Report to Congress on International Economic and Exchange Rate Policies

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

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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.

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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 2014, and where pertinent and available, data through end-September 2014. This report reviews the macroeconomic and exchange rate policies of economies accounting for 71 percent of U.S. foreign trade and assesses global economic developments more broadly. The Report concludes that global growth – and global job creation – continue to disappoint, due principally to chronically weak global demand, itself a function of a global adjustment process that has been asymmetric and disproportionately borne by deficit economies. Accordingly, much more needs to be done to foster strong, sustainable and balanced growth, including but not limited to increased demand growth in economies with large external surpluses. This will require more accommodative macroeconomic policies in economies with external surpluses or high unemployment, greater encouragement of consumption and investment where demand is weak, further progress toward market determined exchange rates where they do not now exist, and, to boost longer-term growth, robust implementation of well-designed structural reforms.

U.S. economic growth rebounded strongly in the second quarter of this year after being held down by several temporary factors in the first quarter. Favorable underlying fundamentals suggest that the economy will continue to grow at an above-trend pace through the end of 2015. A consensus of private forecasters is projecting real GDP growth of 3 percent over the second half of 2014 and 2.9 percent over the four quarters of 2015. Job creation has accelerated in the first eight months of 2014 and the unemployment rate has moved lower. Nonfarm payrolls increased by 215,000 per month on average over the first eight months of 2014, notably faster than the 185,000 monthly average during the last six months of 2013. The federal deficit continued to narrow sharply in FY 2014 to 2.8 percent of GDP from to 4.1 in FY 2013 and 6.8 in FY 2012. The Administration's proposed FY 2015 Budget would trim the deficit further and put publicly held debt on a declining path as a share of the economy.

Global growth, at just 2.7 percent in the first half of 2014 according to the IMF, remains too weak to generate the many millions of new jobs that are needed. It also increasingly risks being unbalanced. The recovery in the United States appears to be gathering strength. But demand growth in the euro area has been persistently weak throughout the post-crisis recovery period. Large output gaps have left inflation in the euro area significantly below the ECB's target level. With policy rates near zero, the sustained decline in inflation to very low levels has raised real interest rates and is a further impediment to recovery, particularly in the euro area periphery where the debt overhang is largest. Euro area growth slowed in the second quarter and remains too low to significantly reduce unemployment. Japanese growth also has become more uncertain, including from a large, tax-induced contraction in the second quarter. On current policies, the IMF projects euro area and Japanese growth at just 0.8 and 0.9 percent, respectively,

in 2014. The pace of growth this year also has slowed in emerging market and developing economies, to just 4.4 percent, which will be the third consecutive year of declining growth rates – down from 6.2 percent in 2011.

The main global challenge is to boost the present pace of demand growth, which in turn will bolster job growth. Given the low inflation and low interest rates, there appears to be more than ample room to do so without sacrificing a collective commitment to stable prices and long-run fiscal sustainability. The longer the global economy continues to underperform, the more difficult it will be to secure stronger long-term growth rates if much needed public and private investments are not made, and the greater the risk that the long-term unemployed fail to obtain critical job skills. More supportive macroeconomic policies are essential in the near-term, and higher infrastructure investments would raise potential growth over the medium to long term.

Policies to boost demand in the surplus economies would be particularly powerful in driving the global adjustment process and contributing to the achievement of stronger, more sustainable, and more balanced global growth. While there have been some successes in reducing global imbalances – most notably in the United States and China – too much of the progress is due to demand compression in deficit economies, without offsetting demand expansion in surplus economies.

- China's current account surplus in 2013 came in a bit below 2 percent of GDP, down significantly from its peak of 10.1 in 2007. This decline was driven by RMB appreciation and by very rapid growth of domestic investment, currently at around 48 percent of GDP, a level that is unlikely to be sustained. As China's reform strategy proceeds and investment as a share of GDP comes down, it is important that domestic consumption – and not a renewed dependence on external demand – drive China's growth.

- The total balance of Asian "newly industrialized economies"[2] surpluses more than doubled between 2006 and 2013. Korea's surplus reached 6.1 percent of GDP in 2013, and exceeded 6.5 percent of GDP in the first half of 2014. Taiwan's surplus has reached 13 percent of GDP. These economies have scope to contribute to global rebalancing by boosting domestic demand and ceasing intervention in exchange markets.

- The euro area's surplus now exceeds China's surplus as a share of global GDP. In Germany, domestic demand growth has been persistently weak, and its current account surplus remains at over 7 percent of GDP. Adjustment and demand compression in the euro area periphery has not been matched with accommodative policies in the euro area core.

With respect to developments in China, starting in February 2014, the PBOC intervened and pushed the reference rate lower to weaken the RMB in a move seen by many market analysts as an effort to introduce more volatility and two-way risk into the market. Between mid-February and late April, the RMB depreciated by 3.1 percent. Since late April, it has partially recovered, appreciating by 1.9 percent. On balance, in the first nine and a half months of 2014, the RMB has depreciated by 1.4 percent against the dollar after strengthening by 2.9 percent in 2013.

[2] Korea, Hong Kong, Singapore, Taiwan.

The gradual appreciation of the RMB in July and August and low apparent levels of intervention indicates some renewed willingness by the authorities to allow a stronger domestic currency and to reduce intervention in line with Strategic & Economic Dialogue (S&ED) commitments. The nominal effective exchange rate has appreciated 1.6 percent from the beginning of the year through end-September. However the reference rate against the dollar, a key tool used by the PBOC to shape market expectations, is down 0.8 percent.

There are a number of continuing signs that the exchange rate adjustment process remains incomplete and that the RMB has further to appreciate before reaching its equilibrium value. First, China continues to generate sizeable current account surpluses and attracts large net inflows of foreign direct investment. China's current account surplus plus inward foreign direct investment in 2013 was $370 billion, or about 4 percent of China's GDP, and remained in that range in the first half of 2014. Second, the reduction in the current account surplus as a share of China's GDP has been supported by an unsustainably rapid pace of investment growth. Finally, China has continued to see rapid productivity growth, which suggests that continuing appreciation is necessary over time to prevent the exchange rate from becoming more undervalued. All of these factors indicate a RMB exchange rate that remains significantly undervalued and the need for ongoing further appreciation.

China should allow the market to play a greater role in determining the exchange rate. This includes refraining from intervention within the band and adjusting the reference rate if market pressures push the exchange rate to the edge of the band. In line with its S&ED commitments, China should build on the apparent recent reduction in foreign exchange intervention and durably curb its activities in the foreign exchange market. We will continue to monitor these issues closely going forward. In line with the practice of most other G-20 nations, China should disclose foreign exchange market intervention regularly to increase the credibility of its monetary policy framework and to promote exchange rate and financial market transparency.

Japan has not intervened in the foreign exchange markets in three years. After a modest surplus in 2013, the current account posted a small deficit in the first half of this year. As Japan takes policy steps to bring about a durable recovery and escape deflation, it is imperative both for the success of those measures and for the global economy that Japan's economic policies work primarily through an increase in domestic demand. In this respect, the Japanese authorities should carefully calibrate the pace of the *overall* fiscal adjustment, inclusive of expiring fiscal stimulus and reconstruction spending, so that it does not result in too rapid a consolidation that prevents escape from deflation, stalls Japan's growth, and undermines the success of its reform program. Monetary policy cannot offset excessive fiscal consolidation nor can it substitute for necessary structural reforms that raise trend growth and domestic demand.

Korea's current account surplus reached 6.1 percent of GDP in 2013 – the highest since 1999. The surplus further increased to 6.6 percent of GDP in first half of 2014. Korea is one of only a few surplus economies with a significantly larger external surplus now than before the crisis. Net exports have accounted for all of Korea's 2.9 percent annualized growth in 2014, highlighting the economy's continued dependence on external demand and the weakness of domestic demand. Addressing this weakness has become a priority for the government; such

policies need to be pursued vigorously. Korea's foreign exchange reserves rose from $335.6 billion at end-December 2013 to $356.9 billion at the end of August 2014. Analysts estimate that foreign exchange purchases by the Korean authorities totaled roughly $22 billion during this period, with roughly $14 billion of the purchases taking place from May to July 2014. The increase in Korea's reported reserves though understates the actual intervention, as the Korean authorities also increased their net forward reserve position by $13.4 billion from the end of December 2013 to August 2014. Given Korea's sizeable current account surplus, large reserves, and undervalued currency, the won should be allowed to appreciate further. The Korean authorities should limit foreign exchange intervention only to the exceptional circumstance of disorderly market conditions, increase transparency of foreign exchange intervention, and ensure that macroprudential measures clearly focus on reducing financial sector risks – in design, timing, and description – rather than alleviating upward pressure on the exchange rate.

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 their 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. Nonetheless, Treasury is closely monitoring developments in economies where exchange rate adjustment is incomplete and pushing for comprehensive adherence to all G7 and G20 commitments. These include the recent 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 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. Treasury will continue to monitor closely exchange rate developments in all the economies covered in this report, and press for further policy changes that yield greater exchange rate flexibility, greater transparency on intervention, a more level playing field, and support for strong, sustainable and balanced global growth.

Introduction

This report focuses on international economic and foreign exchange developments in the first half of 2014. Where pertinent and when available, data and developments through end-September 2014 are included.

Exports and imports of goods to and from the ten economies analyzed in this report accounted for 71 percent of U.S. merchandise trade in 2013.

U.S. Macroeconomic Trends

U.S. economic growth rebounded strongly in the second quarter of this year after being held down by several temporary factors in the first quarter. Labor market conditions improved notably during the first nine months of the year, with the average pace of job growth picking up and the unemployment rate falling to a six-year low. Inflation remained moderate and wage pressures subdued. Favorable underlying fundamentals suggest that the economy will continue to grow at an above-trend pace through the end of 2015.

U.S. GDP Rebounded and the Underlying Momentum is Solid

Real GDP declined 2.1 percent during the first quarter of 2014, held back by several temporary factors. Specifically, growth of consumer spending slowed sharply and private fixed investment was little changed, in part reflecting the effects of unusually severe winter weather. In addition, a slowdown in inventory accumulation following a substantial buildup in the second half of 2013 subtracted 1.2 percentage points from first-quarter GDP growth. However, in the second quarter, real GDP rebounded strongly and rose at a rapid 4.6 percent annual rate as those factors faded. Growth of consumer spending and private fixed investment strengthened, businesses stepped up the pace of inventory investment, adding substantially to GDP, and exports were up notably. Moreover, state and local government spending grew at its fastest pace since 2009.

The available economic indicators suggest that the underlying momentum of the recovery remains solid. As a result, GDP growth is expected to continue to be strong through the end of this year and into 2015 as private-sector demand firms and fiscal drag lessens. A consensus of private forecasters is projecting real GDP growth of 3 percent over the second half of 2014 and 2.9 percent over the four quarters of 2015.

Recovery in the Housing Sector Moderated

The recovery in the housing market moderated in the second half of 2013 and activity in this sector remained subdued in the first half of 2014. Poor weather appears to have been a factor early in the year but falling affordability likely weighed on demand as well. On average, residential investment rose 1.5 percent at an annual rate over the first two quarters of 2014, up slightly from the 0.9 percent annual rate increase during the second half of 2013 but markedly slower than the double-digit pace of growth in the first half of 2013 and latter half of 2012. Despite recent signs of softening, the outlook remains generally favorable and housing is expected to provide continued support for broader economic activity this year. Mortgage rates

have eased since the start of 2014, lending support to sales and construction in recent months. The benchmark interest rate for a 30-year fixed mortgage fell by roughly 40 basis points between January and August of 2014, from an average 4.48 percent to an average of 4.10 percent - after rising almost a full percentage point between May and December of 2013. Although rising home prices have eroded housing affordability, it is still higher than its historical average. The pace of household formation – a key determinant of housing demand – remains well below its long-term average but is expected to pick up as the recovery continues to strengthen.

