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**It's So Over for Household Spending**

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Households have been running deficits – i.e., spending more than their after-tax income – since just before the peak in the NASDAQ stock price index. There are only two ways to spend more than you earn – borrow and/or sell assets. Households have been doing both to fund their recent deficits. These two deficit-funding sources will dry up in the coming years, which will force households to, at least, *attempt* to begin running surpluses again. Regardless of whether they are successful in their attempt to run surpluses, growth in household spending on goods, services and tangible assets, such as houses, is bound to slow significantly in the coming years.

Chart 1 shows total nominal household spending – personal consumption expenditures and residential investment expenditures (i.e., the value added in housing-related expenditures) – as a percent of nominal GDP. In 2005, total nominal household spending hit a post-WWII record high 76.2% of nominal GDP.

Chart 1

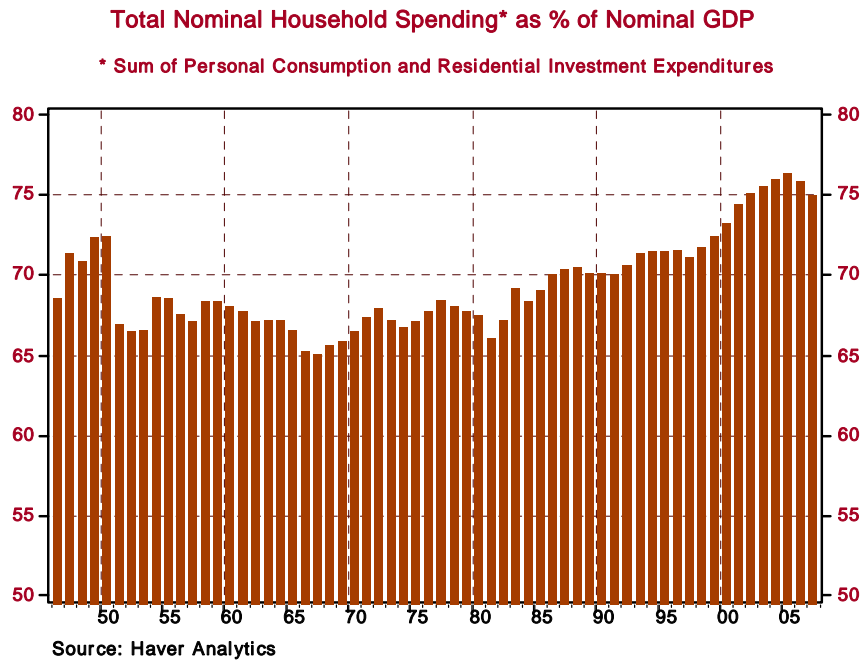


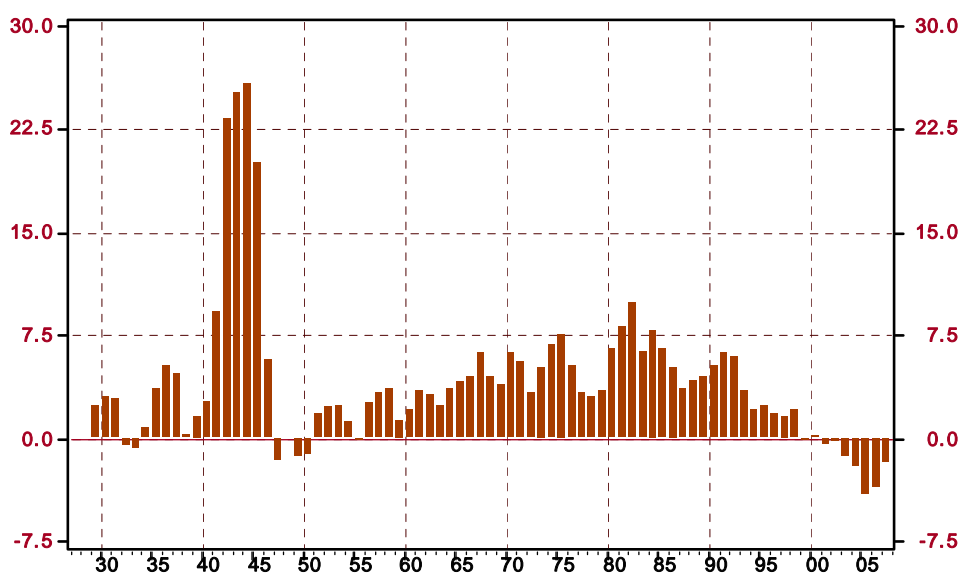
Chart 2 shows nominal disposable personal income (after-tax household income) minus total nominal household spending. If total household spending is less than disposable personal income, then households are running a surplus, which implies that households are net providers of funds to other sectors of the economy – businesses, governments, foreign entities. If total household spending is greater than disposable personal income, then households are

