

Global Imbalances: The Crisis That Didn't Occur... Yet

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Five years ago “global imbalances” were held up as the primary cause of the next global financial crisis. A concise statement of the concerns at that time is provided in the opening paragraph of Roubini and Setser (2004), which analyzed the sustainability of U.S. external deficits and the associated “Bretton Woods Two” international monetary system. Their paper examined

“...the sustainability of what Larry Summers has called the ‘balance of financial terror’ – a system whose stability hinges on the willingness of Asian central banks to both hold enormous amounts of US Treasuries (and other US fixed income securities) and to add to their already enormous stocks to provide the ongoing financial flows needed to sustain the U.S. current account deficit and the Bretton Woods Two system.”

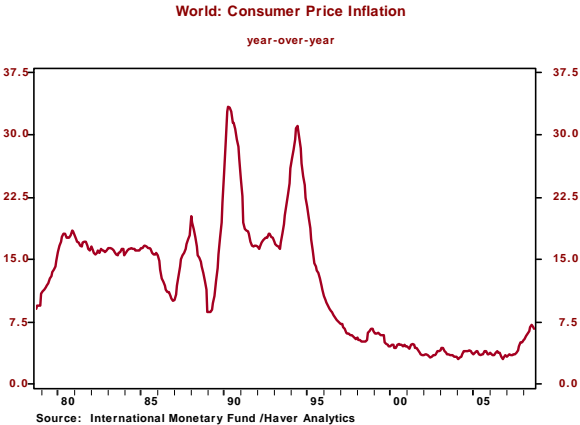
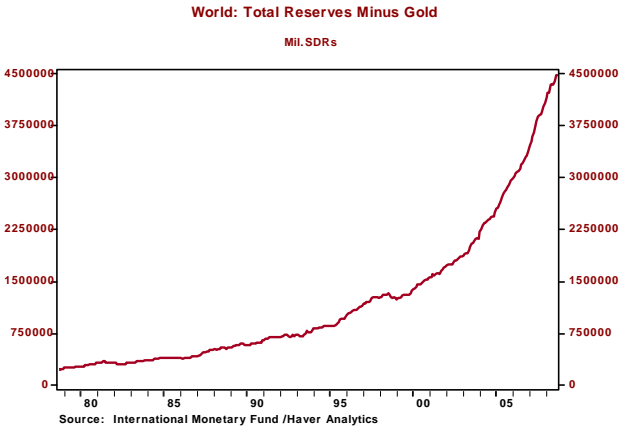
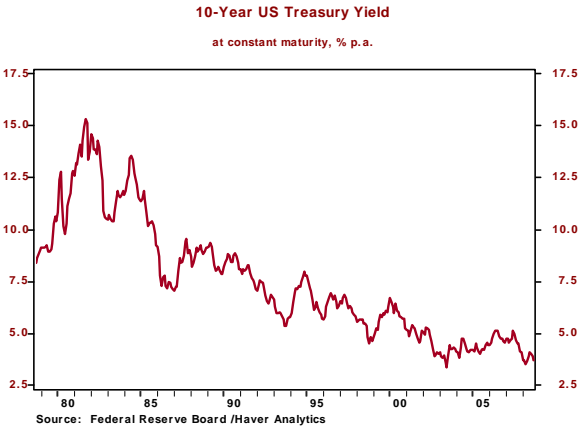
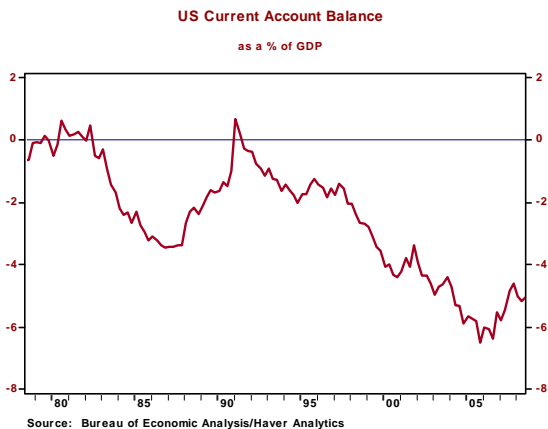
Roubini and Setser (2004) concluded “that the Bretton Woods Two system is fragile, and likely will prove unstable...the U.S. is on an unsustainable and dangerous path.” Feldstein (2006) laid out the risks associated with the large, bond-financed U.S. current account deficit a bit more explicitly:

“This form of capital inflow poses a serious risk to the American economy. Foreign governments may decide to shift their funds from dollars to other currencies. Similarly, private investors who are current holders of US stocks and bonds may decide to make such a shift. But they cannot collectively shift their funds out of dollars in the near term and cannot even reduce the flow of dollars to the United States. The trade deficit has to be financed and that requires a corresponding inflow of funds. To bring those funds would require higher rise in interest rates (or a fall in the value of the dollar). A shift in preferences away from the dollar could cause the interest rate in the US could rise rapidly. I don’t have to tell you about the damage that would be caused by such a large rise in interest rates.”

