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

¹The 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 Secretary 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 second half of 2012, and where pertinent and available, data through early April 2013.

U.S. real GDP grew by 1.7 percent at an annual rate during the second half of 2012. Growth was uneven over the year, in part reflecting temporary factors such as severe drought conditions that affected agricultural output last summer. Although the economy continues to face challenges in 2013, the housing sector is showing clear signs of recovery, households are making progress repairing their balance sheets, firms are making capital investments, and labor market conditions are steadily improving. A consensus of private forecasters currently expects real GDP to grow by 2.3 percent over the four quarters of 2013.

Job creation proceeded at a steady pace during much of the latter half of 2012, but accelerated toward the end of the year and into 2013. On average, nonfarm payrolls increased by 180,000 per month in the second half of 2012. Over the six months through March 2013, the average monthly pace of job creation rose to 188,000. Between December 2011 and December 2012, the unemployment rate fell by 0.7 percentage point to 7.8 percent, and dropped further in March 2013 to 7.6 percent, the lowest level in more than four years.

Boosting growth, creating jobs, and putting public finances on a sustainable path are priorities of the Administration. The federal budget deficit narrowed to 7.0 percent in FY2012, and, based on recent legislative changes, is projected to decline to 5.3 percent of GDP in FY2013. Over the medium-term, the Administration is aiming to cut the deficit to less than 3 percent of GDP by the middle of the decade, and put the debt-to-GDP ratio on a declining path.

The global economic environment continued to weaken in the second half of 2012, as output fell in both Japan and the Euro Area. Growth weakened in emerging market economies in the second and third quarters of 2012 before rebounding in the fourth quarter. The weakness in global growth reflected ongoing synchronized fiscal consolidation, private sector deleveraging, and limited global demand rebalancing. Notably, the Euro Area experienced sharp contractions in private and public demand and looked to foreign demand to mitigate the fall in output. While European deficit countries have sharply reduced their current account deficits, surplus European countries have not reduced their current account surpluses, and the Euro Area's overall current account has swung into surplus.

The IMF is projecting a marginal improvement in global growth in 2013, reflecting in part an export driven pickup in growth in some emerging market economies as private demand in the United States is expected to remain solid. High frequency indicators are mixed, with some signs of a turnaround in industrial production and trade, but continued weak underlying demand.
growth in many advanced economies. While certain key risks to the global outlook have diminished, the recent crisis in Cyprus is a reminder that vulnerabilities remain.

A key imperative is to strengthen global growth. This will require action by current account surplus countries to boost domestic demand, in part by allowing necessary adjustments in exchange rates. In this regard, progress has been made by the international community to strengthen exchange rate commitments. In February 2013, G-7 members reaffirmed that their respective monetary policies would be oriented toward domestic objectives using domestic instruments and that they would not target exchange rates. This affirmation was followed by adoption by the G-20 of a critical new commitment not to target exchange rates for competitive purposes, while reaffirming the importance of moving rapidly toward market-determined exchange rates and exchange rate flexibility reflecting underlying fundamentals, and avoiding persistent exchange rate misalignments. It will be essential that these new commitments be adhered to in action as well as word. Treasury will continue to urge the G-20 to follow-through on existing commitments and push for even stronger exchange rate disciplines, including greater transparency of foreign reserve data and intervention operations, and agreement to avoid official public statements intended to influence exchange rate levels.

This report reviews the exchange rate policies of ten economies accounting for 72 percent of U.S. foreign trade. All of the major advanced economies in this report have flexible exchange rates. Among major emerging market economies, many, especially in emerging Asia, have more tightly managed exchange rates, with varying degrees of active management. This Report highlights the need for greater exchange rate flexibility in these economies, most notably in China, greater exchange rate transparency, and stronger discipline over actual and verbal interventions. A key concern is the use of sustained one-way sterilized intervention from a position of undervaluation by some economies.

China's exchange rate has appreciated in recent years, but continues to be tightly managed. As of early April 2013, the renminbi (RMB) has appreciated 10.0 percent against the U.S. dollar since China moved off its exchange rate peg (that it had reintroduced in 2008) in June 2010. In real terms, after adjusting for relative changes in domestic prices, the RMB appreciated by 16.2 percent from June 2010 through February 2013. China's real effective exchange rate (REER) has appreciated 33.8 percent since China initiated currency reform in July 2005. While the estimated range of misalignment has narrowed, China's real effective exchange rate continues to exhibit significant undervaluation.

China's external accounts have adjusted, but we remained concerned that the shifts may not be enduring absent stronger policy actions. China's current account surplus has declined from a peak of 10.1 percent of GDP in 2007 to 1.9 percent of GDP in 2011 and 2.3 percent in 2012. This decline partly reflects the appreciation of China's real effective exchange rate. At the same time cyclical factors, such as weakness in demand from advanced economies and deterioration in China's terms of trade, also played a role. China's reduction in external imbalances has also been driven by a heavy reliance on investment as a source of growth, which has led to a worsening of internal imbalances. Without more forceful structural reforms to promote domestic consumption, there is a risk that China’s imbalances will re-emerge as the global economy recovers.
The process of exchange rate adjustment in China remains incomplete and more progress is needed. At the U.S.-China Strategic and Economic Dialogue (S&ED) meeting in May 2012, China committed to enhancing exchange rate flexibility, letting supply and demand play a bigger role, and reiterated its determination to implement fully its G-20 commitments to move more rapidly to a more market-determined exchange rate system. Along with widening the RMB’s trading band against the dollar, Chinese authorities in April 2012 stated that “market forces will play a bigger role” in the determination of the RMB exchange rate, “the central bank will only intervene when market volatility is excessive,” and “the frequency (of intervention) will be lowered.” Reserve accumulation, an indicator of the degree of Chinese intervention in the currency market, slowed to an average of $21.3 billion per quarter in the first three quarters of 2012. But recent resumption of intervention on a large scale is troubling. Reserve accumulation picked up to $34.7 billion in the fourth quarter, and, in January 2013, Chinese financial institutions and the central bank collectively purchased a record $109.9 billion in foreign exchange.

The RMB remains significantly undervalued and large-scale foreign exchange market intervention has resumed. Moreover, China continues to lack transparency in its exchange rate practices. In contrast to most other G-20 members, including emerging market members, China does not disclose data on its FX intervention, subscribe to the IMF’s Special Data Dissemination Standard on reserve transparency or report to the IMF’s Currency Composition of Official Foreign Exchange Reserves database.

Chinese authorities acknowledge the need to continue exchange rate reform, and reaffirmed their commitment to move more rapidly toward a market-determined exchange rate at the G-20 Finance Ministers/Central Bank Governors Meeting in Moscow in February 2013. In the Los Cabos G-20 Growth and Jobs Action Plan, China reaffirmed its commitment to reduce gradually the pace of reserve accumulation. In support of these commitments, most immediately, China could further widen the RMB’s daily trading band. In addition, in line with the practice of most G-20 nations, China should disclose foreign exchange market intervention shortly after it takes place.

In Japan, economic performance and continuing deflation were key issues in last year’s election, and the Abe Administration came to office committed to reinvigorating growth and escaping deflation. Early statements by Japanese officials suggested that policies would, in part, be directed towards "correcting" yen strength, and there were proposals by some outside of government to ease monetary policy by purchasing foreign bonds. However, Japanese officials subsequently disavowed these statements. The Japanese government joined the G-7 statement of February 2013, affirming that their policies would be based on domestic objectives using domestic instruments, and would not target exchange rates. Since then, Japanese officials clearly ruled out purchases of foreign assets and have refrained from public comment on the desired level of the exchange rate. On April 4, the Bank of Japan announced a new monetary policy framework, which includes accelerated purchases of domestic assets to achieve a domestic inflation target of 2 percent. We will closely monitor Japan's policies and the extent to which they support the growth of domestic demand.
Even though the Korean won appreciated by 8 percent against the dollar in 2012, market participants estimate that Korean authorities intervened in both the spot and forward markets to limit the pace of won appreciation through the year. Korean authorities also spoke out against won "volatility" and warned of tightened macroprudential measures on the banking system at times when the won was under upward pressure. Korean authorities should limit foreign exchange intervention to the exceptional circumstances of disorderly market conditions. In addition, in line with the practice of most G-20 nations, Korea should disclose foreign exchange market intervention shortly after it takes place. Finally, Korean macroprudential measures should be clearly designed and introduced in order to reduce financial sector risks, rather than to reduce upward pressure on the exchange rate.

Based on the analyses 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 concrete adherence to recent G-7 and G-20 commitments. Treasury will continue to monitor closely exchange rate developments in all the economies covered in this report, with particular attention to the pace of RMB appreciation, and press for further policy changes that yield greater exchange rate flexibility, a more level playing field, and support for a strong, sustainable, and balanced global economy.
Introduction

This Report focuses on international economic and foreign exchange developments in the second half of 2012. Where pertinent and when available, data and developments through early April 2013 are included.

Exports and imports of goods to and from the ten economies analyzed in this Report accounted for 72 percent of U.S. merchandise trade in 2012.