running a deficit, which implies that households are net absorbers of funds from other sectors of the economy. As mentioned above, household deficits imply that households must be borrowing and/or selling assets to other sectors of the economy. I have scaled household surpluses (deficits) as a percent of disposable personal income.

Chart 2

**Household Surplus (+) or Deficit (-) as % of Disposable Personal Income**

Surplus (Deficit) = DPI minus sum of Consumption and Residential Investment Expend



Source: Haver Analytics

The data in Chart 2 begin with 1929. In the preponderance of years from 1929 through 2007, households ran surpluses. Prior to 1999, there were only six years in which households ran deficits – 1932, 1933, 1947, 1949, 1950 and 1955. During the Great Depression of the 1930s, households were borrowing or selling assets just to survive. So, the household deficits of 1932 and 1933 are understandable. During WWII, most of GDP was devoted to the war effort. Therefore, households could not legally purchase much. Moreover, there was a spirit of patriotism, so households purchased government war bonds instead of automobiles, radios and houses. Thus, during the WWII years, households ran record surpluses. Soon after the end of WWII, households went on a spending spree in order to replace depreciated consumer durable goods and to replace depreciated houses. Although data are not available to confirm this, because of the record household surpluses run during WWII, the ratio of household debt to household assets must have been unusually low. Thus, households could legitimately “afford” to run deficits for a few years. This explains the household deficits of 1947, 1949 and 1950. The household deficit in 1955 is explained by my dad’s purchase of a new white-on-turquoise Ford with a V-8 and whitewalls. What a sweet ride that was!

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From 1956 through 1998, households consistently ran surpluses. They ran a small deficit in 1999, a small surplus in 2000 and then consistently ran deficits thereafter. Prior to recent years, the largest household deficit as a percent of disposable personal income occurred in 1947 at 1.69%. Starting in 2004, household deficits relative to disposable personal income have exceeded the previous record of 1947.

There is an alternative method of calculating household surpluses or deficits. Rather than using the Commerce Department's National Income and Product Account data, as I did above, I can calculate household surpluses and deficits using the Federal Reserve's Flow-of-Funds data. In the Flow-of-Funds data, there is a line item called "household net financial investment." This is defined as households' net acquisition of financial assets (e.g., deposits, corporate equities, bonds, mutual funds, claims on pension reserves, etc.) minus households' net increase in liabilities (primarily, household borrowing). How does one acquire financial assets? By spending less on goods, services and tangible assets than one's income and by borrowing funds to purchase financial assets. Let's put this in equation form:

$$(1) \text{ Net Acquisition of Financial Assets} = \text{Income} - \text{Spending} + \text{Borrowing}$$

