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Recycling Petrodollars

Matthew Higgins, Thomas Klitgaard, and Robert Lerman

In recent years, oil-exporting countries have experienced windfall gains with the rise in the price of oil. A look at how oil exporters "recycle" their revenues reveals that roughly half of the petrodollar windfall has gone to purchase foreign goods, especially from Europe and China, while the remainder has been invested in foreign assets. Although it is difficult to determine where the funds are first invested, the evidence suggests that the bulk are ending up, directly or indirectly, in the United States.

In recent years, higher oil prices have led to a significant redistribution of global income from oil importers to oil exporters.[1] Indeed, exporters are likely to receive oil revenues of about $970 billion in 2006—an increase of almost $670 billion since 2002—with the bulk of these windfall gains going to just a handful of countries.[2]

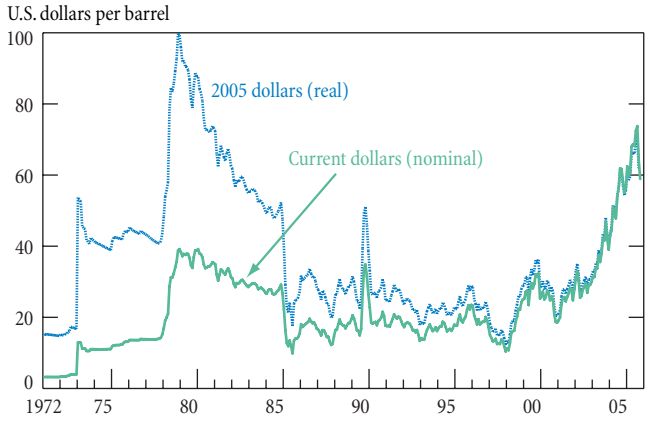
The way in which oil exporters deploy their revenues has important implications for oil-importing countries. Higher oil prices reduce purchasing power in oil-importing countries and thus are a drag on their growth. But when oil exporters use the revenues from oil sales to increase their purchases of goods from oil-importing countries, these negative effects on growth are reduced. Increased purchases of foreign assets by oil exporters can also help sustain growth in oil-importing countries, albeit less directly. Such asset purchases are a form of lending: In effect, oil importers can sustain their consumption and investment spending by borrowing from oil exporters to finance their higher oil-import bills.

This edition of *Current Issues* examines how oil-exporting countries have deployed their oil revenues in recent years and how this decision has affected oil-importing countries. We find that thus far, exporters' oil revenues have been about evenly split, with half going to increased purchases of foreign goods and services and half going to increased purchases of foreign assets. We also find notable differences across major oil-importing countries in how petrodollars have been recycled. While Europe and China have seen a large fraction of the increase in payments to oil exporters return to purchase locally produced goods, the United States and Japan have seen only a small fraction return for this purpose. On the financial side, China and Japan are running large current account surpluses, and thus do not need to borrow to pay their higher oil-import bills. Europe's current account remains close to being balanced, so it too has not engaged in net borrowing from abroad. Among the major economies, only the United States has been willing to increase its net borrowing in recent years. As a result, whether directly or indirectly, the bulk of the oil exporters' windfall has gone to finance the large and growing U.S. current account deficit.

Oil Prices and Oil Revenues

The global economy has had to adjust to large swings in oil prices in the past (Chart 1). After the OPEC oil embargo was imposed in late 1973, oil prices jumped from an average

Chart 1
Nominal and Real Oil Prices



Sources: U.S. Department of Energy; Haver Analytics.

of slightly less than $4.00 a barrel to $11.40 a barrel in 1974 (or from about $16.75 to $45.40 a barrel in 2005 dollars, adjusted using the U.S. consumer price index).[3] A decrease in Middle East oil production caused a second major oil shock in 1979-80, pushing prices from approximately $14.00 a barrel in 1978 to $37.20 a barrel in 1980 (or from $41.95 to $88.25 a barrel in 2005 dollars).