U.S. Macroeconomic Trends

U.S. Economic Growth Continued at a Moderate Pace

Real GDP grew by 1.7 percent at an annual rate during the second half of 2012, comparable to the 1.6 percent pace in the first half of the year. Growth was uneven over the year, in part reflecting temporary factors such as severe drought conditions that affected agricultural output last summer. In the final quarter of 2012, the pace of expansion slowed to 0.4 percent at an annual rate, reflecting a steep drop in defense spending and notably slower inventory growth. However, growth of private domestic demand – the sum of consumption, business fixed investment and residential investment – accelerated to a 3.6 percent pace from 1.5 percent in the third quarter. Although the economy continues to face challenges in 2013, the housing sector is showing clear signs of recovery, households are making progress repairing their balance sheets, firms are making capital investments, and labor market conditions are steadily improving. A consensus of private forecasters expects growth to strengthen gradually through the end of the 2013.

Growth during the second half of 2012 reflected a slightly slower pace of consumer spending, offset by a pickup in residential investment, a somewhat larger contribution to growth from net exports, and smaller negative contributions from government and the change in private inventories. Consumer spending rose at a 1.7 percent annual rate during the latter half of 2012, slowing from the 2.0 percent rate during first half of the year. Growth of business fixed investment was relatively steady throughout the year, growing at a 5.5 percent annual rate in both the first and second half. During the latter half of 2012, growth of equipment and software investment slowed to an annual rate of 4.3 percent, from 5.1 percent in the first half, while business spending on structures picked up to 8.0 percent from 6.5 percent in the first half of 2012. Growth of residential investment accelerated to a 15.5 percent annual rate during the second half of 2012 from an already strong 14.3 percent pace during the first half. Residential investment grew by nearly 15 percent over the four quarters of 2012, the strongest yearly increase since 1983.

Inventories were a drag on growth through most of 2012, in part reflecting the impact of severe drought conditions on farm inventories. Export growth slowed sharply during the final two quarters of 2012, reflecting a general slowdown in the global economy. In the fourth quarter of 2012, exports fell by 2.8 percent, the first decline since the recovery began. However, imports also weakened, falling in both the third and fourth quarters. As a result, net exports added an
average of 0.3 percentage point to real GDP growth in the third and fourth quarters, double the contribution averaged in the first two quarters of the year. Ongoing fiscal contraction at all levels of government continued to weigh on growth during the latter half of 2012, with government spending falling by 1.7 percent at an annual rate following a slightly steeper decline of 1.9 percent during the first two quarters of the year. Altogether, government consumption and investment fell by 1.8 percent over the four quarters of 2012, less than the 3.3 percent decline over the previous four quarters.

The economy is expected to expand at a faster pace during the first quarter of 2013, and to accelerate further over the course of 2013. A consensus of private forecasters currently expects real GDP to grow at a 2.1 percent annual rate in the first quarter, and to increase by 2.3 percent over the four quarters of 2013.

The Housing Sector Is Recovering

Activity in the housing market firmed during the latter half of 2012 and the first two months of 2013, supported by improving house prices, declining inventories, tightening supply in selected markets, loosening credit conditions, a faster pace of job creation in the economy, and record-low mortgage rates. A variety of indicators continued to show improvement, including housing starts and home sales, both of which have been trending higher for the past several quarters. Single-family housing starts rose to 618,000 at an annual rate in February 2013, the highest level in over four and one-half years and up nearly 32 percent from a year earlier. Sales of new single-family homes have risen 12.3 percent over the past year, reaching 411,000 at an annual rate in February 2013. Sales of existing single-family homes (94 percent of all home sales) increased 10.2 percent over the past year to nearly 5 million at an annual rate in February. The inventory of homes available for sale continued to decline. At the end of February the supply of new single-family homes on the market stood at a 4.4-month supply, near its long-term average, and there was a 4.7-month supply of existing homes for sale. Residential investment has contributed positively to GDP growth in each of the past seven quarters following a five-year period of subtracting from GDP growth. The pickup in housing activity has helped lift house prices. In January, key house price measures posted their strongest year-over-year gains since mid-2006, with increases ranging from 6½ percent to 9¾ percent.

Labor Market Conditions Continued to Improve

Job creation proceeded at a steady pace during much of the latter half of 2012, but accelerated towards the end of the year and into early 2013. On average, nonfarm payrolls increased by 180,000 per month in the last six months of 2012, comparable to the 185,000 average monthly pace during the first half of the year. Over the six months through March 2013, the average monthly pace of job creation rose to 188,000. Close to 5.9 million jobs have been created since February 2010, including nearly 6.5 million in the private sector. Between December 2011 and December 2012, the unemployment rate fell by 0.7 percentage point to 7.8 percent, and dropped further in March 2013 to 7.6 percent, the lowest level in more than four years. Despite these gains, private employment is still 2.3 million lower than at the start of the recession in December 2007 and the unemployment rate is 2.6 percentage points higher. Some progress has been made in reducing long-term unemployment, but the share of the unemployed out of work for 27 weeks
or more remains high. This rate stood at 39.6 percent as of March 2013, down from a record level of 45.3 percent in March 2011.

**Inflation Remained Moderate**

Energy prices eased off their early 2012 highs. The front-month futures price of West Texas Intermediate (WTI) crude oil averaged $93 per barrel in March 2013, down from a high of $106 per barrel in March 2012. The U.S. average retail price for regular gasoline rose sharply during the spring of 2012, peaking at $3.94 per gallon in early April, but as of April 1, 2013 stood at $3.67 per gallon.

Rising energy prices in particular pushed headline inflation higher early in 2012, but the rate of inflation has slowed over the past several months. The consumer price index rose 2.0 percent during the year ending in February 2013, slowing from a 2.9 percent increase in the previous twelve months. Core consumer inflation has also moderated recently to 2.0 percent over the year ending in February from 2.2 percent over the year-earlier period. Persistent slack in labor markets, as well as low capacity utilization, have helped contain inflationary pressures. Compensation cost growth as measured by the Employment Cost Index (ECI) for private-industry workers rose 1.9 percent during the year ending in December 2012, compared with a 2.2 percent rise in the twelve months through December 2011.

**Fiscal Consolidation Remains a Priority**

The federal budget deficit narrowed to $1.1 trillion (7.0 percent of GDP) in FY2012 from $1.3 trillion (8.7 percent of GDP) in FY2011. The deficit has declined by roughly 3 percentage points as a share of the economy from a peak of 10.1 percent in FY2009. Putting federal finances on a more sustainable course over the longer run remains a top priority. The Administration’s FY2014 Budget would reduce the deficit by over $4 trillion, including the $2.5 trillion in deficit reduction measures enacted through January of this year, narrowing the deficit to less than 2 percent of GDP by the end of the 10-year budget horizon and reducing the debt as a share of the economy.

**The Global Economy**

The global economic environment continued to weaken in the second half of 2012. Output in both Japan and the Euro Area declined. Growth weakened in emerging market economies in the second and third quarters of 2012 before rebounding in the fourth quarter. This weakness reflects ongoing synchronized fiscal consolidation and private sector deleveraging in the advanced economies, and inadequate global demand rebalancing.

Economic data suggest some pickup in activity in early 2013, but overall the IMF is projecting only a marginal improvement in global growth in 2013, reflecting in part an export driven pickup in growth in some emerging market economies as private demand in the United States is expected to remain solid.
Nearly four years after the recovery from the financial crisis began, output in many advanced economies has yet to return to its pre-crisis level. Even among the countries where output has moved above pre-crisis levels, growth remains below pre-crisis trends. Only Australia, which saw the mildest recession among the advanced economies, has seen a robust recovery.

Output in all the major emerging market economies has expanded beyond pre-crisis levels. China and Indonesia, which did not experience a decline in growth during the 2008-09 period, and India, which saw a mild recession, have all experienced strong expansions. Output is between 30 and 45 percent above pre-crisis levels. Other major emerging market economies have seen output increase by about 10 percent from pre-crisis levels, with the exception of Russia where output has increased by less than 5 percent.

A key imperative is to strengthen global growth. This will require action by current account surplus countries to boost domestic demand, in part by allowing necessary adjustments in exchange rates. In this regard, progress has been made by the international community to strengthen exchange rate commitments. In February 2013, G-7 members reaffirmed that their respective monetary policies would be oriented toward domestic objectives using domestic instruments and that they would not target exchange rates. This affirmation was followed by adoption by the G-20 of a critical new commitment not to target exchange rates for competitive purposes, while reaffirming the importance of moving rapidly toward market-determined exchange rates and exchange rate flexibility reflecting underlying fundamentals, and avoiding persistent exchange rate misalignments. It will be essential that these new commitments be adhered to in action as well as word. Treasury will continue to urge the G-20 to follow-through on existing commitments and push for even stronger exchange rate disciplines, including greater transparency of foreign reserve data and intervention operations, and agreement to avoid official public statements intended to influence exchange rate levels.