Fiscal Headwinds Diminished

After weighing heavily on the economy in the latter half of 2013, federal spending during the first half of 2014 reduced GDP growth only very slightly, subtracting an average of only 0.03 percentage point per quarter, compared with an average reduction of 0.4 percentage point per quarter over the final two quarters of 2013. Fiscal conditions at the state and local level have also improved and state and local governments are no longer subtracting from economic growth. In both the latter half of 2013 and first half of 2014, state and local government expenditures contributed an average of 0.1 percentage point to real GDP growth. Prior to 2013, the state and local sector had subtracted from GDP growth for three straight years.

Labor Market Conditions Continued to Improve, and Inflation Remained Moderate

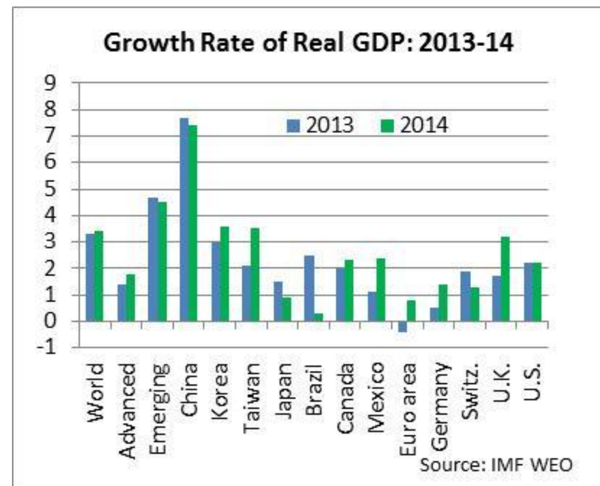
The pace of job creation accelerated in the first nine months of 2014 and the unemployment rate moved lower. Nonfarm payrolls increased by 227,000 per month on average over the first nine months of 2014, notably faster than the 185,000 monthly average during the last six months of 2013. Nearly 9.8 million jobs have been created since February 2010, including 10.3 million in the private sector. The level of total employment passed its pre-recession peak in May 2014 and is now almost 1.1 million above that level. Between June 2013 and December 2013, the unemployment rate fell by 0.8 percentage point to 6.7 percent and as of September 2014 had fallen an additional 0.8 percentage point to 5.9 percent, a six-year low. More than half of the improvement in the unemployment rate since mid-2013 was due to declining long-term unemployment. Even so, the long-term unemployment rate (reflecting workers without a job for 27 weeks or more) remains elevated at 1.9 percent, roughly double its pre-recession average of 1 percent (from 2001-2007).

While headline and core inflation have trended a bit higher since the second half of 2013, both remain moderate. The consumer price index rose 1.7 percent during the year ending in August 2014, up from 1.5 percent in the year through August 2013. Core consumer inflation (which excludes the volatile food and energy categories) was also 1.7 percent over the year ending in August 2014, down a touch from 1.8 percent over the year-earlier period. Growth of compensation costs remained subdued, reflecting persistent labor market slack. The Employment Cost Index (ECI) for private-industry workers rose 2.1 percent over the year ended in June 2014, remaining well below gains averaging 3.5 percent in the decade prior to the last recession. Persistent labor market slack and the low level of capacity utilization have helped contain wage growth and inflationary pressures.

Putting Public Finances on a Sustainable Path Remains a Priority

The federal deficit continued to narrow in FY 2014, declining to 2.8 percent of GDP from 4.1 percent of GDP FY 2013. Since peaking in 2009, the deficit has fallen by 7.0 percentage points – the largest decline in the fiscal deficit for any five-year period since the demobilization following World War II. The Administration's FY 2015 Budget would trim the deficit substantially further and put publicly held debt on a declining path as a share of the economy. By the end of FY 2024, the deficit is projected to fall to 2.1 percent of GDP. The primary deficit (non-interest outlays less receipts) is projected to become a primary surplus in FY 2021 and grow through the end of the forecast horizon. The debt-to-GDP ratio, as measured by debt held by the public, is projected to peak at 74.6 percent in FY 2015 and then begin to decline, falling to 72 percent of GDP by FY 2024.

The Global Economy



Global economic output continues to expand, but unevenly and at a pace too modest to recover output lost from the recession or to generate strong global job growth. The IMF projects the global economy will expand 3.3 percent in 2014, the same as in 2013, and 0.1 percentage point less than our last report. This compares unfavorably to the average pace of growth of 3.7 percent over the period 1995-2005, and comes at a time of intensified geopolitical risks. Loss of global economic momentum is driven largely by continued weakness in demand growth in Europe, as well as a sharp second quarter contraction in Japan following the April 1 consumption tax increase. A structural slowdown in growth in several large emerging market economies also is contributing to a lower global growth rate than in the pre-crisis period. Some advanced economies are performing considerably better than the euro area and Japan, including the United States, Canada, and the United Kingdom – which points to a growing divergence in cyclical performance across the advanced economies – with potentially important implications for policy settings, exchange rates, and current account balances. Overall, real GDP in the advanced economies is projected to expand by 1.8 percent in 2014 compared with 1.4 percent in 2013, whereas real GDP in emerging markets and developing economies is projected to expand by 4.4 percent, trending down from a post-crisis peak of 6.2 percent in 2011. This reflects a moderation in growth in China, though there are weaknesses elsewhere as discussed later in this report.

Five years after the recovery from the financial crisis began, output in many advanced economies, particularly in the euro area, remains below pre-crisis levels and growth has yet to sustain itself. Demand remains weak, wage growth is low, and unemployment too high. Euro area GDP is 2.4 percent below its peak in the first quarter of 2008. Domestic demand is still five percent below pre-crisis levels, and unemployment remains elevated at 11.5 percent.

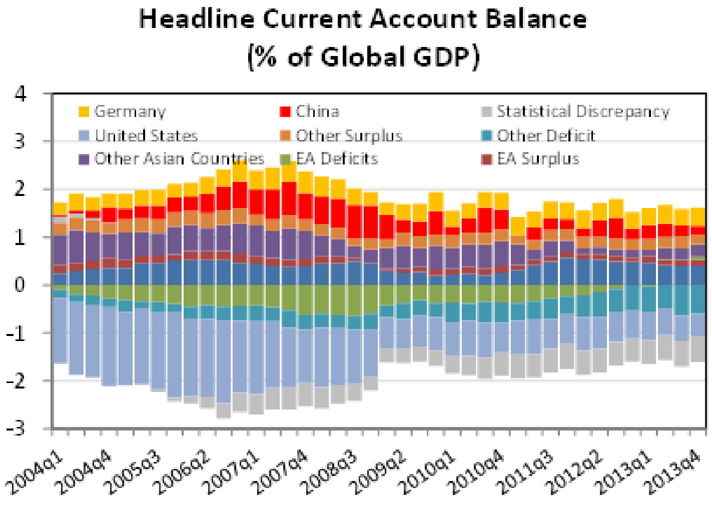
Uncertainty about the strength of the recovery is weighing on aggregate demand growth and investment in particular. Japanese growth also has become more uncertain, with a contraction of 0.1 percent in the fourth quarter 2013, a 1.5 percent increase in the first quarter 2014, and then a 1.8 percent contraction in the second quarter on a quarterly, seasonally-adjusted basis. The IMF has marked down its outlook for Japan to just 0.9 percent growth in 2014 and 0.8 percent growth in 2015.

Given the importance of these economies, it is imperative that policy measures be taken to boost demand in the near-term. In the euro area, fiscal policy could play a greater role alongside monetary policy in boosting near term growth in conjunction with a more ambitious structural reform agenda. In Japan, prompt implementation of an aggressive structural reform program is needed, complemented by a carefully calibrated mix of monetary and fiscal policy to support growth. In both the euro area and Japan, increased wage growth would foster stronger domestic demand led growth.

Real GDP growth in emerging market economies is projected to increase to 5 percent in 2015 owing to measures to support domestic activity, a recovery in external demand associated with faster growth in advanced economies, and the gradual lifting of structural impediments to growth. There are marked differences in performance among emerging market economies however. After a moderate slowdown in 2012, growth in India appears to have bottomed out, and the IMF projects a sustained acceleration, with growth of 5.6 percent in 2014 moving up to 6.4 percent in 2015. Though the Korean economy recovered quickly in the post-crisis period, annual growth has since slowed to around 3 percent. Deceleration in investment, which makes up 30 percent of GDP, has been particularly pronounced. The IMF projects Korean growth to accelerate to 4.0 percent in 2015. Economic activity in Latin America, particularly Brazil which experienced a technical recession in the first half of 2014, is expected to be weak this year before picking up modestly in 2015. After rebounding in the second quarter, real GDP slowed in the third quarter, making the outlook for 2014 more uncertain.

Global Rebalancing

The persistent weakness in domestic demand growth in several large advanced economies has hampered the G-20 goal of achieving strong, sustainable and balanced global growth. Though global current account imbalances have declined in recent years as a share of global GDP, much of the decline reflects a contraction in demand on the part of current account deficit economies rather than strong domestic demand growth in current account surplus economies (see Annex I). Though China's current account surplus in



2013 came in at a bit below 2 percent of GDP, down significantly from its peak of 10.1 percent in 2007, others in Asia continue to run very large surpluses. In 2013, the aggregate of other Asian surpluses[3] exceeded $250 billion. In the first half of this year, Korea's surplus exceeded 6.5 percent of GDP, after reaching 6.1 percent in 2013, and Taiwan's reached 13 percent of GDP. Both economies have scope to scale back intervention in the foreign exchange market, boost domestic demand, and contribute to global rebalancing.

The euro area's overall current account, which was close to balance in 2009-2011, shifted to a surplus of 2.4 percent of GDP in 2013. The euro area's surplus averaged about 2.3 percent of GDP in the first half of 2014. Germany's current account surplus was 7.1 percent of GDP in the first half of 2014, up marginally from the second half 2013 surplus of 6.8 percent, while the current account surplus for the Netherlands exceeded 11 percent on a seasonally-adjusted basis in the first quarter of this year after topping 10 percent in 2013. High surpluses in the euro area have persisted amid exceptionally weak domestic demand growth. Real domestic demand growth was positive in only two quarters in the past three years in the euro area, rendering the region reliant on demand emanating from outside of Europe for economic growth. Further, adjustment and demand compression in the euro area periphery has not been matched by accommodative policies in the euro area core.

Achieving strong, sustainable, and balanced global growth requires further policy adjustments to occur across many different parts of the world economy. Most immediately, where demand is weak or external surpluses excessively large, comprehensive utilization of all available macroeconomic space is needed to promote stronger levels of demand support. Monetary easing, calibrated towards domestic objectives, should be complemented with greater fiscal support and investment in public infrastructure where fiscal flexibility exists. Such policies are needed now, even more than before, given the continuing need of deficit economies to boost their respective levels of national saving and intensified geopolitical risks. In the absence of stronger domestic demand in the larger surplus economies, global growth is suffering and will continue to suffer. Such adjustment policies should go hand-in-hand with a strong follow-through on past G-7 and G-20 commitments to not target exchange rates and, as conditions allow, to move more rapidly to market-determined exchange rates.