The recent rise in oil prices rivals these two episodes in magnitude, although it has occurred more gradually. Oil prices averaged just under $25.00 a barrel in 2002 and climbed only modestly in 2003. In early 2004, in part owing to surging demand by China, prices began a strong upward trend, averaging $37.75 a barrel that year, $53.35 in 2005, and $65.35 over the first ten months of 2006.

These three episodes of price volatility generated large swings in export revenues for oil-exporting countries.[4] In 1972, oil exporters recorded $24 billion in foreign sales. By 1974, after the first oil price shock, export revenues had grown to $117 billion. Revenues increased steadily but not dramatically over the next several years. The second oil price shock, however, propelled export revenues to roughly $275 billion in 1980 and $250 billion in 1981.

The most recent rise in oil prices has meant new gains for oil-exporting countries. All told, oil-export revenues appear set to reach about $970 billion in 2006, up from just $300 billion in 2002. This dramatic increase raises the natural question of how oil exporters have spent their windfall.

Deploying Petrodollars

Oil exporters have two options when deploying their revenue windfall. The windfall can be used for imports of goods and services, or it can be used to purchase foreign assets in the international capital markets.

To analyze how these new revenues have been deployed, we need to take account of the fact that non-oil exports by oil-exporting countries have also risen in recent years. Indeed, non-oil exports rose by roughly $310 billion from 2002 to 2006 (of which about $45 billion stems from higher sales of natural gas). It is not possible practically or analytically to distinguish how oil revenues have been deployed from how other export revenues have been deployed. Accordingly, we rely on the combined export figure.

All told, oil exporters' export revenues are projected to exceed $1,500 billion in 2006, a jump of about $980 billion since 2002 (Table 1). Of that increase, just under half, or about $475 billion, has been going to increased imports of foreign goods and services. Roughly another $485 billion has been going to increased net purchases of foreign financial assets, as reflected in oil exporters' combined current account surplus.[5] (Additional analysis of oil prices and the global economy can be found in Rebucci and Spatafora [2006].)

Table 1
Oil Exporters' Deployment of Export Revenues
Billions of U.S. Dollars

	2002	2006	Change
Exports	535	1,516	981
minus			
Imports	403	875	473
plus			
Net other items	-44	-70	-25
equals			
Current account/ net foreign investment	88	571	483
Memo:			
Oil exports	299	968	669
Other exports	236	548	312

Sources: International Monetary Fund; authors' estimates.

Notes: Oil exporters include Algeria, Angola, Azerbaijan, Bahrain, the Republic of the Congo, Ecuador, Equatorial Guinea, Gabon, Iran, Iraq, Kuwait, Libya, Nigeria, Norway, Oman, Qatar, Russia, Saudi Arabia, Sudan, Syria, Trinidad and Tobago, Turkmenistan, the United Arab Emirates, Venezuela, and Yemen. Figures for 2006 are forecasts.

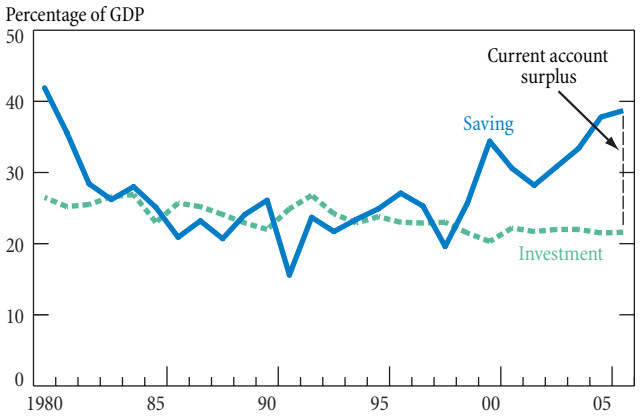
[1]We use the International Monetary Fund's definition of oil exporters—those countries that currently derive the bulk of their export revenues from sales of fuel. The countries are identified in Table 1; Norway has been added because last year the country derived roughly 53 percent of export revenues from oil.

[2]Figures for 2006 are forecasts from the International Monetary Fund's September 2006 *World Economic Outlook*. In a few instances, the figures represent our estimates using data available through October 2006.

[3]Oil prices are measured as the average of the prices for West Texas Intermediate, U.K. Brent, and Dubai.