Global imbalances have declined in recent years, but much of the decline reflects a contraction in demand on the part of current account deficit countries rather than strong domestic demand growth in current account surplus countries. For example, while European deficit countries have
sharply reduced their current account deficits, surplus European countries have not reduced their current account surpluses, and the Euro Area's overall current account has swung into surplus. Germany, for example, maintains a current account surplus in excess of 6 percent of GDP as does the Netherlands. Thus, adjustment in Europe is essentially premised on demand emanating from outside of Europe rather than addressing the shortfalls in demand within Europe.

China's current account surplus has declined from a peak of 10.1 percent of GDP in 2007 to 1.9 percent of GDP in 2011 and 2.3 percent in 2012. The appreciation of China’s real effective exchange rate has been an important factor in reducing the current account surplus. At the same time, cyclical factors, such as weakness in demand from advanced economies, and shifts in terms of trade have also played a role.

Further efforts are needed on the part of both current account surplus and deficit countries to rebalance global demand. The United States, for example, needs to further boost saving efforts, while China and other emerging Asian economies need to boost domestic demand, including by allowing their currencies to appreciate. Germany also needs to boost domestic demand.

Foreign currency reserve accumulation by most major emerging market holders declined in the second half of 2011 as a result of increased global risk aversion, weaker capital flows, and downward pressure on emerging market currencies. Chinese foreign currency reserves, for example, fell by $12.8 billion a month in the last five months of 2011. In contrast, Japan’s and Switzerland’s foreign exchange reserves rose sharply over this period, reflecting intervention. Japan intervened in August 2011 and again in October/November 2011, purchasing foreign currency. Switzerland established an exchange rate floor of 1.20 Swiss francs per euro, September 2011. The Swiss National Bank intervened as necessary to prevent the exchange rate from breaching the floor.

From early 2012 through February 2013, for most major holders the pace of accumulation remained below that of the 2009 to mid-2011 period. Japan has not intervened since November 2011. Saudi Arabia is the only emerging market economy for which the pace of reserve accumulation has been increasing, reflecting rising oil revenues. India’s foreign currency reserves have fallen since July 2011 as the Reserve Bank of India intervened on several occasions to limit depreciation of the rupee, although the pace of intervention has moderated. The IMF’s reserve adequacy metric indicates that many major emerging market economies have reserves in excess of levels adequate for precautionary purposes.2

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### Foreign Currency Reserve Accumulation: Major Holders

<table>
<thead>
<tr>
<th>Country</th>
<th>February 2013 Reserves $ millions</th>
<th>Average Monthly Increase, $ millions</th>
<th>Dec 2011 to Feb 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>3,311,589</td>
<td>-12,827</td>
<td>10,870</td>
</tr>
<tr>
<td>Japan</td>
<td>1,186,584</td>
<td>-2443</td>
<td>8,881</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>646,551</td>
<td>8,881</td>
<td>15,289</td>
</tr>
<tr>
<td>Russia</td>
<td>462,372</td>
<td>-7,339</td>
<td>1,515</td>
</tr>
<tr>
<td>Switzerland</td>
<td>461,366</td>
<td>13,589</td>
<td>15,289</td>
</tr>
<tr>
<td>Taiwan</td>
<td>404,080</td>
<td>1,324</td>
<td>-1,142</td>
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<tr>
<td>Brazil</td>
<td>362,494</td>
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<td>1,380</td>
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<tr>
<td>Korea</td>
<td>316,430</td>
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<td>-1,142</td>
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<tr>
<td>Hong Kong</td>
<td>291,939</td>
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<td>-1,142</td>
</tr>
<tr>
<td>India</td>
<td>258,229</td>
<td>1,300</td>
<td>-1,146</td>
</tr>
<tr>
<td>Singapore</td>
<td>256,275</td>
<td>-336</td>
<td>1,521</td>
</tr>
</tbody>
</table>

Note: Latest data for China are December 2012, and January 2013 for Saudi Arabia.
U.S. International Accounts

Current Account

The U.S. current account deficit narrowed to 3.0 percent of GDP in 2012 from 3.1 percent in 2011. In dollar terms, the deficit increased to $475 billion in 2012 from $466 billion the previous year. The surplus in the services trade rose and the deficit in goods trade narrowed, though they were somewhat offset by a smaller surplus in income balance.

After hitting a trough of 2.5 percent of GDP in the second quarter of 2009, the quarterly current account deficit has remained within a narrow range of 2.7 to 3.2 percent of GDP, except for the 3.5 percent recorded during the first quarter of 2012. Nominal exports of goods and services
grew 43 percent from the trough to the fourth quarter of 2012, while nominal imports of goods grew 46 percent.

A decrease in oil imports due to increased U.S. oil production reduced the current account deficit by $34.8 billion in 2012. This reduction, however, was offset by an increase of $35.3 billion in the non-oil trade deficit. The slight decrease in the U.S. current account deficit in 2012 (from 3.1 percent of GDP to 3.0 percent of GDP) was therefore not attributable to movements in the merchandise trade balance, but rather to an increase in the balance on services. The non-oil deficit has steadily increased since 2009 and currently stands at 1.6 percent of GDP, although it is still substantially below the peak of 3.9 percent of GDP in 2005. The oil deficit reached its peak in 2008 at 3.1 percent of GDP, but has since declined to 1.7 percent of GDP.

Financial Account

U.S. private investment abroad, as measured by portfolio and foreign direct investment, peaked in early 2007, prior to the onset of the global financial crisis. During the worst of the crisis, U.S. investors reduced their holdings of foreign equities and bonds and moderated new foreign direct investment. In the post-crisis period portfolio investment has been subdued but direct investment has increased on average.

The European Union (EU) was the primary destination for U.S. portfolio investment in the pre-crisis period and continues to be the primary destination. Nevertheless, quarterly U.S. investment in the EU is averaging less than half its pre-crisis levels. U.S. investors have shifted their portfolios closer to home, increasing investment in North America. In contrast, holdings of equities and bonds of other Western Hemisphere countries and non-European Union Europe have declined in recent years.

U.S. foreign direct investment has increased in most regions. Only in the Asia Pacific region have direct investment inflows from the United States slowed in the post-crisis periods.

The Dollar in Foreign Exchange Markets

In 2012, the dollar depreciated on a nominal effective basis between the end of May and mid-September, falling by 5.1 percent against the major currencies and 4.1 percent against the
emerging market currencies. The dollar then reversed course, appreciating by 3.3 percent against the major currencies through mid-November and 0.6 percent against the emerging market currencies, but fell again by 0.9 percent against both sets of currencies through the end of the year. In 2013, the dollar’s path against the major and emerging market currencies has diverged. The dollar has risen by 3.7 percent against the major currencies through early April, but has remained nearly steady (falling by 0.7 percent) against the emerging market currencies.

In the second half of 2012, the dollar depreciated against all the currencies covered in this report, with the exception of the Brazilian real and the Japanese yen. During 2013, however, the dollar has appreciated against most of the currencies, with the exception of the renminbi, Brazilian real and Mexican peso.

On a real effective basis, the yen depreciated by nearly 20 percent between June 2012 and February 2013. The U.S. dollar depreciated by 3.3 percent on a real effective basis. The Mexican peso appreciated the most, rising nearly 11 percent on a real effective basis.

**Analyses of Individual Economies**

### Asia

#### China

The Chinese economy moderated further last year, as real GDP growth slowed from 9.3 percent in 2011 to 7.8 percent in 2012, the country’s slowest annual rate in more than a decade. While the slowdown to a more sustainable rate of growth was partly policy-driven, it also reflected softer investment and slower export growth due to continued weak demand in advanced economies. However, robust GDP growth in the fourth quarter of 2012 and a pickup in industrial production growth at the end of the year point to stronger growth momentum in 2013. Consensus forecasts project real GDP growth of 8.2 percent and 8.0 percent in 2013 and 2014, respectively.
Over the past five years, China has had some success shifting the sources of its economic growth away from exports. China’s current account surplus has fallen markedly, as a share of GDP, from 10.1 percent in 2007 to 2.3 in 2012. While China’s goods trade surplus expanded to 3.9 percent of GDP in 2012, from 3.4 percent of GDP in 2011, the overall trade balance was contained at 2.8 percent of GDP, due largely to a rapidly growing services deficit, particularly in tourism – which has more than doubled since 2011. China’s current account surplus relative to global GDP rose to about 0.3 percent in 2012, from 0.2 percent in 2011.

The reduction in the current account surplus partly reflects the sustained appreciation of China’s real effective exchange rate (REER), as well as policies to promote greater domestic demand. However, cyclical factors, such as weakness in demand from advanced economies and a deterioration in China’s terms of trade have also played a role. Moreover, China continues to rely on an investment-intensive growth strategy that has led to a worsening of internal imbalances. At nearly 50 percent of GDP, Chinese investment is well above the levels seen in other countries during their rapid growth stages, and China’s household consumption share of GDP is still among the lowest in the world. Without continued currency appreciation and further structural reform, the IMF projects China’s current account surplus will widen again in 2013, and double as a share of global GDP by 2017.

