Recent U.S. Economic Conditions as Seen From the Flow of Funds Accounts (2004)

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1. Introduction

Following the recession in 2001, policymakers cut taxes and boldly reduced the federal funds rate by one percent. This stimulated mortgage refinancing sharply and drove an economic recovery led by consumer spending. When the economy expanded 4.4% in 2004, economic managers appeared to have scored a success. However, the invasions of Afghanistan and Iraq, combined with a large-scale tax cut, reignited the twin deficit problem of a ballooning fiscal deficit and persistently rising current account deficit.

From mid 2004, the Federal Reserve implemented a series of interest rate hikes. Meanwhile, the recent resurgence of crude oil prices has further aroused inflationary concerns. Thus the economy is apparently entering a new phase.

This paper examines the progress of the economic recovery based on an analysis of the recently released *Flow of Funds Accounts* for 2004.[1]

1. Overview of Flow of Funds Data

Due partly to the recession in 2001, the flow of funds data reveals a number of changes for the year. The largest change was a sharp jump in the fiscal deficit due to tax cuts and reduced tax revenues. Looking ahead, current proposals for permanent tax cuts and social security reforms, together with large spending commitments for Iraq, suggest that fiscal deficits will remain large in the near term.

Another major change was the sharp rise in mortgage refinancing prompted by low interest rates. In fact, household debt grew faster than the federal deficit in 2004.

These financial deficits are being financed by the rest of the world. As the current account deficit

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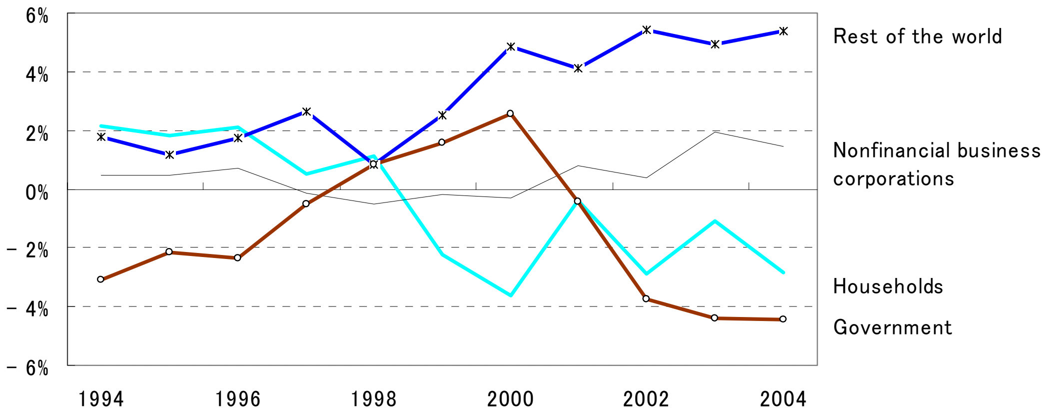
[1] For an analysis of flow of funds and credit market trends before and after September 11, 2001, see "Analysis by Sector Reveals Changes in U.S. Flow of Funds After September 11, 2001" NLI Research 2003.10.02 (http://www.nli-research.co.jp/eng/resea/econo/eco031002.pdf).

continues to reach new highs, more foreign funds are flowing in. Conversely, America's net foreign investment position is rapidly deteriorating, and represents a destabilizing risk factor in the long term.

Thus since 2001, the flow of funds structure has been characterized by negative net financial investment (net increase in financial assets minus net increase in liabilities) in the government and household sectors, which is offset by fund flows from the rest of the world and nonfinancial business sectors.

Since the 2001 recession, the expanding federal fiscal deficit has sharply aggravated the sector's financial deficit and made it the largest deficit sector. However, due to the rising current account deficit, this is more than offset by a financial surplus in the rest of the world sector. Helping to augment the remaining shortfall is the business sector, whose surplus appeared in 2001 and has been growing.

Figure 1 Net Financial Investment as % of Nominal GDP (by sector)



Source: FRB, Dept. of Commerce

Figure 2 U.S. Flow of Funds in 2004

($ billion)

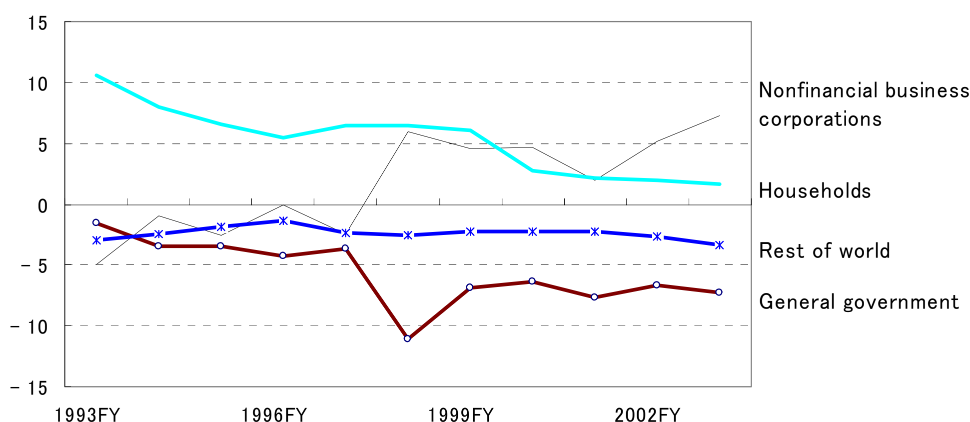
Households	2004	yoy change	Nonfinancial business	2004	yoy change
Gross saving	1,219	48%	Gross saving	1,215	92%
Net saving	342	24%	Net saving	335	12%
Capital consumption	892	23%	Capital consumption	880	80%
Gross investment	1,233	−98%	Gross investment	1,263	97%
Capital expenditures	1,569	116%	Capital expenditures	1,134	161%
Net financial investment	− 335	−214%	Net financial investment	129	−64%
Financial uses	774	13%	Financial uses	701	74%
Financial sources	1,109	227%	Financial sources	572	139%
Sector discrepancies	− 14		Sector discrepancies	− 48	
Government (all levels)			**Rest of the world**		
Gross saving	− 124	13%	Gross saving	643	129%
Net saving	− 353	2%	Net saving	2,217	331%
Capital consumption	229	11%	Capital consumption	1,576	200%
Gross investment	− 134	−18%	Gross investment	631	88%
Capital expenditures	390	22%			0%
Net financial investment	− 524	−41%	Net financial investment	631	88%
Financial uses	53	−44%	Financial uses	1,190	407%
Financial sources	577	−3%	Financial sources	559	319%
Sector discrepancies	15		Sector discrepancies	12	

Source: FRB

The *U.S. Flow of Funds Accounts* show flows in the saving-investment balance and (net financial investment (financial balance) by sector. In 2004, households and the government were in financial deficit, while the rest of the world and business were in surplus. While gross saving should by definition equal gross investment in each sector, sector discrepancies arise due to differences in the timing and recognition of data.