[4]A long history of data on these countries' oil-export revenues is not available, so we use data on *total* export revenues. Data on oil-export revenues are available for the more recent period.

Chart 2
Saving and Investment by Oil Exporters



Sources: International Monetary Fund (IMF); Organisation for Economic Co-operation and Development (OECD); authors' calculations.

Note: Values for 2006 are based on IMF and OECD forecasts.

The Oil Windfall, Saving, and Consumption

Economic theory implies that a temporary income windfall will largely be saved, while a permanent windfall will largely be consumed. Are oil exporters behaving as if they believe recent oil price increases will be temporary or permanent?

In fact, oil exporters' saving has increased markedly in recent years, from roughly 28 percent of GDP in 2002 to 39 percent in 2006 (Chart 2).[6] During the same period, domestic investment spending as a share of GDP has barely budged.[7] As a result, the increase in saving has been allocated entirely to greater foreign asset accumulation. (National saving is equal to the sum of domestic investment spending and the current account balance, that is, net foreign asset purchases.)

Despite this pattern, it is too early to conclude that oil exporters see the recent price increases as temporary. First, it can take time to adjust consumption patterns, even if an income windfall is believed to be permanent. Second, an income windfall may need to persist before it is judged to be permanent. If oil prices remain elevated, saving rates of oil exporters might fall in the years ahead. Lower saving rates would mean that a higher fraction of the oil exporters' windfall is being spent on imports and a lower fraction on foreign assets.

Table 2
Oil Exporters' Response to an Increase in Revenues
Dynamic Response to a 10 Percent Increase in Export Revenues, 1973-2005

	Initial Increase	Six Months	Twelve Months	Twenty-Four Months	Thirty-Six Months
Exports	10.0	10.7	11.1	8.0	6.0
Imports	1.6	3.7	5.3	6.8	6.6

Source: Authors' estimates, based on data from the International Monetary Fund.

Notes: The results are derived from bivariate vector autoregression estimates, including the current value and twelve monthly lags of the natural logs of merchandise exports and merchandise imports, both measured in nominal dollars. The sample consists of countries defined as oil exporters in the International Monetary Fund's *International Financial Statistics*; they form a somewhat narrower group of countries than the one identified in the text.

The historical behavior of imports in response to changes in export revenues supports this conjecture (Table 2). According to statistical estimates, a 10 percent increase in oil exporters' export revenues is typically followed by a slight further increase over the next twelve months. However, export revenues generally taper off over a twenty-four-month horizon, and even more so over a thirty-six-month horizon. This result is not surprising, as past oil price increases have tended to be partly reversed (Chart 1). By comparison, import expenditures have tended to rise gradually after an export windfall (Table 2). Six months after a 10 percent jump in export revenues, import expenditures are typically less than 4 percent higher. But import expenditures generally continue to rise in subsequent months. In fact, after thirty-six months, the percentage increase in import expenditures has tended to rise slightly past the remaining increase in export revenues. These estimates conform with the visual evidence presented in Chart 3. When exports have surged, imports have tended to follow with a lag and to retain their gains even when exports later stabilize or back down.

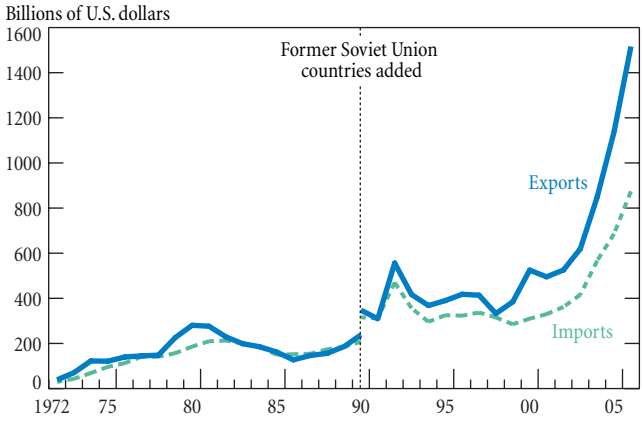
The prospect of a rise in oil exporters' import expenditures in the future need not entail a one-for-one fall in saving. Higher imports that reflect higher consumption do imply a drop in saving. National saving, however, would remain unchanged if higher imports were attributable to higher domestic investment spending rather than to higher consumption. Even so, the basic point remains: Going forward, if oil prices remain elevated, more of the exporters' windfall is likely to be spent on imports and less on purchases of foreign assets.