As it turned out, we did have a crisis, but not quite the one described in Roubini and Setser (2004) and Feldstein (2006). During the darkest moments of the crisis, global investors did not shun U.S. assets, U.S. interest rates (those on sovereign bonds, in particular) remained at historically low levels, and the dollar appreciated. That is not to say that global imbalances did not play a role in the crisis. To the extent they helped depress U.S. long rates and provided additional demand for some assets now described as toxic, they almost surely added fuel to the fire. But the crisis involving foreign retrenchment from U.S. bond markets, a sharp increase in U.S. rates and a plummeting dollar has not yet occurred.

On the heels of the recent financial crisis, it is worthwhile to step back and reassess global imbalances. While there are various lenses through which one can view global imbalances, I will do so from the perspective of global capital flows and international investment patterns. After reviewing current aspects of global imbalances, I will assess the trigger that could end global imbalances—investors from the U.S. and the rest of the world fleeing U.S. securities.

Exhibit 1. Indicators through summer of 2008

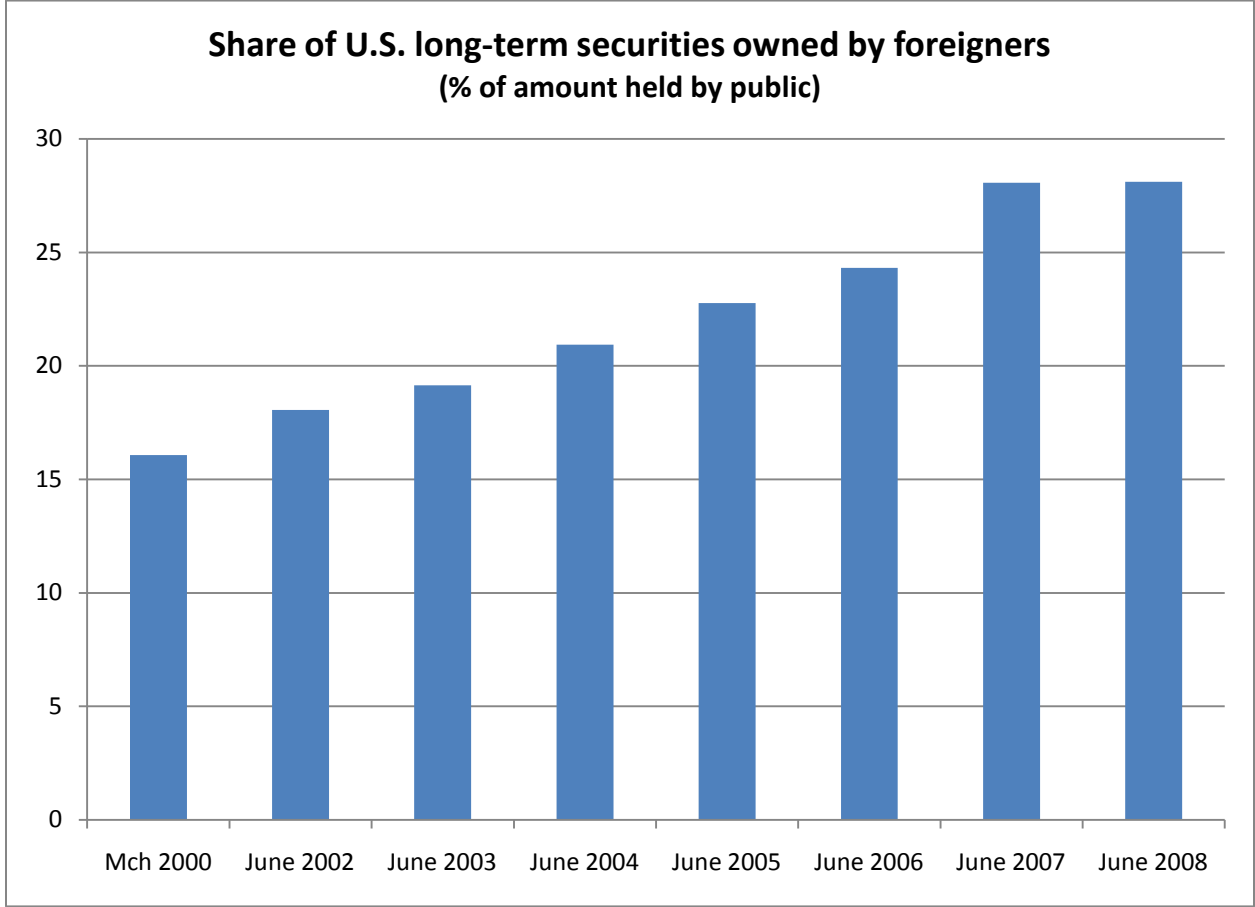


The Pre-Crisis Period

Two years ago the U.S. current account deficit, while improving, was still at 5% of GDP, a level that to many observers would trigger red flags. Relatedly, the U.S. consumer was an important driver of growth all over the world. In addition, emerging market countries were acquiring enormous reserves (much of which ended up in U.S. securities), U.S. long-term interest rates were at historically low levels, and many countries were experiencing inflation rates not seen in decades. (See **Exhibit 1** for basic indicators through the summer of 2008.)