China’s declining current account surpluses have not been accompanied by the kind of internal rebalancing needed to make them durable. To achieve strong, sustainable, and more balanced growth, and a sustained reduction in China’s current account surplus, China’s new leadership will need to pursue more decisive structural policies to boost consumption. This will require measures to raise household incomes, increase the purchasing power of household incomes, improve household income security, and reduce the need for precautionary savings. China should also adopt more market-determined prices for factor inputs, such as energy, water, land, and capital to remove distortions that currently tilt the balance of Chinese investment toward capital-intensive manufacturing and away from the services sector.

Moving to market determined interest rates will also be essential to rebalancing, as higher real deposit rates would increase the income households earn on their substantial savings and reduce the need to save such a large share of their income to reach their financial goals. Moreover, liberalizing interest rates will improve capital allocation in China by removing the implicit credit subsidy to state-owned enterprises (SOEs) that lead them to over invest. In June and July of 2012, Chinese authorities took concrete steps on interest rate reform by providing banks in China greater flexibility in determining the rates that they offer to their customers. Previously, administratively determined interest rates announced by China’s central bank, the People’s Bank of China (PBOC) set a ceiling on deposit rates, with no flexibility to offer higher deposit rates, and set a floor on lending rates, with banks forbidden from lending at rates more than 10 percent below the announced rate. With the reforms in 2012, however, banks now are permitted to offer deposit rates up to 10 percent above, and lending rates up to 30 percent below, the official benchmark interest rates.

The authorities have announced a number of policy initiatives to support economic rebalancing. In February 2013, China’s State Council released its income distribution reform plan, which lays
out a comprehensive framework to improve income distribution and double household income by 2020. The plan also recommends important structural policies, such as liberalizing interest rates, raising dividend payments of SOEs, and increasing social spending. At the Fourth U.S.-China Strategic and Economic Dialogue (S&ED) meeting in May 2012 and other dialogues, China committed to reduce tariffs on consumer goods and intensify its efforts to reform taxation of the services sector. China cut import tariffs on certain consumer goods, and committed in the S&ED to another round of tariff cuts before the end of 2012. China also started a reform pilot in Shanghai – applying a value added tax (VAT) to the services sector – that lowered taxation on services industries to rates comparable to those paid by goods producing industries. In July 2012, Chinese authorities announced an expansion of the pilot to nine additional provinces and cities, including some of the largest population centers in China, such as Beijing and Guangdong, with plans to eventually extend the pilot nationwide. When fully implemented, this should help support consumption as firms pass on tax savings to households. The removal of policy distortions that artificially raise the profitability of tradable goods relative to non-tradable goods, such as services, will support a more durable reduction in external imbalances.

At the 2012 S&ED, Chinese authorities reiterated their commitment to transform their economic development pattern, highlighting a number of specific and complementary policies to achieve the goals of increasing household incomes and consumption spending. These policies included market-based interest rate reform; structural tax reforms to lower taxation of consumer goods and accelerate the development of the services sector; and raising the dividend payout rate of SOEs, which would unlock SOEs’ large retained profits and ultimately shift resources toward the household sector. Although consumption contributed more to China’s growth (4.1 percentage points) than investment (3.9 percentage points), this largely reflected a fall in the contribution from investment. There remains ample scope for consumption’s share of the economy to rise.

Further renminbi (RMB) appreciation can play a critical role in China’s rebalancing by raising the purchasing power of households and increasing domestic consumption. Appreciation would improve the allocation of capital within China, helping to channel resources away from the tradable goods sector and towards more domestically-oriented production. It would also allow the authorities to better control liquidity creation, meet inflation objectives, and limit the possibility of asset bubbles. Conversely, if the future pace of appreciation does not keep pace with China’s rapid productivity growth, there is a risk that the degree of undervaluation could increase, resulting in another widening of external imbalances. While exchange rate reform may not be sufficient in itself to bring about rebalancing of the Chinese economy, rebalancing cannot take place without it.

Chinese authorities have acknowledged the need for continued exchange rate reform and have taken a number of steps in this direction. At the National People’s Congress in March 2013, China’s new leadership pledged to “steadily carry out reforms to make interest rates and the RMB exchange rate more market-based.” At the February 2013 G-20 Finance Ministers and Central Bank Governors Meeting in Moscow, G-20 members, including China, pledged not to target exchange rates for competitive purposes, and reaffirmed their commitment to “to move more rapidly toward more market-determined exchange rate systems and exchange rate flexibility to reflect underlying fundamentals, and avoid persistent exchange rate misalignments.” China also committed at the 2012 G-20 Leaders Summit in Los Cabos, Mexico
to allow market forces to play a larger role in determining movements in the RMB, continue to reform its exchange rate regime, increase the transparency of its exchange rate policy, and reaffirmed its commitment to reduce the pace of reserve accumulation.

Further widening of the RMB trading band against the dollar over time, if implemented in a way that allows the value of the exchange rate to better reflect market forces, would be positive for China, the United States, and the global economy. The trading band limitation applies to intraday movements of the RMB against the dollar. In April 2012, the PBOC announced a widening of the RMB daily trading band, from ±0.5 percent to ±1.0 percent. In making the announcement, the PBOC stated that it was widening the band “in order to meet market demands, promote price discovery, enhance the flexibility of RMB exchange rate in both directions, and further improve the managed floating RMB exchange rate regime based on market supply and demand with reference to a basket of currencies.”

From June 2010, when China moved off of its peg against the dollar (that it had reintroduced in 2008), through early April 2013, the RMB has appreciated by a total of 10 percent against the dollar. Because inflation in China has been higher than in the United States over this period, the RMB has appreciated more rapidly against the dollar on a real, inflation-adjusted, basis, appreciating 16.2 percent since June 2010 and about 44.8 percent since China initiated currency reform in 2005. Market pressure for RMB appreciation has increased recently as the RMB has been trading at the strong edge of its permitted trading band against the U.S. dollar for about six months. Despite these pressures, the RMB has been kept within the reference band by increasing intervention especially in January. China’s intervention continues to be overwhelmingly “one-way”, with the central bank intervening far more heavily to keep the RMB from appreciating than it does to keep the RMB from depreciating, and “sterilized,” with the impact on the domestic money supply largely neutralized through purchases of local currency debt and the reserve requirement ratio.

China’s REER – a measure of its overall cost-competitiveness relative to its trading partners – has appreciated since China initiated currency reform in mid-2005, after declining between 2001 and 2005. From July 2005 to February 2013, China’s REER appreciated by 34 percent. While China’s REER showed little change last year, the pace of appreciation has picked up recently, reflecting the strength of the dollar against other currencies. In the first two months of 2013, the REER appreciated 3.3 percent, compared to just 2.2 percent in all of 2012. In the most recent IMF Article IV consultation with China, the IMF concluded that the RMB was moderately undervalued against a broad basket of currencies, and Figure 5 in the IMF’s Pilot External Sector Report shows the RMB was undervalued by about 5 to 10 percent on a real effective basis, as of July 2012.
Reserve accumulation, an indicator of the degree of Chinese intervention in the currency market, slowed for much of 2012. China sold $11.8 billion in foreign exchange in the second quarter of 2012 and made essentially no purchases in the third quarter. However, reserves increased significantly in the past several months, after a period of far more moderate intervention. According to China’s balance of payments data, China accumulated $34.7 billion in foreign reserves in the fourth quarter of 2012.

China accumulated $130 billion in official foreign exchange reserves in 2012, its smallest annual increase since 2003. In late 2011 through early 2012, concerns about a “hard landing” in China and a European crisis put downward pressure on China’s exchange rate and reduced the need for official intervention. But now that these concerns have receded, there has been a return in upward pressure on the exchange rate, and reserve accumulation has resumed. Moreover, at the time the RMB was facing market pressure to depreciate, Chinese corporations no longer felt compelled to immediately convert their overseas earnings into RMB, resulting in a rapid increase in foreign currency deposits in Chinese domestic banks and reducing the need for intervention. But when market expectations of RMB appreciation returned in the second half of 2012, the build-up of foreign currency deposits abruptly stopped, and Chinese authorities have resumed intervention.

Upward pressure on the exchange rate continued in the first quarter of 2013. Although we do not yet have China’s balance of payments data for the first quarter of this year, official Chinese data show that the PBOC and Chinese financial institutions collectively purchased a record $110 billion in foreign exchange in January 2013. Although reserve accumulation provides an estimate of foreign exchange market intervention, it is approximate and only available each quarter. In line with the practice of most G-20 nations, China should disclose foreign exchange market intervention shortly after it takes place.

At the end of 2012, the PBOC held over $3.3 trillion in total reserves, equivalent to 40 percent of China’s GDP, or about $2,446 for every Chinese citizen.³ This is an exceptionally large amount compared to those of other economies, and well beyond established benchmarks of reserve adequacy. China’s stock of reserves is almost as large as the total amount of foreign exchange reserves held by all advanced economies combined, and accounts for nearly half of all of the foreign exchange reserves held by emerging and developing economies.