[5]Miscellaneous items in the balance of payments explain why the combined increase in imports and investment abroad is slightly less than the increase in export revenues.

[6]Unfortunately, it is not possible to construct a saving series that covers the 1973-74 and 1979-80 oil price shocks. Nevertheless, the very high saving rates recorded in the early 1980s and the subsequent decline in rates over the decade are consistent with what economic theory would predict for an income windfall believed (correctly, in this case) to be mostly temporary.

[7]In dollar terms, investment spending roughly doubled between 2002 and 2006. However, dollar GDP also doubled, leaving investment spending as a share of GDP unchanged.

Chart 3
Imports and Exports of Oil-Exporting Countries



Sources: United Nations National Accounts Main Aggregates Database; International Monetary Fund.

The Geography of Petrodollar Recycling

Which countries have been benefiting from higher sales to oil-exporting countries? And, on the financial side, which countries have been the destination of oil exporters' investments?

Merchandise Trade

There are considerable differences across major oil-importing economies in the extent to which increased payments to oil exporters have returned to purchase locally produced goods.[8] From 2002 to 2006, U.S. merchandise imports from oil-exporting countries increased by $116 billion, reaching $179 billion (Table 3). Merchandise exports to those countries increased by $23 billion over the same period, to total $45 billion. All told, just 20 cents of each $1 in increased purchases from oil exporters came back directly to the United States in the form of higher purchases of U.S. goods.

These figures do not imply that U.S. export performance to this group of countries was especially poor. In fact, the percentage increase in U.S. sales to oil exporters over the period, at 105 percent, is just slightly below the percentage increase in sales by all countries to oil exporters. The small fraction of trade payments returning to purchase U.S. goods instead reflects the fact that sales to this group of countries began from a very low sales base.

The euro area has seen a higher fraction of new payments to oil exporters return to purchase locally produced goods. Merchandise imports from oil-exporting countries more than doubled from 2002 to 2006, rising by some $192 billion to reach $316 billion. Over the same period, euro-area sales to oil exporters climbed by $77 billion, reaching $167 billion. All told, 41 cents of each $1 of purchases from oil exporters came back in the form of higher purchases of euro-area goods.

Table 3
Trade with Oil Exporters
Change from 2002 to 2006, Billions of U.S. Dollars

	Imports	Exports	Ratio
United States	116.1	22.9	19.8
Euro area	191.5	77.5	40.5
China	56.1	33.5	59.7
Japan	70.4	12.9	18.3
Korea	42.0	10.1	24.0

Sources: U.S. Census Bureau; Eurostat; CEIC Data Company.

Note: The 2006 data are based on the most recently available twelve months, generally through August or September 2006.

In percentage terms, euro-area sales to oil exporters rose by 86 percent from 2002 to 2006—less than the percentage increase in sales by the United States. The higher fraction of euro-area purchases from oil exporters returning to buy euro-area goods reflects a much higher initial sales base compared with that of the United States. Geographic proximity explains the higher sales base: Euro-area countries are closer than the United States to the major oil exporters of the Middle East, and two large exporters—Norway and Russia—are in Europe itself.

In this connection, the country breakdown we rely on here may not adequately capture the relationship between oil prices and the geographic pattern of U.S. trade. While easily more than 90 percent of euro-area oil imports come from countries we have classified as oil exporters, only half of U.S. oil imports come from this group of countries. Canada and Mexico, which are not in this group, are the sales leaders in the U.S. market. However, because oil accounts for less than a fifth of total merchandise imports from Canada and Mexico, we cannot track how much of these countries' petrodollar receipts were recycled to purchase U.S. goods.

In Asia, China has fared even better than the euro area in seeing petrodollars recycled back home. Imports from oil-exporting countries increased by $56 billion from 2002 to 2006 while sales grew by $34 billion, so that 60 cents of each $1 sent abroad returned to purchase Chinese goods.

