

Petrodollars, the Savings Bust, and the U.S. Current Account Deficit

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International finance is a fascinating but challenging subject with many moving and intertwined parts. Exchange rates go up and down, capital flows in and out, and saving doesn't always equal investment. Economic equilibrium is a global, not national concept. For example, the Fed can sometimes have a bigger impact on Bund yields than does the ECB, and quantitative easing in Tokyo can spill over into the currency markets in London.

Consider the U.S. current account deficit, currently one of the hottest topics in international finance. The debate is not *whether* the deficit has grown, but instead *why* it has grown. Some argue that it is simply the result of too much spending and not enough saving in the U.S. But there is also persuasive evidence that a global "saving glut" – an excess of global savings relative to profitable investment opportunities – has contributed significantly to the U.S. current account deficit in recent years.

The current global economic cycle provides compelling evidence that the surge in the U.S. current account deficit since 2004, the final swelling of the U.S. housing bubble, and the decline in the U.S. household saving rate are all manifestations of the same phenomenon: **recycled petrodollars**. I will review the evidence that the saving glut actually exists, and look at how the price of oil has impacted the saving glut from 2004 to 2006. Finally, I'll examine how the global saving glut itself generated a U.S. savings bust and the current account deficit, and how this will impact fixed income markets going forward.

The Oil Connection

In the last several years, the story of the U.S. current account deficit has been about the oil import bill. As Chart 1 makes clear, the biggest rise in global current account surpluses in recent years has been in oil exporting countries.

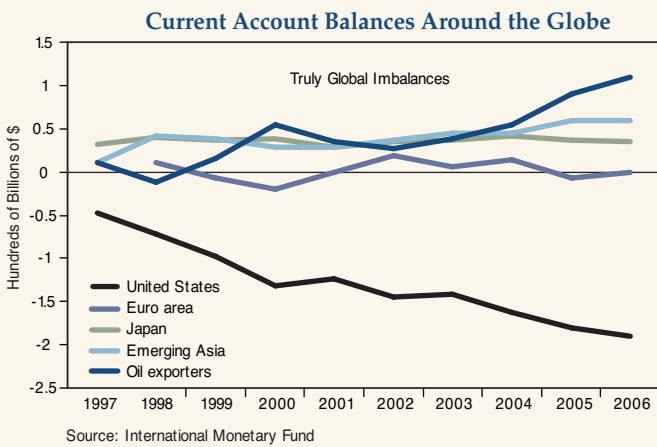


Chart 1

Chart 1, also illustrates that as the current account surpluses of oil producing countries have grown in recent years, the U.S. current account has moved further into deficit. In fact, there has been a high correlation between these oil-related surpluses and the U.S. current deficit. Chart 2 identifies this correlation by comparing the U.S. trade deficit excluding oil and the total trade deficit. During the period from March 2004 to July 2006, the non-oil trade deficit was relatively stable while the total deficit deteriorated substantially. (Chart 2 shows the U.S. trade deficit, not the current account deficit, but the difference between the two over the period was negligible.¹)

Non-Oil Trade Deficit and U.S. Total Trade Deficit



Chart 2

In fact, the increase in the U.S. oil bill between March 2004 to July 2006 was virtually the same as the increase in the trade deficit. In May of 2004, the U.S. non-oil trade deficit was running at about \$39 billion a month (\$500 billion annual rate) while the total trade deficit (including imported oil) was running at \$48 billion a month (\$600 billion annual rate). As imported oil prices began their upward march through \$30 to over \$70 a barrel, the trade deficit widened almost dollar for dollar. By July of 2006, when oil was at \$77 dollars a barrel, the non-oil trade deficit was roughly unchanged at \$41 billion a month while the total trade deficit was running at \$68 billion a month (\$840 billion annual rate).

While the charts above make a strong case for a connection between the current account surpluses of oil producing nations and the U.S. current account deficit, they do not establish the mecha-

nism that connects the two. That mechanism is the global “saving glut,” a term introduced by Federal Reserve Chairman Ben Bernanke in a March 2005 speech.² By identifying a glut of global savings relative to investment, Bernanke put forth an explanation for the “conundrum” of low global interest rates identified by his predecessor Alan Greenspan.

