Global Imbalances: A Source of Strength or Weakness?

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Gross capital flows into the United States totaled $1.8 trillion in 2006. When combined with the $1.0 trillion the United States sent abroad, these net capital inflows funded the U.S. current account deficit of about $800 billion.[1] The source of a large proportion of these capital inflows was developing economies—especially China and major oil exporters. Why are foreigners willing to invest such massive amounts of money in the U.S. economy? And perhaps even more surprising—why are countries with low levels of investment willing to send this relatively scarce resource to a capital-abundant economy instead of investing in their own countries? Understanding the motivation behind the millions of individual decisions that drive these capital inflows is critically important to understanding if this massive net transfer of capital into the United States reflects a strength or weakness of the global economy.

The debate on the risks and implications of global imbalances has been ongoing for years (see Cline 2005 and Frankel 2006). Using broad generalizations, the two major sides of this debate can be divided into the pessimists and optimists. Pessimists argue that the United States is accumulating debt at an unsustainable pace and that capital should flow from capital-abundant economies (such as developed countries) to capital-scarce countries (such as developing economies), instead of the opposite. Optimists argue that the United States is an attractive place to invest and that capital flows into the United States reflect an efficient functioning of capital markets, given the excess of savings (relative to investment) in the rest of the world.

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[1]Preliminary statistics. Data from Bureau of Economic Analysis, *Survey of Current Business,* May 2007.

Pessimists argue that global imbalances will end soon and that the denouement will be difficult for the global economy—including a sharp decline in the U.S. dollar, an increase in global interest rates, and a contraction in global growth. Optimists argue that this system could last indefinitely, and if it did unwind, any adjustment would be smooth, gradual, and painless.

Although the two sides of this debate appear to have little in common, one key theme is a focus on the macroeconomic causes and implications of global imbalances. This article takes a different approach and instead focuses on the microeconomic determinants of the capital flows underlying these massive, macroeconomic imbalances. Understanding exactly why individuals from other countries choose to invest in the United States is critical if one is to evaluate whether the current global imbalances are a risk, as well as how the imbalances might unwind.

This article begins by discussing one factor that is *not* a major determinant of capital flows into the United States: high realized returns. I then discuss six possible reasons why private-sector investors around the world *might* chose to invest in the United States instead of in their own economies, despite earning lower returns than the United States earns on its foreign investments. Most of these reasons reflect an efficient functioning of global financial markets. Empirical analysis is needed to evaluate which, if any, of these factors are important determinants of capital flows into the United States. The answer will help resolve whether the system of global imbalances is a strength or weakness of today's global financial system.

Higher Realized Returns Do Not Motivate U.S. Capital Inflows

When U.S. policymakers discuss the sustainability of the capital inflows currently funding the U.S. current account deficit, they frequently describe the United States as an attractive investment opportunity for foreigners. For example, during his tenure as U.S. Treasury secretary, John W. Snow (2004) stated: "Today we are in a situation where sound, growth-enhancing policies in the United States have made it an extremely attractive place to invest."[2] Most people interpret "an attractive place to invest" as implying high expected returns on investment. If foreigners did earn higher returns from investing in

[2]Prepared Remarks at Chatham House, the Royal Institute of International Affairs in London, England on November 17, 2004. Available at www.treas.gov/press/releases/js2105.htm.

TABLE 1
Total Return on Investment Positions (Percent)

	Includes Effect of Exchange Rate Movements		Excludes Effect of Exchange Rate Movements	
	U.S. Assets Abroad	Foreign Assets in the United States	U.S. Assets Abroad	Foreign Assets in the United States
2001	–7.9	–2.6	–5.8	–2.4
2002	–4.9	–5.5	–8.7	–5.9
2003	21.2	10.5	14.2	9.8
2004	12.6	5.8	9.1	5.4
2005	9.9	2.6	14.2	3.0
Av. return 2001–2005	*6.2*	*2.2*	*4.6*	*2.0*