This high figure accords with the explosive growth of China's exports to all markets. Indeed, China's exports grew by 179 percent over the period—an increase not too far below the 238 percent rise in sales to oil exporters. Given China's gains in market share, the country might well have seen its sales to oil exporters climb sharply, even if oil exporters' purchases worldwide had remained flat in recent years.

[8] We use merchandise trade data from major oil-importing economies because they are more timely than data from oil exporters.

Conversely, Japan and Korea saw a much smaller fraction of petrodollar payments return home. In Japan, just 18 cents of each $1 sent to oil-exporting countries was recycled to buy Japanese products. The corresponding figure for Korea was 24 cents. In percentage terms, though, both countries saw very rapid sales growth to oil exporters—95 percent and 113 percent, respectively—albeit from a low base.

One caveat is in order. Our analysis pertains only to "first-round" trading relationships. In particular, an increase in sales to oil exporters might result in higher imports from third markets to acquire needed intermediate inputs. To the extent this is the case, the fraction recycled back to a country may be overstated, with some petrodollars flowing indirectly to the third-market input producer. This caveat is particularly relevant for China, where the import content of export production is especially high.

Foreign Investment

Oil exporters' net financial investment in the rest of the world is equivalent to the exporters' combined current account surplus. The combined surplus is projected to exceed $570 billion in 2006, an increase of almost $485 billion from 2002 (Table 4). The main global counterpart to the higher surplus has been a larger current account deficit in the United States. Indeed, the U.S. deficit is projected to reach almost $870 billion in 2006, up roughly $400 billion from 2002. In contrast, Asian economies are running large current account surpluses. Europe's current account is now roughly balanced while current accounts in the rest of the world, as a whole, have deteriorated and are now slightly in deficit. Of course, absent the recent increase in oil prices, current account balances in Asia would likely have moved still higher, and balances in Europe and the rest of the world might have remained stable or even increased. Thus, the United States has been the only major economy willing to take on sizable new foreign liabilities during the recent period of rising oil prices.

It is natural to suppose, then, that the great bulk of oil exporters' net investment abroad must be going into the United States. Yet the available data indicate that it is not—at least not directly.

Table 4
Global Current Account Balances
Billions of U.S. Dollars

	2002	2006	Change
Surpluses			
Oil exporters[a]	88	571	483
Emerging Asia	122	263	141
Japan	113	167	55
Western Europe[b]	57	13	-44
Deficits			
United States	-472	-869	-397
Miscellaneous countries	-59	-130	-72
Memo:			
Global discrepancy	151	-16	-167

Sources: International Monetary Fund (IMF); individual country sources; authors' estimates.

[a]Represents fuel exporters as defined by the IMF, plus Norway.
[b]Represents the euro area, plus Denmark, the United Kingdom, Sweden, and Switzerland.

All told, net investment in the United States by oil exporters came to just $224 billion from 2003 through 2005.[9] Of that sum, $124 billion went to deposits and short-term securities held at U.S. banks or nonbank financial institutions, and another $107 billion went to purchase long-term U.S. securities such as equities and Treasury bonds. A small outflow of foreign direct investment from the United States to oil exporters made up the gap. By country, Russia and Norway easily accounted for more than half of net investment in the United States. During the first half of 2006, oil exporters made an additional $45 billion in net investments in the United States. If that pace is maintained during the second half of the year, total investment in the country over 2003-06 would reach $314 billion. Such a sum would represent less than one-fourth of the more than $1,300 billion that oil exporters have invested worldwide (their total combined current account surplus for 2003-06).

Unfortunately, efforts to study this topic are complicated by the fact that the U.S. data do not track the original source of funds entering the country. For example, oil-export revenues might be deposited in a London bank; the depositor could then ask the bank to buy a U.S. bond or U.S. equity, to be held for it in a custodial account. The data would show the financial inflow as coming from the United Kingdom, not from the oil exporter. Still, while oil exporters' purchases of U.S. assets through London and other non-U.S. financial centers have surely been substantial, they are still not likely to account for more than a fraction of the missing petrodollars.