The sustainability of this arrangement was questioned by many. An entire NBER book (Clarida 2007) was dedicated to papers that explored issues related to large current account deficits in developed countries.

Exhibit 2. Foreign ownership of U.S. bonds and equities



From my (admittedly narrow) perspective, exploding debt dynamics aside, sustainability hinged on foreigners' willingness to fund our current account deficits at something near the then-prevailing prices. And throughout much of the Naughties, they did: Foreigners held an ever-increasing share of U.S. securities, from 10% of the outstanding in 2000 to 18% by summer 2008 (**Exhibit 2**). For U.S. Treasury bonds, the increase in foreign ownership was even more striking; foreigners held 35% of the Treasury bond market in 2000 and 61%—almost two-thirds of all Treasuries held by the public—by summer 2008. Were foreigners (or, for that matter, U.S. investors) to decide that their portfolios were overstuffed with U.S. securities—the trigger that was mentioned in Roubini and Setser (2004) and Feldstein (2006)—the dollar would fall, U.S. long rates would spike, and global imbalances would abate.

The Crisis

Just when the discussion of global imbalances began to lose steam—foreigners' appetite for U.S. securities had begun to seem almost limitless—the crisis hit. To be sure, this was not the external crisis predicted by those concerned about global imbalances. During the darkest moments of the crisis, the dollar appreciated and U.S. long rates fell, directly counter to what would occur were this a “global imbalances” crisis.

But the financial crisis did hit, slowly at first, then gathering steam and in the process producing seismic shifts in global economic conditions. Global exports plummeted. The U.S. current account deficit shrank, because imports fell even faster than exports. With the dollar appreciating, there was little need for emerging market governments to acquire reserves, and global reserves decreased for the first time in a decade. Global inflation, after peaking at 7 percent, fell to below 1 percent. Governments all over the world implemented massive stimulus packages.

The Post-Crisis Era

Let's call the acute crisis period the fall of 2008, and the period since then the post-crisis era. This is not to suggest that we are out of the woods—many sizeable economies around the world are out of the acute crisis period only because of massive governmental life support that brings with it its own set of problems.

Basic indicators have changed markedly. The U.S. current account deficit has improved sharply. Emerging market countries' acquisition of reserves, which paused during the crisis (while the dollar

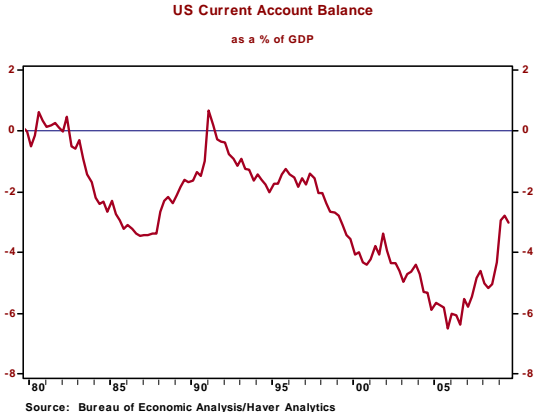
appreciated), has again surged. The dollar has resumed its decline against many currencies (but not against the remnimb). Global inflation has eased substantially. About the only constant is that U.S. long-term interest rates remain at historically low levels. (See **Exhibit 3** for basic indicators through late 2009.)

We will view the post-crisis period with an eye toward how global imbalances—the crisis that didn’t occur—might play out going forward. We will focus on the roles of three types of investors: governments, other foreign investors, and U.S. investors.

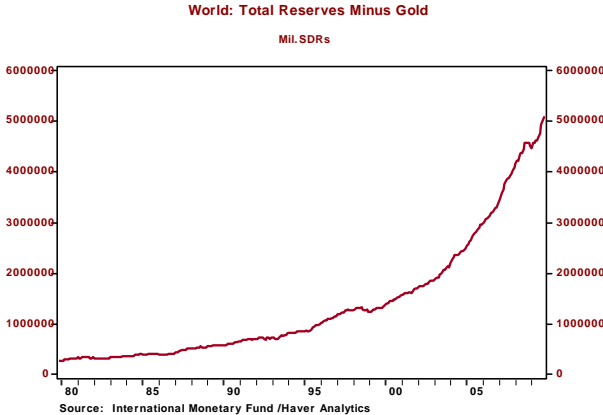
Reserves Accumulation

In some sense, “global imbalances” can be seen as a choice variable for emerging market governments, as the imbalances would not exist were it not for the exchange rate policies of many emerging market countries. Yes, the voracious appetite of the U.S. consumer has been a necessary component of the imbalances—I am not discounting that side of the arrangement—but if emerging markets did not support the dollar then a larger proportion of U.S. spending would fall on domestic goods (because foreign goods would be more expensive). So one way of thinking about the likely path of global imbalances is to ask, “What would cause EME governments to give up this arrangement?”