Note: Returns are calculated as $Return_t = (Income_t + \Delta Valuation_t)/(Stock_{t-1} + 0.5^* Flow_t)$, where $Return_t$ is the return over period t, $Income_t$ is the income stream earned over period t (such as interest payments/receipts on bonds, dividend payments/receipts on equities, or direct investment payments/receipts on foreign direct investment), $\Delta Valuation_t$ is the change in valuation over period t due to changes in prices and exchange rates, $Stock_{t-1}$ is the stock of the asset or liability at the start of period t, and $Flow_t$ is the net flows of the asset over period t. See Forbes (2007) for additional information on data sources and investment return calculations.
Source: Bureau of Economic Analysis, *Survey of Current Business,* various years.

the United States than in their own countries (or other major economies), then it would be less surprising that they were willing to send \$1.8 trillion per year to the United States. Moreover, since investors show evidence of chasing returns (see Sirri and Tufano 1998), a history of earning high returns from investing in the United States could support continued capital inflows to support this system of global imbalances—at least as long as the returns continued to be higher than for other investment opportunities.

Estimates of recent returns foreigners have earned from investing in the United States, however, suggest that this is not the case (see Gourinchas and Rey 2007, Lane and Milesi-Ferretti 2006, and Cline 2005). Table 1 shows that from 2001 through 2005, foreigners earned an average annual return of 2.2 percent on their U.S. investments, while U.S. investors earned 6.2 percent abroad. As shown, some of that differential was due to exchange rate movements. Even after removing the effects of exchange rate movements, however, U.S.

investors earned more than double the returns on their foreign investments than foreigners earned in the United States.

One possible explanation for this lower rate of return for foreigners—and an explanation that would still be consistent with a continuation of strong capital inflows—is that a large portion of U.S. capital inflows reflect official sector purchases of U.S. assets that are made for reasons other than expected returns. For example, as discussed in Dooley, Folkerts-Landau, and Garber (2003), foreign governments may purchase U.S. assets in order to maintain undervalued exchange rates and to accumulate low-risk reserve assets. The data indicate, however, that the share of U.S. capital inflows from foreign governments is relatively small—especially when considered as a share of gross (instead of net) capital flows. The Bureau of Economic Analysis reports that in 2005, only $199 billion of the $1.2 trillion gross capital inflow to the United States was for U.S. government securities (including agency bonds), which are the traditional reserve holdings of foreign official entities.[3] According to these statistics, about 85 percent of gross U.S. capital inflows reflected investments in areas that are not traditionally official-sector investments. Even though these statistics are only rough estimates of capital inflows from government entities, they do suggest that understanding what motivates private-sector capital inflows is critical to understanding what drives aggregate capital flows into the United States. Moreover, even after removing investments made by the official sector (as much as possible given data limitations) and focusing only on private-sector investments, foreigners continued to earn lower returns from investing in the United States than U.S. investors earned abroad.

A second explanation for this return differential is the different composition of foreign investment in the United States versus U.S. investment abroad. Foreigners that invest in the United States may prefer assets with lower volatility, despite lower average returns, while U.S. investors may prefer assets with a higher risk and corresponding higher average returns. Gourinchas and Rey (2007) describe the United States as a "venture capitalist," because its assets tend to be concentrated in shorter-term, higher-return assets such as equity and foreign direct investment (FDI), while foreigners tend to hold a larger share of their portfolio in longer-term, lower-return assets (such as bank loans and debt). Lane and Milesi-Ferretti (2006) discuss this "hedge fund" characteristic of the United States (and

[3]Tracking exactly which capital inflows correspond to government entities is difficult because many government purchases of U.S. assets occur through private-sector agencies. These statistics may therefore underreport the size of official purchases of U.S. assets.

TABLE 2

Average Annual Returns on Private-Sector Investment Positions, 2001–2005 (Percent)

	U.S. Assets Abroad	Foreign Assets in the United States
FDI (market value)	8.8	0.7
Equities	8.5	2.3
Bonds (corporate, govt. and agency bonds)	7.2	6.0
All securities (equities and bonds)	7.7	3.7

Notes: Returns incorporate income receipts plus valuation changes, which includes price changes and exchange rate movements. Private-sector refers to "non-official" asset positions for foreign-owned assets in the United States. See Forbes (2007) for additional information on data sources and investment return calculations.

Source: Bureau of Economic Analysis, *Survey of Current Business,* various years.

many other industrial countries) in the sense that it is "long in foreign equity and short in foreign debt."