In contrast to the U.S., Japan had a sustained deficit in the rest of the world sector due to its current account surplus. But Japan has in common a sustained financial deficit in the government sector due to fiscal deficits, and a growing surplus in the business sector. Unlike the U.S., the household sector's surplus is declining but still positive.

Net Financial Investment by Sector as % of nominal GDP (Japan)



Source: BOJ, Cabinet Office

2. Flow of Funds by Sector

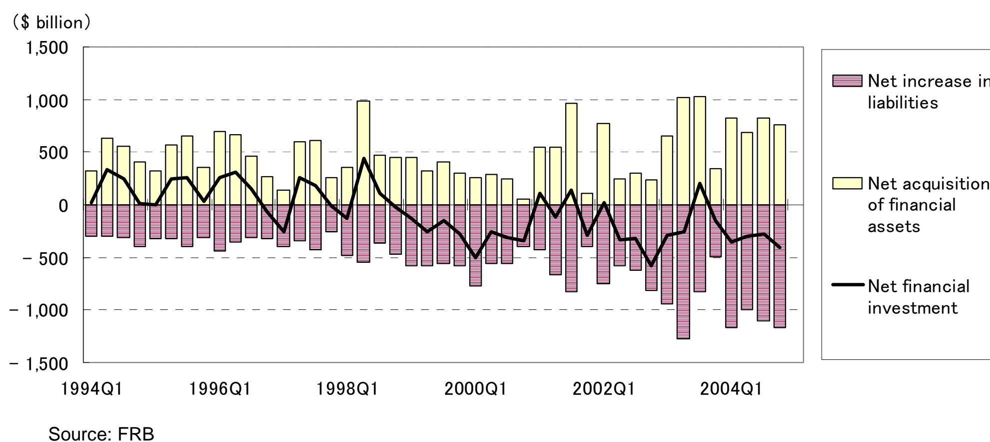
1. Households

(1) Net financial investment

The net financial investment (financial balance) of households has been negative since 1998. In particular, low interest rates have stimulated a surge in mortgages, increasing household debt.

However, investment in financial assets, being more sensitive to market conditions and thus more volatile than debt, has been the primary factor affecting net financial investment. After a brief surplus in Q3 2003, net financial investment turned negative again.

Figure 3 Net Financial Investment (Households)



Source: FRB

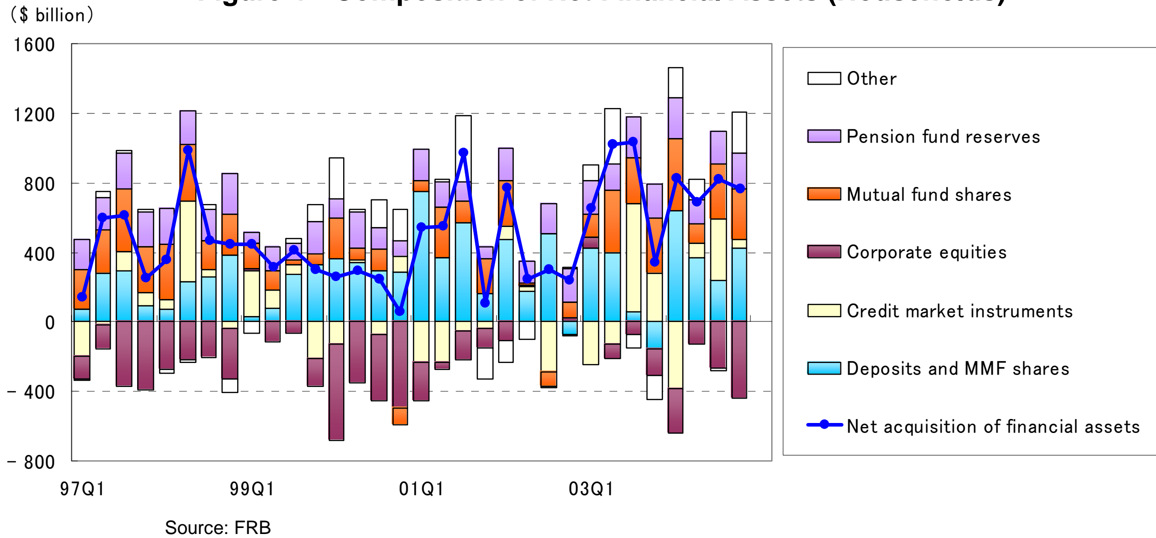
(2) Composition of fund flows

In the net acquisition of financial assets by households, growth has been stable almost every quarter in deposits and money market fund shares, mutual funds, and pension fund reserves. Credit market instruments, which decreased from 2000, turned positive in 2003.

Meanwhile, households have consistently been negative in the net acquisition of corporate equities, especially when the stock market peaked in 2000. In the ensuing recession, the decrease contracted as stock prices fell, but expanded again in 2004 with the stock market's recovery. However, in contrast to direct ownership, their indirect equity ownership through mutual funds and pension funds has been growing, and has exceeded their direct ownership since 2003.

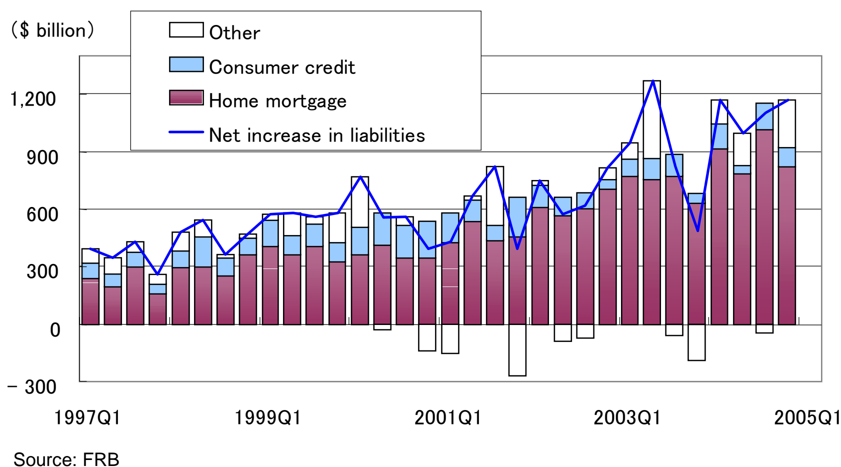
The net increase in liabilities consists mainly of home mortgages. But despite being spurred by the recent housing market boom, home mortgages still react sensitively to long-term interest rate trends. As for consumer credit, with debt servicing already at high levels, the net increase is comparatively small.