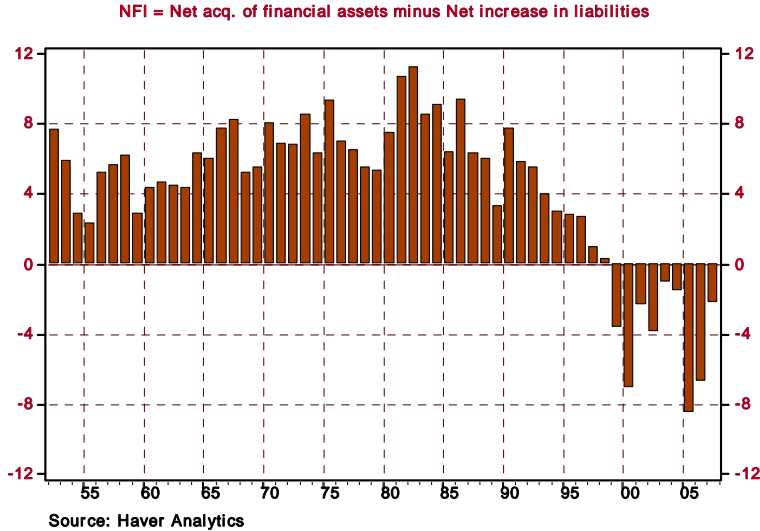
Now, let's re-arrange some terms:

$$(2) \text{ Income} - \text{Spending} = \text{Net Acquisition of Financial Assets} - \text{Borrowing}$$

From Equation (2), we can see that if borrowing is greater than the net acquisition of financial assets, that is, the right-hand side of Equation (2) is negative, then the left-hand side of Equation (2) must be negative, also. So, if our borrowing exceeds our net acquisition of financial assets, then we are spending more on goods, services and tangible assets than we are earning. Thus, if household net financial investment, i.e., household net acquisition of financial assets minus household net borrowing, is negative, households are running a deficit.

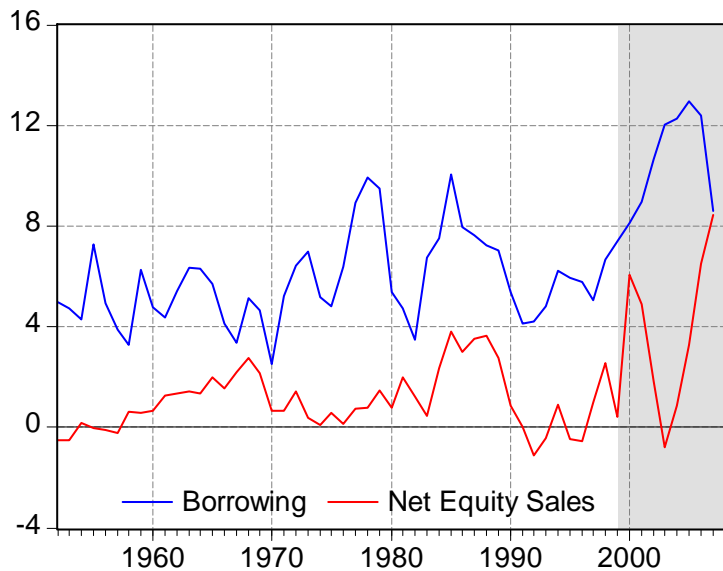
Chart 3 shows the behavior of household net financial investment as a percent of disposable personal income. The data begin in 1952. From 1952 through 1998, households' net financial investment was positive. But from 1999 and through 2007, households' net financial investment was negative, implying that households were running deficits during these years. So, two different approaches to the household surplus/deficit issue yield roughly similar results. And these results suggest something radically different has been going on with household saving behavior in recent "bubblicious" years.

**Chart 3**  
**Households: Net Financial Investment as % of Disposable Personal Income**



Now let's examine the combination of borrowing and asset sales households have been using to fund their deficits in recent years. The evidence is shown in Chart 4. The shaded area in Chart 4 does *not* refer to a period of recession but to the recent household deficit years of 1999 through 2007. In 2005, household borrowing (not debt, but the change in debt) reached a record 13% of disposable personal income. As mortgage borrowing has collapsed in the wake of the housing bust, household borrowing come down to 8.6% of disposable personal income in 2007.