Reserve Accumulation

Global foreign-currency reserve accumulation continued to be large in the first half of 2014. Though China appears to have reduced its average monthly increase in reserves in recent months, intervention was very large last year and Chinese reserves are excessive. Korea and India have notably increased their pace of reserve accumulation. After

Foreign Currency Reserve Accumulation Major Holders

	July 2014	Average Monthly increase, $ billions		
	Reserves $ billions	Jan 2009 to Dec 2012	2013	2014
Global	11,985	75.1	61.1	42.7
China	3,993	28.4	42.5	28.6
Japan	1,209	4.0	0.8	1.0
Saudi Arabia	735	4.2	5.8	2.3
Switzerland	499	8.8	1.7	1.5
Russia	410	1.3	0.3	-0.5
Taiwan	424	2.3	1.1	1.0
Brazil	367	3.6	-1.1	2.5
Korea	357	2.4	1.6	3.1
Singapore	271	1.7	1.1	0.1
India	294	0.3	0.6	3.6

Data through July 2014 except China which is through June.

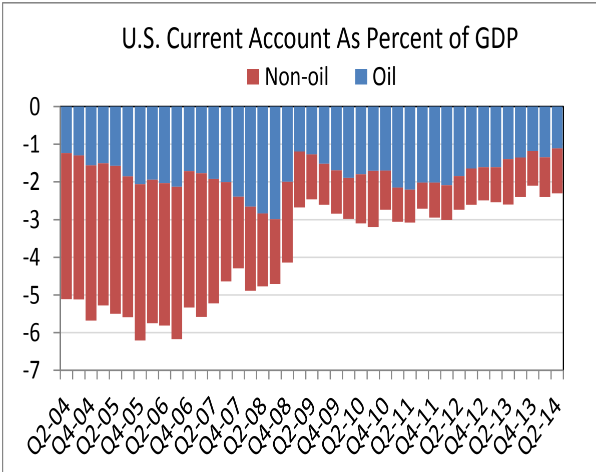
[3] Japan, Korea, Hong Kong, Malaysia, Philippines, Singapore, Taiwan.

losing reserves in 2013, Brazil has resumed a moderate expansion. Small amounts of foreign reserves may be needed for day to day transactions, while some economies may want to hold a stock of reserves to intervene if necessary to prevent a disorderly depreciation. However, excessive reserves have both a domestic cost as well as global costs to the extent that they distort the international monetary system. Annex II provides an overview of why we believe that existing reserve levels in many emerging market economies are now at adequate levels.

U.S. International Accounts

Current Account

The U.S. current account deficit was 2.3 percent of GDP in 2014Q2, a 3.5 percentage point of GDP decline from its peak in 2006 of 5.8 percent of GDP. Much of this decline is due to increased domestic oil production, which led to a decrease in the oil trade deficit from a peak of 3 percent of GDP in 2008 to 1.1 percent of GDP in the second quarter of 2014. As of the first quarter of 2014, the U.S. net international investment position was -$4.8 trillion, or -28.1 percent of GDP. The value of U.S.-owned foreign assets was $21.8 trillion, and the value of foreign-owned U.S. assets was $26.6 trillion.



U.S. Balance of Payments and Trade ($ billions, seasonally adjusted unless indicated)	2013	Q1-13	Q2-13	Q3-13	Q4-13	Q1-14	Q2-14
Current Account							
Balance on goods (for details, see lower half of table)	-701.7	-177.6	-177.1	-177.9	-169.1	-182.3	-189.2
Balance on services	225.3	56.6	55.3	56.7	56.6	57.8	58.9
Balance on primary income	199.7	46.0	47.5	51.5	54.6	52.4	53.1
Balance on secondary income (unilateral transfers)	-123.5	-30.5	-31.9	-31.6	-29.5	-30.0	-21.4
Balance on current account	***-400.3***	***-105.5***	***-106.1***	***-101.3***	***-87.3***	***-102.1***	***-98.5***
Balance on current account as % of GDP	***-2.4***	***-2.6***	***-2.6***	***-2.4***	***-2.1***	***-2.4***	***-2.3***
Capital and Financial Account (financial inflow = +)							
Net capital transfers	0.4	0.0	0.2	0.1	0.0	0.0	0.0
Net direct investment flows	113.3	33.5	38.8	33.9	7.1	153.3	17.2
Net portfolio flows--equity	360.7	89.8	125.5	-42.1	187.4	-12.4	84.9
Net portfolio flows--debt	-361.7	-87.6	15.2	-104.6	-184.8	-124.8	25.2
Net other investment flows--loans	-185.6	-50.4	-119.2	50.9	-66.9	-54.1	-35.7
Net other investment flows--currency, trade credit, etc.	-296.4	-49.9	-141.3	-18.7	-86.5	-57.4	-107.1
Net reserve asset flows**	-3.1	0.9	-0.2	-1.0	-2.8	-1.0	0.8
Derivatives	2.2	-3.9	-3.3	6.6	2.9	5.3	-2.8
Balance on capital and financial account	***-370.2***	***-67.7***	***-84.1***	***-75.0***	***-143.5***	***-91.1***	***-17.6***
Memo Items							
Statistical discrepancy***	30.0	37.8	22.0	26.3	-56.1	11.0	80.9
Change in foreign official assets in the United States	286.1	125.4	-6.2	68.5	98.4	28.3	51.0
Current Account Detail: Trade in Goods							
Exports of goods							
Agricultural products	136.2	33.9	31.2	33.3	37.8	35.8	35.6
Industrial supplies and materials (including petroleum)	492.1	119.8	119.5	123.9	128.8	123.2	127.1
Capital goods except autos	534.6	130.9	134.8	133.9	134.9	134.5	137.2
Automotive products	152.6	36.9	38.3	38.7	38.6	37.3	39.9
Consumer goods except autos and food	188.4	45.6	48.6	46.9	47.4	48.3	50.1
Other goods plus nonmonetary gold	89.1	25.5	22.6	21.4	19.6	20.4	19.0
Total exports of goods	***1,592.8***	***392.6***	***395.0***	***398.1***	***407.1***	***399.5***	***408.8***
Imports of goods							
Agricultural products	116.0	28.6	29.3	29.0	29.1	30.1	32.4
Industrial supplies and materials (including petroleum)	686.6	176.9	170.3	171.7	167.7	174.8	170.5
Capital goods except autos	557.8	137.4	137.9	140.2	142.3	143.0	148.7
Automotive products	309.6	73.5	77.1	79.2	79.8	77.5	83.4
Consumer goods except autos and food	533.9	131.1	133.7	133.8	135.4	135.0	140.5
Other goods plus nonmonetary gold	90.5	22.6	23.8	22.2	21.9	21.6	22.4
Total imports of goods	***2,294.5***	***570.2***	***572.1***	***576.0***	***576.2***	***581.9***	***598.0***
Balance of trade in goods	***-701.7***	***-177.6***	***-177.1***	***-177.9***	***-169.1***	***-182.3***	***-189.2***

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

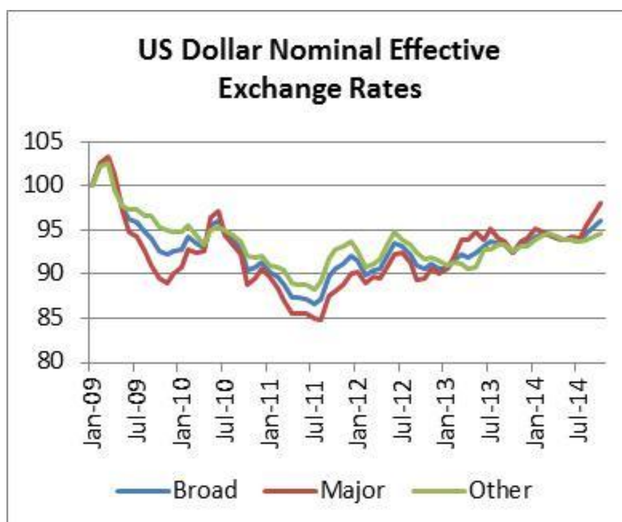
Notes: *Latest quarter calculated by inference; this line contains items with a longer reporting lag than other lines.

**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.

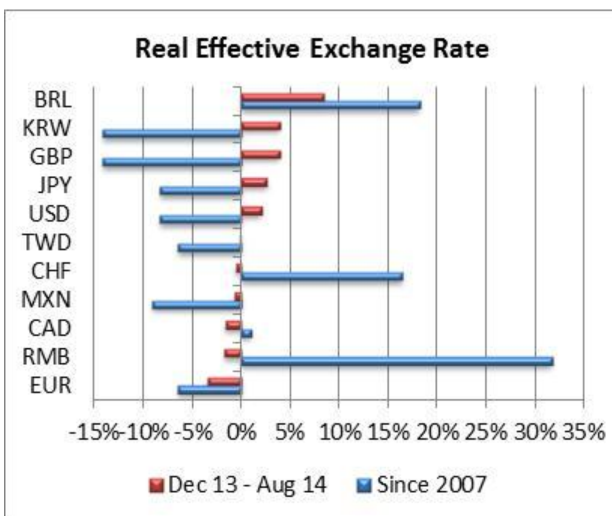
The Dollar in Foreign Exchange Markets

In the first half of 2014, the dollar was relatively stable against both major and emerging market currencies. However, between end-June and end-September, the dollar has steadily risen against major currencies, appreciating by 7.1 percent, driven in large part by a 7.8 percent appreciation against the euro. U.S. economic growth is proceeding at a faster pace than in most major



trading partners, and this dynamic is expected to persist over the near term. U.S. economic growth is expected to exceed euro area and Japanese growth by 1 to 2 percentage points through 2016, making U.S. assets relatively more attractive for investors. From a longer-term perspective, the dollar remains below its 20 year average against a broad set of major trading partners[4].

On a real effective basis, the U.S. dollar has increased slightly this year, appreciating 2 percent between end-December 2013 and end-August 2014, though it remains depreciated relative to the beginning of 2007. The Brazilian real appreciated the most year-to-date in real terms among the currencies covered in this report. The pound sterling also appreciated significantly after the UK experienced strong economic growth and decreasing unemployment. Of these currencies, the Chinese RMB weakened the most since the beginning of the year due to depreciation following the band widening in March, which has not fully retraced.



Analyses of Individual Economies

Asia

<u>China</u>

After slowing in the first quarter of 2014, China's economy rebounded moderately in the second quarter, fueled by a series of growth-supporting measures and a pick-up in external demand. Second quarter real GDP growth increased to 7.5 percent year-on-year from 7.4 percent in the first quarter, slightly exceeding expectations. (Sequential quarter-on-quarter growth (annualized) increased to 8.2 from 6.1 percent in the first quarter.) Counter-cyclical measures rolled out by the government, including social housing development and railway investment, appear to have supported activity. However, recent indicators suggest a slowdown in the momentum of growth in the third quarter. Consensus forecasts project real GDP growth of 7.3 percent in 2014 – slightly below the government's target of 7.5 percent – and 7.0 percent in 2015.

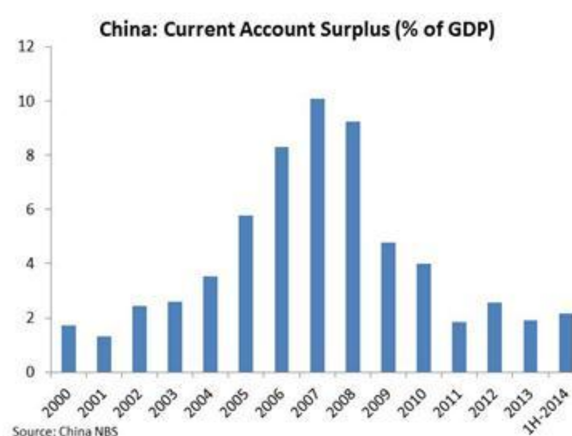
Consumption was the largest contributor to growth in the first half of the year, adding 4.1 percentage points versus 3.6 percentage points for investment. However, China's progress

[4] "Broad" is a broad group of major U.S. trading partners, both advanced and emerging economies. "Major" is U.S. major advanced economy trading partners. "Other" is other important trading partners comprised of emerging market economies.

toward rebalancing its economy away from investment toward consumption, a longstanding goal of Chinese leadership, has been limited. Investment's share of GDP has remained around 48 percent since 2010, while private consumption's share has only slightly increased from around 35 to 36 percent.