Figure 4 Composition of Net Financial Assets (Households)



Source: FRB

Figure 5 Net Increase in Liabilities (Households)



Source: FRB

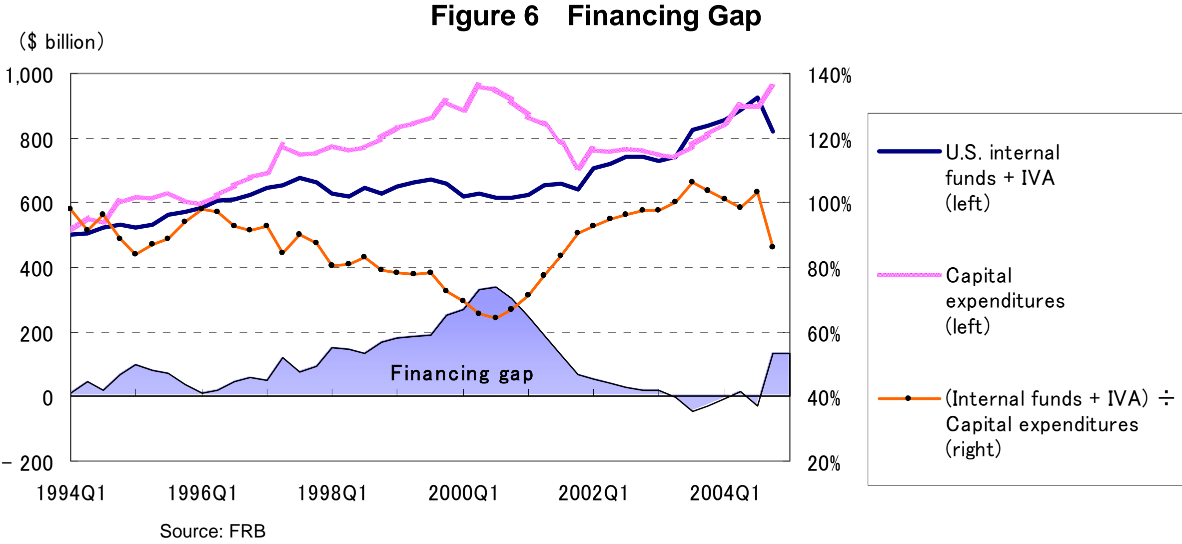
2. Nonfinancial Corporate Business

1. Financing gap

After peaking in 2000Q2, capital expenditures (nonresidential and inventory investment) declined, remaining level after the recession until 2003Q2. Meanwhile, internal funds bottomed out in 2000Q3 and turned positive—immediately after capital expenditures peaked—and briefly exceeded capital expenditures in 2003Q2. Then nonresidential investment improved with the economic recovery, while internal funds earnings kept apace propelled by improving profits.

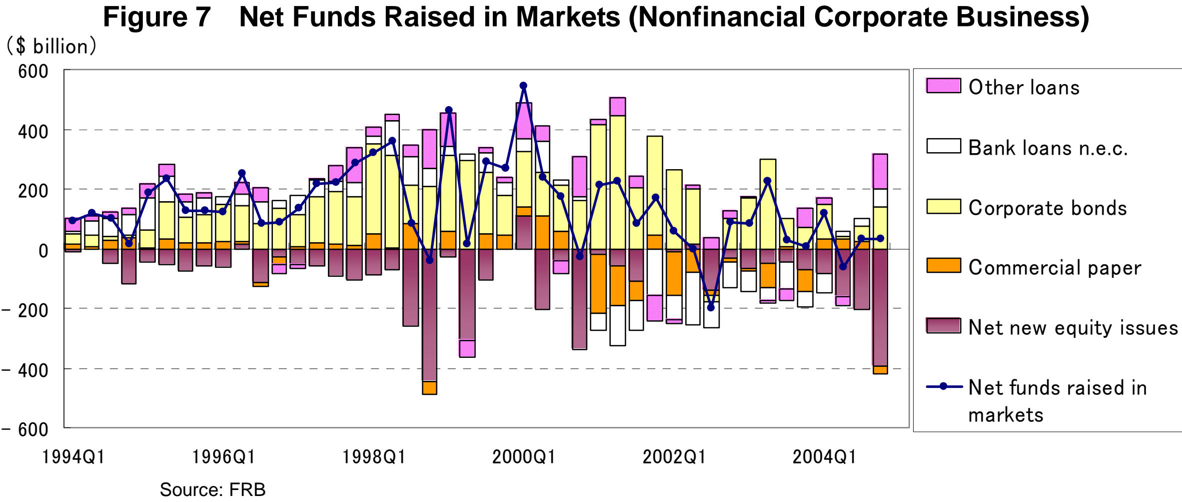
As a result, the financing gap—capital expenditures minus internal funds and inventory valuation adjustment (or cash flows)—peaked in 2000Q3 and began a persistent decline, briefly touching negative territory in 2003. This decline reveals a relative decrease in the demand for funds. (In 2004Q4, the financing gap expanded sharply, but this is largely attributed to a drop in

internal funds from Microsoft's special dividend allocation.)



2. Financing

Amid the stagnant demand for funds, financing activity since the 2001 recession was characterized by repayment of short-term debt, while falling interest rates stimulated corporate bond issuance. Commercial paper and bank loans fell sharply, returning to positive territory only in 2004.



In long-term financing, bond financing doubled from the previous year to $348.5 billion in 2001, as did mortgages to $59.3 billion.