**Chart 4**  
**Households: Borrowing and Net Sales of Corporate Equities as % of Disposable Personal Income**



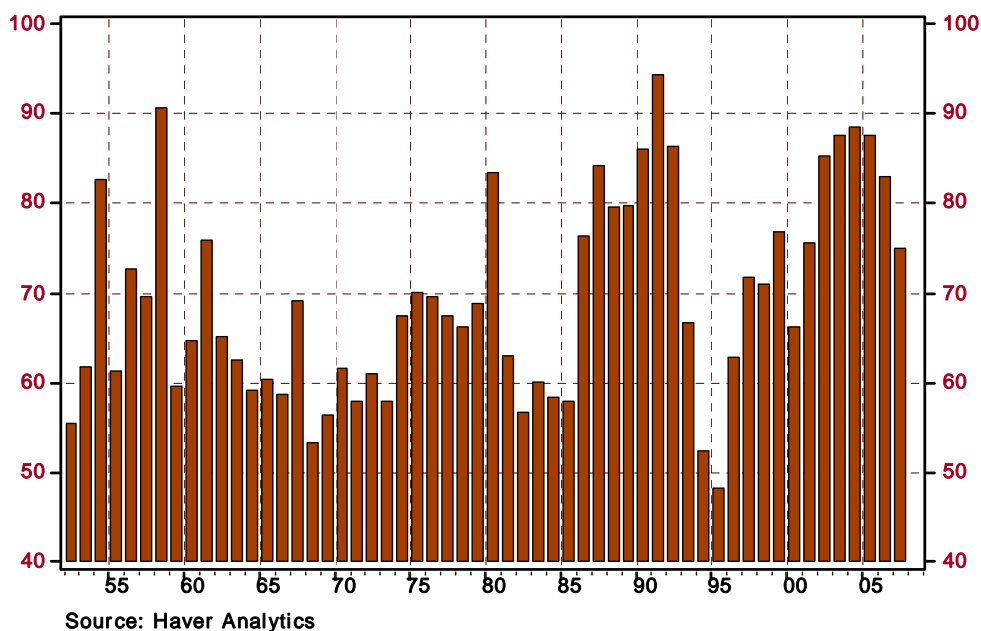
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Household net sales of corporate equities equal the combined net sales of household direct holdings and household indirect holdings through open- and closed-end mutual funds, exchange-traded funds and broker/dealer holdings. Even though households have indirect holdings of equities in various pension funds, private and government, I have excluded these net sales because households do not receive the proceeds as spendable funds. It is interesting that in most years, households are net sellers of corporate equities. Perhaps what is more interesting is that in 2007, as household borrowing slowed relative to disposable personal income, household net sales of corporate equities reached a record high 8.4% of disposable personal income.

Chart 5 shows that a large portion of the increased borrowing by households in recent years has been home-mortgage related. Not only has this mortgage borrowing been for the purchase of homes, but it also has been related to the withdrawal of equity from one's home. Chart 6 shows "active" mortgage equity withdrawal – i.e., mortgage equity withdrawal as a result of first mortgage refinancing or home-equity borrowing – as a percent of disposable personal income. Active mortgage equity withdrawal reached a record high 5.4% of disposable personal income in 2005. With both house prices and homeowners' equity falling (Chart 7) and banks tightening their mortgage lending terms (Chart 8), mortgage borrowing by households to help fund their deficits is falling and will likely continue to do so for some time.

