Foreign Ownership of U.S. Financial Assets: Implications of a Withdrawal

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Summary

This report provides an overview of the role foreign investment plays in the U.S. economy and an assessment of possible actions a foreign investor or a group of foreign investors might choose to take to liquidate their investments in the United States. Concerns over the potential impact of disinvestment have grown as national governments have become more active investors in the U.S. economy and as innovation in creating financial instruments has increased volatility in financial markets. Such concerns seem out of step with the experience of the 2008-2009 financial crisis, during which the dollar became the preferred safe haven investment for foreign investors. If some foreign investors were to liquidate their holdings, these actions could affect the U.S. economy in a number of ways due to the role foreign investment plays in the United States and due to the current mix of economic policies the United States has chosen. The impact of any such action on the economy would also depend on the overall condition and performance of the economy and the financial markets. If the economy were experiencing a strong rate of economic growth, the impact of a foreign withdrawal likely would be minimal, especially given the dynamic nature of credit markets. If a withdrawal occurred when the economy was not experiencing a robust rate of growth or if credit financial markets were under duress, the withdrawal could have a stronger effect on economic activity.

The particular course of action foreign investors might choose to take and the overall strength and performance of the economy at the time of their actions could affect the economy in different ways. Congress likely would become involved as a result of its direct role in making economic policy and its oversight role over the Federal Reserve. In addition, the actions of foreign investors could complicate domestic economic policymaking. Foreign investors who decide to liquidate their holdings of one particular type of investment would normally need to look for other types of assets to acquire. While there are a multitude of possible strategies foreign investors could pursue, this analysis assesses the impact of four of the most likely strategies a single large foreign investor or a group of foreign investors could choose to employ to reduce or withdraw entirely their holdings of U.S. financial assets:

- A rapid liquidation of U.S. Treasury securities.
- A shift in the makeup of foreign investors' portfolios among various dollar-denominated assets.
- A rapid shift from dollar-denominated assets to assets denominated in other currencies.
- A slow shift in the makeup of future accumulations of assets away from dollar-denominated assets to assets denominated in currencies other than the dollar.

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Overview

Foreign capital inflows are playing an important role in the economy. Such inflows bridge the gap between U.S. supplies and demands for credit, thereby allowing consumers and businesses to finance purchases at interest rates that are lower than they would be without overseas capital inflows. Similarly, capital inflows allow federal, state, and local governments to finance their budget deficits at rates that are lower than they would be otherwise. These foreign capital inflows allow the Nation to support expenditures exceeding its current output level and finance its trade deficit. A sharp reduction in those inflows likely would complicate domestic efforts at making and conducting economic policies.

To date, the world economy has benefitted from the stimulus provided by the nation's combination of fiscal and monetary policies and a trade deficit. Foreign investors now hold slightly less than 55% of the publicly held and publicly traded U.S. Treasury securities, 26% of corporate bonds, and about 12% of U.S. corporate stocks.[1] The large foreign accumulation of U.S. securities has spurred some observers to argue that this foreign presence in U.S. financial markets increases the risk of a financial crisis, whether as a result of the uncoordinated actions of market participants or by a coordinated withdrawal from U.S. financial markets by foreign investors for economic or political reasons. Concerns are also growing that over the long run U.S. economic policies and the accompanying large deficit in its international trade accounts could have a negative impact on global economic developments, especially for the economically less developed countries.

Some observers are concerned that a foreign investor with significant holdings in the United States or a group of foreign investors could engage in an abrupt and large-scale liquidation of dollar-denominated securities, particularly a sell-off of U.S. Treasury securities. These observers argue that the vast sums of dollars held and managed by some foreign governments, termed sovereign wealth funds, raise the prospects of such a coordinated withdrawal, because the funds potentially increase the ability of foreign governments to instigate a rapid withdrawal. It is uncertain, though, what types of events could provoke a coordinated withdrawal from U.S. securities markets. Indeed, during the 2008-2009 financial crises, dollar-denominated assets were the preferred safe haven investment of foreign investors. Although unlikely, a coordinated withdrawal from U.S. financial markets potentially could be staged by foreign investors for economic or political reasons or it could arise as a result of an uncoordinated correction in market prices. Also, concerns over the ability of the federal government to service its foreign debt and a loss of confidence in the ability of national U.S. policy makers to conduct economic policies that are perceived abroad as prudent and stabilizing could spur some foreign investors to reassess their estimates of the risks involved in holding dollar-denominated assets. In other cases, international linkages that connect national capital markets could be the conduit through which events in one market are quickly spread to other markets and ignite an abrupt, seemingly uncoordinated, withdrawal of capital.

A liquidation of capital could be limited to one segment of the credit markets as one foreign investor or a group of foreign investors attempted to adjust the composition of their portfolios. A

[1] For more information, see CRS Report RL32964, *The United States as a Net Debtor Nation: Overview of the International Investment Position* .

withdrawal also could mark a major shift in investment strategies by foreign investors as they shifted away from dollar-denominated securities. Short of a financial crisis, events that cause some foreign investors to adjust their portfolios likely would have short-run negative effects on U.S. interest rates and on the international exchange value of the dollar. However, should a large group of foreign investors make a permanent shift in their strategies to limit or to reduce their purchases of U.S. securities, such actions likely would complicate efforts to finance budget deficits. Given the current mix of economic policies, the loss of capital inflows would affect U.S. interest rates, domestic investment, and the long-term rate of growth of the economy unless there is an accompanying shift in the national rate of saving. Such a loss of capital inflows would be especially troublesome if it occurred during a time when concerns over the rate of growth in the economy were increasing. During periods when the rate of economic growth is slowing, the Federal Reserve generally resorts to reducing interest rates to stimulate the economy. However, the loss of capital inflows would tend to push the Federal Reserve to raise interest rates to attract more capital inflows. Congress likely would find itself embroiled in any such economic or financial crisis through its direct role in conducting fiscal policy and in its indirect role in the conduct of monetary policy through its supervisory responsibility over the Federal Reserve.