On the production side, tertiary sector growth (services) outpaced secondary sector growth (manufacturing and construction) in the first half of the year, continuing a trend that began in 2012. Strong growth in services is important both as a sign of, and a force for, rebalancing as services firms pay out a higher share of profits in wages, generate more employment, and are driven by domestic demand. In 2013, the tertiary sector became the largest industry component of GDP for the first time at 46 percent, compared to 44 percent for the secondary sector, a modest sign of progress.

China's current account surplus was $100 billion in the first half of 2014, or approximately 2.1 percent of GDP, up from 1.9 percent last year. China's trade surplus (goods and services), based on seasonally-adjusted balance of payments data, was $125 billion in the first half of 2014, slightly more than half of last year's total. Third quarter merchandise trade data suggests a further expansion of the trade surplus. July ($47 billion) and August ($50 billion) goods surpluses, based on customs data, were particularly strong, driven by robust export growth as well as a contraction in imports. The U.S.-China bilateral trade deficit (goods and services) was $152 billion in the first half of the year, slightly more than half of last year's total.

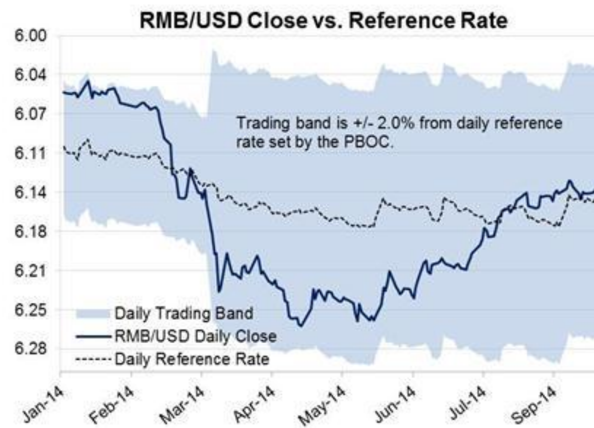


Exchange rate adjustment is a critical measure for China to reduce its internal imbalances - the unsustainably high share of investment in GDP - without once again increasing its current account surplus. A stronger RMB would support domestic consumption by increasing the purchasing power of households, and encourage a shift from tradable goods production to production of domestically-oriented goods and services. As investment growth recedes, China needs currency appreciation and other measures to boost household income to prevent an increase in the current account surplus in the medium term.

Exchange rate adjustment would also help reduce distortions in the financial system. In recent years, the Peoples Bank of China (PBOC) has relied heavily on raising the bank required reserve ratio (RRR) instead of issuing its own bills to absorb the increase in RMB liquidity stemming from large-scale foreign exchange (FX) purchases. This approach has reduced the sterilization costs to the PBOC by shifting these costs onto banks, but has taxed financial intermediation and encouraged the growth of shadow banking in China.[5]

[5] The RRR is currently 20 percent for large banks and 18 percent for small and medium-sized banks. The interest rate on required reserves is fixed at 1.62 percent, compared to PBOC bill yields of 3- 4 percent.

China has made a number of bilateral and multilateral commitments to shift to a more market oriented exchange rate and increase exchange rate flexibility. China repeated these commitments at the July 2014 Strategic & Economic Dialogue (S&ED) in Beijing, and, for the first time, China pledged to "reduce foreign exchange intervention as conditions permit." China also announced that it was now making technical preparations to subscribe to the IMF's Special Data Dissemination Standard (SDDS) for reporting foreign exchange reserves as well as other economic data. This is an important step toward increasing transparency of China's foreign exchange market intervention and movement to a market-determined exchange rate



As described in the April 2014 Report, starting in February 2014, the PBOC intervened and pushed the reference rate lower to weaken the RMB in a move widely perceived to be a Chinese effort to introduce more volatility and two-way risk into the market. The authorities also widened the trading band for the currency from +/- one percent to +/- two percent. Between mid-February and late April, the RMB depreciated by 3.1 percent against the dollar. Since late April, it has partially recovered, appreciating by almost 2 percent. On balance, in the first nine months of 2014, the RMB depreciated by 1.4 percent against the dollar after strengthening by 2.9 percent in 2013. On a trade-weighted basis, the RMB has appreciated by 1.6 percent in nominal terms and by 0.8 percent in real terms through September.

China does not publish its foreign exchange intervention, in contrast to other economies with major international currencies. However, using data that China does publish, it is possible to construct estimates of foreign exchange market intervention, as many market analysts do. Foreign exchange intervention proxies[6] used by analysts indicate that there were large-scale FX purchases in February and March prior to and after the March 17 widening of the trading band, along with successive reductions in the reference rate – the

[6] Analysts look closely at several estimates from publicly available data, including: net foreign exchange assets on the PBOC balance sheet, which excludes valuation changes (i.e. booked at historical cost); and the foreign exchange position of Chinese financial institutions (banks and the PBOC). Both are included in the chart on monthly FX intervention proxies.

center rate of the trading band.

Following the widening of the band, progressively weaker setting of the central parity rate, and foreign exchange market intervention, the RMB sharply depreciated and shifted to the weak side of the trading band for the first time since mid-2012. From April through July, the RMB remained on the weak side of the band while intervention (FX purchases) appeared to decline, suggesting net non-FDI capital outflows during these months. Still, an increase in the PBOC's foreign exchange reserves in April and May implies modest FX intervention. This in turn suggests that, even while the RMB remained on the weak side of the band, the authorities were acting to limit appreciation pressures.

FX intervention proxies indicate that the PBOC has since alternated between modest net FX sales (June, August) and modest FX purchases (July). The relative lack of large-scale intervention during these three months even as China registered very large monthly trade surpluses ($32 billion in June, $47 billion in July, and a record $50 billion in August) suggests continued net non-FDI capital outflows. Overall, estimated net FX purchases by the PBOC from January through August were approximately $135 billion, mostly made in the first quarter.

The RMB steadily appreciated toward the reference rate throughout July, and on August 6 shifted to the strong side of the trading band for the first time since March. Since then, the RMB has remained slightly on the strong side of the band. The gradual appreciation of the RMB in July and August amid low intervention and strong FX inflows also indicates renewed willingness by authorities to allow the exchange rate to strengthen. The nominal effective exchange rate has appreciated 1.6 percent in the year-through end-September. However, the RMB was 1.4 percent weaker against the dollar in the year through end-September, and the reference rate, a key tool used by the PBOC to shape market expectations, is down 0.9 percent.

The PBOC's daily setting of the reference rate can shape market expectations on the degree of RMB appreciation that the PBOC will allow, influencing capital inflows, foreign exchange market pressure, and the direction of the actual spot rate. Anecdotes that firms have unwound positions since March that had been in part predicated on RMB appreciation suggests that the PBOC has been successful in breaking appreciation expectations. Thus, while foreign exchange market intervention has diminished in recent months, China has not yet reached a situation in which the RMB exchange rate can be said to be market-determined. The key now is for China to cease foreign exchange intervention within the trading band and allow the RMB to adjust.

Furthermore, the RMB continues to have room for further appreciation based on fundamental factors. First, China's basic balance (current account surplus plus net foreign direct inflows), a measure of stable net balance of payments inflows, was $370 billion in 2013, or about 4 percent of China's GDP, and remained in that range in the first half of this year.

Second, although China's current account surplus has fallen, this was driven by RMB appreciation and by very rapid growth of domestic investment, currently at around 48 percent of GDP, a level that is unlikely to be sustained. As China's reform strategy proceeds and investment as a share of GDP comes down, it is important that domestic consumption – and not a renewed dependence on external demand – drive China's growth.

Finally, China has continued to see rapid relative productivity growth, which suggests that continuing appreciation is necessary over time to prevent the exchange rate from becoming more undervalued. All of these factors indicate a RMB exchange rate that remains significantly undervalued. According to IMF's July 2014 Article IV Consultation with China, the RMB remains 5-10 percent undervalued.

At the end of June 2014, China's total holdings of foreign exchange reserves came to almost $4 trillion, equivalent to over 40 percent of China's GDP, or about $2940 per person. This is well beyond established benchmarks of reserve adequacy, and it is very much in China's interest to fulfill its own commitment to move more rapidly to a market-determined exchange rate, with intervention only in the case of disorderly market conditions.

China's bilateral and multilateral commitments to shift to a more market oriented exchange rate and increase exchange rate flexibility are important, but China should go further and allow the market to play a greater role in determining the exchange rate. This includes refraining from intervention within the band and adjusting the reference rate if market pressures push the exchange rate to the edge of the band. In line with its S&ED commitments, China should build on the apparent recent reduction in foreign exchange intervention and durably curb its activities in the foreign exchange market. China would also be prudent to adopt greater transparency in its exchange rate policy in line with the practice of most other G-20 nations. Trade partners and market participants would welcome greater disclosure of China's actual activities in the foreign exchange market, including by disclosing the level of reserves and the scale of intervention for each month with a predictable one month lag, and by releasing the composition of its foreign exchange reserves under IMF standards.

Box:1 China and Foreign Exchange Transparency

Since China plays such a major role in the global economy—as one of the largest trading nations and given the importance of China's exchange rate policy—there is a strong need for greater transparency of China's foreign exchange market intervention and foreign reserves holdings.

Two ways China could increase the transparency of its activity in the currency market in cooperation with the IMF are to adhere to the IMF's Special Data Dissemination Standard (SDDS) and to contribute to the IMF's aggregate Currency Composition of Foreign Exchange Reserves (COFER) database. The SDDS was established by the IMF to guide members in the provision of their economic and financial data to the public. It requires the public provision of timely, high quality statistics on a range of metrics. One metric is data on international reserves, also known as the "reserves template."

The reserves template provides detail on official reserve assets by breaking these assets down into securities; currency and deposits; the IMF reserve position; SDRs; gold; and other reserve assets. It also commands reporting not only of gross reserves, but of pre-determined and contingent short-term drains. For China, the reserves template would increase transparency by providing for regular and predictable monthly disclosure of the stock of China's reserves as well

as, less frequently, data on the breakdown of the composition of reserves between SDR and non-SDR currencies.

The COFER database, managed by the IMF, disseminates end-of-period quarterly data on the currency composition of foreign exchange reserves. It shows total reserve holdings across major international currencies. All other currencies are included in the category of "other currencies." As of the end of the second quarter of 2014, the U.S. dollar accounted for 61 percent of foreign currency reserves of economies that report to COFER. COFER participation is voluntary.

The COFER database also disseminates an estimate of "unallocated" reserves which represents total reserves of economies that do not participate in COFER. The share of global reserves held by COFER-participating economies is declining, in large part because of China's non-participation. As of the end of the second quarter of 2014, the currency composition of almost half of global foreign exchange reserves, valued at $5.7 trillion, are not reported to COFER. China likely accounts for about two-thirds (or $4 trillion) of that $5.7 trillion in "unallocated" reserves.

Japan

Japan maintains a floating exchange rate regime and has not intervened in the foreign exchange markets in three years. In the G-7 statement of February 2013, Japan joined the other G-7 countries in pledging to base its economic policies on domestic objectives using domestic instruments, and to avoid targeting exchange rates. Japan was also part of the subsequent G-20 consensus and statement at the February 2013 Finance Ministers and Central Bank Governors Meeting in Moscow that countries would not target exchange rates for competitive purposes. These statements were affirmed by G-20 Leaders in September 2013 at the St. Petersburg Summit. Since the February 2013, G-7, and G-20 statements, Japanese officials have clearly ruled out purchases of foreign assets as a monetary policy tool. As of September 2014, Japan's foreign exchange reserves were $1.2 trillion, the second-largest in the world.