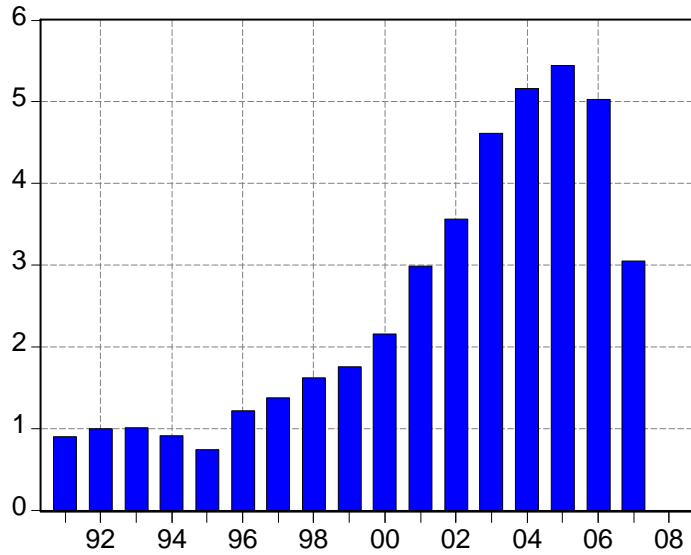
Chart 5

**Household Borrowing: Home Mortgage as % of Total**



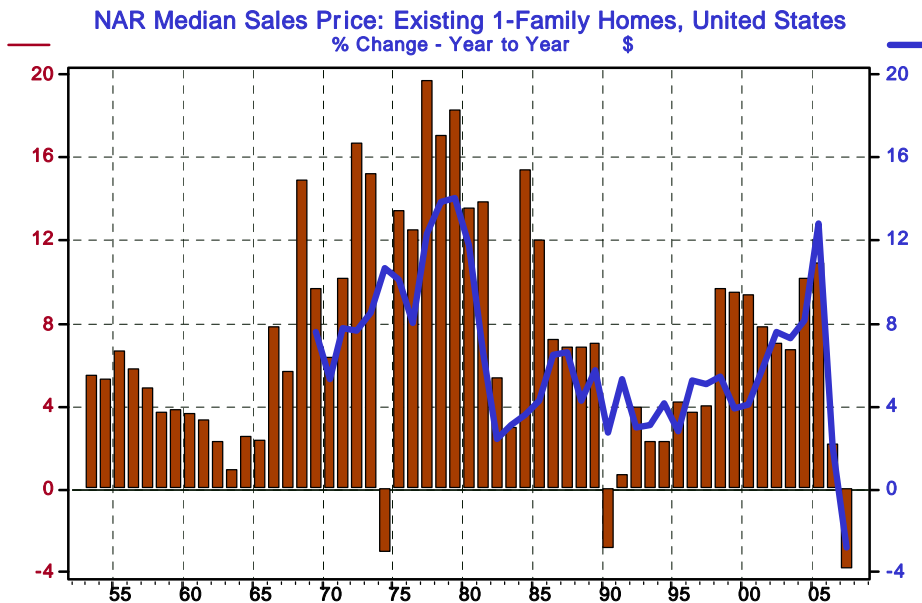
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Chart 6  
**Active Mortgage Equity Withdrawal\* as % of Disposable Personal Income**



\* Active MEW can be defined as mortgage equity withdrawal consisting of refinancing and home equity borrowing.

Chart 7  
**Households & Nonprofit Organizations: Owners Equity in Real Estate**  
 % Change - Year to Year      Bil \$