Although the different composition of U.S. investments abroad and foreign investments in the United States explains a portion of the return differential, this explanation is not the entire story. Table 2 reports average annual returns on U.S. and foreign private-sector investments in FDI, equities, corporate bonds, and all securities (equities and bonds) from 2001 through 2005.[4] The table shows that even within specific asset classes, non-official investors from outside the United States have been earning significantly lower returns on their U.S. assets than U.S. private-sector investors have earned on their foreign holdings. For example, from 2001 through 2005, foreign private-sector investors earned 0.7 percent annually on their FDI investments in the United States, while U.S. private-sector investors earned 8.8 percent on their FDI investments. Foreign investors earned only 2.3 percent on their equity holdings and 6.0 percent on their bond holdings, while U.S. investors earned 8.5 percent and 7.2 percent, respectively. For all securities (equities and bonds), foreign investors earned about half of what U.S. investors earned abroad. Moreover, U.S. capital inflows in these asset classes comprise a substantial portion of total U.S. capital inflows. In 2005, 11 percent of

[4]Table 2 does not include official-sector asset positions for foreign-owned assets in the United States.

U.S. gross capital inflows from outside the official sector was in the form of FDI, 8 percent was in corporate stocks, and 38 percent was in bonds.

Therefore, even after controlling for the effects of government purchases and the different compositions of U.S. and foreign assets, foreigners have recently earned disappointing returns on their U.S. investments. Why were foreign, private-sector investors willing to invest $585 billion in U.S. bonds, equities and FDI in 2005—despite consistently earning lower returns than U.S. private-sector investors earned from the same types of assets abroad? Have foreigners been too optimistic about the "attractiveness" of investing in the United States? If so, once they realize that they could have earned higher returns from investing outside the United States, will U.S. capital inflows suddenly decline? Or do factors other than realized returns support foreign investment in the United States?

Factors that Might Drive U.S. Capital Inflows

There are at least six reasons why foreign, private-sector investors may choose to purchase U.S. assets, despite earning relatively lower returns. In fact, most of these reasons reflect optimal investment decisions by foreigners and could support a continuation of strong capital flows into the United States.

First, countries with less developed financial markets and limited domestic investment opportunities may invest in the United States in order to benefit from its more highly developed, liquid, and efficient financial sector. Caballero, Farhi and Gourinchas (2006) and Mendoza, Quadrini and Ríos-Rull (2006) have developed detailed models showing how different levels of financial market development in different regions, combined with financial market integration, can yield patterns of global imbalances similar to those observed today. Simulations in these papers also predict that these imbalances could persist for an extended period of time.

A second potential reason for foreign investment in the United States is strong corporate governance, accounting standards, and institutions. All of these characteristics will increase the expected returns to holding U.S. assets, by lowering the risk of expropriation or fraud and increasing investors' knowledge of the value of specific investments. Several papers have shown that corporate governance, accounting standards and other institutions are significant determinants of capital flows (Daude and Fratzscher 2006; Aggarwal, Klapper, and Wysocki 2005; and Gelos and Wei 2005). Therefore, the strong institutions, accounting standards, and corporate governance

in the United States may make the country an "attractive" place for foreigners to invest, despite lower realized returns.

A third (and related) set of factors potentially motivating capital flows into the United States are the low information costs and familiarity of the United States for foreign investors. Several papers provide empirical evidence that investors prefer stocks that are "closer"—with closeness measured not only by geographic distance, but also by "connectivity" through telephone traffic, tourism, language, immigration, common newspapers and journals (Portes, Rey, and Oh 2001; Daude and Fratzscher 2006; and Ahearne, Griever, and Warnock 2004). Therefore, the "familiarity" of the United States to investors around the world and the ease of access to information about the United States could stimulate investment by foreigners.

A fourth reason why foreign investors may purchase U.S. assets—despite relatively low returns—is the reserve status of the U.S. dollar. Investors may seek to hold a certain share of their assets in U.S. dollars in order to increase the liquidity of their portfolios—especially during periods of market volatility. Portes and Rey (1998) discuss the liquidity discount for the issuer of international currency. Granted, U.S. assets are not the only assets denominated in U.S. dollars, but the premium for dollar-denominated assets could increase the overall demand for U.S. assets and reduce the expected return that foreigners would require to invest in the United States.

