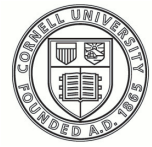
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The Depreciating Dollar: Economic Effects and Policy Response

Craig K. Elwell
Congressional Research Service

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The Depreciating Dollar: Economic Effects and Policy Response

Abstract
[Excerpt] The exchange rate of the dollar is largely determined by the market—the supply and demand for dollars in global foreign exchange markets associated with the buying and selling of dollar denominated goods, services, and assets (e.g., stocks, bonds, real property) on global markets. In most circumstances, however, international asset-market transactions will tend to be dominant, with the size and strength of inflows and outflows of capital ultimately determining whether the exchange rate appreciates or depreciates.

A variety of factors can influence the size and direction of cross-border asset flows. Of principal importance are the likely rate of return on the asset, investor expectations about a currency's future path, the size and liquidity of the country's asset markets, the need for currency diversification in international investors' portfolios, changes in the official holdings of foreign exchange reserves by central banks, and the need for and location of investment safe havens. All of these factors could themselves be influenced by economic policy choices.

To give Congress the economic context in which to view the dollar's recent and prospective movement, this report analyzes the evolution of the exchange rate since its peak in 2002. It examines several factors that are likely to influence the dollar's medium-term path, what effects a depreciating dollar could have on the economy, and how alternative policy measures that could be taken by the Federal Reserve, the Treasury, and the 112th Congress might influence the dollar's path.

Keywords
dollar, appreciation, depreciation. economic policy, exchange rate

Comments
Suggested Citation

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The Depreciating Dollar: Economic Effects and Policy Response

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February 23, 2012

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CRS Report for Congress
Prepared for Members and Committees of Congress

Summary

A trend depreciation of the dollar since 2002 raises concern among some in Congress and the public that the dollar's decline is a symptom of broader economic problems, such as a weak economic recovery, rising public debt, and a diminished standing in the global economy. However, a falling currency is not always a problem, but possibly an element of economic adjustments that are, on balance, beneficial to the economy.

A depreciating currency could affect several aspects of U.S. economic performance. Possible effects include increased net exports, decreased international purchasing power, rising commodity prices, and upward pressure on interest rates; if the trend is sustained, the United states may also experience a reduction of external debt, possible undermining of the dollar's reserve currency status, and an elevated risk of a dollar crisis.

The exchange rate is not a variable that is easily addressed by changes in legislative policy. Nevertheless, although usually not the primary target, the dollar's international value can be affected by decisions made on policy issues facing the 112th Congress, including decisions related to generating jobs, raising the debt limit, reducing the budget deficit, and stabilizing the growth of the federal government's long-term debt. Also monetary policy actions by the Federal Reserve, over which Congress has oversight responsibilities, can affect the dollar.

The exchange rate of the dollar is largely determined by the market—the supply and demand for dollars in global foreign exchange markets associated with the buying and selling of dollar denominated goods, services, and assets (e.g., stocks, bonds, real property) on global markets. In most circumstances, however, international asset-market transactions will tend to be dominant, with the size and strength of inflows and outflows of capital ultimately determining whether the exchange rate appreciates or depreciates.

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Introduction

From a peak in early 2002 through the first half of 2008, the (inflation adjusted) trade-weighted dollar exchange rate, for the most part, steadily depreciated, falling a total of about 25% (see **Figure 1**). The dollar's fall over this six-year period was moderately paced at about 3% to 4% annually. For the next nine months, as the wider economy was reeling from the effects of the financial crisis and recession, the dollar sharply appreciated, increasing more than 11% on a trade-weighted basis.[1] For reasons that will be discussed later in the report, this appreciation was a market response to the great uncertainty associated with those economic troubles. As economic conditions began to stabilize in mid-2009, the dollar began to depreciate again and fell about 16% through mid-2011 and more or less returned to its prerecession trend of depreciation. However, a second bout of market uncertainty caused by the European sovereign debt crisis caused the dollar to appreciate more than 5% through the end of 2011. In early 2012, the dollar resumed its depreciation, down about 2% through February 2012 and, with the return of some degree of financial normalcy in Europe, the trend depreciation some believe may resume.

The dollar's fall from early 2002 through early 2008 as well as the recent depreciation has not been uniform against individual currencies, however. For example, in the earlier period, it fell 45% against the euro, 24% against the yen, 18% against the yuan, and 17% against the Mexican peso. In the period since the trough of the business cycle in mid-2009, the dollar fell 13% against the euro, 11% against the yen, less than 3% against the yuan (all of which occurred recently), and 8% against the peso.

These differing amounts of depreciation are partly a reflection of the countries' willingness to let their currencies fluctuate against the dollar. The euro is free floating, the yen has been moderately managed (mostly before 2005 but more deliberately since September 2010), and the yuan is actively managed (its value rigidly fixed to the dollar before 2005 and from mid-2008 until mid-2010; since then allowed to rise moderately against the dollar).[2] But the pattern also reflects significant structural asymmetries in flows of global assets and global goods, as well as differences in business cycles, inflation rates, shocks affecting the different economies, and an unwinding of imbalances that were present in 2002.[3]

The weakening of the dollar raises concern in Congress and among the public that the dollar's decline is a symptom of broader economic problems, such as a weak economic recovery, rising public debt, and a diminished standing in the global economy. Have recent policy actions such as quantitative easing by the Federal Reserve (Fed) and fiscal stimulus passed by the 111th Congress had an effect on the dollar? How might failure by the 112th Congress to raise the federal debt

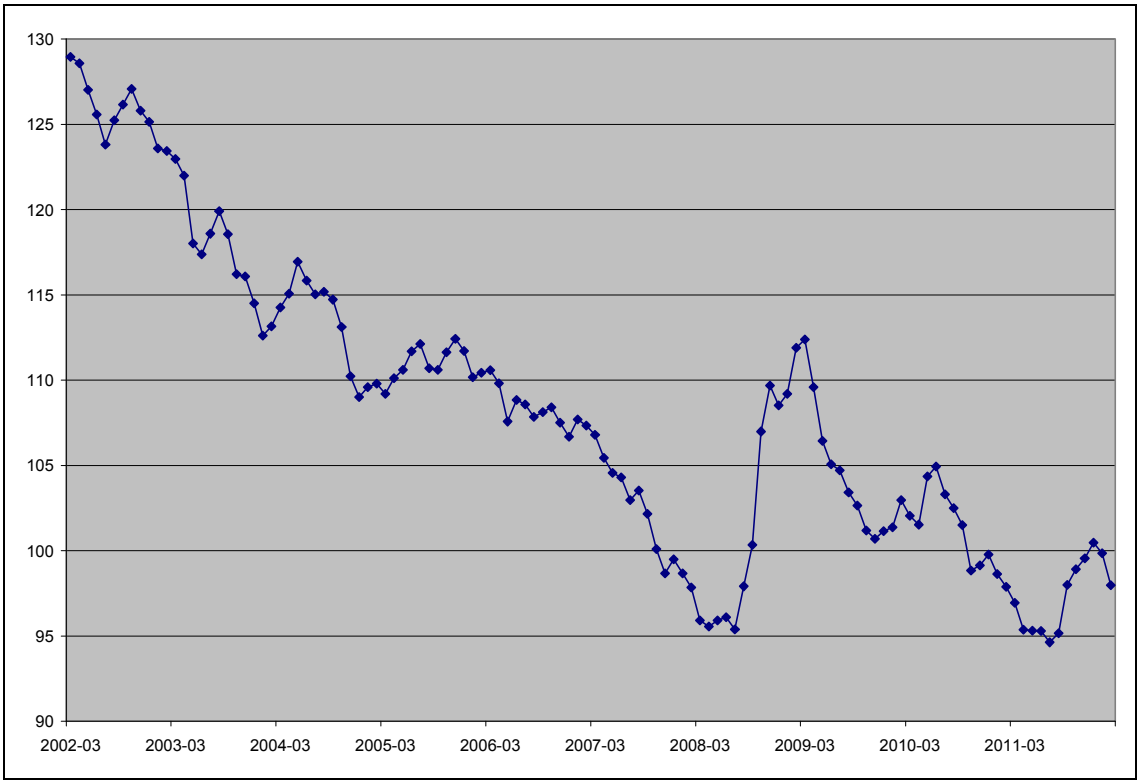
[1] The trade-weighted exchange rate index used is the *price-adjusted broad dollar index* reported monthly by the Board of Governors of the Federal Reserve System. The real or inflation-adjusted exchange rate is the relevant measure for gauging effects on exports and imports. A trade-weighted exchange rate index is a composite of a selected group of currencies, each dollar's value weighed by the share of the associated country's exports or imports in U.S. trade. The *broad* index cited here is constructed and maintained by the Federal Reserve. The *broad* index includes the currencies of 26 countries comprising 90% of U.S. trade and, therefore, the broad index is a good measure of changes in the competitiveness of U.S. goods on world markets.