The situation changed in 2004 as the economic recovery pushed short-term financing growth back into positive territory. Meanwhile, bond issuance fell by half from the previous year, and was overtaken by growth in mortgages. Net new equity issues were negative before and after the

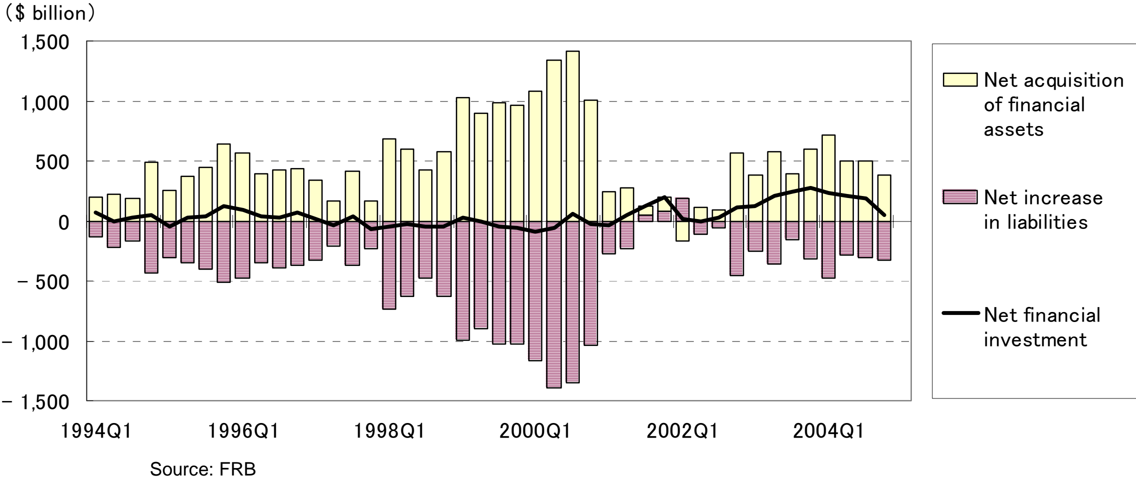
recession, with the decrease expanding to -$210.0 billion in 2004.

3. Net financial investment

Alongside the financing trends mentioned above, the net acquisition of financial assets has been dominated by trade receivables and direct investment abroad. Since trade receivables are largely cyclical, they decreased in the last recession and have surged in the present economic recovery.

Compared to households, nonfinancial corporate business tends to exhibit a more balanced movement of financial assets and liabilities. The sharp declines in both net acquisition of financial assets and net increase in liabilities in the 2001 recession marked a sudden departure from past trends. In particular, the net decrease in liabilities from 2001Q3 to 2002Q1 (coinciding with September 11) was an exceptional event.

Figure 8 Net Financial Investment (Nonfinancial Corporate Business)

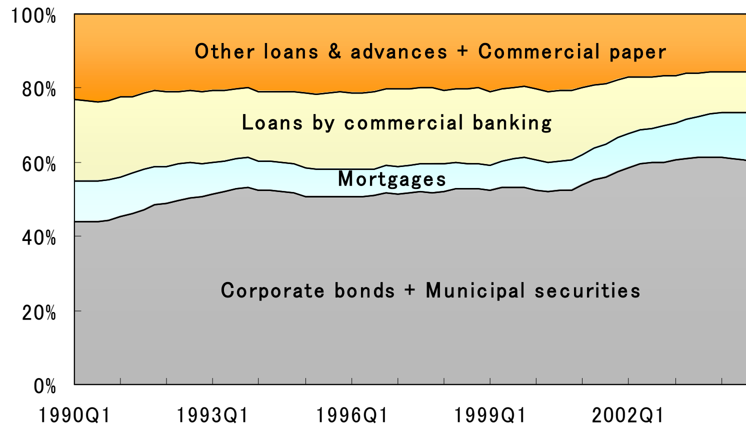


Trade receivables then surged as the recovery arrived, while on the liabilities side, financing activity languished as nonresidential investment lagged behind internal funds growth. As a result, the financial surplus ballooned to levels unseen in recent years, but subsequently peaked in 2003Q4 and began contracting.

4. Composition of outstanding debt

A look at outstanding credit market debt (excluding equities) confirms that the share of bonds has been growing. As falling interest rates stimulated bond issuance since the recession, the share of bonds rose from 40% in the early 1990s to 60% at the end of 2004. Mortgages also grew to overtake bank loans, whose share shrank by half from 22% share to 11% in the same period.

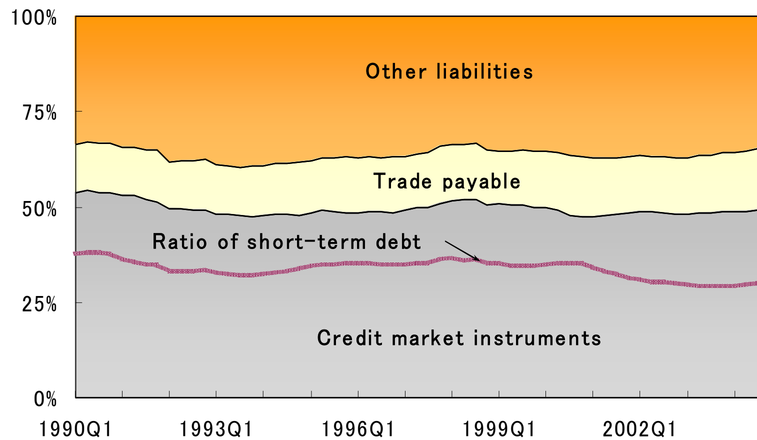
Figure 9 Total Credit Market Debt of Nonfinancial Corporate Business



Source: FRB

Nonfinancial corporate business liabilities consist of credit market debt, trade payable, and other liabilities. As the figure below shows, credit market debt comprises approximately half of total liabilities. In addition, most of trade payable is offset by trade receivable. Other liabilities consist of taxes payable and miscellaneous liabilities (foreign direct investment in U.S., pension fund contributions payable, and other).