Finding the Glut

Though economic data cannot directly identify the saving glut, there is evidence the glut exists when we reconcile current account data with the behaviour of interest rates, credit spreads and forward real interest rates.

The current account can be described in several ways, but to begin searching for the saving glut, we must define it in terms of national saving and investment. Saving is comprised of personal, corporate and government saving, while investment is made up of business and residential investment. I will refer to this definition of the current account frequently:

Current Account = Savings – Investment

In other words, the current account balance equals whatever savings is left over once all the investment spending is done. If investment exceeds savings, then a nation runs a current account deficit and must make up the shortfall by attracting capital inflows from overseas investors.

By definition, then, the U.S. current account deficit is always equal to the rest of the world’s collective current account surplus, which was illustrated in Chart 1.

When Bernanke first raised the idea of a “saving glut,” many sceptics did not believe that such a glut could even be partly responsible for the U.S. current account deficit, and they made two main arguments. First, they denied that there was a saving glut to begin with, citing the observation that savings flows as a percentage of GDP in emerging economies and oil exporters were roughly the same in 2004 as they had been a decade earlier. Second, sceptics argued that even if there were a global saving glut, there is no direct mechanism through which the glut should contribute to the U.S. current account deficit.

In essence, the sceptics were asking “where is this excess of global savings if not in the global saving data?” The answer, of course, was not in the saving data, but in the current account data.

If we believe that recent years’ deterioration in the U.S. current account deficit has simply been driven by an autonomous decline in U.S. saving and a boom in investment, we’d have to also expect that U.S. interest rates would have to rise, and credit spreads would have to widen, to attract enough foreign capital to finance the

deficit. But in reality, just the opposite has happened: as the current account deficit has grown, interest rates have fallen and credit spreads have narrowed. Chart 3 shows the tight correlation between the U.S. current account and forward real interest rates from the U.S. Treasury Inflation – Protected Securities (TIPS) market.

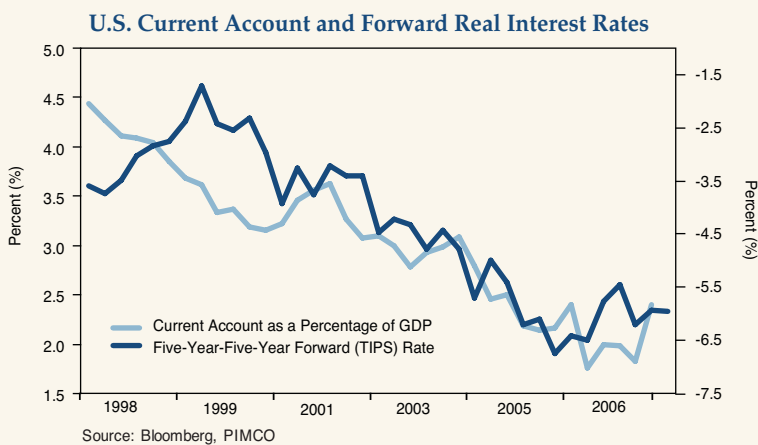


Chart 3

Any explanation for a simultaneous rise in the U.S. current account deficit and drop in interest rates must explain why foreign investors have been so willing to invest in U.S. assets without demanding higher yields.

The simplest explanation – and one which also explains Greenspan’s conundrum of low long-term rates – is a global saving glut. According to this view, excess global saving is crowding in U.S. investments, driving down U.S. interest rates and risk premiums. Lower rates, in turn, drive up U.S. investment and consumption, which in turn

widens the current account deficit. So far, so good. But there is still more that we need to resolve. Namely, how did U.S. consumption withstand the sharp rise in oil prices from March 2004 to July 2006? Previous oil shocks sent the U.S. economy into recession, which typically lowers the current account deficit. But this time, consumption held up and the current account deficit widened even more. What happened?

Oil, Savings, and the Current Account Deficit

The close connection between rising oil and a widening current account deficit makes intuitive sense: since demand for oil is presumed to be inelastic, we should expect the oil price and the current account deficit to move hand in hand.