[2] See CRS Report RL33577, *U.S. International Trade: Trends and Forecasts*, by Brock R. Williams and J. Michael Donnelly, for more data and charts on exchange rates.

[3] Data on bilateral exchange rates are available at Board of Governors of the Federal Reserve System, *Federal Reserve Statistical Release H.10*, http://www.federalreserve.gov/releases/h10/hist/.

ceiling or address the country's long-term government debt problem affect the exchange rate? Is there a positive side to dollar depreciation?

Figure 1. Index of Trade-Weighted Exchange Rate of Dollar



Source: Board of Governors of the Federal Reserve System.

Economic theory suggests that the dollar's path can be influenced by a variety of factors that could confer to the United States both benefits and costs, and in some circumstances a depreciating currency can be, on balance, beneficial. This report examines the several factors that are likely to influence the dollar's medium-term path; why further depreciation could occur; what effects a depreciating dollar could have on the economy, including the pace of economic recovery; and how alternative policy measures might influence the dollar's path.

Broad Economic Forces That Affect the Dollar

Since the break-up of the Bretton Woods international monetary system in 1973, the exchange rate of the dollar has been largely determined by the market—the supply and demand for dollars in global foreign exchange markets. Dollars are demanded by foreigners to buy dollar denominated goods and assets. (Assets include bank accounts, stocks, bonds, and real property.) Dollars are supplied to the foreign exchange markets by Americans exchanging them for foreign currencies typically needed to buy foreign goods and assets.

Since the mid-1990s, the United States has had a growing trade deficit in goods transactions, generating a net increase in the supply of dollars on the foreign exchange markets, thereby exerting downward pressure on the dollar's exchange rate. At the same time, the United States has

had an equal-sized surplus in asset transactions, reflecting a net increase in the demand for dollars on the foreign exchange market, thereby exerting upward pressure on the dollar's exchange rate. [4]

In most circumstances, however, there is a strong expectation that asset-market transactions will tend to be dominant and ultimately dictate the exchange rate's direction of movement. This dominance is the result of gross asset-market transactions occurring on a scale and at a speed that greatly exceeds what occurs with goods-market transactions. Electronic exchange makes most asset transfers nearly instantaneous and, in most years, U.S.-international asset transactions were two to three times as large as what would be needed to simply finance that year's trade deficit.

In 2007, near the peak of the last economic expansion, the U.S. capital account recorded $1.5 trillion in purchases of foreign assets by U.S. residents (representing a capital outflow) and $2.1 trillion in purchases of U.S. assets by foreign residents (representing a capital inflow). So while the United States could have financed the $702 billion trade deficit in goods and services in 2007 simply by a $702 billion sale of assets to foreigners, U.S. and foreign investors engaged in a much larger volume of pure asset trading.[5]

Determinants of the Size and Direction of Cross-Border Asset Flows

Economic theory suggests that several economic factors could influence the direction of cross-border asset flows.

Interest Rate Differentials Between the United States and Other Economies

The demand for assets (e.g., bank accounts, stocks, bonds, and real property) by foreigners will be strongly influenced by the *expected rate of return* on those assets. Therefore, differences in the level of interest rates between economies are, other things equal, likely to stimulate international capital flows from countries with relatively low interest rates to countries with relatively high interest rates, as investors seek the highest rate of return for any given level of risk. When inflation rates among economies are similar, the average level of nominal interest rates can be used as a fairly reliable first approximation of the rate of return on an asset in a particular currency.

[4] The current account is a tally of international purchases (imports) and sales (exports), and the current account balance measures the country's net exports of goods and services. The capital account is a tally of international purchases and sales of dollar denominated assets, and the capital account balance measures the country's net foreign investment. If the capital account is in surplus, foreigners are investing more in the United States then Americans are investing abroad, leading to a net inflow of capital. Because every purchase of a foreign good or asset requires the payment of a domestic good or asset, net flows in the current account and the capital account will be equal and offsetting. Therefore a current account deficit must be matched by an equal capital account surplus, and a current account surplus by a capital account deficit. The exchange rate adjusts to make this so.

[5] See U.S. Department of Commerce, Bureau of Economic Analysis, *U.S. International Economic Accounts*, 2007, Table 1, http://www.bea.gov/international/bp_web/list.cfm?anon=71&registered=0.

Rates of return on dollar assets can be influenced by the general performance of the economy as gauged by its ability to sustain a high rate of economic growth and a low rate of inflation. Another potential influence on expected rate of return is the Fed's conduct of monetary policy as it periodically moves interest rates up or down to stabilize the economy. In addition, whether the United States business cycle is synchronous or asynchronous with that of other economies will influence the relative level of interest rates between it and other economies. In general, these relatively short-term interest rate fluctuations will tend to either attract or deter foreign capital flows, particularly in relatively liquid assets.

The rate of return advantage in the U.S. economy may be greater than the spread between market interest rates would suggest, however. A study by the International Monetary Fund (IMF) that focused on return to debt and equity capital for publicly traded companies in the large industrial economies and the developing economies for the decade 1994-2003 found the rate of return in the United States to have been about 8.6% as compared with a G-7[6] average of about 2.4% and an emerging market average of about *minus* 4.7%.[7]

Currently, the combination of substantial economic slack and highly stimulative monetary policy in the United States and other advanced economies has pushed down short-term and long-term interest rates to historically low levels and left virtually no sizable interest rate advantage of dollar assets over assets in the currencies of other G-7 economies. For example, the yields on 10-year government bonds in Germany, Canada, the United Kingdom, and the United States during 2011 have been within a narrow band of 2.5% to 3.0%. Japan, however, has been an outlier among advanced economies, with the yield on 10-year government bonds hovering slightly above 1% over this period. In contrast, many emerging economies are showing much stronger economic performance and asset yields are likely to be substantially above those in the United States and other advanced economies, which could entice many investors to move capital from the advanced economies to the emerging economies. This would exert downward pressure on the currencies of the advanced economies, including the dollar. [8]

Investors' Expectations About the Future Path of the Dollar

Whether a currency's exchange rate will rise or fall in the future can figure prominently in some investors' calculation of what will actually be earned from an investment denominated in another currency. If, for example, the dollar depreciated on average 4% annually for the next several years, then the 2% to 4% average nominal interest rates currently attached to low-risk medium to long-term U.S. securities would offer the foreign investor an expected return of approximately zero or less. (If the expected currency depreciation were greater, the investor would expect to incur a capital loss.) In general, expected dollar depreciation lowers the expected return and reduces the attractiveness of dollar assets to the foreign investor. On the other hand, if the exchange rate is expected to appreciate, the expected gain would be greater than the nominal interest rate attached to the security, making that asset more attractive. Investor expectations will, therefore, tend to act as an accelerant, adding momentum to the exchange rates movement,

[6] The G-7 refers to the periodic Group of Seven finance ministers and central bank governors conference. The seven countries represented are Canada, Japan, France, Germany, Italy, the United Kingdom, and the United States.