Outstanding Debt of Nonfinancial Corporate Business



Source: FRB

3. Government

1. Fiscal balance

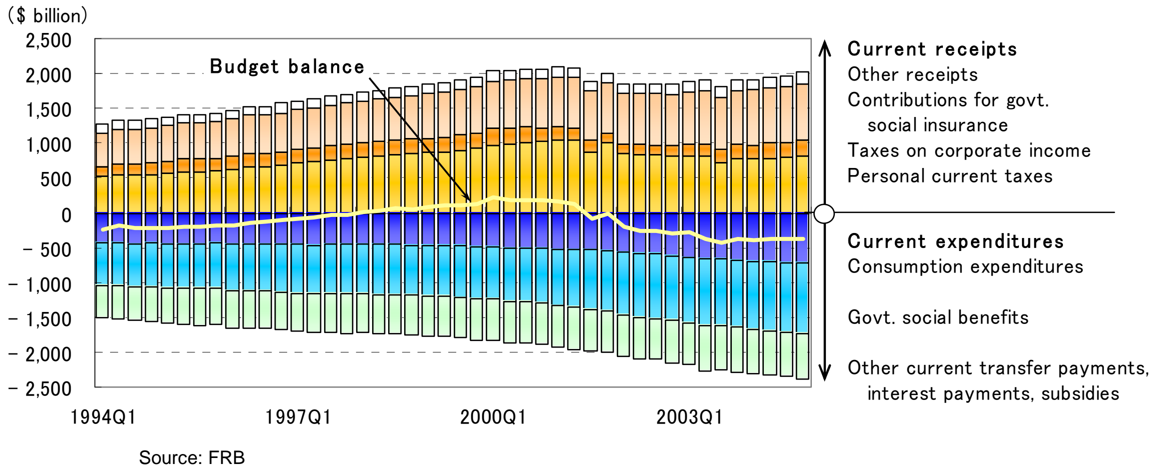
On a quarterly basis, the federal government budget turned to surplus in 1998, only to return to persistently growing deficits from 2001Q3. This is mainly attributed to falling revenues during the recession and tax cuts, combined with growing expenditures for defense. Revenues continued to languish with the delayed recovery in employment, while additional tax cuts were implemented in 2003. As a result, the federal government's fiscal deficit rose to $380.6 billion in 2004 (NIPA basis).

With supplementary budgets being compiled every year for U.S. commitments in Iraq, defense spending is not likely to be reduced soon. The only hope to reduce the deficit is through higher tax

revenues from an economic recovery.

At the state and local government levels, higher tax revenues led to a $14.2 billion surplus for the first time in three years (NIPA basis).

Figure 10 Current Receipts and Expenditures (Federal Government)



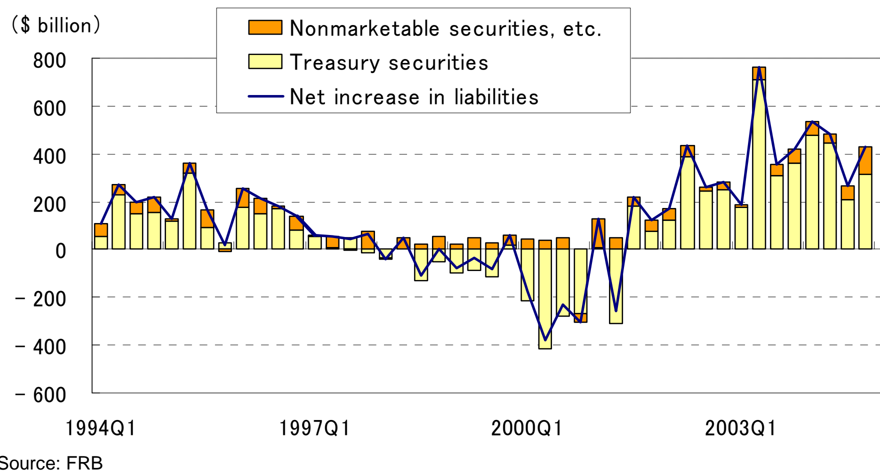
Source: FRB

2. Financing at the federal level

In financing the federal fiscal deficit, the government not only issues Treasury securities in credit markets, but also issues tens of billions of dollars in nonmarketable securities to pension funds. As a result, the financial deficits have exceeded fiscal deficits.

On a quarterly basis, since net financial investment turned negative in 2001Q3, the net increase in liabilities has hovered around $400 billion per year.

Figure 11 Net increase in Liabilities (Federal Government)



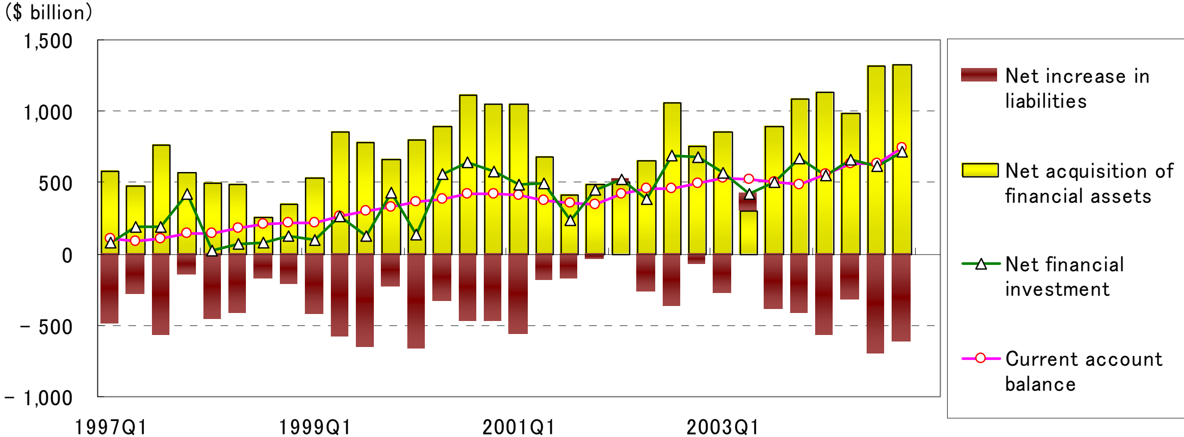
Source: FRB

4. Rest of the World

1. Net financial investment

With the U.S. current account deficit growing, the net financial investment of the rest of the world sector (corresponding to the capital account balance for Japan) has grown commensurately. Although the international balance of payments eventually reaches equilibrium, the current account balance can deviate significantly from net financial investment on a quarterly basis because foreign investment in the U.S. is affected by market conditions. However, this volatility, which becomes pronounced around recessions, has not occurred in the past year.

