency, the *real*. The *real* has experienced substantial depreciation since mid-2014, with depreciation accelerating sharply in 2015. External factors, including lower commodity prices, appear to have driven a large share of the *real's* depreciation, though local factors including political risk have contributed as well. In the year through end-September 2015, the *real* has depreciated 37.9 percent against the dollar while in real effective terms it depreciated 24.3 percent over the same period.

In March 2015, the BCB suspended a formal intervention program which it had initiated in August 2013 to satisfy a private sector demand for hedging against *real* depreciation, but it restarted intervention on a discretionary basis in September 2015. The BCB has accumulated a substantial net short USD position in the foreign exchange futures market through these operations. As of end-September, the BCB's net short USD swap position stood at $108 billion. The BCB also has sold dollars under repurchase contracts, with approximately $9.2 billion in outstanding USD repurchase contracts as of end-September. Against these liabilities, Brazil's headline foreign exchange reserves have remained relatively stable since 2012 and totaled $371 billion as of end-September 2015, equivalent to 16 months of import cover, and over three times short-term external debt.

Brazil's current account deficit had steadily widened from near balance in 2007 to a deficit of 4.4 percent of GDP in 2014. The IMF forecasts it will narrow slightly to 4.0 percent of GDP in 2015. The effects of reduced economic activity and significant currency depreciation should contribute to a narrowing of the current account deficit via import compression. There are some indications that such adjustment is underway, as the decline in the value of imports (23 percent year-on-year) is larger than the decline in exports (17 percent year-on-year) in the first three quarters of 2015.

**Canada**

Full year growth of 2.4 percent in 2014 was a notable acceleration from lackluster growth the prior two years, but economic activity has slowed sharply since late 2014, as the fall in global oil prices has contributed to a substantial decline in investment. Canada experienced a technical recession in the first half of 2015, as the economy contracted 0.5 percent (annualized) in the second quarter of 2015, following a 0.8 percent contraction (annualized) in the first quarter. The IMF now expects growth to slow to 1 percent in 2015 and recover slowly to 1.7 percent in 2016. The federal government has overseen steady fiscal tightening in recent years and achieved a slight budget surplus in the fiscal year ending March 2015. At the same time, provincial deficits remain sizeable and some provincial budgets face difficult adjustment to lower commodity prices.

Canada maintains a flexible exchange rate and employs an inflation-targeting monetary policy regime. Headline inflation increased modestly for much of 2014, averaging 1.9 percent for the year, near the mid-point of the Bank of Canada's target band of 2 percent ± 1 percent. Inflation fell rapidly with oil prices, however, dropping below the target band in the spring and the IMF forecasts it will be 1.0 percent in 2015. In the face of low inflation, the Bank of Canada cut its policy rate 25 basis points each in January and in July to its current rate of 0.5 percent.

The Canadian dollar has depreciated substantially over the past year, declining by 16 percent year-over-year against the U.S. dollar as of end-September and 9.6 percent on a real effective basis over the same period. Canada's current account deficit narrowed to 2.1 percent of GDP in 2014, but the IMF forecasts that it will widen to 2.9 percent of GDP in 2015, due to falling terms of trade and a decline in the value of oil exports. The Bank of Canada expects the weaker Canadian dollar to spur non-energy exports, in particular to the United States. Canada had foreign exchange reserves of $67.6 billion as of end-September 2015, up 11.0 percent year-on-year. This level represents about 4 percent of GDP and 1.5 months of imports.

## Mexico

Following growth of 2.1 percent in 2014, Mexico saw a slowdown in the first quarter of 2015 to 1.7 percent annualized, as soft U.S. activity compounded the impact of oil prices falling sharply to post-crisis lows. Growth picked up to 2.0 percent annualized in the second quarter. The IMF expects growth to increase to 2.3 percent for 2015 and 2.8 percent in 2016, reflecting the expected impact of stronger U.S. growth on Mexican manufacturing and exports, as well as increased investment.

Mexico pursues an inflation-targeting monetary policy regime, with a target of 3 percent ±1 percent, and maintains a flexible exchange rate, while intervening in foreign exchange markets to provide liquidity during periods of volatility. In nominal terms, at the end of September, the Mexican peso had depreciated by 21 percent against the U.S. dollar from a year earlier, and has fallen 11.3 percent on a real effective basis over the same period. Even with substantial peso depreciation, inflation has remained below the central bank's 3 percent inflation target, reaching record lows of 2.5 percent year-on-year (headline) and 2.3 percent year-on-year (core) in September 2015. Nonetheless, the decline in inflation in part reflects temporary factors, including energy price declines, as well as economic slack, and Bank of Mexico officials have expressed concerns that further exchange rate depreciation could fuel inflationary pressures. Despite the scale of exchange rate adjustment, the IMF forecasts that Mexico's current account deficit will remain broadly stable, from 1.9 percent (actual) in 2014 to 2.4 percent in 2015 and 2 percent in 2016.