[7] International Monetary Fund, World Economic Outlook, *Global Imbalances: In a Saving and Investment Perspective*, September 2005, pp. 100-104.

[8] Organisation for Economic Co-operation and Development (OECD), Economic Outlook 90, Annex Table 35, *Long-Term Interest Rates*, http://www.oecd.org/document/61/0,3746,en_2649_34573_2483901_1_1_1_1,00.html.

whether up or down. At the extremes this could be destabilizing, generating sizable over-valuations or under-valuations of a currency.

The dollar's long and generally orderly depreciation between 2002 and 2008 suggests investor expectations about the currency's path did not act as a destabilizing factor. Nevertheless, the prospect of a secular depreciation likely reduced the attractiveness of dollar denominated assets to foreign investors at that time, and if the current depreciation of the dollar is seen as a resumption of that secular depreciation the attractiveness of dollar assets could also continue to be eroded.

Investors Diversifying Their Portfolio of Assets

For any given interest rate differential and level of the exchange rate, international investors are likely to have a desired balance of assets in their portfolios, allocated not only among types of assets but also by the currency the assets are denominated in. As the stocks they hold of particular assets change over time, investors may see the need to rebalance their portfolios, shifting asset flows away from or toward assets denominated in a particular currency.

Such rebalancing can cause exchange rates for the denominating currency to increase or decrease as well.[9] For example, even if dollar assets offer a relatively high return, at some point foreign investors, considering both risk and reward, could decide that their portfolio's share of dollar-denominated assets is large enough. To mitigate exposure to currency risk in their portfolios, investors could slow or halt their purchase of dollar assets and increase their holdings of non-dollar assets. Such a diversification, other things equal, would tend to depreciate the dollar.

How much pure diversification from dollar assets is likely to happen over the near-term is difficult to determine. Nevertheless, with nearly $11 trillion in U.S. securities estimated to be in foreign investor portfolios, diversification toward other currencies could arguably be a factor of growing importance.[10] However, over the near-term, the general economic fragility of other advanced economies could mean there will be a lack of strong alternatives to dollar assets, tending to limit international investors' willingness to diversify into assets denominated in other currencies. On the other hand, the recent strong growth of many emerging economies could make them an increasingly attractive alternative destination for international capital flows.

Other Factors That Influence the International Demand for Dollar Assets

Beyond the standard determinants of risk and reward that are likely to have a strong near-term influence on the relative attractiveness of dollar-denominated assets, the United States has some added advantages that are thought to generate a sustained underlying demand for dollar assets.

[9] Prudent investment practice counsels that the investor's portfolio of asset holdings have not only an appropriate degree of *diversification* across asset types, but also diversification across the currencies in which the assets are denominated. Moving from a relatively undiversified investment portfolio to a more diversified one spreads risk, including exchange rate risk, across a wider spectrum of assets and helps avoid over- exposure to any one asset.

[10] U.S. Department of the Treasury, *Report on Foreign Portfolio Holdings of U.S. Securities*, Table 1, April 13, 2011, http://www.treasury.gov/resource-center/data-chart-center/tic/Documents/shla2010r.pdf.

The Size and Liquidity of U.S. Asset Markets

Large asset markets, such as those in the United States, offer a great variety of asset types and a high degree of liquidity. This means that these asset markets are able to handle large inflows and outflows of funds with only a small impact on the price of the asset. Recent IMF estimates of the relative size of the asset markets in the advanced economies show that in 2010 the U.S. bond market had a total value of more than $32 trillion (with government bonds accounting for about $11 trillion of that), whereas the United Kingdom, Germany, and Japan had much smaller bond markets with a total value of about $4.7 trillion, $5.4 trillion, and $12 trillion, respectively. In addition, the U.S. stock market has an estimated capitalized value of about $17 trillion, whereas the United Kingdom, Germany, and Japan's equity markets are much smaller, with estimated capitalized values of about $3.6 trillion, $1.4 trillion, and $4.0 trillion, respectively.[11]

A good example of a large highly liquid asset market is that for U.S. Treasury securities, which has been particularly attractive to foreign investors in recent years. Federal Reserve data show that for the week ending February 1, 2012, the U.S. government securities markets had a daily turnover of about $588 billion. Additional evidence of the high liquidity of U.S. government securities market is its typically small bid-ask spreads. On relatively short-term Treasury securities, the spread is usually a few tenths of a cent per $100 dollar face value of the security.[12]

In recent years, the high liquidity of dollar assets has been an attractive feature for foreign central banks, which have been rapidly increasing their holdings of foreign exchange reserves, a substantial portion of which are thought to be dollar assets. The same is true for petroleum exporting countries, which have in recent years needed to store tens of billions of dollars but also to have ready access to those funds with minimal market disruption.

The degree to which market size influences inflows of foreign capital is hard to determine. However, the persistence of large capital inflows to the United States despite already large foreign holdings of dollar assets offering modest interest differentials and the disproportionate share of essentially no-risk and high-liquidity U.S. Treasury securities in foreign holdings suggest that the magnitude of flows attributable to the liquidity advantage of U.S. asset markets is probably substantial. Failure of the U.S. government, however, to address its long-term government debt problem could raise concerns about default risk and quickly degrade the attractiveness of Treasury securities to foreign investors, and tend to weaken the dollar.

U.S. Asset Markets are Often Seen as "Safe Havens"

Many investors may be willing to give up a significant amount of return if an economy offers them a particularly low-risk repository for their funds. The United States, with a long history of stable government, steady economic growth, and large and efficient financial markets, can be expected to draw foreign capital for this reason. The safe-haven-related demand for dollar assets was particularly evident in 2008 (see **Figure 1**), when uncertainty about global economic and financial conditions caused a substantial "flight to quality" by foreign investors that sharply appreciated the dollar. As global markets stabilized in 2009, the safe haven demand abated

[11] IMF, *Global Financial Stability Report*, October 2011, Statistical Appendix, Table 3, http://www.imf.org/External/Pubs/FT/GFSR/2010/02/pdf/statappx.pdf.

[12] Federal Reserve Bank of New York, *Primary Dealer Transactions in U.S. Government Securities,* February 23, 2011, http://www.newyorkfed.org/markets/statistics/deal.pdf.

somewhat, contributing to the nearly 17% depreciation of the dollar from early 2009 through mid-2011. In the second half of 2011, investor concerns about the sovereign debt crisis in Europe is likely the principal force behind a nearly 5% appreciation of the dollar.

The ongoing size of the safe-haven demand for dollar assets is not easy to determine, but the disproportionate share in foreign holdings of U.S. Treasury securities, which markets still consider to be essentially without default risk, suggests that the magnitude of safe-haven motivated flows is probably substantial, capable of periodically exerting sizable upward pressure on the dollar. Again, perceptions of how "safe" dollar assets are likely to be is influenced by how the 112th Congress addresses the federal government's long term debt problem.[13]

The Dollar is the Principal Global "Reserve Currency"

A reserve currency is a currency held in sizable quantities by foreign governments and central banks as part of their holdings of foreign exchange. Unlike private investors, central banks hold foreign exchange reserves primarily for reasons other than expected rate of return. These so-called official holdings generally serve two objectives. First, the accumulation of a reserve of foreign exchange denominated in readily exchangeable currencies, such as the dollar, provides a safeguard against currency crises arising out of often volatile private capital flows. This is most often a device used by developing economies that periodically need to finance short-run balance of payments deficits and cannot fully depend on international capital markets for such finance. In the wake of the Asian financial crisis of 1997-1998, many emerging economies built up large stocks of foreign exchange reserves, a large share of which were denominated in dollars.