Figure 12 Net Financial Investment (Rest of the World)



Source: FRB

2. Net financial investment

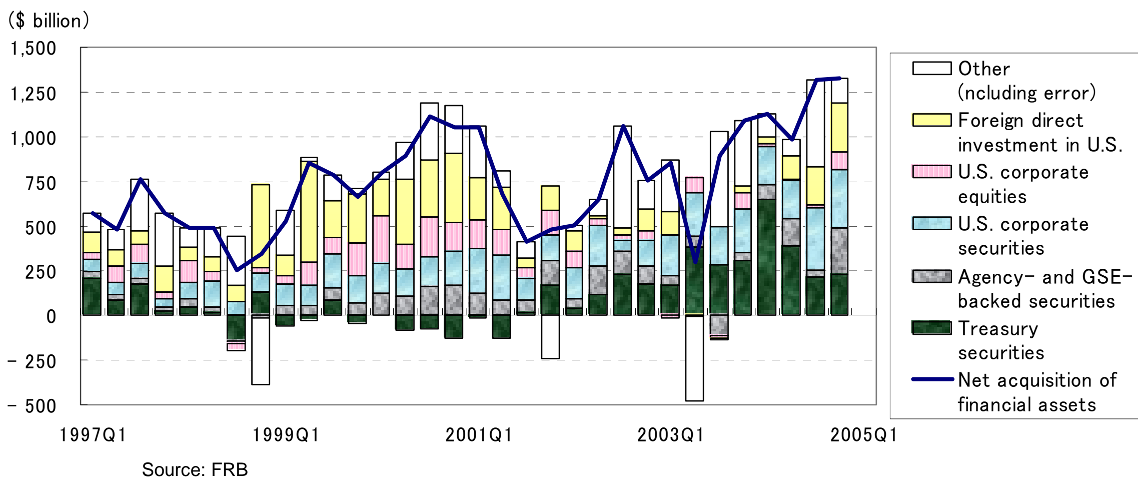
Reflecting trends in U.S. financial markets, foreign investment patterns in the U.S. are characterized by great diversity and changes. During the economic expansion from 1999 to 2000, equity and direct investment increased amid high stock prices and rampant M&A activity. As the federal fiscal surplus emerged, investment shifted from Treasury securities to agency bonds and corporate bonds. However, as the fiscal deficit grew after the 2001 recession, Treasury securities returned to center stage, comprising 58% of foreign investment in the U.S. as of 2004Q1.

Treasury securities are followed by corporate bonds and agency bonds. Meanwhile, equity investment has shrunk rapidly each year, and in 2004 fell to one-sixth of the high reached in 2000.

The net increase in liabilities can be divided into fund raising by non-residents inside the U.S., and investment abroad by U.S. residents. The former is led by stock issuance in the U.S., and the latter by direct investment abroad. Together, the two categories comprise over half of the net increase in liabilities. Foreign currency deposits, which played a central role in 2000 at $126.9

billion, showed a net decrease by 2003 due to the weak dollar and lower interest rates abroad.

Figure 13 Net Acquisition of Financial Assets (Rest of the World)

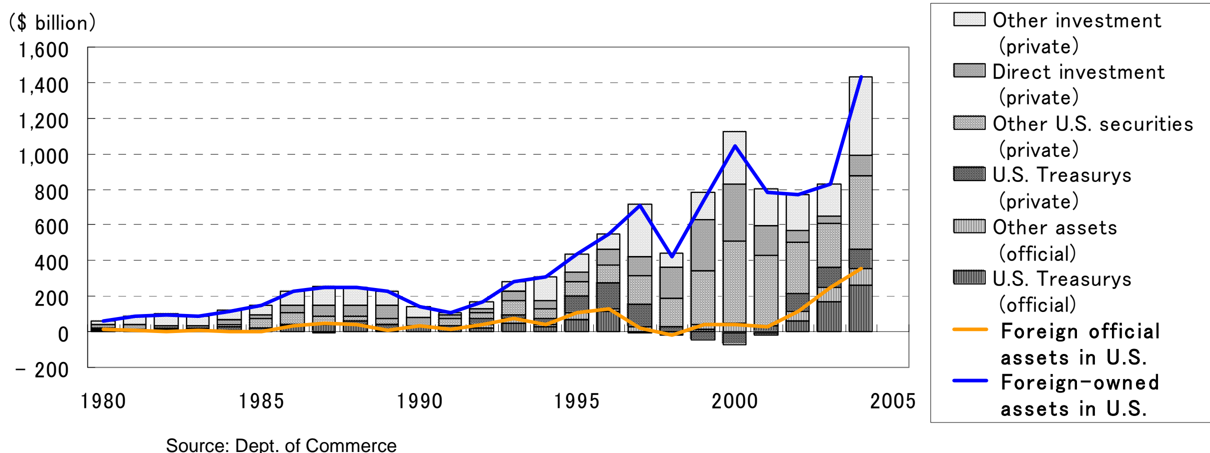


Source: FRB

3. Changing composition of foreign investors

A striking feature of foreign investment in the U.S. has been the surge of foreign official investment since 2001. This has primarily resulted from the need to recycle dollars obtained in currency market intervention, and coincides with the period when the dollar was weakening. The chief investment destination has been Treasury securities.

Figure 14 Foreign-Owned Assets in the United States (Net increase)



Source: Dept. of Commerce

Meanwhile, foreign private investment in the U.S. has focused on other securities and direct investment. The other securities category has led ever since overtaking Treasury securities in 1997. Both patterns held true in 2004, with foreign official assets led by Treasury securities, and foreign private assets led by other securities.

3. Pending Issues for the Economy

1. The Worrisome Increase in Household Debt

Since bottoming out in the early 1990s household debt growth has been consistent and rising. In 2004, household debt grew 11.0%, making them the fastest growing sector in debt and eclipsing the 8.6% growth rate of total domestic nonfinancial debt.

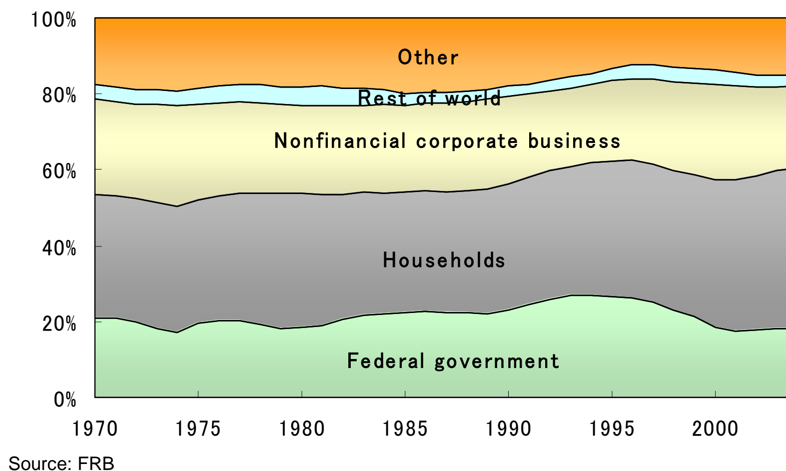
In contrast to the fluctuating debt growth pattern of the federal government and nonfinancial businesses, households have been accumulating debt consistently. Of the $24.2 trillion domestic nonfinancial debt outstanding in 2004, households comprised the largest share at 42.4%, followed by nonfinancial businesses at 21.5% and federal government at 18.2%.