A fifth factor potentially motivating U.S. capital inflows is that investors are not just focusing on returns in the United States but are seeking to maximize the expected returns on their entire portfolios. If returns in the United States are not perfectly correlated with returns in other countries, investors will hold U.S. assets in order to receive the benefits of diversification—even if the returns on U.S. assets are lower and the variance is higher than on other assets. More specifically, according to standard finance models, if investors care only about the mean and variance of the real return of their invested wealth, if markets are efficient, and if barriers to cross-border investment are small, then investors should hold the world market portfolio. U.S. equity market capitalization was $17 trillion at the end of 2005, comprising about 39 percent of world equity market capitalization. Therefore, foreigners would be predicted to hold about 39 percent of their global equity portfolios in U.S. equities. In fact, foreigners held only about 8 percent of their equity portfolios in U.S. equities.[5] An

[5]The 8 percent figure is calculated as follows: $2.1 trillion of foreign holdings of U.S. equities/$25.7 total foreign equity holdings. Total foreign equity holdings are calculated as follows: $43.6 trillion world equity market capitalization—$3.1 trillion U.S. holdings of

extensive literature has documented this home bias and discussed reasons why investors around the world tend to underweight foreign assets in their portfolios (see Kho, Stulz, and Warnock 2006). As barriers to cross-border investment continue to fall, however, it is likely that home bias will also fall. This could support continued capital inflows into the United States as foreigners increase their holdings of U.S. assets in order to optimize the expected returns on their portfolios.[6]

A final (and more speculative) factor that might possibly support foreign purchases of U.S. assets, despite earning lower returns than U.S. investors have earned abroad, is that being based in the United States provides certain advantages—such as the large size of the U.S. investor network, the large number of investment conferences held in the United States, and the heavy information flow during U.S. market hours. Hausmann and Sturzenegger (2006) have suggested that "dark matter"—such as the intangible assets (ideas, blueprints, and knowledge) that foreign investors gain access to as a result of FDI in the United States—motivates capital inflows.

Conclusion

Foreigners investing in the United States have earned significantly lower returns since 2002 than U.S. investors have earned from investing abroad. This pattern persists even after removing official-sector investment (as much as possible given data limitations) and focusing only on private-sector investment. This pattern even persists for investment within specific assets classes—such as for investment in equities, foreign direct investment, and bonds. Will foreigners continue to invest $1.8 trillion per year in the United States, funding its massive current account deficit, when they could be earning higher returns from investing in their own countries? Will foreigners suddenly wake up and realize the low relative rates of return they have been earning on their U.S. assets—and respond by withdrawing their money and causing a collapse of the dollar and spike in U.S. interest rates?

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foreign equities—$14.9 trillion U.S. holdings of domestic equities. For data on foreign holdings of U.S. equities and U.S. holdings of foreign equities, see Bureau of Economic Analysis, *Survey of Current Business*, Table F.1. (October 2006). For data on market capitalization, see Standard and Poor's, *Global Stock Markets Factbook (2006)*.

[6]It is worth noting that U.S. investors also exhibit a substantial amount of home bias. Therefore, a reduction in home bias around the world could generate a greater increase in capital outflows by U.S. investors than capital inflows from foreign investors, thereby leading to a smaller U.S. capital account surplus.

This article proposes several reasons why the lower relative rates of return that foreigners have earned on their U.S. investments might reflect optimal decisions in efficient capital markets. Foreign investment in the United States might reflect any (or all) of six factors: (1) the more developed, liquid, and efficient U.S. financial markets; (2) the strong corporate governance, accounting standards, and transparency in the United States; (3) the low information costs and familiarity of U.S. investments; (4) the reserve status of the U.S. dollar; (5) the diversification benefit from U.S. financial markets; and (6) the locational advantages of being an investor based in the United States. For any of these reasons, foreign capital flows into the United States might reflect optimal, portfolio-maximization decisions that would not change in the next few years—despite low realized rates of return for foreigners holding U.S. assets.

But are any of these six potential explanations important in practice? Or have foreigners consistently underestimated the returns from holding U.S. assets? Careful empirical work is needed to assess which, if any, of these factors explains a significant portion of capital flows into the United States. The answer will determine if these U.S. capital inflows and the current system of global imbalances can be expected to continue, and if not, how quickly it could unwind. The answer will also determine if this system of massive global financial transfers to one of the world's wealthiest economies represents a strength of the global financial system—or its greatest vulnerability.

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