Second, official purchases are used to counter the impact of capital flows that would otherwise lead to unwanted changes in the countries' exchange rates. This is a practice used by China and many east Asian economies that buy and sell dollar assets to influence their exchange rates relative to the dollar in order to maintain the price attractiveness of their exports.

Globally, central bank holdings of reserve currency assets have risen sharply in recent years. The IMF reports that from 2002 through the third quarter of 2011, worldwide official holdings of foreign exchange reserves increased from about $2 trillion to more than $10 trillion. Given the dollar's status as the dominant international reserve currency, a large portion of the accumulation was of dollar-denominated assets. IMF data indicate that of the $5.4 trillion of official holdings of which currency composition is known, nearly $3.4 trillion (or 63%) are in dollar assets. [14] In addition, the U.S. Treasury reports that through January 2011, $3.2 trillion (or 68%) of the $4.7 trillion marketable Treasury securities held by foreigners was being held as foreign official reserves.[15] (The total amount of Treasury securities held by the public, foreign and domestic, through January 2012 was about $10.5 trillion.)[16]

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[13] On the demand for safe assets see Ben S. Bernanke, 'International capital flows and the returns to safe assets in the United States 2003-2007, *Financial Stability Review*, Banque de France, no. 15, February 2011, http://www.banque-france.fr/gb/publications/telechar/rsf/2011/etude02_rsf_1102.pdf.

[14] In contrast, the United States in this time period held foreign exchange reserves of less than $200 billion on average, with annual increments of only $1 billion to $10 billion. See IMF, Currency Composition of Official Foreign Exchange Reserves, December, 2011, http://www.imf.org/external/np/sta/cofer/eng/cofer.pdf.

[15] U.S. Department of the Treasury, Treasury International Capital System (TIC), *Major Foreign Holders of Treasury Securities,* http://www.treasury.gov/resource-center/data-chart-center/tic/Documents/mfh.txt.

[16] U.S. Department of the Treasury, Treasury Direct, *Dept to the Penny*, http://www.treasury.gov/resource-center/data-(continued...)

In 2011, China was the world's largest holder of foreign exchange reserves, with holdings valued at more than $3.2 trillion,[17] an increase of nearly $3 trillion since 2002. The exact currency composition of China's foreign exchange reserves is not made public, but the dollar share is thought to be large because that accumulation is largely the consequence of China's buying dollar assets to stabilize the value of its currency relative to the dollar.

Japan is the second largest holder of foreign exchange reserves, with holdings valued at about $1.3 trillion; however, these reserves were largely accumulated prior to 2005.[18] Japan has not in recent years actively tried to influence the value of its currency; nevertheless, dollar assets are thought to be a large share of its reserves. But on March 17, 2011, Japan announced that it would, in concert with other Group of 7 (G-7) nations, intervene in currency markets to stabilize the value of the yen.

The Japanese currency had spiked following the earthquake on March 11, 2011, threatening to stall Japan's exports and deliver another blow to an economy already staggering from that disaster. Japanese officials believed that the yen's sudden strength was being driven by speculation that Japan's firms and financial institutions would soon be bringing back a large portion of their overseas investments to fund Japan's reconstruction. The intervention entailed the selling of yen-denominated assets, tending to push down its value relative to other G-7 currencies, such as the dollar. This was the first joint currency intervention by the G-7 countries in over a decade.[19]

Since the third quarter of 2010, however, the total accumulation of dollar assets by foreign central banks has slowed moderately. Of the $1.2 trillion increase in global foreign exchange reserves for the four quarters ending in the third quarter 2011, dollar holdings increased $220 billion, or represented a share of slightly over 18%, well below the rate in earlier time periods.[20]

How Will These Determinants Interact to Affect the Dollar?

At any point in time, all of the above factors will exert some amount of upward or downward pressure on the value of the dollar, often pushing in opposite directions, making it difficult to disentangle them from their net effect on the dollar. It is difficult to explain with clarity or predict with precision the dollar's near-term path (i.e., several weeks to several months ahead). However, it is possible to assess the general disposition of the forces (as discussed above) likely to influence the dollar in 2012 and 2013.

(...continued)

chart-center/tic/Documents/mfh.txt.

[17] Statistics on Chinese international reserves are from Chinability, a nonprofit provider of Chinese economic and business data, http://www.chinability.com/Reserves.htm.

[18] Japan, Ministry of Finance, December 28, 2011, http://www.mof.go.jp/english/e1c006.htm.

[19] Binyamin Appelbaum, "Goup of 7 to Intervene to Stabilize the Yen's Value," *New York Times* March 17, 2011, http://www.nytimes.com/2011/03/18/business/global/18group.html.

[20] IMF, *Currency Composition of Official Reserves*, December 30, 2011, http://www.imf.org/external/np/sta/cofer/eng/cofer.pdf.

The following factors point to near-term depreciation of the dollar:

- Low interest rates and slow economic growth in the United States, particularly in comparison to emerging economies, likely lowers the relative expected rate of return on dollar assets.
- International holdings of dollar assets is high and prudent portfolio management could lead to diversification toward other currencies.
- A substantial trade deficit in goods continues to exert downward pressure on the dollar.
- If concerns about euro area sovereign debt problems abate, this will likely reduce recent safe-haven-motivated inflows for dollar assets.
- A growing inflation problem could induce China to slow accumulation of dollar reserves and let its currency rise relative to the dollar.

Likely Effects of Dollar Depreciation

Standard economic analysis suggests that a sustained depreciation in the value of the dollar in international exchange has several likely effects, positive and negative, on the U.S. economy.

A Smaller Trade Deficit

The exchange rate determines the relative price of domestic goods and foreign goods, thus it can influence the value and volume of exports sold and imports bought and, in turn, influence the trade balance. Because a depreciating dollar improves the price competitiveness of U.S. exports in foreign markets and deteriorates the price competitiveness of foreign goods in U.S. markets, it will tend to reduce the U.S. trade deficit.[21]

A smaller trade deficit is likely to have two favorable effects on the U.S. economy: first, it will subtract less from demand in the economy, providing a boost to employment; and second, it will slow the growth of U.S. foreign indebtedness. In an economy that still has substantial economic slack, stronger U.S. exports increase domestic economic activity and boost employment; weaker imports represent a rechanneling of domestic spending away from foreign goods and toward domestic goods, which also increases domestic economic activity and boosts employment.

Because the U.S. trade deficit is financed by borrowing from the rest of the world (as evidenced by an equal sized net inflow of foreign capital), a smaller trade deficit will slow the rise of an already substantial net foreign indebtedness and could temper the associated concern about a rising external debt service burden.

[21] This effect is likely to be evident first on real trade flows (the volume of exports and imports) and more slowly on nominal trade flows (the current dollar value of exports and imports). This differential effect on real and nominal flows occurs because the higher relative price of imports has two impacts. On the one hand, domestic consumers buy a reduced volume of foreign goods, while on the other hand, each unit of the foreign goods is valued higher in terms of dollars. Initially, the volume effect can be dominated by the value effect, causing the nominal trade balance to not fall or perhaps even rising for a period in response to a depreciating exchange rate. Ultimately, the volume effect could come to dominate the value effect and the nominal trade deficit would also begin to fall.

The period 1985-1991 was the last time a substantial dollar depreciation and trade deficit adjustment occurred. At that time, the dollar fell a cumulative 40% from a historically high level. In response, the trade deficit started to narrow within two years of the initial depreciation, falling from 3.5% of GDP to near balance by 1991.