Some observers are also concerned that the financial crisis has damaged the international financial system and raise concerns about the U.S. leadership role. The rapid expansion of market activity through the consolidation of equity exchanges and the development of complex financial instruments and hybrid securities that are traded across national borders has raised additional concerns that financial innovations have outpaced the efforts of regulators. Some observers argue that improvements in the financial system that arise from greater market efficiencies by spreading risk across national borders may be blunted, because the underlying risks of certain widely traded financial instruments have become more difficult to assess. Some also argue that the recent financial crisis demonstrate the risks that a domestic financial crisis pose for the global economy because such crises can spread across national borders due to the rapid internationalization of financial services. Others note that by expanding into financial activities that were not part of the original core business of financial services, providers have become exposed to new and additional types of risk for which they are not well prepared. According to the IMF, "there is little empirical evidence to date to determine whether cross-border diversification of financial institutions reduces or increases firm-specific or systemic vulnerabilities."[2]

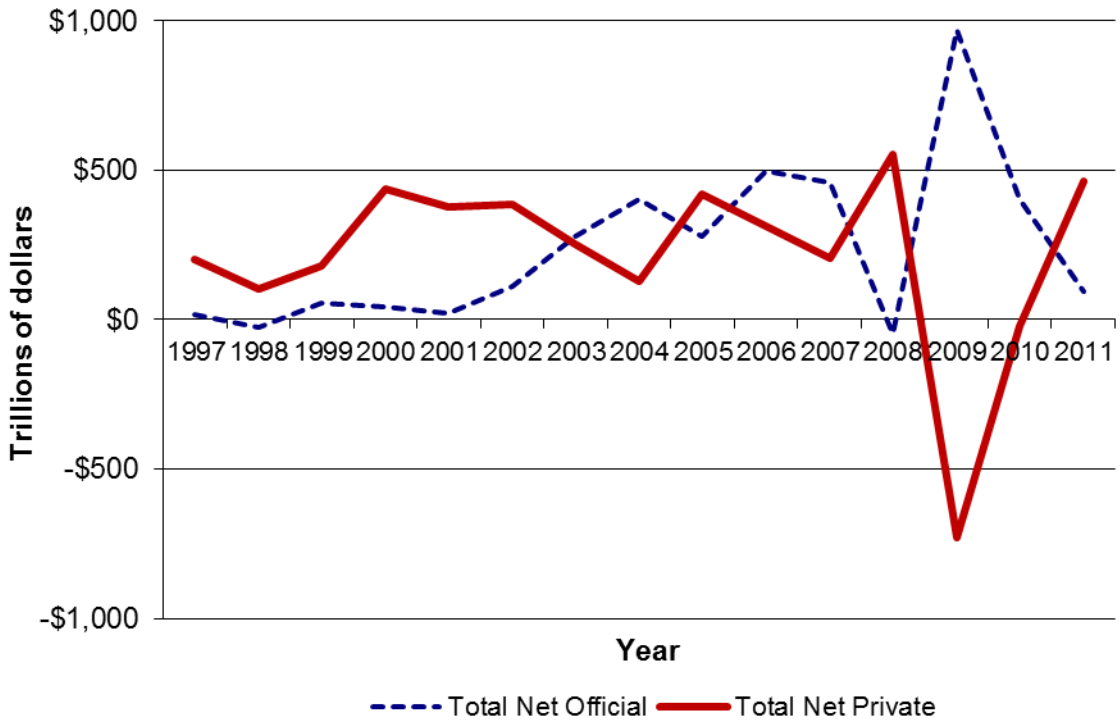
Foreign Investment in the U.S. Economy

Capital flows are highly liquid, can respond abruptly to changes in economic and financial conditions, and exercise a primary influence on exchange rates and through those rates onto global flows of goods and services. As indicated in **Figure 1**, these capital inflows are composed of official inflows, primarily foreign governments' purchases of U.S. Treasury securities, and private inflows composed of portfolio investment, which includes foreigners' purchases of U.S. Treasury and corporate securities, financial liabilities, and direct investment in U.S. businesses and real estate. In 2004, 2006, 2007, 2009, and 2010, net official inflows exceeded net private inflows. Recently, private capital flows by U.S. citizens shifted from a net outflow of $1.4 trillion in 2007 to a net inflow of $866 billion in 2008, reflecting the financial turmoil during that period. Net private outflows by U.S. citizens, however, resumed in the 2009 to 2011 period. During the same period, U.S. official outflows increased from $22 billion in 2007 to $530 billion in 2008. In

[2] *Op. cit*., *Global Financial Stability Report*, p. 107.

contrast, foreign private inflows of capital dropped from $1.6 trillion in 2007 to $47 billion in 2008. During the same period, foreign official inflows increased slightly from $481 billion in 2007 to $487 billion in 2008. As a result of these changes, net official flows, or the combination of U.S. and foreign officials flows dropped from a net outflow of $458 billion 2007 to a net inflow of $47 billion in 2008. In addition, net private flows increased from a net inflow of $199 billion in 2007 to a net inflow of $581 billion in 2008. In 2009, however, net private inflows dropped to a negative $774 billion, while net official inflows rose to nearly $1 trillion, as indicated in **Table 1**