Exhibit 3. Indicators through mid to late 2009



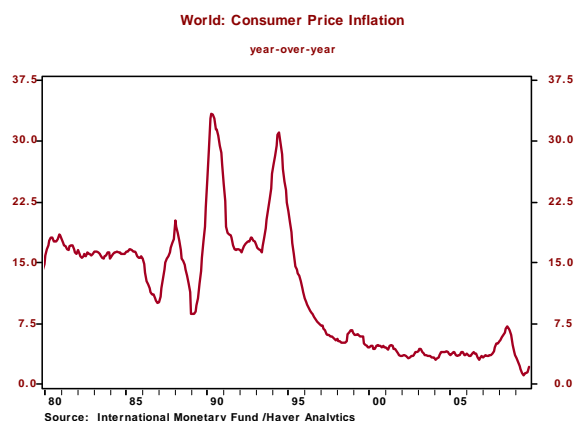
Last data point: 2009 Q3



Last data point: October 2009



Last data point: Dec 2009



Last data point: Nov 2009

In the darkest period of the crisis reserve accumulation paused, but it has since resumed and, indeed, surged (**Exhibit 3**). To date there is little evidence that some of the major accumulators of reserves will be able (or willing) to rebalance their economies toward a greater emphasis on domestic demand. To the extent that a few key countries continue the accumulation of reserves to keep their currencies from appreciating—and, as noted, global reserves are again increasing—one basic driver of global imbalances will still be in play in the near term.

The massive reserves accumulation could end for at least two reasons. One, emerging market countries could decide to focus on the development of domestic demand. I suspect that potential employment gains would be at the heart of this decision. Were it deemed that a shift to domestic demand could increase employment, we would be more likely to see such a shift. That said, to the extent that employment in export sectors is important, such a shift is unlikely. Two, reserve accumulation can be divisive *within* countries, in part because it is inflationary (and the poor bear the brunt of the impact of inflation). In 2007-08, when world food prices experienced their sharpest rise in three decades, food riots swept through more than 30 countries and governments in two countries (Haiti and Madagascar) were overthrown by the events that the price increases set in motion.¹ Moreover, reserves accumulation, which favors the export sector, can also increase inequality within a country. Were global inflation or strains between export sectors and other sectors to begin to rise again, one could imagine the citizens in emerging markets impressing on their governments the need to cease reserves accumulation.

¹ See “If words were food, nobody would go hungry” (Economist 11/21/2009).