The concern is that household debt levels may become unsustainable, leading to a wave of bankruptcies and dragging down the economy.

However, despite the growth of household debt from 1.06 times disposable income in 2001Q4 to 1.21 times in 2004Q4, the debt service ratio (DSR, or ratio of debt payments to disposable personal income) actually declined over this period. With house prices rising, households who refinanced mortgages under falling interest rates could increase debt without increasing debt payments. Moreover, most of the refinancing was done at fixed interest rates, reducing the burden of future interest rate increases.

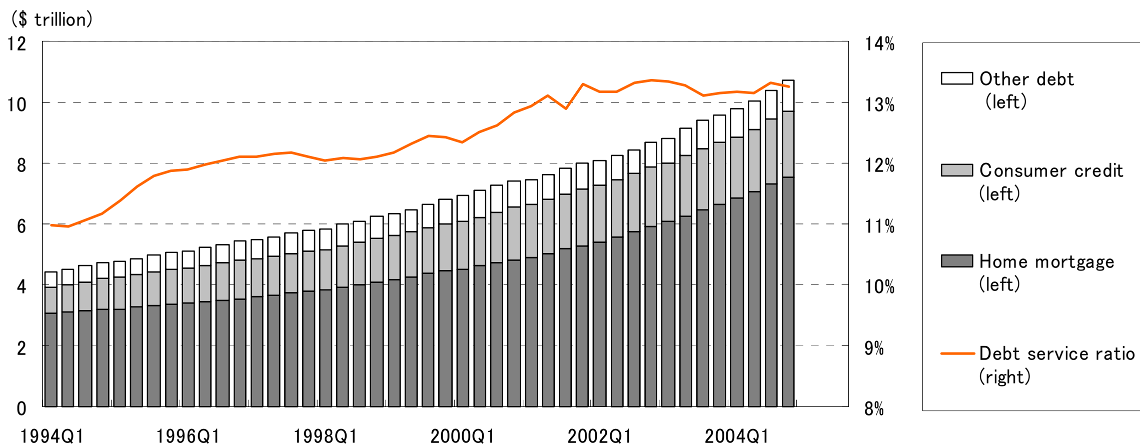
Households clearly benefited from falling interest rates and rising house prices. However, since the debt growth entails a greater debt service burden, the concern is that households have reduced their risk tolerance—they could suffer inordinately if the housing market softens or if a recession reduces income.

Figure 15 Composition of Credit Market Debt



Source: FRB

Figure 16 Outstanding Debt and Debt Service Ratio (Households)



Source: FRB

2. Business Financing

In the nonfinancial business sector, net funds raised in credit markets grew $240.1 billion in 2004, the largest increase since before the recession in 2000. On a quarterly basis, financing grew $428.5 billion in 2004Q4, while outstanding debt grew at an annual rate of 8.4% from the previous quarter. Both are the largest increases since 2000Q2.

Ever since businesses adjusted fixed investment levels in 2002, internal funds have outpaced fixed investment and inventory investment. Since 2003, steady profit growth has enabled capital expenditures to be funded out of internal funds.

Nonetheless, the fact that financing has surged can be attributed to the stimulus from low long-term interest rates. But in addition to growth in long-term financing through bond issuance, there has also been growth in short-term bank loans. This reflects the demand for financing to build inventories. In view of these factors, the future trend in financing warrants close attention.

3. Twin Deficits and the Flow of Funds

From a flow of funds perspective, the expanding current account deficit causes net financial investment in the economy to increase, thereby triggering more fund flows into the U.S.

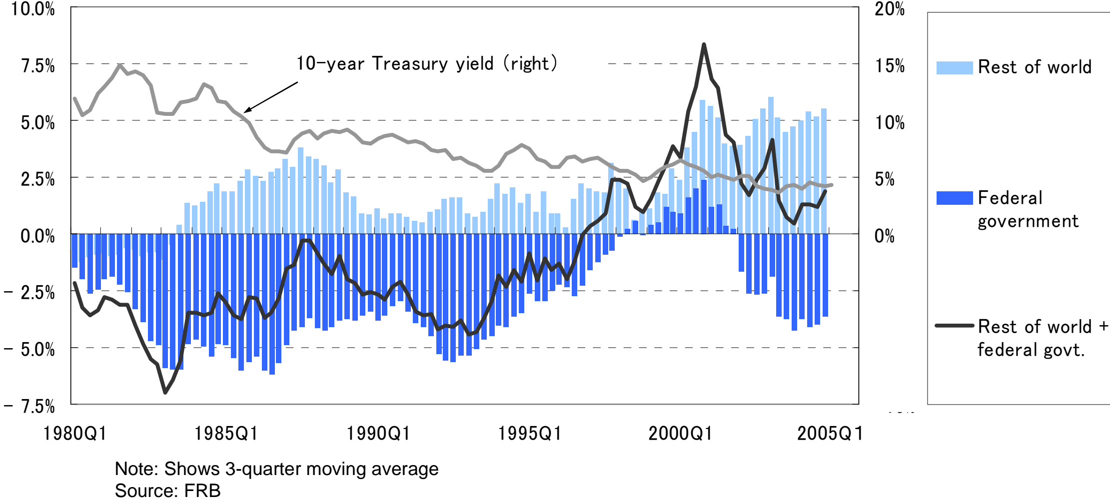
On the other hand, the expanding fiscal deficit must be financed by absorbing more domestic funds. Putting aside causal relationships, if we look simply at the rest of the world and federal government, it is clear that as long as the twin deficits persist, the fund flows into the U.S. caused by the expanding current account deficit are absorbed by the federal deficit.

Today's twin deficit problem differs from the 1980s in an important respect. Back then, since the fiscal deficit exceeded the current account deficit, the rest of the world was unable to finance the

fiscal deficit. As a result, other sectors were crowded out of the credit market, pushing interest rates upward.

Today's twin deficit problem is characterized by an expanding current account deficit that exceeds the fiscal deficit. The net financial investment of these two sectors shows that the rest of the world is more than capable of financing the fiscal deficit.