Figure 1. Net Inflows of Private and Official Sources of Capital, 1997-2011



Source: Department of Commerce

Economists generally attribute the rise in foreign investment in the United States to comparatively favorable returns on investments relative to risk, a surplus of saving in other areas of the world, the well-developed U.S. financial system, and the overall stability of the U.S. economy. These net capital inflows (inflows net of outflows) bridge the gap in the United States between the amount of credit demanded and the domestic supply of funds, likely keeping U.S. interest rates below the level they would have reached without the foreign capital. These capital inflows also allow the United States to support expenditures exceeding its current output level and finance its trade deficit, because foreigners are willing to "lend" to the United States in the form of exchanging goods, represented by U.S. imports, for such U.S. assets as stocks, bonds, and U.S. Treasury securities. Such inflows, however, generally tends to put upward pressure on the dollar, which tends to push up the price of U.S. exports relative to its imports and to reduce the overall level of exports. Furthermore, foreign investment in the U.S. economy drains off some of the income earned on the foreign-owned assets that otherwise would accrue to the U.S. economy as foreign investors repatriate their earnings back home.

Table 1. Capital Inflows to the United States, 1997-2012

(in billions of dollars)

Year	Total	Official assets	Private assets					
			Total	Direct investment	Treasury securities	Corporate securities	U.S. currency	Other
1997	704.5	19.0	685.4	105.6	130.4	161.4	22.4	265.5
1998	420.8	-19.9	440.7	179.0	28.6	156.3	13.8	62.9
1999	742.2	43.5	698.7	289.4	-44.5	298.8	22.4	130.5
2000	1,038.2	42.8	995.5	321.3	-70.0	459.9	-3.4	287.6
2001	782.9	28.1	754.8	167.0	-14.4	393.9	23.8	184.5
2002	795.2	115.9	679.2	84.4	100.4	283.3	18.9	192.3
2003	858.3	278.1	580.2	63.8	91.5	220.7	10.6	193.7
2004	1,533.2	397.8	1,135.4	146.0	93.6	381.5	13.3	501.1
2005	1,247.3	259.3	988.1	112.6	132.3	450.4	8.4	284.3
2006	2,065.2	487.9	1,577.2	243.2	-58.2	683.2	2.2	706.8
2007	2,129.5	480.9	1,648.5	275.8	66.8	605.7	-10.7	711.0
2008	534.1	487.0	47.1	319.7	196.6	-126.7	29.2	-371.8
2009	314.4	480.3	-165.9	150.4	-15.5	1.9	12.6	-315.4
2010	398.2	353.3	205.8	297.8	139.3	28.3	63.0	189.9
2011	211.8	158.7	234.0	240.9	-56.4	55.0	6.6	348.2
2012	373.6	347.9	174.7	123.6	76.7	57.1	925.0	-399.0

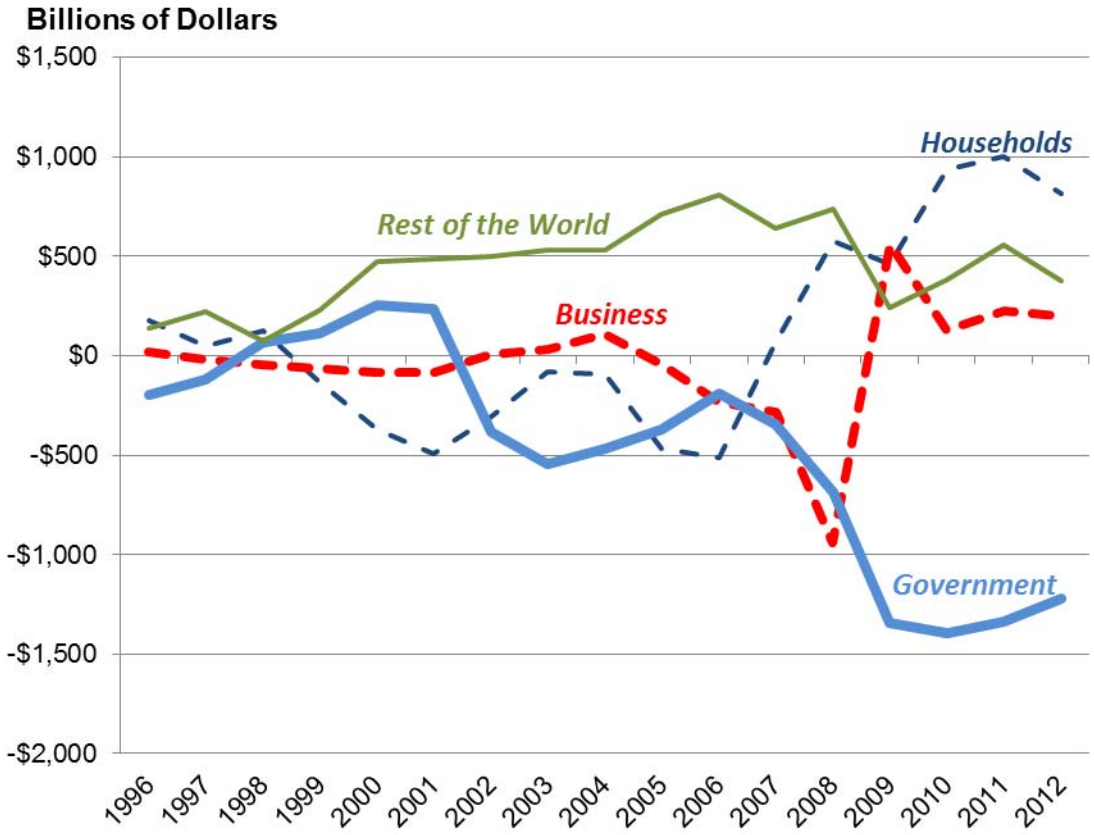
Source: Scott, Sarah P., U.S. International Transactions Fourth Quarter and Year 2012, Bureau of Economic Analysis, BEA-13-09, March 14, 2013.