Moreover, tracking petrodollars is difficult because other major countries do not report details of financial transactions with oil exporters. Other sources allow us to identify only another $76 billion in net external investment, in banks outside

[9]Country data on liabilities, excluding long-term securities, held by U.S. banks, other depository institutions, and securities brokers and dealers are reported in the U.S. Treasury Department's *Treasury Bulletin* (various issues, Table CM-I-2). Data on corresponding claims are reported in Table CM-II-2. Data on liabilities and claims, excluding long-term securities, involving nonbank business enterprises are reported in Table CM-IV-3. Data on transactions in long-term securities are reported in Table CM-V-3. Data on foreign direct investment (FDI) inflows and outflows by country are from the U.S. Commerce Department's Bureau of Economic Analysis. FDI figures for oil exporters in the Middle East are proxied by data for the Middle East excluding Israel; FDI figures for exporters in Africa are proxied by data for Africa excluding Egypt and South Africa.

the United States.[10] Simply put, the available data do not allow us to track where the vast bulk of recent petrodollar investments have been placed.

Indirect Petrodollar Recycling

We now consider what additional insight economic theory and the available data can offer about where petrodollar investments have been going. Our analysis indicates that most petrodollar investments are finding their way to the United States, indirectly if not directly. In particular, the increase in net financial inflows to the United States since 2002 has roughly matched the increase in net outflows from oil exporters. This relationship suggests that petrodollar purchases of non-U.S. assets have been generating roughly offsetting flows from the financial markets where they were originally invested to U.S. financial markets.

A comparison of recent current account behavior in the United States and Japan explains how such indirect recycling can occur. While the U.S. current account deficit deteriorated by roughly $400 billion from 2002 to 2006, Japan's surplus increased by $55 billion (Table 4). The rise in the U.S. deficit was matched by a decline in U.S. domestic saving relative to investment spending, while the higher Japanese surplus was matched by a rise in domestic saving relative to investment spending.

Given this backdrop, consider the consequences of $1 billion in petrodollar purchases of Japanese assets. The purchases are of course a form of lending to Japan. However, financial market participants in Japan have not wanted to be net borrowers in global capital markets at prevailing asset prices and interest rates; quite the opposite, they have wanted to undertake additional net lending.[11] In this environment, each additional $1 billion invested in Japan by an oil exporter has to be matched by an additional $1 billion in financial outflows from Japan to a country where financial market participants *wish* to undertake additional net borrowing at prevailing asset prices and interest rates.

In recent years, that country has been the United States (Table 4). In other oil-importing countries as a whole, domestic saving has been more than sufficient to finance domestic investment spending, and the combined current account balance of these countries has remained in surplus. Given this saving surplus, petrodollars invested outside the United States have been indirectly recycled back into U.S. financial markets, helping to finance the U.S. current account deficit. As a result, the United States has been able to maintain investment spending at a pace that otherwise would have required higher domestic saving (reduced consumption).

Of course, investment outside the United States by oil exporters does affect *gross* international assets and liabilities for the recipient country. For instance, an oil exporter's purchase of $1 billion in Japanese assets would leave Japan with an additional $1 billion in international liabilities. However, if the desired saving-investment balance in Japan remains unchanged, this capital inflow would push an additional $1 billion in Japanese funds into other markets, for example, to purchase U.S. Treasuries. Japan would then have an additional $1 billion in international assets, and its net international asset position would be left unchanged. And while the oil exporter remains the ultimate source of surplus savings, in our example the United States is the ultimate borrower.

Indirect petrodollar recycling should also have an effect on interest rates, exchange rates, and other asset prices. In terms of the example above, asset prices would have to adjust in a way that leaves Japanese investors content with holding $1 billion more in U.S. Treasuries and $1 billion less in Japanese domestic assets. More generally, to accommodate indirect petrodollar recycling, expected relative returns on U.S. assets would have to rise by enough to induce the recycled funds to flow from the market where they were originally invested to the United States.