For the period 2002-2007, despite a large depreciation of the dollar, the adjustment process has been much slower, with the trade deficit only tipping down modestly in 2007. However, the depreciation of the dollar was having an impact. Economic research suggests that in the United States, depreciation is likely to have a quicker and stronger impact on exports than on imports.[22] This seems to have occurred. Real (non-petroleum) exports began to accelerate in 2003 (the first full year of dollar depreciation) and would continue to grow at a nearly 10% annual rate through 2006 (the year the trade deficit peaked).[23]

The slow effect of the depreciating dollar on the trade balance was the result of import volumes continuing to grow. Again, economic research suggests that U.S. imports have a relatively muted response to exchange rate changes, with a dollar depreciation more likely to slow their growth rather than cause them to decrease. However, in this period several other factors worked to increase imports above what otherwise might be expected and caused a particularly slow response of the trade deficit to the depreciation of the dollar. First, the rapid shift in trade in recent years toward low-cost emerging economies has tended to erode U.S. price competiveness and offset, in part, the competiveness improving effect of the depreciating dollar. Second, up to 2006 the U.S. economy was growing faster than most other advanced economies, tending to boost U.S. imports. Third, oil prices rose to historic highs, increasing the trade deficits of oil-importing countries, such as the United States. (Because the international price of oil is denominated in dollars, dollar depreciation does not directly affect oil's price in the U.S. market. However, some argue it directly contributes to commodity price inflation. This possible relationship is discussed in the "World Commodity Prices (in Dollars) Tend to Increase" section below.)

The U.S. trade deficit in 2010 increased to $470 billion and based on three-quarters of available data should be near that level in 2011 as well.[24] The deficit's increase from 2009's recession induced low of $378 billion was to be expected in a recovering economy, as rising economic activity at home and abroad increased goods and asset flows to more normal levels. In particular, the rebuilding of inventories by U.S. businesses, typical in the early stages of economic recovery, drew in a sizable volume of imports. But that process is transitory and likely already substantially completed. With the dollar already at a relatively competitive level and with strong growth occurring in most emerging economies, there may be strong demand for U.S. exports. Barring a major spike in oil prices or an unlikely surge in spending by U.S. consumers, the trade deficit could stabilize for the near-term at about $500 billion. Any further dollar depreciation will give added momentum to exports and will raise the prospect that the trade deficit could fall over the next few years and help to boost the rate of economic growth.

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[22] International Monetary Fund, *World Economic Outlook September 2007,* Chapter 3, "Exchange Rates and the Adjustment of External Imbalances."

[23] U.S. Census Bureau, *U.S. International Trade Data,* http://www.census.gov/foreign-trade/statistics/historical/realpetr.pdf.

[24] Bureau of Economic Analysis, *U.S. International Transactions Account,* Table 1, line 77, http://www.bea.gov/international/bp_web/simple.cfm?anon=71&table_id=1&area_id=3.

U.S. International Purchasing Power Decreases

The rising price of imports relative to exports caused by a depreciation of the dollar reduces the purchasing power of U.S. consumers and businesses that purchase imports. To judge the combined effect of export and import price changes on U.S. international purchasing power, economists use the change in the *ratio of export prices to import prices* or what is called *the terms of trade.* For the 26% dollar depreciation that began in early 2002 and ended in mid- 2008, the U.S. terms of trade for the same period decreased by approximately 13%.[25]

A 13% decrease in the terms of trade is substantially less than the depreciation of the dollar, which reflects changes in factors in addition to the exchange rate. One factor of particular significance is the effect of changes in producer profit margins. To preserve market share in the U.S. market, importers have shown a tendency to not completely pass through exchange rate depreciations to the dollar price of their products, absorbing a portion of the exchange rate change through slimmer profit margins. This practice substantially mutes the currency depreciation's negative effect on U.S. purchasing power. Also likely muting the impact of a fall in the terms of trade on total purchasing power is the relatively small importance of imports in U.S. gross domestic product (GDP), which only total about 16%.

The dollar value of the loss of purchasing power caused by the dollar's depreciation from 2002 to 2008 can be estimated by comparing the growth of real GDP to the growth of real *command-basis* gross national product (GNP). Command-basis GNP measures the goods and services produced by the U.S. economy in terms of their international purchasing power. In particular, it adjusts the value of real exports to reflect changes in their international purchasing power due to changes in the U.S. terms of trade. Thus, when the terms of trade ratio decreases because of dollar depreciation, real command-basis GNP falls relative to the normally calculated real GDP.[26] From early 2002 through mid-2008, real GDP increased a cumulative $1.9 trillion as compared with command-basis real GDP increasing about $1.6 trillion. The difference of about $300 billion is the estimated loss of international purchasing power due to the dollar's 26% depreciation for that time period.

U.S. Net External Debt Is Reduced

A depreciating dollar tends to improve the U.S. net foreign debt position. This improvement is caused by favorable valuation effects on U.S. foreign assets. These occur because U.S. foreign liabilities are largely denominated in dollars, but U.S. foreign assets are largely denominated in foreign currencies. Therefore, a real depreciation of the dollar increases the value of U.S. external assets and largely does not increase the value of U.S. external liabilities. This asymmetry in the currency composition of U.S. external assets and liabilities means that a dollar depreciation tends to reduce U.S. net external debt.[27]

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[25] Bureau of Economic Analysis, *National Economic Accounts, Table 1.8.6*, http://www.bea.gov/national/nipaweb/SelectTable.asp?Selected=N.

[26] Ibid.

[27] Most countries are not able to borrow in their own currency, so a fall of their exchange rate will tend to increase their net external debt. This was a problem that plagued the economies caught in the Asian financial crisis in 1997, when their crashing currencies ballooned the home currency value of their external debt.

Exchange rate induced valuation effects are substantial because they apply to the entire stock of U.S. foreign assets, valued at about $20.3 trillion in 2010. The large scale of U.S. foreign assets means that valuation changes can offset a sizable portion of the current account deficit's annual addition to the existing stock of external debt. For example, in 2006, the current account deficit reached a record $811.4 billion. As this was financed by foreign borrowing, it made a like-sized contribution to U.S. external debt. However, the total value of net external debt in 2006 increased only about $300 billion because valuation changes caused the value of the stock of U.S. foreign assets to increase by more than $500 billion. Nearly half of this offset was attributable to positive valuation effects on U.S. foreign assets that were attributable to the dollar's depreciation during that year. In 2007, the impact of valuation changes, including $444 billion caused by dollar depreciation, was sufficiently large to cause the U.S. net external debt to fall despite having to finance a $638 billion current account deficit that year.[28]

World Commodity Prices (in Dollars) Tend to Increase

The fall of the dollar from 2002 to 2007 coincided with large increases in commodity prices. The price of gold increased from about $300 per ounce to more than $600 per ounce, the price of oil increased from about $20 per barrel to near $140 dollars per barrel, and the index of nonfuel commodity prices rose about 85%.[29] Because most commodities in international markets are priced in dollars, their prices to the U.S. buyer are not directly affected by movements of the exchange rate.

However, a 2008 IMF analysis argues that the dollar does have an indirect impact on commodity prices, that works through at least three channels. First, a dollar depreciation makes commodities, usually priced in dollars, less expensive[30] in non-dollar countries, encouraging their demand for commodities to increase. Second, a falling dollar reduces the foreign currency yield on dollar denominated financial assets, making commodities a more attractive investment alternative to foreign investors. Third, a weakening dollar could induce a stimulative monetary policy in other countries, particularly those that peg their currencies to the dollar. A stimulative monetary policy tends to decrease interest rates, which could stimulate foreign demand, including that for commodities.

The IMF study estimated that if the dollar had remained at its peak of early 2002, by the end of 2007, the price of gold would have been $250 per ounce lower, the price of a barrel of crude oil would have been $25 a barrel lower, and nonfuel commodity prices would have been 12% lower.[31]

Other factors were likely more direct and important causes of the rapid climb of commodity prices at this time. Large increases in world industrial production, particularly in emerging Asian economies, have likely been a factor pulling up commodity prices. Also low interest rates in the United States have reduced the incentive for current extraction over future extraction and

[28] Data for U.S. net external debt are compiled annually and the most recent estimate is for 2010. For further details on net external debt and valuation effects see U.S. Department of Commerce, Bureau of Economic Analysis, *U.S. Net International Investment Position for Yearend 2010*, June 2011, http://www.bea.gov/international/index.htm#bop.