Flow of Funds in the U.S. Economy

Figure 2 shows the net flow of funds in the U.S. economy. The flow of funds accounts measure financial flows across sectors of the economy, tracking funds as they move from those sectors that supply the capital through intermediaries to sectors that use the capital to acquire physical and financial assets.[3] The net flows show the overall financial position by sector, whether that sector is a net supplier or a net user of financial capital in the economy. Because the demand for funds in the economy as a whole must equal the supply of funds, a deficit in one sector must be offset by a surplus in another sector.

[3] Teplin, Albert M., the U.S. Flows of Funds Accounts and Their Uses, *Federal Reserve Bulletin*, July 2001, pp. 431-441.

Figure 2. Flows of Funds in the U.S. Economy, 1996-2012



Source: Federal Reserve

Generally, the household sector, or individuals, provides funds to the economy, because individuals save part of their income, while the business sector uses those funds to invest in plant and equipment that, in turn, serve as the building blocks for the production of additional goods and services. The government sector (the combination of federal, state, and local governments) can be either a net supplier of funds or a net user, depending on whether the sector is running a surplus or a deficit, respectively. The interplay within the economy between saving and investment, or the supply and uses of funds, tends to affect domestic interest rates, which move to equate the demand and supply of funds. Shifts in the interest rate also tend to attract capital from abroad, denoted by the rest of the world (ROW) in **Table 2**.

As **Table 2** indicates, from 1996 through 1998, the household sector ran a net surplus, or provided net savings to the economy. The business sector also provided net surplus funds in 1996, or businesses earned more in profits than they invested. The government sector, primarily the federal government, experienced net deficits, which decreased until 1998, when the federal government and state and local governments experienced financial surpluses. Capital inflows from the rest of the world rose and fell during this period, depending on the combination of household saving, business sector saving and investment, and the extent of the deficit or surplus in the government sector.

Starting in 1999, the household sector began dissaving, as individuals spent more than they earned. Part of this dissaving was offset by the government sector, which experienced a surplus

from 1998 to 2001. As a result of the large household dissaving, however, the economy as a whole experienced a gap between domestic saving and investment that was filled with large capital inflows. Those inflows were particularly large in nominal terms from 2000 to 2006, as household dissaving continued and as government sector surpluses turned to historically large deficits in nominal terms. Such inflows likely kept interest rates below the level they would have reached without the inflows, but they added to pressures on the international exchange value of the dollar.

Table 2. Flow of Funds of the U.S. Economy, 1996-2012

(in billions of dollars)

			Government			
Year	Households	Businesses	Total	State and Local	Federal	ROW
1996	175.2	19.8	-196.8	-1.2	-195.6	137.9
1997	47.4	-18.3	-116.6	-47.5	-69.1	219.6
1998	128.0	-45.7	64.8	48.8	16.0	75.0
1999	-132.7	-62.6	115.3	9.9	105.4	231.7
2000	-371.0	-82.9	252.5	54.5	198.0	476.3
2001	-494.4	-82.9	233.4	35.4	198.0	485.4
2002	-343.4	8.7	-382.6	-95.6	-287.0	501.7
2003	-101.8	30.3	-546.3	-70.4	-475.9	535.4
2004	-230.6	136.8	-468.6	-32.9	-435.7	554.4
2005	-445.2	-44.8	-374.0	7.6	-381.6	712.1
2006	-530.3	-201.5	-188.4	78.6	-267.0	805.2
2007	70.5	-285.1	-345.0	-1.7	-343.3	638.5
2008	576.2	-943.0	-685.7	-72.2	-613.5	736.6
2009	459.8	562.0	-1,342.5	-113.2	-1,229.3	239.5
2010	934.6	127.7	-1,397.7	-89.7	-1,308.0	382.7
2011	999.0	226.3	-1,339.4	-102.0	-1,237.4	555.1
2012	813.6	201.4	-1,220.6	-131.3	-1,089.3	374.2

Source: Board of Governors of the Federal Reserve System, *Flow of Funds Accounts of the United States, Flows and Outstandings Fourth Quarter 2012*, March 7, 2012.

From 2007 through 2012, households saved at rates not experienced in recent periods as the financial crisis and economic recession spurred households to save and businesses to build up their balance sheets. This saving has been offset by the large deficits experienced by state, local, and the federal governments as the economic recession and the drop in property values reduced government revenue. Similarly, capital inflows have declined, reflecting the higher level of domestic saving.

As the flow of funds data indicate, foreign capital inflows augment domestic U.S. sources of capital, which in turn keep U.S. interest rates lower than they would be without the foreign capital. Indeed, economists generally argue that it is this interplay between the demand for and

the supply of credit in the economy that drives the broad inflows and outflows of capital. As U.S. demands for capital outstrip domestic sources of funds, domestic interest rates rise relative to those abroad, which tends to draw capital away from other countries to the United States.

Foreign and Domestic Sources of Funds

The United States also has benefitted from a surplus of saving over investment in many areas of the world that has provided a supply of funds and accommodated the overall shortfall of saving in the country. This surplus of saving has been available to the United States because foreigners have remained willing to loan that saving to the United States in the form of acquiring U.S. assets, which have accommodated the growing current account deficits. Over the past decade, the United States experienced a decline in its rate of saving and an increase in the rate of domestic investment. The large increase in the nation's current account deficit would not have been possible without the accommodating inflows of foreign capital.