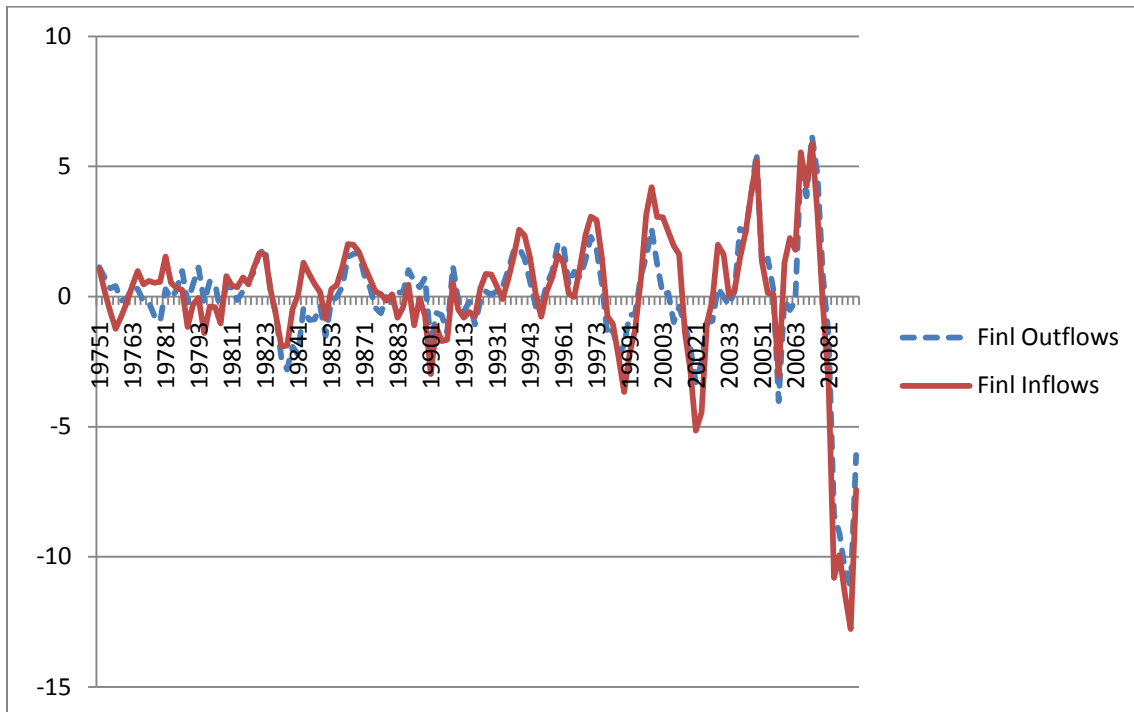
The Nature of U.S. Capital Flows

“Global imbalances” is also the result of choices made by U.S. and foreign investors. Were U.S. investors to increase their preference for foreign assets, or were foreigners to begin to shy away from U.S. assets, all else equal the end of global imbalances would be nearer. Thus, another reasonable question to ask is, “Has the crisis brought about a change in investors’ preferences?”

The crisis has brought on a substantial shift in the composition of U.S. capital flows, along with a dramatic reduction in gross flows. Interestingly, the U.S. is going through what for a developed country would be termed a current account reversal—the current account deficit has improved sharply over the past few years, with much of this improvement occurring in the past few quarters (**Exhibit 3**). As noted in Freund and Warnock (2007), not all current account reversals are equal—those that in the build up were financing consumption rather than investment are worse, and the recent U.S. episode certainly falls into that category. Freund and Warnock also found that the type of inflows predominant in the buildup does not impact the extent of the subsequent adjustment. That is, in past current account reversals, the financial systems seemed to intermediate funds adequately, although it would be difficult to argue that case during the recent crisis.

Were the U.S. an emerging market, this episode would be called a sudden stop, not in the Calvo et al. (2006) sense (in part because Calvo et al. have added a number of criteria to the definition of a sudden stop), but rather in the Rothenberg and Warnock (2006) “true sudden stop” sense. Gross financial inflows into the U.S. plummeted during the crisis (**Exhibit 4**). Capital essentially stopped flowing into the country, a defining feature of a true sudden stop. The net impact of this sudden stop was muted by a massive decline in gross outflows; that is, U.S. investors retrenched from global markets, thus mitigating the decrease in net inflows.

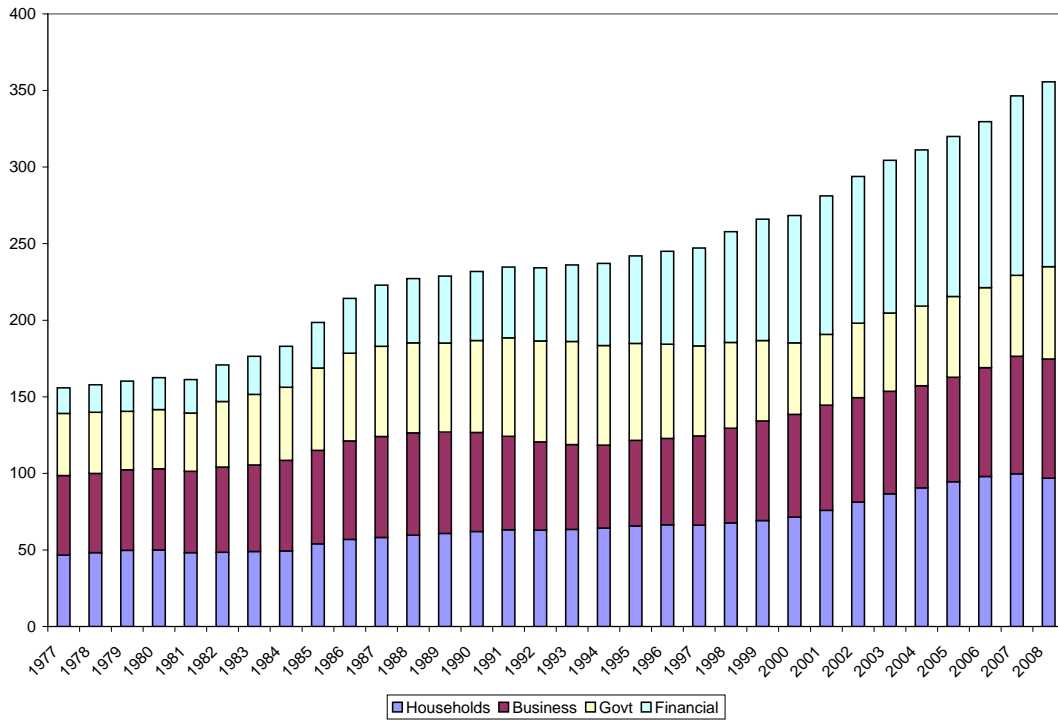
Exhibit 4. U.S. Gross Financial Inflows and Outflows



The chart shows, for both gross inflows and gross outflows, the difference in the 4-quarter sum of flows (as a percent of GDP) compared to the same sum a year earlier. During the crisis, gross inflows into the US plummeted. Net inflows fell by much less as U.S. investors brought money home (i.e., gross outflows plummeted, although by slightly less than the drop in gross inflows). Last data point: 2009Q2.