The yen depreciated substantially from late 2012 through 2013 on a broad trade-weighted basis as well as against the U.S. dollar as a result of expected monetary easing and the Bank of Japan's subsequent commitment to double the monetary base to achieve a 2 percent inflation target. The yen appreciated in early 2014, and then settled into a narrow trading range of ¥101-103 per dollar until August 2014. Yen depreciation resumed in August on the back of evidence of improving U.S. economic conditions and as Japanese activity contracted sharply in the second quarter following the increase in the consumption tax. Since August 8, the yen has depreciated 3.0 percent, reaching ¥105 on October 15, back to end-2013 levels.

On a real trade-weighted basis, the yen has depreciated by 23 percent from October 2012 through August 2014. In its last Article IV Consultation Report for Japan (July 2014), the IMF assessed the yen's real effective exchange rate to be broadly consistent with the economy's medium-term fundamentals, while noting the very large uncertainty about its assessment given the major changes to Japan's economic policies.

Japan's nominal goods trade balance fell into deficit in 2011 for the first time since 1980 as exports slowed following production disruptions stemming from the tsunami, while imports increased due to higher commodity prices and rising demand for reconstruction materials. Since then, the trade deficit has continued to widen, reaching 3.2 percent of GDP during the first half of 2014, compared to 2.2 percent of GDP during the same period the previous year. Demand for imports slowed markedly, however, during the second quarter in response to the consumption tax hike introduced on April 1, 2014.

Similarly, the current account surplus has narrowed substantially from almost 4 percent in 2010 to 0.7 percent in 2013. During the first half of 2014, the current account balance fell to -0.3 percent of GDP. Japan's bilateral trade surplus with the United States totaled $33 billion during the first half of 2014, down slightly from $36.5 billion during the same period the previous year.

The failure of Japanese exports to grow on the back of substantial yen depreciation has been a surprise to many observers. Explanations that have been put forward include substantial outsourcing of Japanese production and the desire of exporting firms to raise profits on export sales by maintaining (i.e. not cutting) prices in destination markets. However, the IMF projects that Japan's current account surplus will rebound in 2014 and 2015, to 1.0 and 1.1 percent of GDP, respectively, as growth in Japan slows, foreign demand growth increases, and as exports eventually begin to benefit from past yen depreciation.

The "three arrows" of Prime Minister Abe's economic program have been a forceful attempt to escape from persistent price deflation, which has in turn hindered economic growth. The first two arrows – monetary and fiscal stimulus – were actively employed at the launch of Abenomics. Aggressive monetary policy and initially-stimulative fiscal policy contributed to a recovery from the late 2012 slump in 2013 and GDP grew by 2.4 percent year-on-year as of the fourth quarter 2013. However, growth fell sharply in the second quarter as households pulled back consumption after the introduction of a previously legislated 3 percentage point increase in the consumption tax. Despite progress made by the BOJ in helping Japan escape deflation and lifting inflation expectations, attention has turned to the durability of the recovery as nominal wage growth has failed to offset the impact of inflation and the consumption tax hike. Over the four quarters ended in the second quarter 2014, domestic demand grew only 0.1 percent, while GDP growth overall was minus 0.1 percent. Going forward, more progress on the third arrow of structural reform will be required to raise long-term growth in Japan.

Fiscal policy is contractionary this year as Japanese authorities seek to put their public finances on a more sustainable footing, with net public debt of 140 percent of GDP and gross public debt of 250 percent of GDP. As noted, the consumption tax was hiked in April from 5 to 8 percent, and a second-stage increase to 10 percent scheduled for October 2015, is a centerpiece of the authorities' deficit-reduction strategy. Although the authorities approved a temporary fiscal stimulus package last December to offset some of the overall consolidation from the combination of the consumption tax hike and the roll-off of past stimulus measures, the fiscal policy impulse for 2014 and 2015 will likely remained contractionary. Additional support may be necessary should private demand continue to falter. In press statements made after the release of disappointing second quarter GDP data, the Abe government signaled its willingness to pursue further fiscal stimulus. The IMF projects Japanese growth will remain slightly below 1 percent

through this year and next, largely reflecting the contractionary impact of the fiscal consolidation.

As Japan takes policy steps to bring about a durable recovery and escape deflation, it is imperative both for the success of those measures and for the global economy that Japan's economic policies work primarily through an increase in domestic demand. Sustaining domestic demand growth will depend on sustained rises in business and residential investment and household consumption that would be supported by wage increases that exceed inflation. In this respect, it is important that Japan carefully calibrate the pace of overall fiscal consolidation. Monetary policy cannot offset excessive fiscal consolidation nor can it substitute for structural reforms needed to raise trend growth and domestic demand.

The measure of the third arrow will be its success in raising Japan's trend growth rate. Ambitious and effective structural reforms to durably increase domestic demand would include measures to raise household income through greater labor force participation and higher earnings. They would also include measures to facilitate new domestic opportunities for activity and investment, by opening up domestic sectors – particularly services – to new products and new competition through deregulation, as well as measures to encourage more effective use of land, especially land now classified as agricultural. The revision to the Abe Administration's growth strategy unveiled in June 2014 represented progress in important areas, such as corporate governance reform, but implementation of ambitious reform in other politically-sensitive areas remains in question. In March 2013, Prime Minister Abe announced Japan's intention to join the Trans-Pacific Partnership (TPP) trade negotiations, and Japan joined the negotiations in July 2013. The TPP could also lead to internal reforms such as deregulation in areas like agriculture and medical services that could support growth.

South Korea

Unlike many other major emerging markets and industrialized economies, Korea does not publicly report foreign exchange market intervention. However, market participants derive estimated intervention from Korea's balance of payments data and changes in Korea's published foreign exchange reserves and forward positions. 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 not to target its exchange rate for competitive purposes. The Korean authorities have intervened on both sides of the market, but on net to resist won appreciation. In the first quarter the authorities added a net of $2 billion to their reserves as a $5 billion fall in the Bank of Korea's net forward position offset most of the $7 billion reserve increase reported in the balance of payments. In the second quarter the authorities added a much larger total of $26 billion to their reserves – including a $15 billion increase in the forward book – in the face of substantial appreciation pressure[7].

[7] 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.)

Korea's intervention has taken place in the context of a large and widening current account surplus, which increased to 6.6 percent of GDP during the first half of 2014 – the highest since 1999 – up from a surplus of 6 percent during the first half of 2013. Korea is one of only a few economies with a significantly larger external surplus now than before the global financial crisis. Korea's bilateral trade surplus in goods with the United States totaled $11 billion in the first half of 2014, unchanged from the same period the year before.

Korea's rising trade and current account surpluses can be partly explained by a modest improvement in Korea's terms of trade, as energy constitutes around 40 percent of Korea's total imports. But negligible growth of domestic demand, especially following the Sewol ferry disaster in April 2014, which dampened consumer and business sentiment, has also contributed to the widening of the current account surplus. Imports have been stagnant so far in 2014.

Though the Korean economy recovered quickly in the post-crisis period, with growth averaging close to 5 percent from 2009-2011, annual growth has since slowed to around 3 percent. Deceleration in investment, which makes up 30 percent of GDP, has been particularly pronounced. Korea's elevated household debt – currently 136 percent of household disposable income – and general government fiscal surplus have weighed on consumer spending and domestic demand. Net exports accounted for all of Korea's 2.9 percent annualized growth in the first half of 2014, highlighting the economy's continued dependence on external demand.

On the heels of President Park's cabinet re-shuffle in June 2014, the government announced a fiscal stimulus package of 11.7 trillion won, equivalent to 1 percent of GDP, as well as targeted incentives to boost household income, investment, and the growth of the services sector. The government has also announced that it will further increase 2015 budget expenditures by 5.7 percent from the previous year to support domestic demand. The on-budget fiscal deficit is projected to widen from 1.7 percent of GDP in 2014 to 2.1 percent in 2015. President Park had earlier announced in February a sweeping economic reform agenda that targets a potential growth rate of 4 percent, an employment rate of 70 percent of the population, and per capita income of $40,000 (compared with approximately $24,000 at present). This plan seeks to reduce Korea's dependence on exports and largely targets the services sector, where productivity growth has lagged the export sector. Allowing for exchange rate appreciation in response to market forces would help rebalancing, as it would encourage reallocation of production resources to the non-tradables sector, which includes most services.

The won has depreciated one percent against the dollar in the year through mid-October. On a real effective basis, the won appreciated 3.9 percent through August. There were, however, notable shifts in the exchange rate and exchange rate policy over the course of the year. During the first quarter of 2014 the won depreciated by 2 percent, reaching 1,084 won per dollar on February 3. Thereafter, the won appreciated steadily, reaching 1,009 on July 3. The Korean authorities intervened heavily in the foreign exchange market between May 2014 and July 2014. The intervention in early July, together with public statements by government officials noting concern about currency volatility helped push the won back to 1,032 on July 16. Anticipation by market participants of the Bank of Korea's 25 basis point cut in the policy rate also contributed to won depreciation in early August. Market participants suggest that Korea intervened in late

August and September, though less heavily than between May and July, after appreciation pressure resumed. Korea's headline reserves and net forward position report modest intervention during the month of August. Adjusting for valuation changes, reserves rose by roughly $800 million, while the forward position increased by slightly more than $100 million.

Korea's headline foreign exchange reserves rose from $367.5 billion at end December 2013 to $356.9 billion at the end of August 2014. Adjusting for valuation changes, Korea added $22 billion to its headline reserves over this period, with a $14 billion increase from May to July 2014. Market analysts estimate that almost all of this increase came from intervention in the market. The Korean authorities also increased their net forward reserve position since the beginning of the year by $13.4 billion with their net forward book rising to $63.8 billion as of August 2014. Therefore the increase in the authorities' total foreign exchange position, including both headline reserves and the forward position, was roughly $36 billion over the course of the first eight months of 2014. Notably in the last published Article IV Consultation Report on Korea, released in April 2014, the IMF assessed the growth in Korean foreign exchange reserves and forward positions as "indicative of asymmetric intervention to slow the pace of appreciation." The IMF also noted that foreign exchange reserves were adequate and that there was "no need for further reserve accumulation."

Prior to the global crisis, the Korean banking system relied heavily on wholesale funding, much of it external. The Korean government has subsequently taken a number of steps to reduce short term external liabilities and make the financial system more resilient to external shocks. However, Korea's macroprudential measures can also have the effect of reducing pressure for exchange rate appreciation. Throughout 2013 and in early 2014, in periods of won appreciation, the Korean authorities publicly warned they were contemplating further tightening of macroprudential measures on the foreign exchange exposure of the banking system. Since early 2014, the authorities have not specifically proposed further tightening of macroprudential measures. However, in numerous statements made by the authorities throughout 2014 – a period of sustained appreciation pressure on the won exchange rate – the authorities raised the possibility of "taking measures to ease currency volatility."

In July 2014, the IMF's External Sector Report assessed that the Korean won remained undervalued by around six percent. Though planned fiscal stimulus and broader economic rebalancing efforts should help support domestic demand, the authorities need to allow the exchange rate to adjust. Given Korea's sizeable current account surplus, substantial reserves, and undervalued currency, the won should be allowed to continue to appreciate. The Korean authorities should limit foreign exchange intervention only to the exceptional circumstance of disorderly market conditions, increase transparency of foreign exchange intervention, and ensure that macroprudential measures clearly focus on reducing financial sector risks – in design, timing, and description – rather than alleviating upward pressure on the exchange rate.