Foreign capital inflows, while important, do not fully replace or compensate for a lack of domestic sources of capital. Capital mobility has increased sharply over the last 20 years, but economic analysis shows that a nation's rate of capital formation, or domestic investment, seems to be linked primarily to its domestic rate of saving. This phenomenon was first presented in a paper published in 1980 by Martin Feldstein and Charles Horioka.[4] The Feldstein-Horioka paper maintained that despite the dramatic growth in capital flows between nations, international capital mobility remains somewhat limited so that a nation's rate of domestic investment is linked to its domestic rate of saving.[5]

Foreign Capital and the Value of the Dollar

Liberalized capital flows and floating exchange rates have greatly expanded the amount of capital flows between countries. A large part of these capital transactions are undertaken in response to commercial incentives or political considerations that are independent of the overall balance of payments or of particular accounts. As a result of these transactions, national economies have become more closely linked, the process some refer to as "globalization." The data in **Table 3** provide selected indicators of the relative sizes of the various capital markets in various countries and regions and the relative importance of international foreign exchange markets. In 2011, these markets amounted to over $800 trillion, or more than 40 times the size of the U.S. economy. Worldwide, foreign exchange and interest rate derivatives, which are the most widely used hedges against movements in currencies, were valued at $567 trillion in 2011, twice the size of the combined total of all public and private bonds, equities, and bank assets. For the United States, such derivatives total three times as much as all U.S. bonds, equities, and bank assets.

[4] Feldstein, Martin, and Charles Horioka, Domestic Saving and International Capital Flows, *The Economic Journal*, June, 1980, pp. 314-329; Feldstein, Martin, *Aspects of Global Economic Integration: Outlook for the Future*. NBER Working Paper 7899, September 2000, pp. 9-12.

[5] Developments in capital markets have improved capital mobility since the Feldstein-Horioka paper was published and have led some economists to question Feldstein and Horioka's conclusion concerning the lack of perfect capital mobility. (Ghosh, Atish R., International Capital Mobility Amongst the Major Industrialized Countries: Too Little or Too Much?, *The Economic Journal*, January 1995, pp. 107-128.) Indeed, some authors argue that short-term capital flows among the major developed economies are highly liquid, perhaps too liquid, and seem to be driven as much by short-term economic events and speculation as they are by longer term economic trends.

Table 3. Selected Indicators of the Size of the Global Capital Markets, 2011

(in billions of U.S. dollars)

	Gross Domestic Product (GDP)	Total Official Reserves	Bonds, Equities, and Bank Assets				OTC Derivatives		
			Total	Stock Market Capitalization	Debt Securities	Bank Assets	Total	OTC Foreign Exchange Derivatives	OTC Interest Rate Derivatives
World	$69,899	$10,650	$255,855	$47,089	$98,388	$110,378	567,447	$63,349	$504,098
European Union	16,426	468	82,251	8,530	31,548	42,172	NA	NA	NA
Euro Area	13,118	316	58,874	4,586	24,976	29,311	207,937	23,235	184,702
United Kingdom	2,431	79	19,055	3,266	4,839	10,950	50,390	7,023	43,367
United States	15,076	137	63,976	15,640	33,700	14,635	215,925	54,061	161,864
Japan	5,866	1,258	31,666	3,540	15,369	12,756	80,480	13,661	66,819
Emerging markets	25,438	6,944	44,553	9,771	9,240	25,542	NA	NA	NA

Source: *Global Financial Stability Report*, International Monetary Fund, September 2012. Statistical Appendix, Table 3. Quarterly Review, Bank for International Settlements, September 2012, Tables 20b and 21b.

Note: Total derivatives does not include equity and commodity-linked derivatives.

Another aspect of capital mobility and capital inflows is the impact such capital flows have on the international exchange value of the dollar. Demand for U.S. assets, such as financial securities, translates into demand for the dollar, because U.S. securities are denominated in dollars. As demand for the dollar rises or falls according to overall demand for dollar-denominated assets, the value of the dollar changes. These exchange rate changes, in turn, have secondary effects on the prices of U.S. and foreign goods, which tend to alter the U.S. trade balance. At times, foreign governments have moved aggressively in international capital markets to acquire the dollar directly or to acquire Treasury securities in order to strengthen the value of the dollar against particular currencies.

Also, the dollar is heavily traded in financial markets around the globe and, at times, plays the role of a global currency. Disruptions in this role have important implications for the United States and for the smooth functioning of the international financial system. This prominent role means that the exchange value of the dollar often acts as a mechanism for transmitting economic and political news and events across national borders. While such a role helps facilitate a broad range of international economic and financial activities, it also means that the dollar's exchange value can vary greatly on a daily or weekly basis as it is buffeted by international events.[6]

A triennial survey of the world's leading central banks conducted by the Bank for International Settlements in April 2010 indicates that the *daily* trading of foreign currencies through traditional foreign exchange markets[7] totals more than $4.0 trillion, up from the $3.3 trillion reported in the

[6] Samuelson, Robert J., "Dangers in a Dollar on the Edge," *The Washington Post*, December 8, 2006, p. A39.

[7] Traditional foreign exchange markets are organized exchanges which trade primarily in foreign exchange futures and (continued...)

previous survey conducted in 2007. In addition to the traditional foreign exchange market, the over-the-counter (OTC)[8] foreign exchange derivatives market reported that daily turnover of interest rate and non-traditional foreign exchange derivatives contracts reached $2.5 trillion in April 2010. The combined amount of $6.5 trillion for daily foreign exchange trading in the traditional and OTC markets is more than three times the *annual* amount of U.S. exports of goods and services. The data also indicate that 85% of the global foreign exchange turnover is in U.S. dollars, slightly lower than the 86.3% share reported in a similar survey conducted in 2007.[9]

In the U.S. foreign exchange market, the value of the dollar is followed closely by multinational firms, international banks, and investors who are attempting to offset some of the inherent risks involved with foreign exchange trading. On a daily basis, turnover in the U.S. foreign exchange market[10] averages $817 billion; similar transactions in the U.S. foreign exchange derivative markets[11] average $659 billion, slightly above the amount reported in a similar survey conducted in 2007.[12] Foreigners also buy and sell U.S. corporate bonds and stocks and U.S. Treasury securities. Foreigners now own slightly less than 50% of the total amount of outstanding U.S. Treasury securities that are publicly held and traded.[13]

Withdrawal of Foreign Investment

This section analyzes four possible strategies a single large foreign investor or a group of foreign investors could employ to reduce or withdraw entirely their holdings of financial assets in the United States. These strategies include

- a rapid liquidation of U.S. Treasury securities,
- a shift in the makeup of foreign investors' portfolios among various dollar-denominated assets,

(...continued)

options contracts where the terms and condition of the contracts are standardized.