[29] IMF Primary Commodity Prices, February 2011, http://www.imf.org/external/np/res/commod/Table1-020911.pdf.

[30] Assuming their currency is not pegged to the dollar.

[31] International Monetary Fund, *World Economic Outlook – April 2008*, pp. 48-50.

generally lowered the cost of holding inventories, dampening the supply response to higher commodity prices.

Other Possible Effects of Dollar Depreciation

Other impacts of a depreciating dollar are more problematic, but are potential risks.

U.S. Interest Rates Could Increase

A falling dollar itself does not directly affect interest rates in the United States. However, the underlying international capital flows that influence the dollar may also influence conditions in domestic credit markets. A weakening of the demand for dollar-denominated assets by private investors tends to depreciate the dollar. A weaker demand for dollar assets is also a likely consequence of a decrease in the net inflow of foreign capital to the U.S. economy. Other things equal, a smaller net inflow of foreign capital reduces the supply of loanable funds available to the economy, tending to increase the price of those funds, that is, increase interest rates.

At this time, however, other things are not equal. The economy, while recovering from the 2008-2009 recession, still retains substantial economic slack and the demand for loanable funds by businesses and households remains particularly weak. In addition, at least through late 2014, the Federal Reserve appears committed to a policy of monetary stimulus that will keep interest rates low.[32]

However, as economic slack decreases as the recovery progresses, the Fed will likely steadily reduce the amount of monetary stimulus and the domestic demand for credit will likely increase to a more normal level, and together this will exert more upward pressure on interest rates. That pressure will be greater to the degree that domestic savings does not increase sufficiently to offset the reduced inflow of foreign capital (i.e., a reduced supply of loanable funds), making it likely that, coincident with the falling dollar, U.S. interest rates would tend to rise more than they otherwise would.

This added upward pressure on U.S. interest rates could be prevented if there was also an increase in the supply of domestic saving generated by households and the government, sufficient to offset the diminished inflow of foreign capital. Also, rising U.S. interest rates could feedback to improve the relative attractiveness of dollar assets to some foreign investors, tending to slow the net outflow of capital, decrease upward pressure on interest rates, and dampen the rate of dollar depreciation. If, as noted above, the capital outflow is being motivated by other factors in addition to the level of U.S. interest rates, then this feedback effect is not likely to stop the outflow, only slow it.

Dollar's Reserve Currency Role Could Be Reduced

Foreign central bank holdings of reserve currency assets have risen sharply over the past decade. These "official holdings" have nearly quadrupled since 1997, increasing from about $2 trillion to

[32]Board of Governors of the Federal Reserve System, *Federal Reserve Press Release,* January 25, 2012, http://www.federalreserve.gov/newsevents/press/monetary/20120125a.htm.

more than $10 trillion by the end of 2011. Of the $5 trillion of official holdings of which currency composition is known, nearly $3 trillion (or 60%) is in dollar assets.[33] Euro-denominated assets have the second largest share at about 25%.

For the United States, there are significant benefits from the dollar being the world's primary reserve currency. Central banks' demand for the reserve currency tends to be less volatile than that of private investors. This stabilizes the demand for dollars and reduces the foreign exchange risk faced by U.S. companies in their international transactions. Exchange rate risk is also reduced because the United States borrows in its own currency, so that the appreciation of foreign currencies against the dollar cannot increase debt-service cost or raise default risk. Another major benefit of having the primary international reserve currency is that it enables the United States to borrow abroad at a lower cost than it otherwise could. This cost advantage occurs because there is a willingness of foreign central banks to pay a liquidity premium to hold dollar assets. Also, the dollar's status as the world's reserve currency raises the incidence of foreigners using U.S. asset markets. This added foreign involvement increases the breadth and depth of these markets, which tends to attract even more investors, which further magnifies the benefits of issuing the reserve currency.

However, the prospect of substantial further depreciation of the dollar could erode the dollar's ability to provide the important reserve currency function of being a reliable store of value. Foreign central banks may see the erosion of this function as a growing disincentive for using the dollar as their principal reserve currency. Another potential threat is any perceived unsustainability of the U.S. long-term debt problem that may eventually result in a downgrading of the U.S. sovereign-risk rating.

Yet, so far there appears to be only modest diversification from dollar assets by foreign central banks. The dollar share of official reserves reached a peak value of about 72% in 2001. Over the subsequent decade this share has slowly decreased, stabilizing at about 62% in 2009 and 2010. The principal alternative to the dollar as a reserve currency has been the euro. Since its creation in 1999, the euro share of global official reserves rose from about 18% to 27% in 2007; however, since then the euro has not increased its share of global reserve assets.[34]

Despite the problems posed for some by the dollar's ongoing depreciation, at present there is arguably no alternative currency to assume its role as principal reserve currency. The sovereign debt crisis in Europe is likely to have diminished the euro's attractiveness to central banks. In addition, the size, quality, and stability of dollar asset markets, particularly the short-term government securities market in which central banks tend to be most active, continues to make dollar assets attractive. A further advantage is the power of "incumbency" conferred by the important "network-externalities" that accrue to the currency that is currently dominant. Together these factors will likely inhibit for the medium-term a large or abrupt change in the dollar's reserve currency status. Nevertheless, over the long-term, many economists predict that a multiple currency arrangement is likely to emerge involving, in addition to the dollar, a continued role for the euro and a substantially increased role of China's yuan. This presumes that China will be able to greatly improve the size and liquidity of its financial markets and create attractive

[33] IMF, Currency Composition of Official Foreign Exchange Reserves, December, 2011, http://www.imf.org/external/np/sta/cofer/eng/cofer.pdf.

[34] Ibid, IMF.

financial instruments. Sustained dollar depreciation could accelerate this process by encouraging more active movement away from dollar assets by central banks.[35]

Risk of a Dollar Crisis Could Be Increased

Although asset market trade offers opportunities to raise overall economic efficiency and improve the economic welfare of borrower and lender alike, trade in assets is prone to occasional volatility, the disorderly resolution of which can lead to financial disruption and, more broadly, a slowing of economic growth. The essential weakness of asset markets is that assets are a claim on a stream of earnings over time—and the future is always uncertain. This can mean that relatively small changes in investors' beliefs about that future could have large effects on the value of the asset. Historically, this has tended to make these markets much more volatile than goods markets, in which value is generally far less contingent on the uncertainties of the future. Add to this the often observed tendency for "herd-like" behavior among investors, particularly those focused on the short run, and the volatility in asset markets can grow larger. Then add in leveraged purchases, the inherent weakness of modern fractional-reserve banking, exchange rate risk, and the usual problems of distance (i.e., different language, law, and business practices) and the potential for volatility and crisis becomes even larger.

There is no precise demarcation of when a falling dollar might move from being an orderly decline to being a crisis, but the depreciation would be significantly more rapid than the orderly fall that has already occurred. The troubling characteristic of a dollar crisis would be that this adjustment could move from orderly to disorderly, due to a precipitous decline in the willingness of investors to hold dollar assets, causing a sharp decrease in the price of those assets and an equally sharp increase in the interest rates attached to those assets. A sudden spike in interest rates could slow domestic interest rate sensitive spending more quickly than the falling dollar can stimulate net exports. This negative impulse could cause overall economic activity to slow, perhaps to the point of stalling the economic recovery.