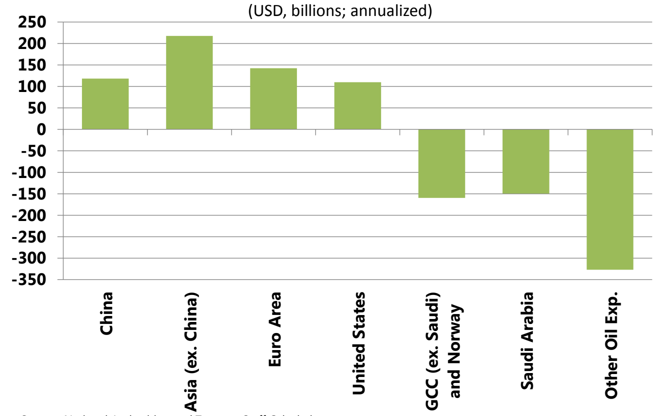
In response to the peso's sharp depreciation over the fourth quarter of 2014, the Foreign Exchange Commission (FEC), which is responsible for foreign exchange policy and consists of officials from the Ministry of Finance and the Bank of Mexico, in December 2014 announced a rules-based program of foreign exchange intervention. The FEC's stated aim is to provide liquidity and dampen volatility in the foreign exchange market. The authorities have expanded the program twice, most recently on July 30, 2015, amid further peso weakness. In its current form, the Bank of Mexico sells $200 million every day, with an additional $200 million if the peso depreciates more than one percent in intraday trading. Since the most recent adjustment to the program in July, the Bank of Mexico has conducted multiple additional auctions based on the intraday trading. The program will run through at least November 30, 2015.

Mexico's foreign exchange reserves stood at $176.9 billion as of end-August 2015, down 2.3 percent year-on-year. This level represents about 15 percent of GDP and over 5 months of import cover. Mexico's reserves continue to be backed by the availability of an additional $72 billion from a two-year Flexible Credit Line (FCL) with the IMF, which was last renewed in November 2014. As of September 2015, Mexico has never drawn on this line.

# Annex I: Lower Oil Prices and Global Imbalances: An Update[19]

Figure 1. Transfers from Lower Oil Prices in 2015H1[1]

(USD, billions; annualized)




*Sources:* National Authorities; and Treasury Staff Calculations
1/ Or 2015Q1 depending on data availability .

The sharp fall in oil prices over the past year has had significant implications for global current account balances. As was discussed in the annex of the last Foreign Exchange Report, lower oil prices have resulted in a meaningful shift in income from oil exporters to oil importers during the first half of 2015. This shift in income will likely be maintained over the course of the second half of the year as oil prices have fallen further, to a price of $47 per barrel as of end-September, from an average of $55 per barrel in the first half of the year. If oil prices remain steady, the shifts in income for the year as a whole will be of a similar size to that of the first half of 2015.

The transfer of income between oil exporters and importers has been substantial during the first half of 2015 (average $55 per barrel) relative to the same period of 2014 (average $105 per barrel), see figure 1. Oil exporters, most predominantly Saudi Arabia, have experienced large losses in income from the lower oil prices. The largest gains from oil prices have accrued to China, other Asian economies, the United States, and the euro area. All figures in this annex are calculated as the annualized change between oil balances in the first half of 2015 relative to the same period in 2014[20].

**<u>Impact on Oil Exporters:</u>**

- In the first quarter of 2015, Saudi Arabia's oil export earnings fell by roughly $150 billion, relative to the first quarter of 2014.
- Other Gulf Cooperation Council (GCC) countries saw oil revenues decline by about $130 billion during the first half of the year.
- Russia lost $100 billion in oil revenue in the first half of 2015 relative to the same period last year.
- Norway's oil earnings declined by $30 billion in the first half of 2015.
- Other oil exporters also experienced sizable declines in income during the first part of 2015 due to the low price for oil: Iraq by an estimated $40 billion, Venezuela by an

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[19] Prepared by Jeremy Zook.
[20] Dependent on data availability, for some countries the annualized change between the first quarters of 2014 and 2015 is used.

estimated $30 billion, Canada around $30 billion, Kazakhstan and Nigeria roughly $25 billion each, and Mexico and Colombia nearly $12 billion each.

**Impact on Oil Importers:**

- Asia benefits the most from a lower oil price. Asia's gain in the first half of the year was nearly $340 billion in savings from oil imports.
  - China's savings amounted to nearly $120 billion—the largest single country gain from lower oil prices.
  - Japan saved $76 billion, India $44 billion, and Korea $36 billion.