The problem with this argument is that during past oil price spikes (1974-1975, 1979-1980, 1990-1991) the U.S. current account deficit did not widen appreciably. In fact, the U.S. ran a current account surplus in 1975 and 1991, and the deficit in 1979-1980 was modest. Of course, U.S. recessions coincided with each of these oil shocks. So what was different more recently that kept U.S. demand growth sturdy even amid a growing trade deficit and oil bill?

The Fed’s “considerable period” of a one percent funds rate and “measured pace” of rate hikes certainly supported the economy in 2004 and into

The Bernanke Savings Glut and the U.S. Savings Bust

	2004 Quarter I	2005 Quarter I	2005 Quarter II	2005 Quarter III	2005 Quarter IV	2006 Quarter I	2006 Quarter II	Difference (\$ Billions)
Current Account	-565.4	-762.1	-753.6	-717.2	-870.2	-823.1	-846.1	-280.7
= Gross Personal Saving	389.7	288.1	209.6	302.1	234.6	224.1	128.7	-261
+ Gross Corp Saving	1379.7	1392.2	1474.5	1585.6	1486.6	1469.6	1570.8	191.1
+ Government Saving	-551.0	-418.1	-426.2	-550.0	-434.9	-295.1	-304.9	246.1
Minus Investment	-1781.9	-2013.5	-2009.1	-2052.6	-2154.4	-2214.9	-2237.2	-455.3
Memo: Net Personal Saving	178.9	52.5	-30.8	-132.6	-28.5	-29.7	-130.8	-309.7

Source: U.S. Department of Commerce, Bureau of Economic Analysis

Table 1

2005. Yet even the Fed, I imagine, was surprised at how well the economy held up to \$60 and \$70 a barrel oil. It is interesting to note that the “worst case scenario” envisioned in a 2002 Treasury study of how a spike in oil prices impacted the U.S. economy was \$50 a barrel oil for one year, which it estimated would subtract one percentage point from growth. Instead, the rise in oil prices to their peak wasn’t even enough to stop the Fed from raising rates. So I believe that another factor contributed to the tight link between oil prices, foreign investment into U.S. assets, and the U.S. current account deficit in recent years – the global saving glut.

According to the saving glut interpretation of the data, the process works as follows: First, strong global demand for oil pushes up the price of oil.

Second, the petrodollars are recycled into the global capital market, driving down real interest rates and compressing credit spreads. Third, real interest rates at conundrum levels and skinny credit spreads encourage enough U.S. business investment and residential construction and investment, and discourage enough U.S. saving, to generate a current account deficit sufficient to absorb the petrodollar recycling in the first place. Table 1 shows the data that support this interpretation.

Between first-quarter 2004 and second-quarter 2006 – the period depicted in Table 1 – the U.S. current account deficit widened by \$281 billion.

As we have shown, over this period the higher oil import bill accounted for all the deterioration.

Over these 10 quarters, overall savings rose, with

strong corporate cash flows pushing corporate saving up by \$191 billion, and falling state, federal, and local budget deficits pushing government savings up \$246 billion (so much for the twin deficits explanation). This \$437 billion rise in corporate and government saving was almost exactly sufficient to offset the \$455 billion increase in gross U.S. investment over these 10 quarters. Had household personal saving merely remained unchanged over these two and a half years at \$390 billion (and thus declined as a share of nominal GDP, which rose 12 percent over this period), there would have been virtually no deterioration in the current account balance. But the current account did indeed deteriorate over the period, indicating a decline in household saving that closely tracked the increasing oil bill. In other words, **a saving glut in the oil exporting countries required a saving bust by U.S. households to finance the oil import bill and the widening of the current account deficit.** As Table 1 shows, the U.S. net personal saving rate actually dipped negative in second-quarter 2005 and remained there through at least the peak in oil prices second-quarter 2006.

Now, there is a lot that economists don't know about the U.S. saving rate, but one thing we do know is that it is rarely negative. Indeed, for the first time since the Great Depression, net personal saving in the U.S. was negative in both 2005 and

2006. Was this a coincidence? I don't think so. In fact, I think that the saving glut, boosted by recycling of petrodollars, contributed to the negative saving rate, and the mechanism was the housing bubble.