Taiwan

Taiwan has a large and rising current account surplus, which reached 13 percent of GDP or $31.9 billion in the first half of 2014, up from 11.6 percent of GDP in 2013. During the same period,

Taiwan's goods and services trade surplus totaled $23.5 billion, up 21 percent from the first half of 2013. The income surplus for the first half of 2014 increased sharply to $9.6 billion, up from $7.1 billion a year earlier. The current account and trade surpluses reflect strengthening global demand, although domestic demand has also improved moderately. Support from export growth and stronger domestic consumption led to year-on-year GDP growth of 3.2 percent and 3.7 percent in the first two quarters of 2014, up from 2.2 percent in 2013. The IMF currently projects overall GDP growth of 3.5 percent in 2014 and 3.8 percent in 2015. Policies to stimulate consumption and investment, further liberalize the services sector, and remove trade and investment barriers would help rebalance the Taiwanese economy.

Taiwan's current account surplus was accompanied by a substantial $27.5 billion private capital outflow in the first half of 2014. Outflows have been driven in large part by overseas expansion by banks and overseas investment by domestic insurance companies. Life insurance companies have been aggressively investing overseas since the Financial Supervisory Commission began increasing the limit on their overseas investment as a percent of total assets. In May, Taiwan's legislature excluded locally issued foreign-currency notes from the insurers' 45-percent cap. Since then, issuance of RMB-denominated Formosa notes and U.S. dollar debt has increased significantly.

On September 9, 2014, Taiwan's central bank announced that domestic banks' overseas branches would be able to begin trade New Taiwan Dollar non-deliverable forwards (NDFs), although banks' NDF positions will still be restricted to 20 percent of each bank's overall foreign exchange position.

Taiwan maintains a managed float 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. In July, Taiwan's central bank issued a document clarifying the central bank's role in maintaining exchange rate and financial sector stability, noting that excessive exchange rate fluctuations could harm financial sector stability and economic growth. The document also noted that Taiwan's relatively low exchange rate volatility supported overall economic stability. Economic research, however, has well documented the role of flexible exchange rate regimes in cushioning small open economies against external shocks[8]. Flexible exchange rate regimes in these economies have also been associated with a great reduction in currency mismatches[9].

The NTD depreciated 0.2 percent against the dollar in the first eight months of 2014. The real effective exchange rate as calculated by the Bank for International Settlements (BIS) depreciated 0.7 percent. Taiwan's foreign exchange reserves grew by $6.7 billion (1.6 percent of GDP) in the first half of 2014, and stood at $423 billion as of end-August 2014. Taiwan's foreign exchange reserves are well in excess of adequate levels by any metric. They are equivalent to 85 percent of GDP, 19 months of imports, and 2.5 times the economy's short-term external debt.

[8] See for example Edwards and Yeyati (2003), "Flexible Exchange Rates as Shock Absorbers", NBER Working Paper Number 9867.
[9] Gadanecz and Mehrotra (2013) BIS Paper Number 73.

Taiwan uses the IMF's Special Data Dissemination Standard (SDDS) framework to provide data on many aspects of its economy, including the real sector, and fiscal, financial and many external accounts. However, Taiwan does not publish data on international reserves that conforms to the SDDS reserves template. Taiwan is the only major emerging market in Asia not to be either currently reporting, or publicly considering reporting, according to the SDDS reserves template.

Taiwan also does not disclose its foreign exchange market intervention, but analysts estimate that average monthly intervention to prevent appreciation from January to July 2014 was approximately $1 billion. Looking at publicly available statistics, Taiwan appears to intervene on both sides of the market but, on net, much more to resist appreciation. The change in foreign assets on the central bank's table Factors Responsible for Changes in Reserve Money (which excludes valuation changes resulting from foreign exchange fluctuations) continued to be positive through the second half of 2013 and the first half of 2014, and the magnitude of these changes is larger than could be reasonably expected from simple interest earnings on the existing stock of reserve assets, leaving little doubt that Taiwan intervened in the market.

Given the size of Taiwan's economy and its importance in international trade flows, Taiwan's authorities should move towards a more fully market-determined exchange rate, limit their foreign exchange interventions to the exceptional circumstances of disorderly market conditions, and increase the transparency of reserve holdings and foreign exchange market intervention.

Europe

Euro Area

The euro area has a freely floating exchange rate. The euro has experienced large fluctuations since the financial crisis resulting from ebbs and flows in risk aversion associated with financial stresses in the euro area. In the first half of 2014, the euro was broadly stable against the dollar, but subsequently has depreciated by over 9 percent through mid-October. On a real effective basis, the euro depreciated by 1.7 percent in the first half of 2014, and by an additional 1.8 percent in July and August.

The euro area's recovery has lagged substantially behind that of other developed countries, leaving economic activity 2.4 percent below its peak in the first quarter of 2008. Private demand is 5 percent below its pre-crisis level, and unemployment remains very elevated at 11.5 percent. After four consecutive quarters of modest growth that saw euro area GDP expand by 1 percent, the fragility of the recovery was highlighted by growth figures for the second quarter of 2014 in which economic activity was virtually flat, growing at an annualized rate of just over 0.1 percent.

Significant macroeconomic and financial headwinds persist. While the pace of fiscal consolidation has eased, the region's fiscal stance remains contractionary, and bank deleveraging, low real wage growth, and weak investment continue to weigh on economic activity. Moreover, growth remains heavily reliant on external demand. Domestic demand expanded in only two of the last twelve quarters, while net exports grew in nine of these quarters. With the euro area inflation significantly below the ECB's target, and geopolitical risks becoming a greater threat to global demand, Europe faces the risk of a prolonged period of

substantially below-target inflation or outright deflation. This would slow Europe's return to growth, further hinder the internal rebalancing that is still needed between the core and periphery, and increase the real burden of public and private debts. The IMF forecasts that the euro area economy will grow by just 0.8 percent in 2014.

The euro-area's collective current account surplus expanded to 2.4 percent of GDP in 2013. Current account deficits in Italy, Spain, and the smaller economies in the periphery have turned into small surpluses in recent quarters. However, there has not been a commensurate reduction in the surplus of the euro area's large surplus counties. The Netherlands and Germany, meanwhile, have continued to run substantial current account surpluses since 2011, with Germany's surplus standing at 6.8 percent of GDP in 2013 and 7.1 percent of GDP in the first half of 2014. The euro area's surplus now exceeds China's surplus as a share of global GDP.

Although there has been a rebound in exports in some European peripheral countries, the adjustment process within the euro area would be facilitated if countries with large and persistent surpluses took stronger action to boost domestic demand growth. For example, in Germany, domestic demand has been persistently subdued. German domestic demand growth picked up in the first quarter of 2014, but it flat-lined in the second quarter, leaving domestic demand just 0.9 percent larger in the first half of 2014 than in the second half of 2013. Weakness in investment has been particularly notable, with gross investment contributing negatively to growth in 2012 remaining effectively flat in 2013. Stronger domestic demand growth in all surplus European economies is needed to help facilitate a durable rebalancing of imbalances in the euro area and contribute to stronger global growth more generally.

In 2013, the European Union's (EU) annual Macroeconomic Imbalances Procedure, developed as part of the EU's increased focus on surveillance, identified Germany's current account surplus as an imbalance that requires monitoring and policy action. Notably, the EU stated that, given the size of the German economy, action was particularly important to reduce the risk of adverse effects on the functioning of the euro area. While identification of Germany was a welcome step, as were the EC's recommendations for measures to bolster investment and demand growth, it remains to be seen whether the procedure can induce responses from its recommendations to surplus countries and whether it can produce robust recommendations or policies aimed at the euro area aggregate fiscal stance and symmetric rebalancing.

A key priority for the euro area moving forward is to solidify and accelerate the recovery, which would support a reduction of heavy debt burdens, lower high unemployment rates, and help maintain political support for the adjustment process within the core and periphery. While structural reforms are a necessary part of the European policy mix, a balanced approach that couples such reforms with macroeconomic measures to boost investment, job creation, and demand is needed. Continued flexibility with respect to fiscal targets will allow countries with more fiscal space and those that are making a significant structural effort to support growth and better align the euro area's aggregate fiscal stance with the economic cycle. Measures to increase domestic demand, particularly in surplus countries like Germany, can help further European and global rebalancing. Germany's recent agreement to implement the country's first economy-wide minimum wage represents progress towards this goal.

Recent steps by the European Central Bank to support stronger aggregate demand growth – including targeted financing to support bank lending and potential purchases of some private assets – should help combat deflationary risks. Even so, further policy support for demand may be needed to move inflation back toward target and maintain inflation expectations. Higher inflation would accelerate healing in Europe's labor markets and also support rebalancing, as higher domestic inflation in strong economies like Germany would provide more headroom for periphery countries to improve their competitiveness without outright deflation. Finally, deepening euro area financial, economic, and fiscal integration – more centralized risk sharing, greater resource pooling, enhanced cost sharing – would facilitate the ongoing adjustment and make the monetary union more resilient to future shocks.

Switzerland

In September 2011, in the context of deflation, the Swiss National Bank (SNB) established a minimum exchange rate ("floor") of 1.20 Swiss francs per euro, temporarily changing the exchange rate regime from a floating to a managed rate[10]. Since establishing the exchange rate floor, the SNB's foreign reserve assets have increased by $184 billion on a headline basis, and now total $496 billion as of August 2014. In 2014, foreign reserve assets increased $7.25 billion to $495.7 billion (73 percent of GDP) through July. Given the lack of foreign exchange intervention in 2014 (through August), the change is largely attributable to valuation effects.

Through September 2014, the SNB periodically reaffirmed its commitment to a managed rate, noting that it is prepared to buy foreign currency in unlimited quantities to enforce the 1.20 exchange rate floor. On a real trade weighted basis the franc has appreciated 1.5 percent through the first eight months of 2014. On a nominal basis, during the first half of the year the franc appreciated 0.8 percent against the euro and was flat against the dollar. Since then, through end September, it has appreciated 0.6 percent against the euro, coming very close to the 1.20 floor, while depreciating over 7 percent against the dollar. Despite the appreciation pressure, no foreign exchange intervention has been necessary this year to enforce the floor, and the SNB believes the credible threat of intervention prevented the franc from breaching the floor. For the moment, intervention remains the SNB's first line of defense, but it will consider other tools (e.g., negative interest rates) if necessary. The exchange rate floor has contributed to the re-emergence of inflation and overall economic stability. Once economic conditions normalize, a return to a freely floating currency would be desirable.

Preliminary data for 2013 and the first two quarters of 2014 indicate current account surpluses of 14.2 percent of GDP, 9.5 percent of GDP and 9.8 percent of GDP, respectively. Factors behind these large surpluses include (a) the activities of international commodity trading companies (estimated by the IMF to contribute 4 percent of GDP to the surplus); (b) foreign ownership of Swiss multinationals; and (c) cross-border shopping direct purchases and deliveries not reflected in import statistics; and (d) Switzerland's role as an international banking center generating fee and investment income.

[10] See previous issues of this report for a fuller description of this policy measure.

In April 2014 the IMF's Article IV concluded that "the franc still remains moderately over-valued, reflecting the legacy of the large real appreciation during 2008-11," and that the moderate overvaluation was not having an adverse impact on external sector performance. However, it added that risks of renewed pressures on the franc through a return of safe haven inflows triggered by external events remained, and that without the floor, the pressures would translate into a sharp nominal appreciation and a return of deflation.

Switzerland's economy expanded by 1.9 percent in 2013; but it contracted 0.2 percent on an annualized basis in the second quarter of 2014. Due to the weak second quarter and slower global growth outlook, the SNB decreased its 2014 growth forecast from 2 percent to 1.5 percent. Consumer prices decreased 0.2 percent in 2013, driven by a 1.9 percent decrease in imported goods and services. The medium term outlook for inflation remains weak, with the SNB forecasting inflation below 0.5 percent through 2016. With low unemployment (3.2 percent), high capacity utilization in manufacturing, and above average capacity utilization in construction, there appears to be little "slack" in the economy. However, rising potential output in the context of weak demand will likely keep price growth muted.