Although reserve accumulation provides some indication of the degree of intervention, China does not publish intervention data, in contrast to most large economies. Even when reported with a lag, such data provide valuable information to market participants and promote more transparent and effective functioning of international currency and financial markets. It is important that the Chinese government move toward greater disclosure of its activities in the currency market, which also would be consistent with China’s commitment through the G-20 Los Cabos Summit to increase the transparency of its exchange rate policy. In addition, China

³ In addition, China has transferred (or swapped) some of its accumulated foreign exchange reserves to commercial banks, as well as capitalizing the China Investment Corporation (CIC), its sovereign wealth fund. China’s state sector as a whole – including the PBOC, state-owned banks, and CIC – holds roughly $4 trillion in foreign currency assets.
should commit to participation in the IMF’s Special Data Dissemination Standard and COFER databases befitting its status as the world’s second-largest economy.

Chinese authorities have stated their intention to gradually move towards greater convertibility of the RMB under the capital account. This shift will require China to reduce the extensive capital controls that it currently has in place that restrict the free flow of cross-border capital and investment. China has been making some limited progress in this area recently. In line with its commitments in the S&ED, China more than doubled the total dollar amount that foreigners can invest in China’s stock and bond markets under its Qualified Foreign Institutional Investor (QFII) program from $30 billion to $80 billion. In December 2012, the PBOC announced that it would remove the cap preventing foreign central banks and sovereign wealth funds from investing more than $1 billion each in onshore assets through the QFII program. China also has gradually permitted some offshore banks and financial institutions to invest RMB holdings into the domestic interbank bond market; allowed for the development of cross-border exchange traded funds (ETFs) between Hong Kong and Mainland China; made it easier for domestic Chinese firms to raise funds in the offshore market by issuing offshore RMB-denominated bonds; and announced plans to create a “Qianhai Bay” economic zone to pilot increased cross-border financial transactions. China has also established new clearing arrangements with Taiwan and Singapore which will increase offshore use of RMB.

China has also expanded and loosened restrictions on its RMB QFII pilot program (RQFII), which allows Hong Kong-based companies to invest offshore RMB in Mainland securities markets. In November 2012, it increased the total quota from RMB 70 billion to RMB 270 billion ($43 billion). In March 2013, regulators removed constraints on asset allocation and announced that the program would be opened to all foreign financial firms domiciled in Hong Kong, expanding the program beyond Mainland Chinese firms for the first time. These policies represent steps in the direction of greater opening of China’s financial sector, though significant restrictions still remain in place.

The decline in China’s current account surplus over the past four years, together with the real appreciation of the RMB since June 2010, and China’s steps to gradually open its capital account, indicates that China is gradually allowing some necessary external adjustments. Because of these changes, estimates of the remaining degree of undervaluation have narrowed over the past several years.

At the same time, this process of exchange rate adjustment remains incomplete. More progress is needed to shift China towards sustainable growth based on household consumption. The apparent resumption of large-scale foreign exchange market intervention, the incomplete adjustment of China's persistent trade and current account surpluses, and evidence of increasing internal imbalances from a rising investment share of GDP all suggest that the RMB remains significantly undervalued, and further appreciation of the RMB against the dollar and other major currencies is warranted. China’s large foreign reserve accumulation has prolonged the misalignment in its REER and hampered progress toward global rebalancing, including among economies that compete with China for exports.
In addition to promoting consumption-led growth in China, greater RMB flexibility also would encourage increased exchange rate flexibility in other Asian economies that are trying to maintain trade competitiveness vis-à-vis China. Thus, greater RMB flexibility would further promote a strong and sustained global recovery and remove distortions from the international monetary system.

**Japan**

The yen foreign exchange market is one of the largest and most liquid in the world, accounting for about 19 percent of the roughly $4 trillion in daily global foreign exchange transactions, according to surveys by the Bank for International Settlements (BIS). Japan maintains a floating exchange rate regime.

The G-7 intervened jointly in March 2011 to steady disorderly market conditions following the Tohoku earthquake and tsunami. Japan intervened unilaterally in August 2011 (purchasing $58 billion in foreign exchange) and again between October 31 and November 4, 2011 (purchasing $116 billion). Japan has not intervened in the foreign exchange markets in over a year, though the authorities issued numerous public statements regarding their desire to “correct the excessively strong yen” in the weeks following Prime Minister Abe’s election on December 16, 2012. However, the Japanese government joined the G-7 statement of February 2013, affirming that their policies would be based on domestic objectives using domestic instruments, and not target exchange rates. Since then, Japanese officials have clearly ruled out purchases of foreign assets and have largely refrained from public comment on the desired level of the exchange rate. 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. It is important that these commitments be maintained by all G-7 and G-20 members.

The yen depreciated steadily against the dollar during the second half of 2012 and into 2013 as global economic risk sentiment receded and Mr. Abe promised to pursue aggressive monetary easing both during his campaign and as a key part of his administration’s economic policy agenda. The yen depreciated by 8.7 percent against the dollar to ¥/$ 86.7 during the second half of 2012, and depreciated by an additional 12.5 percent to ¥/$ 97.6 in 2013 through early April.

In its latest Article IV Consultation Report for Japan (July 2012), prior to these exchange rate movements, the IMF had assessed the yen’s real effective exchange rate to be moderately overvalued. On a real trade-weighted basis, the yen depreciated by 9.2 percent during the second half of 2012 and an additional 10.8 percent in the first two months of 2013. Since June 2012, Japan’s foreign currency reserves decreased by $9.0 billion on valuation changes, as the dollar strengthened against other currencies held in Japan’s reserves. As of February 2013, reserves were $1.2 trillion, the second-largest stock of reserves in the world.

The Japanese economy continues to recover from the earthquake, tsunami, and nuclear power plant disasters of 2011, and economic sentiment is beginning to improve. Real GDP expanded 2.0 percent for all of 2012. The economy was supported by strong personal consumption and reconstruction spending in the early part of 2012. However, real GDP growth contracted in the second half of 2012 due to declines in private consumption, investment, and exports. In order to
spur recovery, escape from Japan’s longstanding deflation, and support future growth, Prime Minister Abe has framed his economic policy strategy around the “three arrows” of fiscal stimulus, aggressive monetary easing, and (as yet to be specified) structural reforms.

Japan’s fiscal outlook remains challenging. Japan’s fiscal deficit is likely to remain at 10 percent of GDP in 2013, the same as 2012, as the fading of reconstruction spending is roughly offset by the Abe Administration’s fiscal stimulus. The stimulus package centers on reconstruction and disaster preparedness spending, increased business investment, and measures to support small businesses. Prior to the stimulus announcement, the IMF projected that the government’s gross debt will reach 240 percent of GDP—the highest in the OECD—in 2013, and estimates that the scheduled increase in the consumption tax from April 2014 and other reforms amount to about half of the adjustment necessary to stabilize and begin to reduce Japan’s debt to GDP ratio.

Gradual but persistent deflation has plagued Japan for the last 15 years. As of January 2013, core consumer prices (excluding food and energy) are down 0.7 percent year-over-year. Headline consumer prices are down 0.4 percent, despite increased energy costs stemming from the weaker yen and increasing demand for energy imports due to the ongoing shutdown of most of Japan’s nuclear power reactors. Consistent with Prime Minister Abe’s campaign calls, in January the Bank of Japan (BOJ) adopted a 2 percent inflation target as part of a joint statement with the government, and committed to additional injection of liquidity through an open-ended asset purchase program to begin January 2014. On March 15, Japan’s legislature approved Mr. Abe’s nomination of Haruhiko Kuroda as the new Governor of the central bank.

On April 4, the BOJ Policy Board approved a new policy framework comprised of four main components: (1) shifting the policy operating target from the overnight call money rate to the quantity of the monetary base, with a target of ¥60-70 trillion annual growth; (2) expanding the BOJ’s purchases of long-term Japanese government bonds (JGBs) to an annual pace of about ¥50 trillion on a net basis (roughly ¥7 trillion in monthly purchases), and extending the average remaining maturity of JGB holdings from the current nearly 3 years to about 7 years; (3) purchasing more risk assets, such as exchange-traded funds (ETFs) and Japanese real estate investment trusts (J-REITs); and (4) committing to maintain the new policy framework as long as necessary to maintain 2 percent inflation “in a stable manner.” We will closely monitor Japan’s policies and the extent to which they support the growth of domestic demand.

In 2011, Japan’s goods trade balance fell into deficit for the first time since 1980 as exports slowed following production disruptions, while imports increased on higher commodity prices and rising demand for reconstruction materials. The deficit in Japan’s trade balance continued to rise in 2012. Deteriorating consumer sentiment in the Euro Area, slowing demand from China – exacerbated in September by a territorial dispute – and growing demand for imported energy led the 2012 trade deficit to more than double. The deterioration of Japan’s trade balance has resulted in a substantial narrowing of the current account surplus from almost 4 percent in 2010 to only 1 percent in 2012. Japan’s bilateral trade surplus with the United States totaled $28.6 billion in the second half of 2012, up slightly from $28.3 billion in the second half of 2011.

In March 2013, Prime Minister Abe announced Japan’s intention to join the Trans-Pacific Partnership (TPP) trade negotiations. The announcement has been interpreted as launching the
third arrow of Mr. Abe’s economic reform strategy, in so far as TPP accession acts as a catalyst for internal reforms such as deregulation. Additionally, the Abe Administration has asked that a group of advisory councils draw up a growth plan, potentially to be announced in June. The committees’ focus includes industrial competitiveness, regulatory reform, science, and technology policy.