Figure 17 Net Financial Investment as % of Nominal GDP (rest of world, federal govt.)



Note: Shows 3-quarter moving average
Source: FRB

Above all, fund flows from abroad represent a strong vote of confidence in the U.S. economy. Needless to say, the biggest concern is how long this confidence can be sustained given that the U.S. has long since been a net debtor.

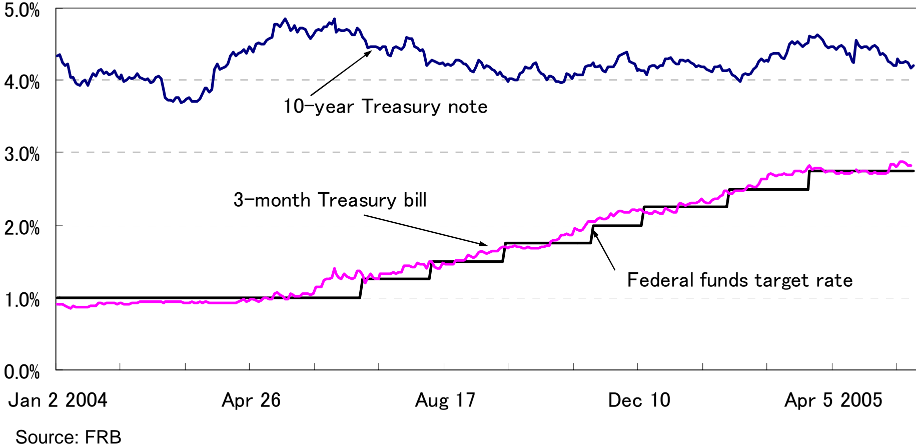
4. The Long-Term Interest Rate Conundrum

Over the past year, although the 10-year Treasury yield rose to 4.8% in June 2004 when the FRB began raising interest rates, it has remained below this level despite the subsequent eight interest rate hikes. In April, Federal Reserve Chairman Alan Greenspan called the unresponsiveness of long-term interest rates a "conundrum." And despite mounting inflationary concerns since then, the long-term rate recently dropped to as low as 4.1%.

One factor behind long-term interest rate trends has been the flow of funds structure described earlier. Business fixed investment is at levels that can be financed out of internal funds, while households have already finished their mortgage refinancing. Thus neither sector needs funds so badly as to cause higher long-term interest rates. Admittedly, the fiscal deficit, which needs financing regardless of interest rate levels, might easily push up the long-term rate. But at present it remains within the range that can be financed by the rest of the world.

As long as the present flow of funds structure persists, the demand for financing will not be exerting pronounced pressure on interest rates. Still, there is no guarantee, as the flow of funds structure is fragile as long as foreign inflows are necessary. Moreover, mounting inflationary concerns can boost the long-term interest rate, and the yield spread with short-term rates has been shrinking. Under these conditions, any shift in the flow of funds structure could adversely affect long-term interest rates.

Figure 18　Long-term Interest Rate



Source: FRB

5.　Growth of Outstanding Debt

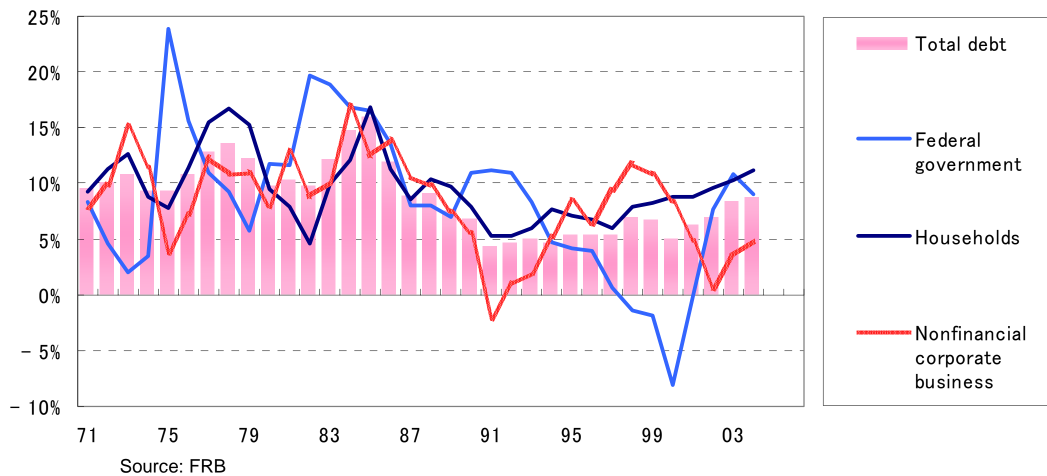
In 2004, domestic nonfinancial debt outstanding grew 8.6%, the highest level since 1988. Debt growth fell to 4.8% in the expansionary year of 2000, reaching the lowest level since 1994, before rising to 6.2% in the recession year of 2001 and continuing upward since then.

The accelerating growth rate can be explained by the expanding fiscal deficit, increase in mortgage refinancing, and recovery in corporate financing.

In the 1990s, corporate and government financing moved in opposite directions, with one sector growing whenever the other decreased. Today, the government, household, and nonfinancial business sectors all show signs of expanding debt. When the three sectors last expanded together in the mid 1980s, the accelerating debt growth prompted concerns of rising long-term rates.

Looking ahead, if nonfinancial businesses seek more financing, all three sectors will again be growing their debt, reigniting concerns of rising interest rates.

Figure 19 Debt Growth by Sector



Source: FRB

Conclusion

It is said that there is a global surplus of funds. Indeed, as Japan's economic recovery limps along, the corporate demand for funds languishes and interest rates remain ultra-low. Moreover, Japan's large current account surplus generates ample funds for which the U.S. represents a convenient investment destination.

In the U.S., despite the weak corporate demand for funds, household and government sectors run a financial deficit that is sustained by foreign funds. While the expanding current account deficit and possibility of the dollar's sudden plunge are worrisome, confidence has not wavered in the U.S. economy's ability to lead the global economy. Of course, the dependence on foreign funds cannot be sustained indefinitely, but appears sustainable at least in the near term through exchange rate adjustments.

Finally, an interesting point about the U.S. flow of funds accounts is as the growth of outstanding debt set a record in 2004, the greatest beneficiary of low interest rates has been households. This stands in sharp contrast to Japan, where households have suffered under low interest rates because over half of their assets are in cash and deposits that earn practically nothing.