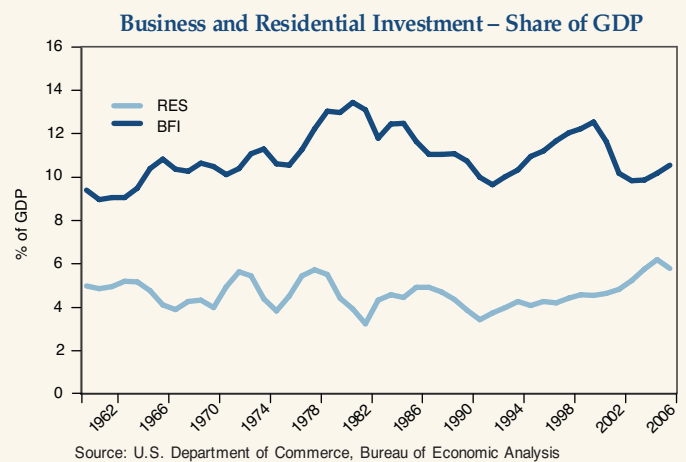


Chart 4

Chart 4 shows that residential investment as a share of GDP reached a post-war high in 2005 and remained very strong into 2006, before the housing market's U-turn in the second half of 2006. The housing boom, in turn supported consumption, as households spent some of the wealth gained from higher home values. The housing boom had a direct effect on the current account, through a surge in residential investment from 3% to 6% of GDP (remember $CA = S - I$), and an indirect effect by boosting consumption via the wealth effect and lowering saving. The conundrum level of long-term interest rates, in

turn, supported the housing boom and the decline in credit spreads. And the conundrum level of long-term interest rates and low credit spreads were the result, at least in part, of the saving glut, particularly through recycling of petrodollars. In the global capital market of the 21st century, the “capital account” tail can indeed wag the “current account” dog.

Investment Implications

With the substantial decline in oil prices from their summer 2006 peak, and below trend growth in the U.S. economy in store for 2007, the U.S. current account deficit will likely begin to decline this year. There will also be fewer petrodollars to recycle at \$60 oil than at \$75 oil. Thus U.S. demand for capital inflows will shrink, but the supply of petrodollar outflows to the global financial system will also shrink. In this state of affairs, what are the implications for interest rates and credit spreads?

As for rates, my sense is that the decline in both petrodollars and U.S. demand for foreign capital will largely offset, but with a bias toward somewhat lower spot and forward U.S. bond yields. Below-trend U.S. growth and some prospect of a rebound in the personal saving rate into positive territory should outweigh the endogenous decline in petrodollar inflows to the U.S. from lower oil prices. But the effect on credit

spreads is more uncertain. One could argue that while lower oil prices reduce petrodollar recycling they could also increase the trade surpluses that need to be recycled by non-oil producing countries, the effects cancelling out. However, I suspect the decline in new flows from petrodollar recycling may not be benign for the credit markets. This is because there is evidence to suggest that the petro surpluses have been allocated much more into spread product than have the surpluses of the oil importers.³

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¹ The current account deficit is the sum of the trade deficit and the balance on international investment income. This balance in recent years has been small so that changes in the current account balance have been accounted for almost entirely by the trade balance.

² Although Bernanke's speech brought well deserved attention to this issue, others were also exploring global imbalances from this perspective. For example, In October, 2004, I delivered a speech in Washington at the Cato Institute Monetary Conference on the subject of Japan, China, and the U.S. Current Account Deficit. In it I said, "It is important to appreciate that the U.S. current account deficit is a general equilibrium phenomenon and is, in part, a reflection of a global excess of saving relative to profitable investment opportunities in the post-bubble world... In international finance, it is relative valuations that matter for international capital flows... I note that in a world, like the present, in which there is a global excess supply of saving relative to investment, some country or group of countries must absorb the surplus of internationally mobile capital. As evidence in favour of this view, I point out that the level of global interest rates, including real interest rates, is quite low by historical standards."

³ For recent analysis of petrodollar recycling, please see, "Petrodollars, Asset Prices, and the Global Financial System" by Ramin Toloui, Capital Perspectives 2007. For a recent presentation of PIMCO's views about the evolution of BWII and the saving glut, please see Bill Gross, "Mission Impossible," Investment Outlook, June/July 2006 and "The End of History and the Last Bond Bull Market," Investment Outlook, August 2006, and Paul McCulley, "Twice Blessed" Fed Focus March 2004.

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