The trigger Roubini and Setser (2004) and Feldstein (2006) worried about—a shift in global portfolios away from U.S. securities—is still very much in play. With sharp increases in U.S. public debt (**Exhibit 5**), potentially adverse debt dynamics will give investors—both foreigners and domestic investors—reason to think carefully before funding U.S. budget deficits at anything near current interest rates.

Figure 5. U.S. debt by type of borrower (as a percentage of GDP)



Source: Author' calculation based on data from Federal Reserve's *Flow of Funds Accounts*.

Perhaps reflecting foreigners' concern, the share of U.S. securities held by foreigners fell in 2009 for the first time in at least a decade (**Exhibit 6**).²

² In Exhibit 6 the June 2009 numbers are the author's estimates.

Exhibit 6. Foreign Ownership of U.S. long-term securities

	Mch 2000	June 2002	June 2003	June 2004	June 2005	June 2006	June 2007	June 2008	June 2009*
Equity									
Total outstanding	24,861	18,485	18,639	22,006	23,947	26,367	31,450	28,435	23,140
Foreign-owned	1,709	1,395	1,564	1,930	2,144	2,430	3,130	2,969	2,199
% foreign-owned	6.9	7.5	8.4	8.8	9.0	9.2	10.0	10.4	9.5
Marketable US Treasury									
Total outstanding	2,508	2,230	2,451	2,809	3,093	3,321	3,454	3,621	4,591
Foreign-owned	884	908	1,116	1,426	1,599	1,727	1,965	2,211	2,629
% foreign-owned	35.2	40.7	45.5	50.8	51.7	52.0	56.9	61.1	57.3
US government agency									
Total outstanding	3,575	4,830	5,199	5,527	5,591	5,709	6,202	6,986	7,243
Foreign-owned	261	492	586	619	791	984	1,304	1,464	1,273
% foreign-owned	7.3	10.2	11.3	11.2	14.1	17.2	21.0	21.0	17.6
Corporate and other debt									
Total outstanding	5,411	6,954	7,692	8,381	9,410	10,425	11,747	12,501	12,830
Foreign-owned	703	1,130	1,236	1,455	1,729	2,021	2,738	2,820	2,466
% foreign-owned	13.0	16.2	16.1	17.4	18.4	19.4	23.3	22.6	19.2
Total US long-term securities									
Total outstanding	36,355	32,499	33,981	38,723	42,041	45,822	52,853	51,543	47,804
Foreign-owned	3,557	3,925	4,502	5,430	6,263	7,162	9,137	9,464	8,567
% foreign-owned	9.8	12.1	13.2	14.0	14.9	15.6	17.3	18.4	17.9

Along with this decline in foreign ownership of U.S. securities have been striking changes in both the magnitude and composition of U.S. financial flows (**Exhibit 7**).³ Net financial inflows (line 6), which slowed only slightly in 2008, fell sharply in 09H1. This slowdown in net inflows masked a much sharper slowdown in gross financial inflows (line 14), which fell from an annual average of \$1,744 billion prior to the crisis to only \$534 billion in 2008 and \$377 billion (annualized) in the first three quarters of 2009. This slowdown in flows into U.S. assets owed solely to the actions of private foreign investors (line 20); foreign official inflows (line 15) held up. The slowdown in private foreign flows into U.S. assets owes to a new-found aversion to U.S. agency bonds (line 25) and U.S. corporate bonds (line 27). In the face of this true sudden stop, net financial inflows (line 6) held up in 2008 only because US investors' flows abroad (line 7) were zero.

Two reasonable questions: Have we seen the peak in foreign ownership of US securities, and are zero US outflows likely to persist?

It is reasonable to assume that foreigners, as they re-examine all asset classes in light of the crisis, will no longer purchase vast quantities of near substitutes to U.S. risk-free assets. In the past, a large proportion of the inflows into the U.S. were in near substitutes to Treasury bonds (e.g., agency bonds). Such flows seem unlikely to resume at past magnitudes. Once the crisis fully abates, one can imagine a resumption of foreign purchases of U.S. corporate bonds, although one would think that foreigners will have a greater appreciation of the risks inherent in such securities. Thus, a reasonable assessment is that flows into Treasuries will continue, although the magnitude is uncertain, especially given the current worries about potentially destabilizing debt dynamics; flows into corporate bonds should resume, although probably not at the heightened levels of the pre-crisis period; and flows into agency bonds will likely remain a trickle at best. That said, even if foreigners now have a greater appreciation of the risks associated with U.S. debt, it is plausible that the U.S. could attract sizeable equity and FDI inflows, as it did through the tech boom and bust. But with the U.S. consumer likely to retrench, and the U.S. government somewhat overextended and thus likely unable to put forward additional massive stimulus, the attractiveness of U.S. equities is less than obvious.