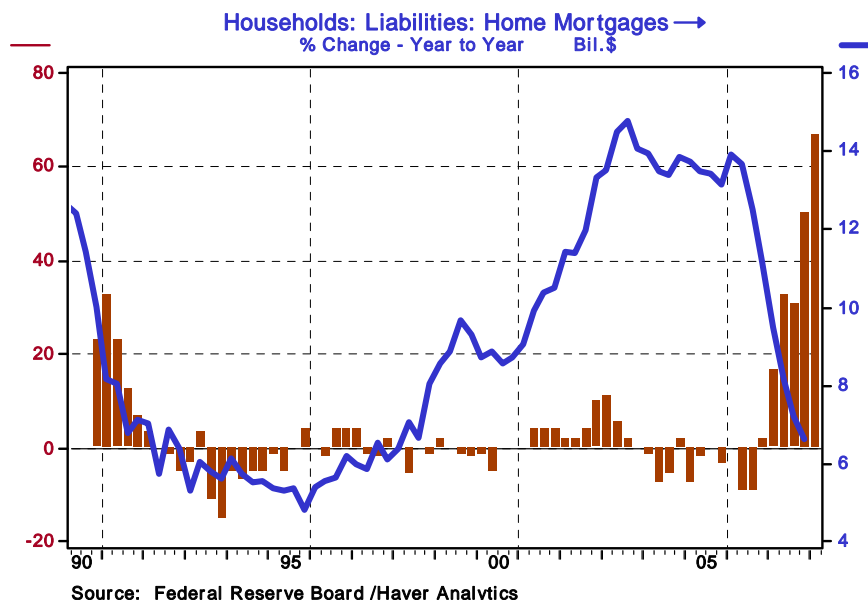


Sources: Haver Analytics, National Association of Realtors

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Chart 8

← FRB Sr Loan Survey: Res Mortgages: Net Share, Banks Tightening  
Haver Est, %



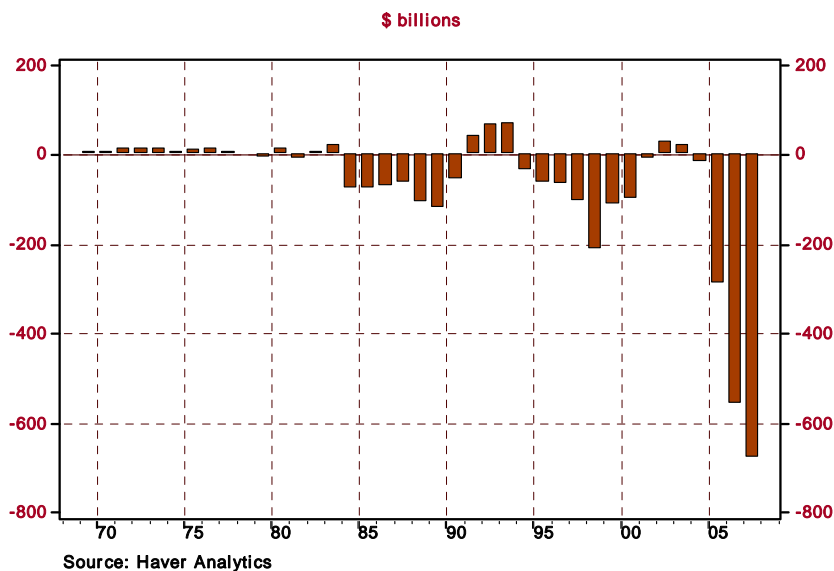
At this point, I want to make a distinction between the wealth effect and, what I call, the cash-in-hand effect. The wealth effect refers to households' propensity to spend a larger proportion of their income as the *paper* value of their assets increases. Note, households do not have any increased cash flow with which to fund their increased spending, they just feel less need to save given the increase in the value of their assets. So, if the value of one's house were to rise or the share price of one's holdings of XYZ Corporation's stock were to rise, one would feel wealthier and, thus, willing to spend a larger proportion of one's income. I would argue that the household spending resulting from the wealth effect pales in comparison to that from the cash-in-hand effect. If the value of one's house rises and one borrows against the increased value, then one has extra cash in hand with which to use for increased purchases. Similarly, if XYZ Corporation buys back one thousand shares of its stock from households, then these households have extra cash in hand with which to use for increased purchases. In a July 24, 2007 commentary, "[Wealth Effect or Borrowing/Asset Sales Effect?](#)," I provided empirical evidence that the magnitude of the cash-in-hand effect exceeds that of the wealth effect.

If households have been net sellers of corporate equities to fund their recent deficits, who have been the principal net buyers of corporate equities? Why corporations themselves. Chart 9 shows that record dollar amounts of corporate equities have been "retired" in recent years. And how have corporations been funding their share buybacks? Chart 10 provides some answers. Through 2005, nonfinancial corporate cash flows were strong. In 2006 and 2007, nonfinancial corporations stepped up their borrowing to help fund their massive share buybacks. With the economy now in a recession and the recovery likely to be muted, corporate cash flows will remain depressed, inhibiting share buybacks. What about increased