In order to support a stronger economic recovery and increase potential growth, it is important that Japan take fundamental and thoroughgoing steps to increase the dynamism of the domestic economy, by easing regulations that unduly deter competition in its domestic economy. Macroeconomic stimulus will be supportive in the short-term but cannot be a substitute for structural reform that raises productivity and trend growth. We will continue to press Japan to adhere to the commitments agreed to in the G-7 and G-20, to remain oriented towards meeting respective domestic objectives using domestic instruments and to refrain from competitive devaluation and targeting its exchange rate for competitive purposes.

**South Korea**

South Korea officially maintains a market-determined exchange rate, and its authorities intervene with the stated objective of smoothing won volatility. Like many emerging market currencies, won movements have been influenced by swings in global risk sentiment, with greater global optimism leading to greater net capital inflows (and appreciation pressure). The won appreciated steadily in the second half of 2012. From a 2012 low on May 28, the won appreciated 11 percent against the dollar by year-end with improved global risk sentiment. For 2012 as a whole, the won appreciated by 8 percent, the most among currencies covered in this Report and in the G-20.

In its September 2012 Article IV Consultation Report on Korea, the IMF noted that reserves are adequate and that “there is no need for further reserve accumulation beyond what would be needed to keep pace with rising foreign liabilities over time.” Despite this, for the six months through December 2012, Korea’s foreign exchange reserves grew by $12.7 billion (4 percent) to $317 billion. Its net forward position also increased by $10.5 billion to $37.9 billion.

In late 2012, Korean authorities spoke out against won “volatility.” On November 27, Korea announced that limits on foreign exchange forward positions would be tightened from 200 percent to 150 percent of equity for foreign bank branches and from 40 percent to 30 percent of equity for domestic banks, effective January 1, 2013. Since then, the authorities have publicly warned they are contemplating a further tightening of macroprudential measures on the banking system. The Korean banking system relies heavily on wholesale funding, much of it external. This leaves Korea vulnerable to external funding risk, as both the Asian financial crisis of 1997-98 and the 2008-9 global financial crisis revealed. However, the timing and characterization of the potential strengthened macroprudential measures fed market speculation that the intent would be to limit won appreciation.

The Korean government does not publish intervention data, which is problematic. Many market participants believe that the Korean authorities intervened in both the spot and forward currency markets to limit the pace of won appreciation particularly in the latter part of 2012 and early 2013. The average monthly increase in Korea’s forward position between November 2012 and January 2013 was close to $7 billion.
In mid-January 2013, the trend toward won appreciation reversed. The won depreciated by 6.9 percent against the dollar in 2013 through early April. According to estimates from the IMF’s July 2012 External Sector Report and the IMF’s Article IV Consultation with Korea, the real effective exchange rate of the won was moderately undervalued by between 0 and 10 percent.

Korea’s economy grew by 1.6 percent in 2012, but growth slowed sharply in the second and third quarters of the year. Third and fourth quarter annualized growth rates were 0.2 and 1.5 percent, respectively. In January, the IMF projected improved growth prospects in Korea, with an estimate of GDP growth rates of 3.6 percent in 2013 and 4.0 percent in 2014.

Inflation pressures in Korea have waned since 2011, with prices rising only moderately in 2012 by 1.2 percent, below the Bank of Korea’s (BOK) 2 to 4 percent inflation target range. In response, the BOK lowered its policy interest rate twice in 2012, from 3.25 percent to 3.0 percent in July, and again to 2.75 percent in October. The policy rate remained at 2.75 percent through March 2013.

Korea’s trade surplus widened during the second half of 2012 relative to the same period in 2011 due to sluggish import demand. Goods and services exports totaled $332 billion in the second half of 2012, roughly unchanged relative to the same period in 2011, while imports – at $308 billion – were down 2.2 percent from 2011. Korea’s current account surplus as a share of GDP rose sharply to 3.8 percent of GDP in 2012 compared to 2.3 percent in 2011. The current account surplus was the highest on record. Korea’s current account has remained in surplus even as the rise in commodity prices has resulted in worsening terms of trade over the past several years.

In February 2013, Korea joined the rest of the G-20 in committing to refrain from competitive devaluation and resolving not to target its exchange rate for competitive purposes. We will continue to press the Korean authorities to limit their foreign exchange interventions to the exceptional circumstances of disorderly market conditions and to commit to greater foreign exchange market transparency including through the publication of intervention data, similar to Japan and emerging markets such as Brazil, India, and Russia. We will also continue to press Korean authorities to ensure macroprudential measures should be clearly directed to reducing financial sector risks - in design, timing, and description - rather than to limiting capital inflows or reducing upward pressure on the exchange rate.

**Taiwan**

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. Taiwan’s foreign exchange reserves grew by $17.6 billion (4.6 percent) in 2012 and stood at $404 billion at end-February 2013. Taiwan’s foreign exchange reserves are equivalent to 87 percent of GDP, 18 months of imports, and 3.6 times the economy’s short-term external debt.

The NTD appreciated 4 percent against the dollar in 2012, roughly in line with other regional currencies. The currency depreciated by 2 percent in January following Japan’s policy easing announcements and has traded in a narrow range since then. The real effective exchange rate
appreciated 3.7 percent and the nominal effective exchange rate appreciated by 4.2 percent in 2012. Taiwan is unusual among emerging market economies in publishing neither official intervention data nor the forward commitments of the central bank. However, market participants indicated that the Taiwan authorities intervened regularly in foreign exchange markets during the course of last year. Looking at the central bank’s reported changes in reserve assets, foreign assets increased every month in 2012 and in January 2013 (excluding valuation changes), suggesting that the Taiwan authorities mainly intervened to prevent appreciation.

After rapid growth of 10.8 percent in 2010, Taiwan’s real GDP growth declined to 4.0 percent in 2011 and 1.3 percent in 2012, as investment and exports were impacted by the Japanese earthquake, the European crisis, and the slowing Chinese economy. In October 2012, the IMF projected growth of 3.9 percent in 2013 and 4.5 percent in 2014. Taiwan’s inflation rate, while still one of the lowest in Asia, rose on utilities rate hikes and higher food prices in 2012, with inflation peaking at 3.4 percent year-on-year in August. The central bank has kept its target rediscount rate on hold at 1.875 percent since June 2011.

Taiwan’s current account surplus increased in 2012 despite high commodity import prices and a slowdown in global demand for exports. The current account surplus rose to 10.4 percent of GDP in 2012, up from 8.9 percent in 2011. Taiwan’s goods and services trade surplus totaled $37 billion in 2012, an increase of 16 percent from 2011. The income surplus rose 18 percent to $15 billion. While the goods surplus has increased steadily since 1998, its share of the overall current account surplus has dropped from well over 100 percent to 62 percent as the income and services balances have turned to surpluses and have grown. The financial account showed a net outflow of $31.5 billion in 2012, reflecting in part greater investment abroad by insurance companies.

Taiwan has a largely open capital account, but maintains some restrictions to avoid large inflows or outflows of capital, including measures to discourage foreign investors from holding local currency deposits.

We will continue to press the Taiwan authorities to limit their foreign exchange interventions to the exceptional circumstances of disorderly market conditions and to commit to greater foreign exchange market transparency through the publication of intervention data, including its forward position.

Europe

Euro Area

The exchange rate of the euro is freely determined in the foreign exchange market. 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 second half of 2012, the euro appreciated by 4 percent against the dollar but depreciated by 1.5 percent in 2013 through early April. On a real effective basis, the euro appreciated by 1.2 percent in the second half of 2012 and by a further 2.5 percent in the first two months of 2013.
The Euro Area economy contracted by 2.4 percent, on a seasonally adjusted, annualized basis (saar), in the last quarter of 2012, its fifth consecutive quarter of decline. The decline in the fourth quarter was larger than expected, primarily because exports fell by 3.6 percent (saar) in the fourth quarter. Economic activity deteriorated in most countries across the Euro Area in the fourth quarter, with contractions in output recorded in Germany, France, Austria, and the Netherlands and with the countries in the periphery falling deeper into recession.

Over the course of 2012, the Euro Area economy is estimated to have contracted by 0.6 percent Declining domestic demand, particularly private and government consumption, was the main contributor to the drop in output, having made negative contributions to economic activity in each of the five prior quarters. Private consumption, by far the largest component of domestic demand, faces weak prospects in 2013, as real disposable incomes remain under pressure from a further contraction of employment, low real wage growth, and higher taxes. The weakness in economic activity towards the end of 2012 implies a low starting point for 2013, and the latest high-frequency business surveys, while somewhat mixed, point to continued weakness. Both the European Commission and IMF project that the Euro Area economy will contract in 2013 (by 0.3 percent and 0.2 percent, respectively), and with substantial growth differentials across Euro Area member states. Domestic demand growth remains weak with GDP growth dependent on external demand.