One factor governing whether dollar depreciation is an orderly or disorderly adjustment is investor expectations about future dollar depreciation. Rational expectations will have a stabilizing effect on the size of international capital flows. The rational forward-looking investor will have some notion of the equilibrium exchange rate and whether the currency is currently overvalued or undervalued. Such investors would only hold assets that have expected yields high enough to compensate for the expected depreciation and also preserve a competitive rate of return.

In contrast, a sharp plunge of the dollar could occur if most investors do not form rational expectations about a likely future depreciation of the dollar. Once investors come to realize that the dollar is falling at a faster rate than they had expected, there could be a sudden attempt by large numbers of investors to sell their dollar assets. But with many sellers and few buyers, the exchange rate would fall precipitously, along with the price of dollar assets, before stabilizing.

Some economists argue that foreign investors do not appear to have built a rational expectation of future dollar depreciation into the nominal yields they are accepting to hold dollar assets. The average nominal rate of return on low-risk treasury securities is currently about 2.5% and in 2010

[35] For further discussion of this issue, CRS Report RL34083, *The Dollar's Future as the World's Reserve Currency: The Challenge of the Euro*, by Craig K. Elwell.

the dollar depreciated at about a 4% annual rate, so that the ex-post rate of return for foreigners holding these securities has been negative.[36]

If many holders of dollar assets conclude their expectations for dollar depreciation had been too low and try to move quickly out of dollar assets, the ensuing stampede could potentially cause a dollar crisis. A buyer is needed to shed dollar assets, but in a crisis environment this may require a precipitous bidding down of the price of the less desirable dollar assets. This leads not only to a sharply falling exchange rate, but also to sharply rising interest rates in U.S. financial markets (lower asset prices translate into higher effective interest rates).

The dollar, of course, has been on a depreciating trend since 2002, and foreign investors have continued to hold dollar assets for which the attached interest rate seems insufficient to compensate for that depreciation. But there has been no dollar crisis. The avoidance of crisis is, perhaps, explained in part by the large accumulation of dollar reserves by foreign central banks. If foreign central banks have longer investment horizons than private investors, they will tend to stabilize the demand for dollar assets. In general, the large size and stability of the dollar-asset markets (along with the ongoing needs of central banks and other international investors) for liquidity and a store of value undergirds the strong persistent international demand for dollar assets.[37]

Policies That Could Influence the Dollar

Does the United States Have a Dollar Policy?

Treasury Secretaries have in the past asserted that the United States has a "strong dollar policy," but have rarely taken direct steps to influence the dollar's value.[38] As noted earlier, since the 1973 demise of the Bretton Woods fixed exchange rate international monetary system, the de facto U.S. dollar policy has been to let market forces determine the dollar's value. The collapse of that monetary system was to a large degree due to its increasing inability to maintain fixed-exchange rates in the face of the massive growth of international capital flows in a reintegrated and rapidly growing post-war global economy.[39]

Mainstream economic theory suggests that a country cannot be open to large international capital flows (as the United States is) and directly control both its exchange rate and its interest rates. Because the management of interest rates is seen as central to the overriding policy goal of

[36] U.S. Department of the Treasury, *2010 Average Historical Monthly Interest Rates*, http://www.treasurydirect.gov/govt/rates/pd/avg/2010/2010.htm.

[37] For more discussion of this issue, see CRS Report RL34311, *Dollar Crisis: Prospect and Implications*, by Craig K. Elwell.

[38] See for example Keith Bradsher, *New York Times,* August 17, 1995, "Treasury Chief Says Strong Dollar Isn't a Threat to Trade," http://www.nytimes.com/1995/08/17/business/international-business-treasury-chief-says-strong-dollar-isn-t-a-threat-to-trade.html; *USA Today*, August 1, 2006, " New Treasury secretary backs strong dollar, Social Security solution", http://www.usatoday.com/money/economy/2006-08-01-paulson-speech_x.htm; and Tom Patrino, *Los Angles Times*, November 12, 2009, " Treasury Secretary Tim Geither pays lip service to keeping dollar strong," http://articles.latimes.com/keyword/lip-service.

[39] On post-war global capital flows and the demise of the Bretton Woods system, see Barry Eichengreen, *Globalizing Capital: A History of the International Monetary System*(Princeton University Press, 1996), pp. 93-135.

stabilizing the domestic economy to maintain high employment and low inflation, the U.S. Federal Reserve and the central banks of most other advanced economies control interest rates and, therefore, have implicitly decided to let their exchange rates fluctuate, more or less, freely.

The exchange rate, while usually not the primary target, can be affected by macroeconomic policies, such as quantitative easing, fiscal stimulus, and debt reduction. Its movement might well support achieving these broader macroeconomic goals, but a particular level for the exchange rate has not been an explicit policy goal in the United States. However, occasionally the government has acted to directly influence the exchange rate. In addition, government policies, programs, and institutions that undergird a "strong U.S. economy" arguably exert a indirect positive effect on the dollar.

Policies to Influence the Demand for U.S. Assets

Given the importance of international asset markets in determining the dollar's exchange rate, policies aimed at directly or indirectly influencing the demand and supply of dollar assets would potentially have the greatest direct impact on the dollar.

Direct Intervention in the Foreign Exchange Market

This policy involves the Federal Reserve at the request of the Treasury buying or selling foreign exchange in an attempt to influence the dollar's exchange rate. (This intervention will most often be *a sterilized* intervention that alters the currency composition of the Fed's balance sheet but does not change the size of the monetary base, neutralizing any associated impact on the money supply.) To strengthen the dollar, the Fed could attempt to boost the demand for dollars by selling some portion of its foreign exchange reserves in exchange for dollars. (Sterilization in this case would require the Fed to also purchase a like value of domestic securities to offset the negative effect on the monetary base of its selling of foreign exchange reserves.)

The problem with intervention is that the scale of the Fed's foreign exchange holdings is small relative to the size of global foreign exchange markets, which have a *daily* turnover of more than $4.0 trillion.[40] Facing markets of this scale, currency intervention by the Fed would likely be insufficient to counter a strong market trend away from dollar assets and prevent depreciation of the dollar.

A coordinated intervention by the Fed and other central banks would have a greater chance of success because it can increase the scale of the intervention and have a stronger influence on market expectations. Since 1985, there have been six coordinated interventions: the Plaza Accord of 1985 to weaken the dollar, the Louvre Accord of 1987 to stop the dollar's fall, joint actions with Japan in 1995 and 1998 to stabilize the yen/dollar exchange rate, G-7 action in 2000 to support the newly introduced euro, and G-7 action in 2011 to limit appreciation of the Japanese yen. All but the Louvre Accord do correspond with turning points for the targeted currencies.

However, these interventions were most often accompanied by a change in monetary policy that was consistent with moving the currencies in the desired direction. Many economists argue that

[40] Bank of International Settlements, *Triennial Central Bank Survey of Foreign Exchange and OTC Derivatives Market*, September 11, 2010, http://www.bis.org/press/p100901.htm.

coordinated intervention in these circumstances played the useful role of a signaling device helping overcome private investors' uncertainty about the future direction of monetary policy and the direction the central banks want the currency to move. But absent an accompanying change in monetary policy it is unlikely that even coordinated intervention would be successful at altering the exchange rate's trend if it were being strongly propelled by private capital flows.

Monetary Policy

The Federal Reserve uses monetary policy to influence economic conditions. By increasing or decreasing interest rates, it tightens or loosens credit conditions.[41]

Changing the level of interest rates can also influence the dollar's exchange rate. A tighter monetary policy would tend to strengthen the dollar because higher interest rates, by making dollar assets more attractive to foreign investors, other things equal, boosts the demand for the dollar in the foreign exchange market. In contrast, lower interest rates would tend to weaken the dollar by reducing the attractiveness of dollar assets. In either case, however, it would be unprecedented for the Fed to use monetary policy to exclusively target the exchange rate, but it could be the side-effect of policies aimed at controlling inflation or stimulating aggregate spending to speed economic recovery.