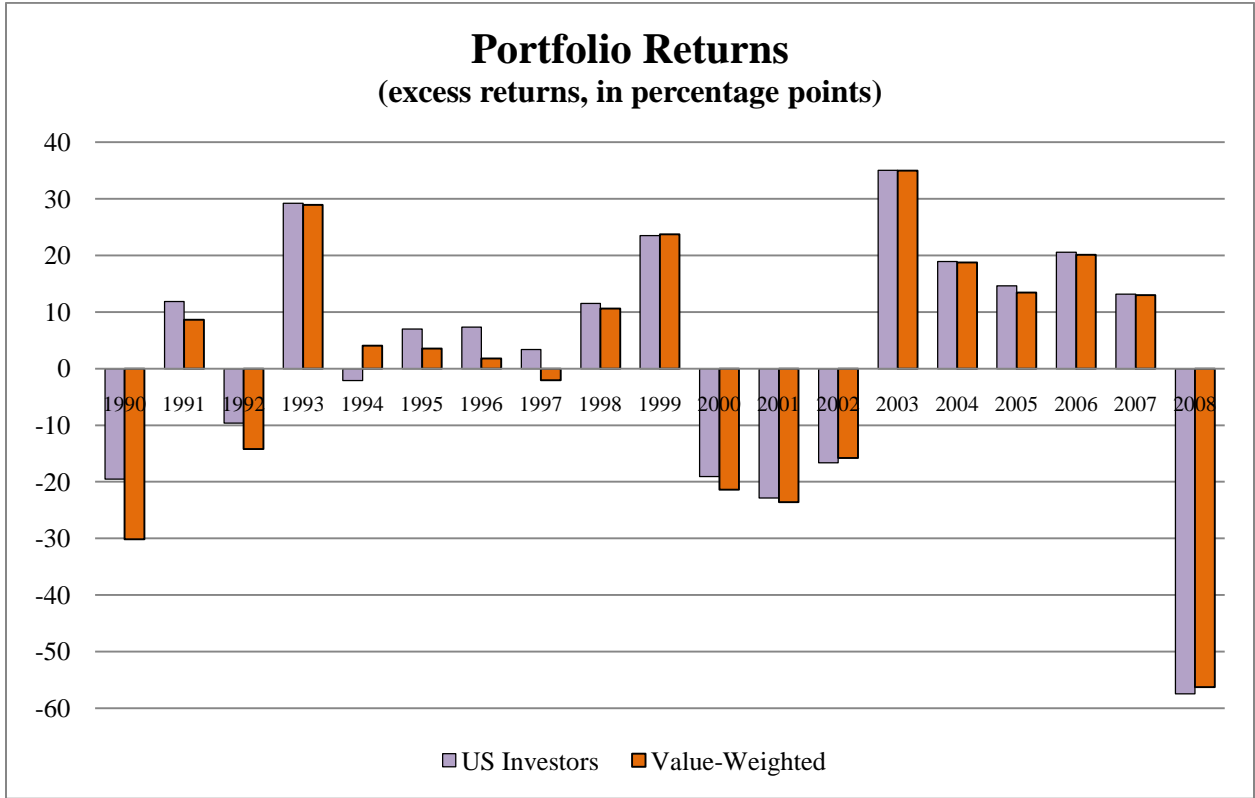
³ In Exhibit 7, 2009 data are through Q3 (annualized).

Exhibit 7. The composition of U.S. balance of payments (billion of USD, annualized)