Euro Area deficit countries have sharply reduced their current account deficits, but Euro Area surplus countries have not reduced their current account surpluses. The Euro Area's overall current account swung into surplus in 2012. The Netherlands and Germany continued to run substantial current account surpluses in 2011 and 2012, while the current accounts deficits of Italy and Spain and the smaller economies in the periphery have contracted significantly. Greece’s current account deficit, for example, narrowed sharply in 2012 to around 3 percent of GDP, helped by declines in wages and relative unit labor costs. Stronger domestic demand growth in surplus European economies would help to facilitate a durable rebalancing of imbalances in the Euro Area. The EU’s annual Macroeconomic Imbalances Procedure, developed as part of the EU’s increased focus on surveillance, should help signal building external and internal imbalances; however, the procedure is somewhat asymmetric and does not give sufficient attention to countries with large and sustained external surpluses like Germany.

In 2012, the Euro Area, in aggregate, undertook one of the most aggressive fiscal consolidations of the advanced economies despite having the smallest cyclically-adjusted fiscal deficit and weak growth prospects. Most of the major Euro Area economies have committed to reducing their general government budget deficits to less than 3.0 percent of GDP by 2013. Germany achieved this target in 2011 and its budget was close to balance in 2012, while certain countries (e.g., Spain, Ireland, and Greece) are being given more time under time-bound reform programs. In addition, the European Commission appears to be showing more flexibility in applying targets, focusing on a country’s structural effort. Nonetheless, we remain concerned about the appropriate pace of consolidation and the need to provide room for countercyclical policy responses while ensuring credible paths to fiscal consolidation over a time frame that is sensitive to cyclical developments.
The European Central Bank (ECB) took both conventional as well as unconventional policy actions in the second half of 2012 to support activity and improve monetary policy transmission. The ECB eased monetary policy by reducing its main refinancing rate by 25 basis points to 0.75 percent and cutting its deposit facility rate to zero in July 2012. The ECB continues to provide full allotments of liquidity against eligible collateral to Euro Area financial institutions. The announcement of the Outright Monetary Transactions (OMT) developed by the ECB in September 2012 has dramatically lowered financial stress and funding costs within the currency area.4

The ECB’s provision of over €1 trillion in three-year funding via longer-term refinancing operations (LTRO) in December 2011 and February 2012 helped to alleviate funding pressures in the banking sector over the course of 2012. The easing in funding conditions, however, has been tempered recently by the repayment by financial institutions of over €230 billion of the first and second three-year LTROs (leaving over €700 billion in remaining liquidity in the two LTROs). While this decline in the liquidity surplus was initially viewed as a sign of normalization in money markets and of improved funding conditions for banks, it has raised concerns of premature withdrawal of liquidity measures that could place upward pressure on interest rates.

Overall, recent policy actions and commitments undertaken by the ECB and Euro Area governments, including plans to operationalize a single bank supervisor in 2014, have reduced concerns about a Euro Area systemic event and eased severe market pressures, providing additional time for the difficult multiyear adjustment at the country and regional levels.

Much has been accomplished, but risks of policy setbacks in addressing the underlying vulnerabilities of peripheral economies and the institutional structure of the Euro Area and EU remain significant, as recent developments in Cyprus have highlighted. Concerns about the approach adopted in March 2013 to address Cyprus’s banking crisis, along with questions about the potential strain on public finances and implications for capital flows of retaining a national approach to financial sector repair and restructuring in the Euro Area, resulted in secondary market spreads of European bank debt widening, new issuance tapering off, and bank shares falling. Further stresses could emerge from political uncertainty, the negative feedback loop between fiscal contraction and recession, adjustment fatigue, and disagreement within the Euro Area on how to address new challenges to the currency union. Over the medium term, delays in financial, economic, and fiscal integration could entrench the large economic disparities that have developed across the Euro Area, leaving the region vulnerable to new shocks. A key priority for the Euro Area is to restore growth, which will 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. The European Commission forecasts a contraction of 0.3 percent across the Euro Area in 2013, and headwinds to growth include substantial fiscal drag, private sector deleveraging, and a weak external environment. The periphery faces greater

4 Under the OMT the ECB will stand ready to buy sovereign bonds, potentially in unlimited amounts, of countries that request support from the European Financial Stability Fund or the European Stability Mechanism and adhere to agreed conditions.
uncertainty over medium-term trend growth, given continued fiscal consolidation, banking sector deleveraging, and mixed efforts to date to address challenges to competitiveness and productivity.

**Switzerland**

In September 2011, the Swiss National Bank (SNB) established a minimum exchange rate of 1.20 Swiss francs per euro, moving the exchange rate from floating to a managed rate. Since then the SNB has intervened repeatedly to prevent the exchange rate from moving beyond this bound. On March 2013, the SNB reaffirmed its commitment to the managed rate noting it is prepared to buy foreign currency in unlimited quantities to enforce the 1.20 exchange rate floor, effectively capping franc appreciation.

Switzerland is a small open economy surrounded by the Euro Area, which has been disproportionally affected by the financial stresses in Europe, resulting in disorderly movements in the exchange rate. Swiss measure to boost liquidity and lower interest rates to near zero failed to stem the appreciation of the franc leading to direct, more drastic action. Nevertheless, Switzerland should return to a flexible exchange rate regime as soon as conditions in Europe improve.

The SNB’s actions were prompted by its concerns that the appreciation of the franc was stoking deflation risks and having negative effects on the economy. Consumer prices have continued to fall, although at a declining pace. After declining by 1.1 percent on a year-over-year basis in June 2012, price declines moderated to 0.3 percent, year-over-year, by February 2013.

Slower global growth and events in the Euro Area continued to affect growth in 2012. Output grew by 2.3 percent on an annualized basis, during the third quarter of 2012 but growth declined to 1.0 percent in the fourth quarter. For the full year, growth was 1.0 percent, down from 1.9 percent in 2011. For 2013, the SNB is forecasting 1.0 to 1.5 percent growth with weak demand from Europe expected to act as a drag on growth.

Switzerland’s foreign exchange reserves increased by $83.4 billion in the second half of 2012, largely as a result of interventions, to end the year at $467.9 billion. The franc has depreciated by 1.1 percent against the euro in 2013 through March, and reserves fell to $458.1 billion at the end of February. The currency composition of Switzerland’s reserves varies on a monthly basis, depending on its interventions. Nevertheless, the SNB rebalances its portfolio over time to keep the euro share around 50 percent of reserves and the U.S. dollar share between 25 and 30 percent.

The franc appreciated by 3.5 percent against the dollar in the second half of 2012 but has depreciated by 2.1 percent in 2013 through early April. On a real effective basis the franc depreciated by 1.1 percent in the second half of 2013 and an additional 0.3 percent in the first two months of 2013. In March 2013 the IMF noted that the franc continued to be moderately overvalued.
The current account surplus decreased from 14.4 percent of GDP in the second quarter of 2012 to 12.6 percent of GDP in the third quarter of 2012. This was largely due to a fall in investment income from overseas, primarily in the EU.

The SNB was armed with new prudential tools in June 2012 to dampen an overheated property market and is beginning to use them. In October, it activated a counter cyclical capital buffer aimed at residential mortgages.

**United Kingdom**

The United Kingdom (UK) has a freely floating exchange rate. The pound appreciated by 1.0 percent against the dollar in the first half of 2012, and an additional 3.3 percent in the second half of 2012. Since the end of December, the pound has reversed course, depreciating by 5.9 percent through early April 2013. On a real effective basis, the pound appreciated by 1.8 percent in the first half of 2012, reflecting its nominal appreciation against other currencies, notably the euro. The pound appreciated by a further 1.6 percent on a real effective basis in the second half of 2012, but has depreciated by 4.7 percent in the first two months of 2013.

The UK economy expanded by 3.9 percent in the third quarter of 2012 on an annualized basis, the fastest pace of growth since 2007. Growth was boosted in part from hosting the Olympics. In the fourth quarter the economy contracted by 1 percent on an annualized basis. For the year as a whole the UK economy grew by 0.2 percent. Consensus Forecasts projects growth will remain weak in 2013, with output rising by 0.9 percent for the year.

The fiscal deficit has fallen from its post-war peak of 11.2 percent of GDP in fiscal year 2009-10 to 7.9 percent of GDP in 2011-12, primarily resulting from the tax increases and public spending cuts announced by the current and previous governments. The headline deficit is forecast to narrow to 5.6 percent of GDP in 2012-13, but this mainly reflects one-off factors. Excluding these factors, the underlying fiscal deficit will likely be little changed from 2011-12 at 7.8 percent of GDP. The Office of Budget Responsibility estimates that the fiscal consolidation measures put in place by the previous and current governments have reduced GDP in fiscal year 2012-13 by 1.9 percent of GDP relative to its level with no consolidation.

Monetary policy remains accommodative. The Bank of England (BOE) has maintained its historically low policy rate at 0.5 percent and, since October 2011, has increased the size of its quantitative easing program three times – each time by £50 billion – to reach £375 billion at its July 2012 meeting, and introduced a new program to support bank lending. The rationale for all decisions was similar: the weaker global environment (particularly slower Euro Area growth), tight credit conditions, weak real household incomes, and fiscal tightening. After peaking at 5.2 percent in September 2011, inflation has fallen and is converging towards the BOE’s 2.0 percent target.