United Kingdom

The UK economy continued its brisk expansion in the first half of 2014, growing at an annualized rate of 3.3 percent over the six month period, taking output above its pre-crisis peak. Household consumption has made the largest contribution to real GDP growth this year, as savings rates among UK households have declined. Business investment and net trade also made small net positive contributions. Consumption and investment were buoyed by a rebound in business and consumer confidence and thawing credit conditions, which helped to unlock private demand pent-up in the wake of the global financial crisis. The contribution from net trade remained positive as imports fell despite strong growth in domestic demand. Although the unemployment rate fell to 6.2 percent in July, the lowest level in almost six years, wage growth and productivity growth have been particularly subdued, suggesting that there could be more slack in the economy than previously thought.

Monetary policy remains accommodative, and the BOE introduced forward guidance to its policy toolkit. The BOE has maintained its historically-low policy rate (Bank Rate) at 0.5 percent and the size of its quantitative easing program is £375 billion. The Monetary Policy Committee (MPC) kept the Bank Rate on hold at its last meeting on September 3-4, 2014. In August, 12-month consumer price inflation fell to a year-to-date low of 1.5 percent. Inflation has remained below the BOE's 2 percent target rate since last January.

The fiscal outlook is improving. The fiscal deficit has fallen from a post-crisis peak of 11 percent of GDP in fiscal year 2009-10 to 5.7 percent of GDP in 2013-14, excluding one-off factors. On a cyclically-adjusted basis, the fiscal deficit decreased from 8.7 percent of GDP in 2009-10 to 2.8 percent of GDP in 2013-14. As of March 2014, the Office of Budget Responsibility projects that the headline fiscal deficit will fall further in 2014-15, to 4.9 percent of GDP.

The UK has a freely floating exchange rate. The pound appreciated by 13.1 percent year-over-year against the U.S. dollar on a nominal basis as of end-June, but has retraced somewhat since then, depreciating by 5.2 percent against the dollar from end-June through end-September. On a real effective basis, the pound appreciated by 3.5 percent in the first half of 2014, and by an additional 0.3 percent through August. The UK real effective exchange rate has appreciated 19.9 percent from its trough in early 2009, but remains 13.2 percent below its pre-crisis peak. In July 2014, as part of the UK's Article IV consultation, the IMF estimated that the real exchange rate was overvalued by 5-10 percent.

The current account deficit in 2013 increased to 4.4 percent of GDP – the largest deficit since 1989 – reflecting a widening of the income and transfers deficits and a strong exchange rate. On a quarterly basis, the deficit reached a near-record high of 5.7 percent of GDP in the fourth quarter of 2013, and subsequently narrowed to 4.9 percent of GDP in the first half of this year. The goods and services trade deficit remained more modest at 1.8 percent of GDP in 2013, down from 2.1 percent of GDP in 2012. While the IMF expects the current account deficit to narrow this year to 4.2 percent, the recent weakness in euro area growth and depreciation of the euro could help create dynamics to keep UK current account deficit near 2013 levels.

Western Hemisphere

Brazil

Brazil's economy experienced a technical recession in the first half of 2014, as its GDP contracted 0.2 percent and 0.6 percent quarter-on-quarter, on a seasonally-adjusted basis, in the first and second quarters, respectively, driven largely by a decline in investment, as well as reduced economic activity during the World Cup. The consensus forecast of market participants surveyed by the Brazilian Central Bank (BCB) is for full year growth of only 0.3 percent in 2014. Year-on-year inflation reached 6.5 percent in August 2014 and is likely to remain near the upper limit of the BCB's target band of 4.5 percent ± 2 percent in coming months. In its June inflation report, the BCB estimated a 46 percent probability that inflation ends the year above the upper bound.

Brazil maintains a floating exchange rate regime, although over the past few years there have been, at times, increased official efforts to manage the *real*. The authorities have used foreign exchange market intervention – primarily through foreign exchange derivatives markets – as well as verbal guidance and capital flow management measures to dampen directional movements of the currency.

In response to the depreciation pressures on the *real* last year, in August 2013, the BCB announced a formal intervention program, with a stated objective of providing hedging and liquidity to the foreign exchange market. From August through December 2013, the BCB offered a minimum of $2 billion in swap contracts (settled in local currency) per week, along with $1 billion in USD in the spot market through repurchase contracts. In 2014, the BCB has lowered the weekly swap contracts on offer to $1 billion, with repurchase contracts only offered on a discretionary basis; so far this year, the BCB has not offered additional repurchase contracts. As a result of these activities, as of end-August 2014, the BCB had built up a $90 billion net short dollar position by selling swaps in the domestic foreign exchange futures

market, and as of end-August had $200 million in outstanding USD repurchase contracts. Brazil's headline foreign exchange reserves totaled $379 billion as of end-August 2014, equivalent to 15 months of import cover. In the 2014 External Sector Report, the IMF assessed Brazil's real effective exchange rate (REER) to be 5 to 15 percent overvalued.

Brazil's current account deficit has steadily widened from near balance in 2007 to a deficit of 3.6 percent of GDP in 2013, and the IMF forecasts the current account deficit to remain around this level in 2014. A recent weakening of Brazil's terms of trade (reflecting softer prices for commodity exports), an increasing deficit in the fuels trade balance, and modest exports of manufactured goods have all contributed to the persistence of the current account deficit in 2014. Foreign direct investment, often considered a stable form of financing, provides financing for about 75 percent of the current account deficit.

Canada

After growing 2 percent in 2013, and just 0.9 percent quarter-on-quarter, on a seasonally-adjusted basis, in the first quarter of 2014, Canada's economy expanded by 3.1 percent in the second quarter, underpinned by higher exports and household spending. The IMF projects full-year growth of 2.3 percent in 2014. The authorities expect that the sources of growth will shift from private consumption and residential investment to higher exports and business investment.

Canada's current account deficit was 3.2 percent of GDP in 2013, and the IMF forecasts it will narrow to 2.7 percent of GDP in 2014 as external demand for Canada's exports recovers. Canada maintains a flexible exchange rate and employs an inflation-targeting monetary policy regime. In nominal terms, the Canadian dollar depreciated by 5.4 percent year to date against the U.S. dollar as of end-September. On a real effective basis, the Canadian dollar appreciated 0.8 percent year to date through August.

Inflation has increased over the course of 2014, and at 2.1 percent in August was slightly above the central bank's target rate of 2 percent, but well within the target band of 2 percent ± 1 percent. Canada had foreign exchange reserves of $60.9 billion as of of end- September 2014, representing about 3.5 percent of GDP and 1.5 months of imports. Earlier this year Canada began adding pound sterling-denominated assets to its Exchange Fund Account (EFA), and currently holds $563 million in such assets. The EFA also holds U.S dollar, euro-, and yen-denominated assets.

Mexico

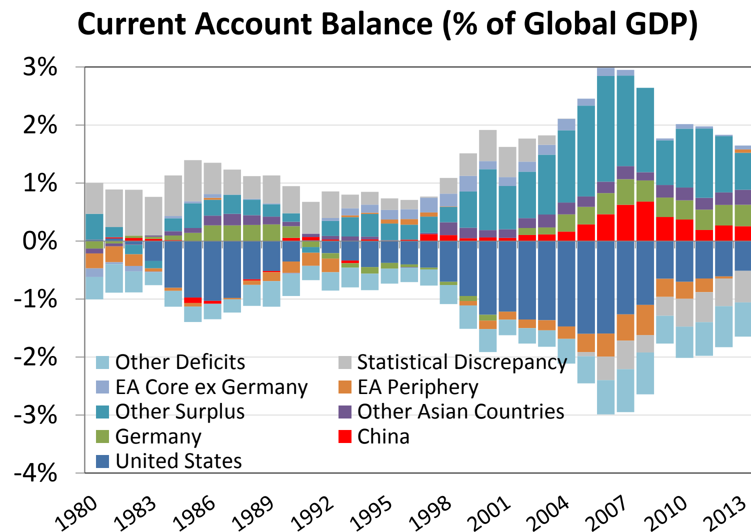
After rebounding strongly following the financial crisis, the Mexican economy lost momentum in 2013, growing by just 1.1 percent. Although growth in the first quarter of 2014 remained weak, a recovery in manufacturing, owing to improved external demand, boosted growth in the second quarter of 2014 to 4.2 percent on a quarter-on-quarter, seasonally-adjusted basis. The IMF forecasts full-year 2014 growth of 2.4 percent, as Mexican government spending and investment rebound, and as stronger economic activity in the United States bolsters Mexican manufacturing and exports.

Mexico's current account deficit is estimated to finish 2014 at 2.1 percent of GDP, and is forecast to narrow slightly to 2 percent of GDP in 2015. Mexico has a flexible exchange rate and employs an inflation-targeting monetary policy regime. In nominal terms, the Mexican peso depreciated by 2.5 percent year to date against the U.S. dollar as of end-September. On a real effective basis, the Mexican peso depreciated slightly by 0.1 percent year to date through August.

Mexico has a comfortable level of foreign exchange reserves at $181.6 billion as of August, representing about 14 percent of GDP and 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 most recently renewed in November 2012. As of September 2014, Mexico has never drawn on this line.

Annex I: Global Imbalances in the Post-Recession Period[11]

Global imbalances, as measured by the absolute value of current account positions across economies, peaked in 2007 at a very large 6 percent of global GDP.[12]



As part of the G-20 process to achieve strong, sustainable, and balanced growth, global leaders set out a vision in 2009 to reduce global imbalances to a more sustainable level through a shift in the sources of demand from deficit to surplus economies and through more widespread use of flexible exchange rates. Over the last several years, global imbalances have declined as a share of global GDP, to 3.6 percent in 2013, but this reduction occurred within the context of weak global economic activity and declining global trade growth. At the same time, the configuration or distribution of global current account balances changed considerably.

Though the current account balance of an economy is jointly determined by domestic and global demand and relative exchange rates movements, the significant global demand compression resulting from the Great Recession drove a considerable share of the rebalancing. For many deficit economies, especially in the European periphery, a slowdown in domestic demand growth was an essential though painful part of the adjustment process, as many had consumed in excess of domestic output for far too long. However, the needed boost to demand to sustain overall global demand growth and to foster a more efficient adjustment of global imbalances was largely missing. In order for global growth to be stronger and more balanced, further policy adjustments will be needed to ensure that the decline in global imbalances is both durable and symmetric.

Changing Profile of the Distribution of Current Account Balances

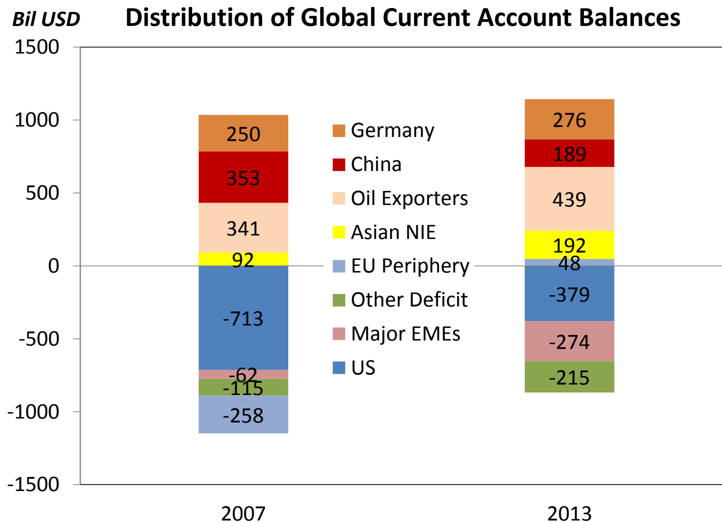
In 2007, the United States alone accounted for about two thirds of the aggregate global current account deficit while China accounted for about one-quarter of the aggregate global surplus. As a result of both policy adjustments since 2007 and the relative strength of China's recovery from the global crisis, the United States now accounts for 40 percent of the aggregate global deficit while China accounts for 13 percent of the global surplus. Since 2007, deficits have become less concentrated and more dispersed while surpluses have become more concentrated across fewer

[11] Prepared by Anna Wong.