	2004-07	2008	2009	
1 Current Account Balance	-727	-706	-412	<i>Sharp decrease in current account deficit...</i>
2 Trade Balance	-697	-696	-359	<i>...sharp decrease in trade deficit, as imports fell faster than exports.</i>
3 Income Balance	70	118	78	
4 Current Transfers	-100	-128	-131	
5 Capital Account Balance	2	1	-3	
6 Financial Account Balance	667	534	138	<i>Decrease in financial account balance.</i>
7 US Outbound Flows	-1076	0	-239	<i>US flows abroad plummeted to zero in 2008 and remain low.</i>
8 US DI Abroad	-249	-332	-224	<i>US DI abroad has maintained a reasonably high level.</i>
9 US Flows into Foreign Securities	-288	61	-236	<i>US investors sold foreign securities in 08, but resumed net purchases in 09.</i>
10 Foreign Equities	-139	-1	-89	
11 Foreign Bonds	-149	62	-147	
12 US Flows into Foreign Banks	-541	806	-369	<i>Net banking flows (ie when combined with inflows, below) positive in 08, negative in 09.</i>
13 US Government Assets	2	-534	590	<i>US govt assets abroad unprecendently large, but across time sum to near zero.</i>
14 US Inbound Flows	1744	534	377	<i>Flows into the US fell sharply in 08 and remain low.</i>
15 FOI Flows into the US	406	487	425	<i>Foreign official inflows have held up...</i>
16 Treasury Securities	173	478	488	<i>...as flows into Treasurys surged...</i>
17 Treasury Bonds and Notes	181	205	317	
18 Treasury Bills	-7	272	170	
19 Other FOI Inflows	233	9	-63	<i>...offsetting the sharp decline in official purchases of Agency bonds.</i>
20 Private Flows into the US	1337	47	-48	<i>Private flows into the US plummeted to zero in 08 and were negative in 09.</i>
21 FDI in the US	194	320	139	<i>FDI in the US held up...</i>
22 Treasury Securities	59	197	29	<i>...but private flows into Treasurys, after surging in 08, have slowed sharply in 09...</i>
23 Treasury Bonds and Notes	47	13	53	
24 Treasury Bills	11	184	-24	
25 Agency Bonds	34	-185	-57	<i>...and private foreigners now sell US agency bonds...</i>
26 US Equities	130	57	120	
27 US Corporate Bonds	367	1	-86	<i>...as well as US corporate bonds.</i>
28 Private Flows into US Banks	551	-372	-212	
29 Financial Derivatives	9	-29	.	
30 Statistical Discrepancy	49	200	250	<i>Large positive SD suggests more net inflows and/or smaller CAD.</i>

Global imbalances will not persist if foreigners retreat from U.S. markets. They will also not persist if another important but sometimes overlooked player—the U.S. investor—leaves U.S. markets and sharply increases positions in foreign markets. U.S. investors’ foreign equity portfolios, which totaled \$5.2 trillion at end-2007, have consistently (and significantly) outperformed global equity benchmarks over the past two decades (**Exhibit 8**).⁴ As investors naturally reassess asset classes in the aftermath of the crisis, one can imagine U.S. assets looking somewhat less attractive relative to foreign assets; all else equal, this brings forward the endgame of global imbalances.

Exhibit 8. Performance Comparison: U.S. Investors and the Value-Weighted Benchmark



This figure depicts annual returns (in excess of a one-month Eurodollar interest rate) for two portfolios. *Value-Weighted* is a benchmark portfolios based on MSCI market capitalization weights. *U.S. Investors* is a portfolio based on U.S. investors’ holdings. Source: Curcuru, Thomas, Warnock, Wongswan (2009).

⁴ Curcuru, Thomas, Warnock, and Wongswan (2009).

The Capacity of non-U.S. Markets to Absorb Sizeable Capital Flows

While the above analysis suggests that there might be a surge in global investment away from U.S. markets and toward foreign markets, it brings up a recurring question: What markets can handle the magnitude of global financial flows that would be unleashed in such a scenario? The euro area is a likely alternative. However, it is well known that the euro area does not currently provide a large, liquid market for a risk-free asset, as its sovereign bond markets are not unified. The recent strains associated with Greece's downgrade highlight this point. China has begun conversations on possible alternatives to the U.S. dollar as the international reserve currency. This would, presumably, involve a greater international role for the renminbi, but for now deep renminbi markets are years if not decades away. Other emerging markets (e.g., Brazil) have shown the strains of large capital inflows and have responded with capital controls. Ten years ago there was no viable alternative to the U.S. dollar as the currency of the world's risk-free asset. Today, while the U.S. risk-free market is less broad than investors previously believed, it is still not clear what the alternative is.

Conclusion

Global imbalances built up in the Naughties to such an extent that many thought they would bring on a global financial crisis that began with the rest of the world (and U.S. investors too) shunning U.S. assets. As it happened, we had a global financial crisis, but not that one. In the darkest moments of the crisis, the dollar surged and U.S. Treasury yields plummeted.

Global imbalances are building up again. The main question is, What could trigger their cessation? A benign trigger would be the cessation of massive reserves accumulation by some emerging markets, or an orderly shifting of global investors from U.S. markets to other markets, although it is unclear which market could ultimately replace U.S. markets on the global stage. A more malign trigger would involve the dynamics presented by Roubini and Setser (2004) and Feldstein (2006): a sudden retreat of U.S. and foreign investors from U.S. markets that would bring about a sharp rise in U.S. interest rates and a sharp decline in the dollar.

The evidence suggests that we are far closer to the trigger of a malign ending to global imbalances. But for those with a substantial amount of capital to invest, a relevant and unanswered question persists: "If not the U.S., then where?"

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