The current account deficit widened to 3.7 percent of GDP in 2012 – the largest deficit since 1989 (4.6 percent). Exports declined by 1 percent in 2012 compared to the year before. Investment income recorded the smallest surplus in 2012 since posting a deficit in 2000, and recorded deficits for the first time since the fourth quarter of 2000 in both the second and third quarters of 2012.
Western Hemisphere

Brazil

Brazil maintains a floating exchange rate regime, although over the past year there have been increased official efforts to manage the real. The authorities have used foreign exchange market intervention, as well as verbal guidance, to dampen directional movements of the currency. The real has exhibited reduced volatility against the dollar since December 2011, while intervention in foreign exchange markets has increased, though intervention has occurred primarily through foreign exchange derivatives markets and verbal means since May 2012, rather than through foreign exchange spot markets.

On a real effective basis, Brazil’s exchange rate in February 2013 close to the same level that prevailed at the beginning of 2010, which was shortly after the recovery from the global financial crisis of 2008-09. However, Brazil’s real effective exchange rate has fluctuated considerably, appreciating from early 2010 to mid-2011 but depreciating by a roughly equivalent amount since then.

In early 2012, the real appreciated significantly on a nominal basis against the dollar, strengthening by nearly 10 percent. From late February 2012 to late May 2012, it reversed course and depreciated sharply against the dollar, falling by 23.3 percent. From June to the end of 2012, the real exhibited low volatility and fluctuated in a band of 2.00 to 2.10 against the dollar. After depreciating beyond the 2.10 level in early December 2012 – and against accelerating inflation – the Banco Central do Brasil (BCB) began intervening to strengthen the real against the dollar. Since falling to 2.12 to the dollar in early December 2012, the real has appreciated by 6.5 percent against the dollar through early April 2013. The BCB sold approximately $5.5 billion in dollars in December 2012, through a repurchase operation, to counteract real depreciation pressures. The BCB also is active in foreign exchange swaps markets, regularly selling swaps and reverse swaps. From the end of November 2012 to the end of January 2013, the BCB moved from a net dollar long position of $3.4 billion to a net dollar short position of $1.9 billion in the foreign exchange swap market, akin to selling dollars in derivatives markets. However, overall foreign exchange reserves grew by $18.9 billion in 2012 to $362.5 billion as a result of intervention to limit appreciation in the first half of 2012.

Brazil has implemented a series of measures to control capital inflows and limit upward pressures on the real since 2010. In early 2012, the authorities broadened the scope of the 6 percent financial operations tax (IOF) on capital inflows to include medium-duration external borrowing (between two and five years) but reduced this and other measures later in the year as capital inflows slowed. The authorities have also introduced IOF exemptions on infrastructure debentures and foreign investment in real estate investment funds as they focus on attracting private capital to meet Brazil’s large infrastructure needs.

The Brazilian economy grew only 0.9 percent in 2012, despite an aggressive 14-month monetary policy easing cycle that brought the official policy rate (SELIC) to an all-time low of 7.25 percent. This accommodative monetary policy was supported by an array of fiscal stimulus measures, especially targeting durable consumer goods to boost flagging industrial production.
The lack of recovery in 2012 was marked by weak agricultural output and poor performance in the service sector. In addition, the country has faced an extended decline in industrial production, attributable in part to weak global demand and supply-side constraints, including a tight labor market and the continuing high cost of capital. In January, the IMF projected the economy will grow by 3.5 percent in 2013.

Annual inflation reached 5.8 percent in 2012, close to the upper limit of the central bank’s target band of 4.5 percent ± 2 percent, and has continued to accelerate in the first two months of 2013, reaching 6.3 percent in February 2013. At 5.73 percent, inflation expectations for 2013 are slightly lower than the current level of inflation, reflecting an expected fall in inflation in the second half of the year, but inflation is still not expected to converge to the mid-point of the target band this year. Brazil’s current account deficit reached 3.3 percent in the fourth quarter of 2012, its largest deficit since 2001. A rising deficit in services trade and income payments on foreign investment in Brazil combined with a declining surplus in merchandise trade to boost the current account deficit.

Canada

Canada maintains a flexible exchange rate and employs an inflation-targeting monetary policy regime. The Canadian dollar fluctuated against the dollar during 2012, depreciating early in the year, sharply appreciating between May and mid-June, depreciating to the year’s low in September, recovering in November, and ending the year mostly unchanged against the U.S. dollar. The average nominal exchange rate in 2012 was at parity with the dollar. In 2013 through early April, the Canadian dollar depreciated by 2.4 percent against the dollar. On a real effective basis, the Canadian dollar appreciated by 1.6 percent in the second half of 2013, but has depreciated by 2.0 percent in the first two months of 2013.

The Canadian economy grew by 2 percent in 2012, with growth restrained by external headwinds and slowing household consumption. Private consumption expenditure has moderated considerably, growing by 2 percent in 2012, while investment maintained a relatively high rate of growth of 5.4 percent. The Bank of Canada forecasts growth in 2013 to be 1.8 percent as external demand remains subdued in the first quarter and households continue to deleverage high levels of debt.

Canada’s current account deficit widened to 4.0 percent of GDP in 2012. Exports slowed due largely to moderating demand in the United States, Canada’s largest trading partner. Imports continued to rise as a result of capital goods and vehicles imports.

The government has continued fiscal consolidation, but late in 2011 pushed back by one year the goal of returning to fiscal balance, which is now forecast to occur by the end of FY2015. The Bank of Canada has maintained its policy rate at 1.0 percent since September 2010, citing subdued core inflation and concerns about the external outlook. The Bank of Canada’s target for inflation is 2 percent. Headline inflation decelerated to 1.6 percent for 2012, down from 2.9 percent in 2011 on a year-over-year basis, with core inflation of 1.8 percent. The government forecasts inflationary pressures to remain contained in 2013, with core inflation flat at 1.8 percent and the CPI rising slightly to 1.7 percent for the year.
Mexico

Mexico has a flexible exchange rate and employs an inflation-targeting monetary policy regime. The peso rose by 3.9 percent against the dollar in the second half of 2012 and an additional 5.3 percent in 2013 through early April, notwithstanding relatively brief periods of depreciation against the dollar in July, October, and early November 2012. On a real effective basis, the peso appreciated by 9.2 percent in the second half of 2012, and by an additional 1.6 percent in the first two months of 2013.

Mexico’s foreign exchange reserves increased $4 billion in the second half of 2012, reaching a total of $153 billion, driven by foreign exchange inflows from the state-owned oil company, Pemex. In November 2011, the Bank of Mexico discontinued its monthly auctions of options to purchase foreign exchange, which had previously allowed Mexico to gradually purchase foreign exchange when the peso was on an appreciating trend. In conjunction with this announcement and as a measure to support liquidity in the foreign exchange market, the Bank of Mexico indicated that it would auction up to $400 million in foreign exchange on any day in which the peso depreciated against the dollar by more than 2 percent. Under this policy, the Bank sold $281 million on July 23, 2012 in response to sharp peso depreciation. In November 2012, the IMF renewed a precautionary Flexible Credit Line (FCL) arrangement for Mexico, equivalent to $73 billion. Mexico’s first FCL arrangement, equivalent to $47 billion, was approved in April 2009. It previously was renewed in March 2010, and in January 2011 was renewed again with access augmented to its current level. As of April 2013, Mexico had not drawn on this line.

Real GDP growth slowed in the third quarter of 2012 but remained firm in the fourth quarter. The economy expanded by 1.4 percent and by 3.1 percent, on a seasonally adjusted annualized basis, in the third and fourth quarters, respectively. Private consumption continues to be the primary driver of economic growth. Mexico’s seasonally adjusted current account deficit widened as a percentage of GDP in the second half of 2012, with deficits of 0.75 percent and 1.64 percent in the third and fourth quarters, respectively.

The Bank of Mexico has maintained an accommodative monetary policy stance since early 2009. At its March 2013 meeting, the Bank of Mexico cut its target interest rate by 50 bps to 4.0 percent, the first change in the target rate since June 2009. Headline inflation accelerated significantly in mid-2012, reaching 4.8 percent as of September (on a year-over-year basis). However, headline inflation moderated to 3.6 percent year-over-year as of February 2013, and core inflation and inflation expectations remain contained. The Bank of Mexico maintains an inflation target of 3 percent, with a band of plus or minus 1 percent.
Glossary of Key Terms in the Report

**Bilateral Real Exchange Rate** – The bilateral exchange rate adjusted for inflation in the two countries, 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 a country 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 a country’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 a country’s foreign currency reserves for its own currency, reducing foreign currency reserves. Sales involve the exchange of a country’s own currency for a foreign currency, increasing its foreign currency reserves. Interventions may be sterilized or unsterilized.

**Managed Float** – A regime under which a country 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 a currency relative to a set of other currencies. The effective exchange rate is an index calculated as a weighted average of bilateral exchange rates. The weight given to each country’s currency in the index typically reflects the amount of trade with that country.

**Pegged (Fixed) Exchange Rate** – A regime under which a country 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.