[12] The average of aggregate absolute current account surpluses and deficits during the 1990s was 2 percent of global GDP and during the period 2000-2005 3.6 percent of global GDP.

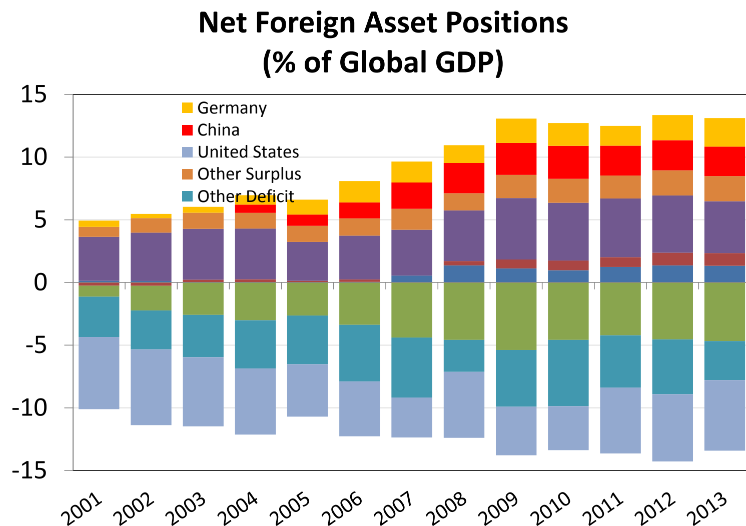
economies. The increased concentration of the surpluses is due mostly to rising surpluses in Germany, the Asian "newly industrialized economies," and the oil exporters. China's surplus has declined since 2007 in dollar terms and as a share of global GDP.

Although imbalances have declined, within the aggregate the distribution of deficits and surpluses has changed considerably. As noted, the deficit of the United States and the surplus of China have declined sharply. Meanwhile, the euro area periphery economies have undergone a large collective swing from deficit to surplus. At the same time, large current account surpluses have either remained or emerged in Germany, Korea, Taiwan, and Singapore. Collectively, that grouping now accounts for 33 percent of the global surplus. Whereas the surplus economies were net suppliers to the global economy, new demand was being provided by a set of economies including some major emerging market economies (Argentina, Mexico, Brazil, India, Indonesia, Mexico, South Africa, Turkey) and three advanced economies (Australia, Canada, and the UK) – all of which have seen their current account deficits increase in recent years. Collectively, the aggregate deficit of these economies now exceeds that of the United States.



Net Foreign Asset Positions

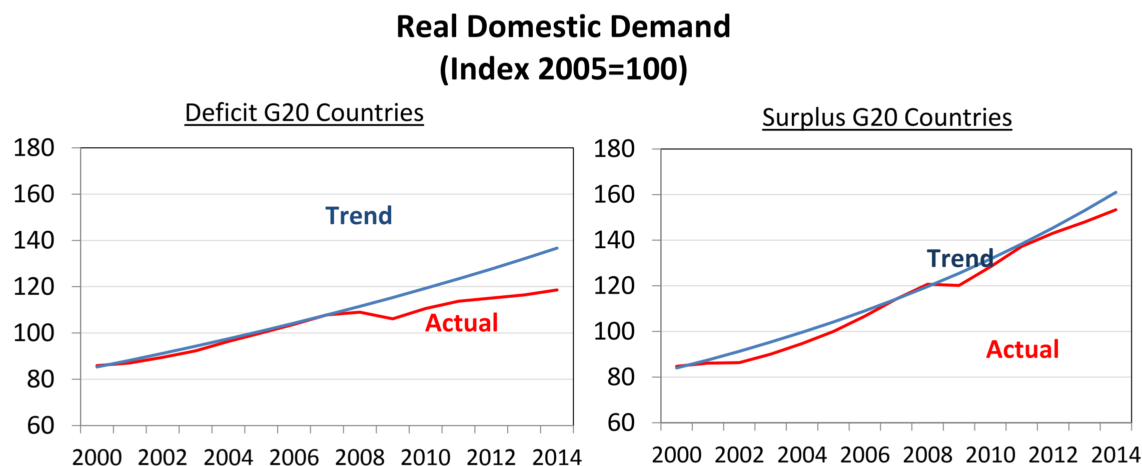
Although current account balances have diminished in many economies, the large current account deficits that many economies ran prior to the global crisis led to a substantial buildup of foreign liabilities in the major deficit economies, and a comparable buildup of foreign assets in the major surplus economies. The adjustment in "stock" positions has been much slower than the adjustment in flows. The level of imbalances, as seen from this stock perspective, remains at a historical high.



Risks Posed by Inadequate Rebalancing to Global Economy

The "rebalancing" since the peak of global imbalances in 2007 has led to lower current account positions in some key economies, but at the same time, introduced a number of new risks to the global economy.

First, rebalancing has been driven to a significant extent by demand compression in deficit economies with little offsetting demand boost from surplus economies—an asymmetric adjustment. This has contributed to weak global growth and trade growth over the past several years.



Second, the increase in deficits elsewhere, especially in economies where fundamentals require some strengthening, could themselves be a source of risk to the global economy. These economies were less affected by the Great Recession than the United States and the euro area. They also often experienced significant exchange rate appreciation, as many of their currencies appreciated by more than the currencies of the major surplus economies. The result was an increase in their growing current account deficit through 2012. Although running a current account deficit can be the result of fundamental economic forces, these economies were identified in the July 2014 IMF external sector report as having actual current account deficits that exceed those consistent with underlying economic factors.

Finally, unduly large and sustained surpluses in large economies could build trade tensions and risk a protectionist backlash.

Annex II: Adequacy of Foreign Exchange Reserves[13]

This annex examines the adequacy of foreign exchange reserves in 20 foreign economies accounting for over 80 percent of global foreign currency reserves based on several standard indicators of reserve adequacy. It finds that while different metrics can sometimes yield differing conclusions, most economies appear to be adequately reserved.

Reserve Adequacy

As discussed in the July 2010 Annex on foreign exchange reserves[14], governments accumulate reserves for a range of reasons. A small amount of foreign currency reserves may be needed for day-to-day transactions including debt repayments, payments to international organizations, and payments for imports. Economies with pegged exchange rates need to hold reserves to offset downward pressure on their currencies. Economies with flexible exchange rates hold some reserves in order to intervene in foreign exchange markets to prevent a disorderly depreciation of their currency. Reserve holdings also can provide a defense against substantial and rapid capital outflows that could cause a loss of investor confidence and a currency crisis.

Although there is no single measure of the amount of reserves an economy should hold, three benchmarks are typically used as a rough guide to adequacy: reserves to a broad measure of money (typically M2), reserves to one year of financing needs, and reserves relative to GDP:

- ***Reserves equal to 5-20 percent of M2***. Given that past capital account crises have been accompanied by outflows of deposits of domestic residents, this metric is usually intended to capture this risk of capital flight and is most relevant to economies with managed exchange rates. As in IMF (2011)[15] we use 20 percent as a threshold.

- ***Reserves sufficient to cover external financing needs (debt plus current payments) coming due within 12 months***[16]. This benchmark is preferred widely used measure for assessing risk of a capital account crisis. During a financial crisis economies have found that they are unable to rollover short-term debt or have difficulty financing the current account.

- ***Reserves relative to GDP***. Reserves are generally expected to rise along with economic activity. Reserves to GDP also allow for easy international comparisons. However, since GDP does not take into account external vulnerabilities, it is less widely-used as a metric, and there is no explicit reserves/GDP ratio guideline. Given the thrust of the literature, we take 20 percent as a reasonable threshold.

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[13] Prepared by Leslie Hull.
[14] July 8, 2010, Report to Congress on International Economic and Exchange Rate Policies
[15] Moghadam, Ostry, Sheehy (2011) "Assessing Reserve Adequacy", IMF Policy Paper.
[16] This is a more conservative variant of the so-called "Greenspan-Guidotti rule" that suggests that reserves should cover 100 percent of short term debt.

For some purposes, composite metrics may provide additional information. For example, reserve coverage of an economy's one year forward financing need (the sum of the projected current account balance and maturing short-term external debt) can help assess an economy's vulnerability to a sudden interruption in external flows. In liability dollarized economies, reserve coverage of resident's foreign currency deposits may also be important. In 2012 the IMF introduced its own, composite metric which combines data on exports, M2, short-term external debt and portfolio liabilities to assess overall reserve adequacy.

Table 1 illustrates three standard metrics and the IMF's composite indicator. With highly developed financial markets, and flexible exchange rate regimes, advanced economies tend to hold relatively low levels of foreign exchange reserves. Only Japan and Switzerland among the advanced economies have reserves in excess of the adequacy benchmarks across all categories as of end-2013. Of the emerging market economies, China, Korea, Saudi Arabia, Singapore, Taiwan, and Thailand have reserves in excess of adequacy thresholds for each of the covered metrics. The IMF's metric shows most emerging markets economies to be well provisioned though not necessarily as excessively provisioned as some of the individual metrics.

Table 1: Measures of Reserve Adequacy

	% of M2	% of GDP	% of 1 year financing	IMF Metric
Advanced Economies				
Canada	4.0	3.2	12.0	
Euro Area	1.9	1.7	0.0	
Japan	**148.3**	**24.5**	**172.4**	
Norway	17.6	10.6	**129.7**	
Switzerland	**50.0**	**75.0**	**232.8**	
United Kingdom	2.0	2.8	3.4	
Emerging Markets				
Brazil	**42.1**	15.5	**184.3**	**181.0**
China	**42.8**	**41.5**	**712.3**	**151.0**
India	**91.9**	15.3	**167.0**	142.0
Korea	**25.0**	**25.7**	**358.7**	
Malaysia	**27.9**	**38.9**	**380.4**	108.0
Mexico	**23.1**	13.4	**183.7**	107.0
Russia	**90.6**	**22.1**	**897.0**	150.0
Saudi Arabia	**198.0**	**94.9**	**-**	
Singapore	**68.9**	**90.8**	**132.9**	
South Africa	**23.2**	12.7	**111.1**	92.0
Taiwan	**454.2**	**85.0**	**1111.9**	
Thailand	**45.0**	**41.0**	**1586.3**	**216.0**
Turkey	**26.1**	13.3	72.9	98.0

Notes: Adequacy Ranges: M2--5 to 20 percent, GDP over 20 percent, One year financing need--100 percent, IMF metric = 100-150.

Numbers in blue are above the adequacy benchmark. IMF metric as of 2013.

What these metrics do not capture is the cost of holding reserves. At an economy level, there is a domestic cost of holding reserves as central banks typically hold their foreign exchange reserves in the form of low-yielding short-term securities, which typically return less than the cost of funding these assets. There is also an opportunity cost because the reserves could be put to other uses, including used to fund imports of consumption and capital goods. At a global level, excess reserve accumulation by one or a subset of economies runs counter to rebalancing, can distort the

international monetary system and, by bidding up the cost of reserve assets, also makes it more expensive for the most vulnerable economies to build up their own precautionary buffers.

Overall, most of the economies analyzed in this annex have foreign exchange reserves that exceed all of the adequacy benchmarks – some with a large margin. These economies accordingly have little need for further active reserve accumulation and should limit foreign exchange intervention only to the exceptional circumstance of disorderly market conditions.

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.