In general, a floating exchange rate gives the central bank greater autonomy to use monetary policy to achieve domestic stabilization goals. In the current macroeconomic situation, if the Fed were obligated to prevent the dollar from depreciating, it would likely be constrained from applying the degree of monetary stimulus needed to promote economic recovery.

It is likely that the Fed's current policy of monetary stimulus to sustain economic recovery, by keeping interest rates low, has exerted downward pressure on the dollar as well. Although not the primary target of this monetary policy, the incidental depreciation of the dollar contributes to the Fed's stabilization goal of boosting economic growth by providing a boost to net exports.

Fiscal Policy and Federal Debt

Government choices about spending and taxing can also influence the exchange rate. Budget deficits tend to have a stimulative effect on the economy. However, because the government must borrow funds to finance a budget deficit, it increases the demand for credit market funds, which, other things equal, tends to increase interest rates. Higher interest rates will tend to increase the foreign demand for dollar-denominated assets, putting upward pressure on the exchange rate.

However, in the current state of the U.S. economy, with a sizable amount of economic slack and weaker than normal private demand for credit market funds, current government borrowing does not appear to have elevated market interest rates, and, therefore, does not appear likely to exert upward pressure on the exchange rate. Moreover, the likely prospect of a slower than normal economic recovery suggests a substantial amount of economic slack and relatively weak private demand for credit is likely to persist over the near term. These conditions will continue to mute

[41] Since 2008, the policy interest rate has been at its minimum, called the "zero bound." The Federal Reserve has taken other nonconventional measures to further stimulate the economy. These are described in CRS Report RL30354, *Monetary Policy and the Federal Reserve: Current Policy and Conditions*, by Marc Labonte.

the interest elevating effect of currently anticipated government borrowing and continue to exert minimal upward pressure on the dollar.

As economic recovery moves the U.S. economy closer to full employment and the private demand for credit market funds increases, continuing large government budget deficits may result in higher interest rates. Some foreign investors could be attracted by these higher interest rates, increasing their demand for dollar assets. This would exert upward pressure on the dollar.

However, if the federal government does not implement a credible solution to its long-term debt problem, it is possible that the expectation of persistent large budget deficits and sharply rising public debt could degrade the expected long-term performance of the U.S. economy by crowding out productive investment and slowing the pace of economic growth. This anticipated deterioration could reduce international investors' expected rate of return on dollar assets, accordingly reduce the long-term demand for dollar assets. This reduced demand would exert downward pressure on the dollar's international exchange value.

Putting in place a credible program of fiscal consolidation would also have an ambiguous effect on the dollar's longer-term path. Less government borrowing would tend to lower interest rates and depreciate the dollar, while the improved prospect for long-term growth and expected rates of return would tend to appreciate the dollar.

Policies to Increase the Demand for U.S. Exports

Policies that tend to increase the foreign demand for U.S. goods and services also tend to strengthen the dollar.

Lower Foreign Trade Barriers

The continued existence of various trade barriers in many countries may keep the demand for U.S. exports weaker than it otherwise would be. If lowering those barriers significantly boosts the demand for U.S. goods and services, it would also exert some upward pressure on the dollar exchange rate. It is difficult to judge how strong this upward pressure would be. Moreover, this is not likely to be a readily implementable policy tool and probably has little near-term significance for the dollar's exchange rate.

Support for Development of New Products

If the United States has goods and services that are strongly in demand in the rest of the world, there will be some upward pressure on the exchange rate. Economic theory suggests that the government's role in this process is to support those aspects of research and development that are likely to be under-invested in by the private market. This type of policy would most likely have long-run implications, but not have much effect on the near-term value of the dollar.

Indirect Government Influence on the Dollar

Over the long run, at least three factors will likely continue to indirectly support the international demand for dollar assets: (1) the basic economic performance of the U.S. economy as measured by GDP growth, productivity advance, and pace of innovation has for the past 25 years been

superior to that of Japan and the major euro area economies;[42] (2) the Fed is widely seen as a credible manager of monetary policy and has a strong record of maintaining macroeconomic stability; and (3) the large and highly liquid U.S. asset markets will likely continue to be an attractive destination for foreign investors. Therefore, decisions by the 112th Congress regarding policies that enhance or degrade any of these three attributes of the U.S. economy will accordingly tend to indirectly strengthen or weaken the dollar's long-term path. Of likely immediate relevance is the near term issue of sustaining economic recovery and reducing unemployment and the long-term issue of reducing the growth of federal debt.

Global Imbalances, the Dollar, and Economic Policy

As already discussed, the dollar's exchange rate largely reflects fundamental economic forces, particularly those that influence the demand for and supply of assets on international financial markets. Currently, an examination of those forces highlights a large and potentially destabilizing imbalance in the global economy: in the United States persistent large trade deficits and the accumulation of foreign debt, and in the rest of the world large trade surpluses, weak domestic demand, and the accumulation of dollar denominated assets. Most economists would argue that this is a condition that carries more than a negligible risk of generating financial instability and eventual global economic crisis.

To achieve an orderly correction of these imbalances that assures more stable exchange rates and leaves all the involved economies on sounder macroeconomic footing, mainstream economic thinking suggests that the needed rebalancing can be most efficiently achieved by a coordinated international policy response, the salient elements of which are

- in the United States, raising the national saving rate via substantial increases in the saving rates of households and government and through that reducing the U.S. trade deficit to a "sustainable" size;[43]
- in Japan and Europe, generating faster economic growth primarily propelled by domestic spending rather than net exports;
- in Asia (excluding Japan and China), fostering a recovery of domestic investment and reducing the outflow of domestic saving; and
- in China (and other surplus economies that fix their exchange rates to the dollar), allowing their currencies to appreciate and channel more of their domestic savings into domestic spending.[44]

[42] The World Economic Forum in its 2010 *Global Competitiveness Report* ranks the United States as the fourth most competitive economy in the world and the United States has been at or near the top of this ranking since it began in 1979, http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2010-11.pdf.

[43] A trade deficit is arguably sustainable if it does not cause the U.S. foreign debt/GDP ratio to rise. For the United States a trade deficit as a percent of GDP of 2% or less would probably meet this sustainability criterion. For further discussion of sustainability see CRS Report RL33186, *Is the U.S. Current Account Deficit Sustainable?*, by Marc Labonte.

[44] On global rebalancing, see for example: Olivier Blanchard, "*Sustaining Global Recovery,"* International Monetary Fund, September 2009, http://www.imf.org/external/pubs/ft/fandd/2009/09/index.htm; "Rebalancing," The Economist, March 31, 2010, http://www.economist.com/node/15793036; and Board of Governors of the Federal Reserve System, Vice-chairman Donald L. Kohn, Speech "Global Imbalances," May 11, 2010, http://www.federalreserve.gov/newsevents/speech/kohn20100511a.htm.

A key attribute of such a rebalancing of global spending would likely be further depreciation of the dollar. This outcome illustrates that an orderly depreciation of the dollar can be, on balance, a beneficial attribute of policy adjustments and economic changes that would ultimately improve economic conditions in the United States and abroad. There is some evidence that a global rebalancing is in progress. In the United States, the saving rate of households is up and the federal government seems to be moving toward raising public saving by reducing its long-term deficit problem. In China, the yuan has appreciated and the government's recently released five-year plan points to that country undertaking policies to raise its domestic consumption and narrow its global trade surplus.[45]

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[45] *China Daily,* October 28, 2010, "China's Twelfth Five-Year Plan signifies a new phase in growth," http://www.chinadaily.com.cn/bizchina/2010-10/27/content_11463985.htm and Martin Feldstein, "The End of China's Surplus, *Project Syndicate,* January 28, 2011, http://www.project-syndicate.org/commentary/feldstein32/English.