[8] The over-the-counter foreign exchange derivatives market is an informal market consisting of dealers who custom-tailor agreements to meet the specific needs regarding maturity, payments intervals, or other terms that allow the contracts to meet specific requirements for risk.

[9] *Triennial Central Bank Survey: Foreign Exchange and Derivatives Market Activity in 2007*. Bank for International Settlement, September 2010, pp. 1-2. A copy of the report is available at http://www.bis.org/publ/rpfx07.pdf.

[10] Defined as foreign exchange transactions in the spot and forward exchange markets and foreign exchange swaps. A spot transaction is defined as a single transaction involving the exchange of two currencies at a rate agreed upon on the date of the contract; a foreign exchange swap is a multi-part transaction that involves the exchange of two currencies on a specified date at a rate agreed upon at the time of the conclusion of the contract and then a reverse exchange of the same two currencies at a date further in the future at a rate generally different from the rate applied to the first transaction.

[11] Defined as transactions in foreign reserve accounts, interest rate swaps, cross currency interest rate swaps, and foreign exchange and interest rate options. A currency swap commits two counterparties to exchange streams of interest payments in different currencies for an agreed upon period of time and usually to exchange principal amounts in different currencies as a pre-agreed exchange rate; a currency option conveys the right to buy or sell a currency with another currency as a specified rate during a specified period.

[12] *The Foreign Exchange and Interest Rate Derivatives Markets: Turnover in the United States April 2010*. The Federal Reserve Bank of New York, April, 2010. pp. 1-2. A copy of the report is available at http://www.newyorkfed.org/markets/triennial/fx_survey.pdf.

[13] *Treasury Bulletin*, December 2012, Table OFS-2, p. 48.

- a rapid shift from dollar-denominated assets to assets denominated in other currencies, and
- a slow shift in the makeup of future accumulations of assets away from dollar-denominated assets to assets denominated in currencies other than the dollar.

Sudden Withdrawal from U.S. Treasury Securities

The large holdings of U.S. Treasury securities by foreign governments have led some observers to consider the prospect of a withdrawal from the U.S. Treasury securities market by a single foreign government. At the first hint that a foreign government was attempting to liquidate all or even a large part of its holdings of U.S. Treasury securities, the price of such Treasury securities likely would plummet in U.S. securities markets and the market rate of interest would rise, perhaps appreciably, in the first few hours or days. For instance, on November 7, 2007, a report, which was later repudiated, asserted that Chinese officials were considering shifting some of China's foreign currency reserves, reportedly worth $1.4 trillion, in dollars and in such dollar-denominated assets as Treasury securities, out of dollar-denominated securities. Acting on the report, investors sold securities and the dollar. As a result, the broad Dow Jones industrial average plunged 360 points in one day and the dollar sank against other major currencies.[14] In response to the fall in the exchange value of the dollar, indexes of equities markets in Europe and Japan also fell.

Such cross-border spillover effects are not new, but potentially have become more pervasive as a result of the broad linkages that have been forged among the once-disparate national financial systems. As an example, concerns in U.S. capital markets in early June 2006 over prospects that a rise in consumer prices and in the core inflation rate would push the Federal Reserve to raise key U.S. interest rates sparked a drop in prices in U.S. capital and equity markets where inflation concerns quickly spread to markets in Europe and Asia as equity prices fell in those markets as well.[15]

If a foreign investor with large U.S. holdings or a group of foreign investors attempted to launch a withdrawal from U.S. Treasury securities, investors and other market participants would calculate quickly the expected effects of those intended actions on market prices, interest rates, and the exchange value of the dollar and would then act swiftly on those anticipated effects. As a result, the prices of Treasury securities likely would drop sharply, while interest rates would rise, because the price of such securities is inversely related to the interest rate. In addition, the dollar likely would fall in value relative to other currencies, because the shift away from dollar-denominated assets would increase demand for and the prices of other currencies relative to the dollar. Consequently, the drop in the price of Treasury securities and the drop in the exchange value of the dollar would significantly discount the value of any Treasury securities that would be sold and sharply reduce the proceeds for any investor participating in such a sell-off. As a result, the potentially large financial losses that would attend an attempt to liquidate assets rapidly are likely to dissuade most investors from employing such a strategy.

[14] Grynbaum, Michael M., and Peter S. Goodman, Markets and Dollar Sink as Slowdown Worry Increases. *The New York Times*, November 8, 2007.

[15] Masters, Brooke A., Pondering the Bear Necessities, *The Washington Post*, June 7, 2006, p. D1; Samuelson, Robert J., Global Capital On the Run, *The Washington Post*, June 14, 2006, p. A23.