Unfortunately, it is difficult to know how large the asset price effect of indirect petrodollar recycling might be. For one thing, it is not possible to distinguish funds already headed to the United States at current asset prices (whether directly or via third-country intermediaries) from funds initially placed elsewhere but attracted to the United States by actual or expected asset price changes. For another, because the induced flow of funds could go into any U.S. financial asset, it is hard to isolate the relevant price effect. As a result of these difficulties, there has been little research on this aspect of petrodollar recycling.

Official versus Private Recycling of Petrodollars

Oil exporters' external surpluses have been invested largely through the official rather than the private sector (Table 5). All told, net official investment abroad is expected to reach roughly $490 billion in 2006. Foreign exchange reserves and

[10] Data are from the Bank for International Settlements (2006, Table 6A) and cover the end of 2002 through the first half of 2006. Some other accounts, citing this source, have pointed to a more substantial rise in oil exporters' foreign deposits at banks outside the United States. Indeed, such deposits increased by $331 billion over the period. However, oil exporters' *liabilities* to non-U.S. banks also grew substantially, by some $255 billion, bringing the increase in their *net* banking assets to $76 billion. (Note that the Bank for International Settlements data for oil exporters in Asia and Africa do not include assets and liabilities involving U.S. banks, while data for other oil exporters—notably Russia, Norway, and Venezuela—do. Correcting for this fact yields the $76 billion figure.)

[11] Our example does not assume that changes in oil prices would have no effect on Japan's current account balance. Rather, the example is concerned only with the impact of oil exporters' portfolio allocation decisions, once global current account balances have adjusted to any change in oil prices.

Table 5
Net Foreign Investment of Oil Exporters
Billions of U.S. Dollars

	2003	2004	2005	2006	Total
Net foreign investment	138	217	385	571	1,311
Private investment	22	33	40	81	176
Official investment	116	184	344	490	1,134
Foreign exchange reserves	72	126	213	245	655
Other official	44	58	132	245	480

Sources: International Monetary Fund; Norway Government Pension Fund annual reports; authors' estimates.

Note: Figures for 2006 are forecasts.

other central bank foreign assets are projected to account for half of those investments. The other half is expected to be placed abroad by national investment authorities or to repay government external debts. (Debt repayments are *net* foreign investment.) Only about $80 billion is expected to be placed abroad by private investors. Private foreign investments from 2003 to 2005 were even smaller.

There is, perhaps, nothing surprising about the dominant role played by the official sector in petrodollar recycling. Oil companies in many of the largest oil exporters are state-owned. Elsewhere, taxes on oil production or exports account for a large fraction of government revenues.

The heavy reliance on the official sector to recycle current account surpluses continues the recent pattern established in the emerging Asian economies. There, too, large current account surpluses have been recycled largely or entirely by official investors, mostly through central bank purchases of foreign exchange reserves. (The same was true of Japan in 2003 and 2004, but not since.) Indeed, official purchases of foreign assets by the emerging Asian countries and oil exporters combined could reach $770 billion this year—not too far from the expected U.S. current account deficit of $870 billion. Directly or indirectly, then, foreign official investors have been the main source of financing for the large U.S. current account deficit.

Conclusion

The effect of rising oil prices on oil-importing economies depends on how oil exporters deploy their windfall revenues. The recycling of petrodollars to purchase goods and services produced by oil importers works directly to soften the economic blow caused by higher oil prices in these countries. Petrodollar recycling through investments in the international capital markets can also ease the negative effects on growth, albeit less directly, by providing a pool of funds that oil importers can tap to finance their higher oil-import bills.

During the recent run-up in oil prices, the United States has seen only a small fraction of the increase in its payments to oil exporters recycled to purchase goods produced locally. Significantly, however, the United States has been the ultimate destination—even if it has not been the direct destination—for petrodollars recycled into the international financial markets. Other oil-importing countries, taken together, have responded to higher oil prices by curtailing consumption (boosting saving) or reducing investment spending, leaving their current accounts in surplus.

The recycling of petrodollars into the U.S. financial markets has supported activity here by allowing for higher consumption and investment spending than otherwise would have occurred. The concomitant cost has been a further expansion of the U.S. economy's already sizable net international liabilities.

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