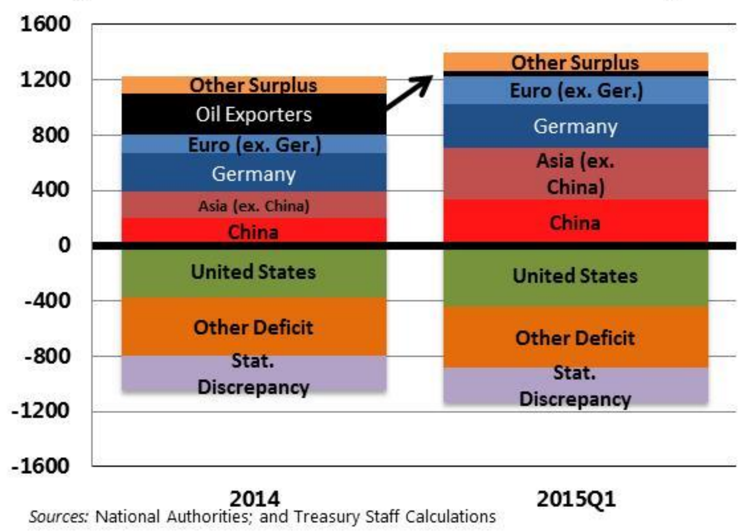
- The United States's oil import bill was nearly $110 billion lower in the first half of the year.

- Euro area economies saved nearly $142 billion.
  - Germany benefited the most, as oil expenditures were roughly $50 billion lower in the first half of 2015.
  - Spain saved $20 billion, the Netherlands $18 billion, Italy $16 billion, and France $12 billion.

**Impact on Global Imbalances**

The shift in incomes resulting from the decline in oil prices alters the composition of global imbalances dramatically.

Figure 2. Global Current Account Balances - 2014 vs. 2015Q1




*Sources:* National Authorities; and Treasury Staff Calculations

Against an oil swing of roughly $50, oil exporters saw their aggregate surplus nearly evaporate, dropping from $295 billion in 2014 to roughly $40 billion in the first quarter of 2015. Current account balances in most oil exporters deteriorated sharply, including Saudi Arabia, which saw a current account deficit in the first quarter of 2015. A major exception is Russia, where the severe economic contraction, import restrictions and exchange rate depreciation lowered non-petroleum imports, which more than offset the decline in oil revenues and boosted Russia's current account surplus.

Meanwhile surpluses in China and other Asian countries (especially in East Asia) have ballooned. While oil savings played a sizable role in boosting surpluses so far in 2015, weak domestic demand also played a significant role, especially in China, Taiwan, and Japan where lower non-petroleum imports, pushed current account surpluses higher.

Euro area surpluses have also increased, but oil savings were the predominant driver of these larger surpluses, as improved domestic demand drove up non-petroleum imports, offsetting the increase in exports.

While the United States experienced a substantial reduction in its petroleum deficit as a result of lower oil prices, the overall current account balance deteriorated in the first half of 2015. An increase in the non-petroleum deficit more than offset the savings from oil, driving up the overall current account deficit.

## Glossary of Key Terms in the Report

**Bilateral Real Exchange Rate –** The bilateral exchange rate adjusted for inflation in the two economies, usually consumer price inflation.

**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** – A 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.

**International 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 foreign currency reserves for its own currency, reducing foreign currency reserves. Sales involve the exchange of an economy's own currency for a foreign currency, increasing its foreign currency reserves. Interventions may be sterilized or unsterilized.

**Managed Float** – A regime under which an economy establishes no predetermined path for the exchange rate but the central bank frequently intervenes to influence the movement of the exchange rate against a particular currency or group of currencies. Some central banks explain this as a policy to smooth fluctuations in exchange markets without changing the trend of the exchange rate.

**Nominal Effective Exchange Rate** (NEER) – A measure of the overall value of an economy's 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** – A regime under which an economy maintains a fixed rate of exchange between its currency and another currency or a basket of currencies. Typically 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) – The effective exchange rate adjusted for relative prices, usually consumer prices.

**Sterilized Intervention** – An action taken by the central bank to offset the effect of intervention on the domestic money supply. Intervention in which the central bank sells domestic currency increases the domestic money supply, and is, in essence, expansionary monetary policy. To neutralize the effect of the intervention on the money supply, the central bank will sell domestic government securities, taking an equivalent amount of domestic currency out of circulation. If the intervention involved the purchase of domestic currency, the central bank will buy government securities, placing an amount of domestic currency equivalent to the size of the intervention back into circulation. An intervention is partially sterilized if the action by the central bank does not fully offset the effect on the domestic money supply.

**Trade Weighted Exchange Rate –** see Nominal Effective Exchange Rate.

**Unsterilized Intervention –** The purchase of domestic currency through intervention in the exchange market reduces the domestic money supply, whereas the sale of domestic currency through intervention increases the money supply. If the central bank takes no action to offset the effects of intervention on the domestic money supply, the intervention is unsterilized.