The drop in the prices of Treasury securities and the decline in the exchange value of the dollar, however, probably would be short-lived. Foreign investors selling Treasury Securities presumably would do so in order to acquire non-dollar-denominated assets. Such a shift in demand from U.S. Treasury securities to other foreign securities would drive up the prices of those securities and the exchange value of foreign currencies. As a result, the lower prices for Treasury securities and for the dollar would offer other investors arbitrage and investment opportunities to acquire assets that investors likely would deem to be temporarily undervalued. As a result, investors likely would move to acquire Treasury securities and the dollar, which means that demand would increase for both the low-priced Treasury securities and the lower-valued dollar, which would drive up the prices of both assets. Such a response could significantly blunt, or even entirely reverse, the initial drop in prices of the securities and of the dollar. Given the dynamic nature of finance and credit markets and the instantaneous communication of information, such actions likely would occur within a very short time frame.

For instance, fears spread rapidly after the terrorist attacks on New York and Washington on September 11, 2001, that foreigners would curtail their purchases of U.S. financial assets and reduce the total inflow of capital into the U.S. economy. Following the attacks, foreign governments and private investors did reduce their purchases of Treasury securities from pre-attack levels and the value of the dollar fell relative to other major currencies. These effects were fully reversed within 30 days, however, as currency traders forged a short-lived agreement not to profit from the attacks and the Federal Reserve undertook actions on its own and in concert with central bankers and financial ministers around the globe to ensure the smooth operation of the international financial markets.[16] Similarly, the Federal Reserve likely would not be expected to sit by idly while foreign investors attempted a coordinated withdrawal from U.S. equity markets, if those actions threatened to undermine the stability of the markets.

The overall performance of the U.S. economy at the time of any attempted withdrawal would also influence the economic effect of the withdrawal. For instance, if the U.S. economy were experiencing a robust rate of economic growth, the impact of a withdrawal by foreign investors likely would be minimal, both in the short run and in the long run. However, if such a withdrawal were to occur at a time when the U.S. economy were not experiencing a robust rate of economic growth, or if the U.S. credit and financial markets were under duress, such a withdrawal may well have a more pervasive effect by undermining investors' confidence in the stability and performance of the markets and could result in higher interest rates and a lower exchange value of the dollar over the short run and prolong the adjustment process. In addition, actions that change foreign investors' assessment of the underlying risks of the financial system or that undermine foreign investors' confidence in the stability of the financial system could prod some foreign investors to reassess the composition of their portfolios.

For instance, at the time of the rumored Chinese withdrawal from U.S. securities, U.S. financial markets already were strained by concerns over the impact of record oil prices and potentially large losses associated with sub-prime mortgaged-backed securities. As a result, the Dow Jones industrial average of U.S. stocks moved erratically through the end of November 2007. By the end of November 2007, the Dow was down nearly 290 points from where it had been following the loss of 360 points on November 7, 2007.

[16] For more information, see CRS Report RS21102, *International Capital Flows Following the September 11 Attacks*, by James K. Jackson.

Diversify Portfolios Among Dollar-Denominated Assets

Another possible course of action some foreign investors could pursue would be to diversify abruptly the composition of their portfolios by replacing a sizeable portion of their holdings of U.S. Treasury securities with other dollar-denominated assets. As foreign investors traded Treasury securities for other assets, the price of Treasury securities would decline and the prices of other assets would rise as demand shifted away from Treasury securities and toward other dollar-denominated assets. Because total demand for dollar-denominated assets would remain constant, there likely would be little movement in the exchange value of the dollar, but the shift of demand would alter the relative prices of various domestic assets. Such shifts in demand are not a rare occurrence, but happen frequently as investors change their evaluations of the relative value of corporate equities, corporate bonds, and Treasury securities and in response to changes in economic policies and actions by the Federal Reserve.

If foreign investors attempt to alter abruptly the composition of their portfolios away from Treasury securities, the prices of such securities would fall and the prices of corporate bonds and equities would rise, reflecting the shift in demand. If investors perceived this shift in demand and, therefore, the shift in prices, as a one-time adjustment in the composition of foreign investors' portfolios, some investors likely would take advantage of the rise in prices in equities and bonds to sell their holdings and take their profits at what likely would be perceived to be overvalued prices and, conversely, buy Treasury securities at what they would view as temporarily undervalued prices. After these adjustments, market prices likely would settle at prices that would be close to or equal to those that had existed prior to the original shift in demand by foreign investors.

Shift Away from Dollar-Denominated Assets

Another course of action some foreign investors could pursue would be to pare down their holdings of dollar-denominated assets through a relatively swift liquidation of part of their holdings of dollar-denominated assets. In this case, a single foreign investor or a group of foreign investors would sell off part of their holdings of such dollar-denominated assets as corporate stocks and bonds or Treasury securities and possibly even direct investments (investments in U.S. businesses and real estate), although selling direct investments in this manner seems less likely given the generally long-run strategies investors use in acquiring them. If some foreign investors attempted to accomplish such a readjustment in their portfolios quickly by liquidating a portion of their holdings of corporate stocks and bonds and of Treasury securities, the prices of those assets would fall, given the current pervasive role foreign investors play in most U.S. financial markets.

In addition, because foreign investors would be liquidating their dollar-denominated assets in order to acquire assets denominated in other currencies, the exchange value of the dollar would fall relative to the price of foreign currencies. The drop in the prices of dollar-denominated equities and bonds combined with the lower exchange value of the dollar would erode the expected profits of any investor selling such securities and likely would attract the interest of other foreign investors, who presumably could liquidate their now higher-priced foreign securities and leverage their now higher-valued foreign currency to acquire dollar-denominated assets. Furthermore, U.S. multinational firms may well take advantage of the higher-valued foreign currency to repatriate part of the profits of their foreign affiliates, which would boost the balance sheet of their U.S. parent company, possibly even using the repatriated profits to acquire their own stock. Such repatriated profits likely would put upward pressure on the exchange value of

the dollar, because foreign earnings would have to be converted into dollars before they were repatriated. Similarly, foreign firms operating in the United States likely would retain their profits rather than suffering a loss in value by translating those profits into higher priced foreign currencies in order to repatriate their profits back to their foreign parent company. Presumably, such profits could be used to augment investments within the United States.