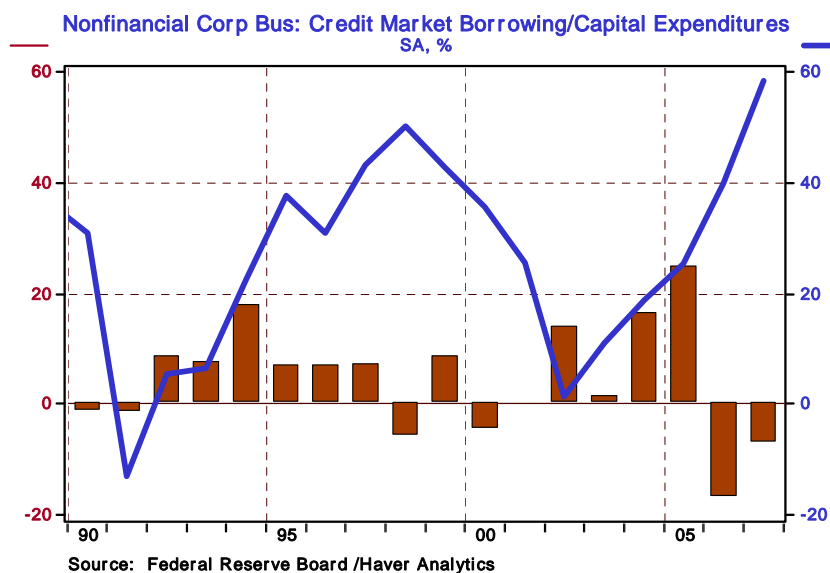
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corporate borrowing to fund share buybacks? With corporate borrowing costs rising because of increased credit-risk aversion (see Chart 11), it is unlikely that corporations will be willing to tap the credit market as much as they have in the past two years to fund share buybacks. Thus, another source of financing household deficits – household net sales of corporate equities back to corporations themselves – would appear to be ebbing.

**Chart 9**  
**Net Issuance of Equities by U.S. Corporations**



**Chart 10**  
**Nonfin Corporate Business: US Internal Funds, Book**  
% Change - Year to Year SAAR, Bil.\$

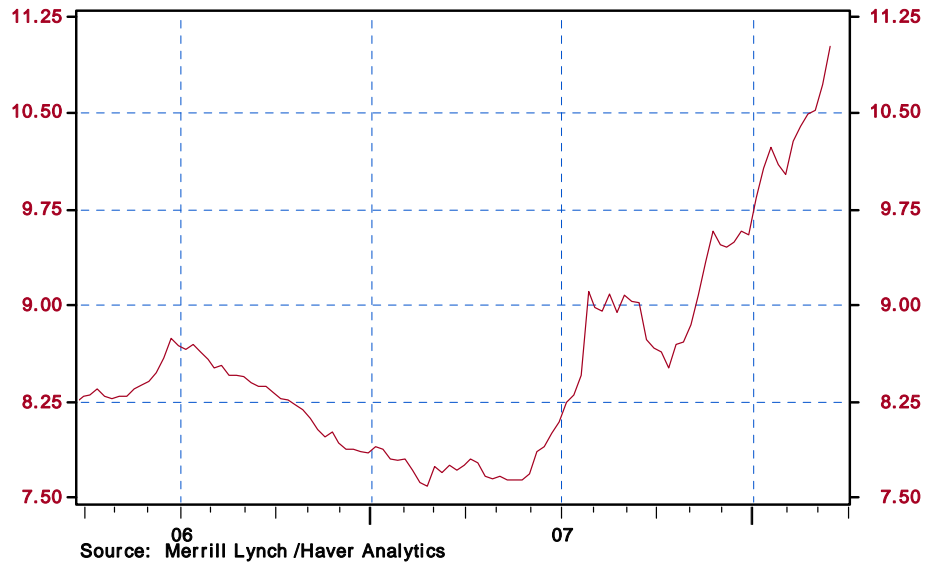


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Chart 11

**Merrill Lynch High Yield Corp Master II: Yield to Maturity**

EOP %



The upshot of all this is that in the next several years, the U.S. is likely to experience not only sluggish growth in homebuilding, but also very sluggish growth in the demand for home furnishings and other consumer discretionary goods and services. It very well could be that instead of U.S. corporations being the biggest buyers of U.S. corporate equities, U.S. households could become the biggest buyers. Similarly, instead of foreign central banks continuing to be big buyers of U.S. Treasury debt, U.S. households could take their place – i.e., after the yield on Treasury securities rises above the U.S. consumer inflation rate.

*Paul Kasriel is the recipient of the 2006 Lawrence R. Klein Award for Blue Chip Forecasting Accuracy*

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