Slow Shift Away from Dollar-Denominated Assets

Finally, some foreign investors could decide to shift away from dollar-denominated assets by engaging in a long-term shift in the rate at which they accumulate such assets. Such a strategy would have the benefit of avoiding the large short-run shifts in the prices of financial assets and in the exchange value of the dollar that would attend any attempt by a group of foreign investors to make a rapid adjustment in the composition of their portfolios. A decrease in the inflow of capital from abroad would reduce the domestic availability of capital and place upward pressure on credit and financial assets as interest rates would rise to equate the demand and supply of credit. For the U.S. economy as a whole, a long-term shift away from dollar-denominated assets by foreign investors could have a slightly negative impact on the economy over the long run given the current mix of economic policies. A reduction in the inflow of foreign investment would tend to push down the prices of stocks and bonds and push up interest rates since those wanting credit would be competing for a smaller pool of funds. The price of Treasury securities would fall as the Federal government would be required to raise interest rates in order to attract domestic and foreign investors to acquire Treasury securities, which would raise the cost of financing the Federal government's budget deficit.

In addition, the shift from dollar-denominated assets would tend to push up the exchange value of foreign currencies relative to that of the dollar because an increase in demand for foreign assets would also raise demand for foreign currencies. The lower-valued dollar would raise the price of U.S. imports, particularly of raw materials and manufactured goods, which would put upward pressure on consumer and wholesale prices and tend to affect most negatively those sectors of the economy that are especially sensitive to movements in interest rates: the housing and automobile sectors. The decline in the international exchange value of the dollar also would tend to favor those industries and sectors of the economy that export. As long as the international exchange value of the dollar remained relatively low compared with other currencies, the exported goods sectors of the economy likely would expand by attracting more capital and labor and the imported goods sector of the economy would decline, assuming that all other things in the economy remained constant.

Conclusions

It is not uncommon for investors to adjust the composition of their portfolios as economic and financial conditions change. Given the recent surge in foreign investors' accumulation of dollars and dollar-denominated assets, it is not unreasonable to expect that from time to time they will also attempt to adjust the composition of their portfolios between corporate stocks and bonds, U.S. Treasury securities, and direct investments in U.S. businesses and real estate. A long-term shift away from dollar-denominated assets, however, could have a negative effect on the long-term rate of investment, productively, and the rate of growth in the U.S. economy. Such a shift in the value of the dollar would tend over the long run to benefit the exported goods sector of the economy, but it could also complicate efforts to conduct domestic economic policies. Although

there are numerous other currencies that might attract investors, the dollar continues to be the most widely traded currency around the globe, which means it likely will retain its desirability as an investment asset and as a medium of exchange for some time to come. Also, the vast and deep capital markets in the United States combined with the highly developed banking and legal systems continue to make investments in U.S. financial assets attractive to foreign investors, despite short-run changes in perceptions of risk or economic performance.

Should a foreign investor with large financial holdings in the United States or a group of investors attempt to liquidate abruptly their holdings of assets such as Treasury securities, they would experience a severe loss in the value of those assets first as they attempted to sell their large holds in the market and then as they attempted to convert their dollar holdings into other currencies. As a result of these losses, it seems unlikely that a foreign investor with large holdings or a group of foreign investors would attempt to liquidate their securities quickly. A more likely course of action would be for foreign investors to adjust the composition of their portfolios slowly over time.

If only one or a few foreign investors engaged in a strategy to liquidate part of their U.S. financial holdings, their actions alone are likely to have a limited impact on the economy over the short run, because market forces would be expected to adjust to attract other foreign investors to replace those who had withdrawn. However, if a broad range of foreign investors, for whatever reason, decided to reduce their holdings of dollar-denominated assets, interest rates in the United States likely would rise in response to market forces that would place them above the level where they would have been if the foreign capital inflows had remained at their higher levels. A higher level of interest rates would lead some firms to reduce their level of borrowing and investing and spur some households to curtail their consumption, especially of such interest sensitive products as housing and automobiles, which usually are financed over long periods of time. Over the long run, the lower level of investment by firms could be expected to result in a lower rate of growth in productivity and, therefore, in a lower rate of growth in the economy.

In addition, if foreign investors were to attempt an abrupt adjustment to the composition of their portfolios that disrupted the financial markets or the broader economy, the Federal Reserve would not be expected to stand idly by on the sidelines. In such circumstances, the Federal Reserve has shown some agility in intervening on its own to stabilize credit markets and to move in coordination with other central banks. On December 11, 2007, for instance, the Federal Reserve decreased the federal funds rate and the discount rate on loans between banks by a quarter of a percentage point to ease credit conditions. Then, on December 12, 2007, the Federal Reserve announced that it would make $40 billion and perhaps more available to commercial banks in short-term loans to ease domestic liquidity issues and another $24 billion available to European central banks that had become so concerned about potential losses from U.S. mortgage-backed securities that they had begun to hoard cash and were unwilling to make loans to each other except at unusually high interest rate premiums.[17] Such willingness on the part of the Federal Reserve to intervene in the financial markets to ensure stability likely makes a prolonged financial crisis arising from a liquidation of financial assets by one foreign investor or a group of foreign investors unlikely, even if those investors are foreign governments.

[17] Federal Reserve Press Release, December 12, 2007; Irwin, Neal, "Fed to Team With Central Banks on Credit," *The Washington Post*, December 12, 2007; Norris, Floyd, and Vikas Bajaj, "Fed Joins Other Banks to add Cash," *The New York Times*, December 12, 2007.

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