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## A Nation of Spendthrifts? An Analysis of Trends in Personal and Gross Saving

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*The steep drop in the U.S. personal saving rate over the last decade has fueled speculation that Americans are spending recklessly. But alternative measures of personal saving show that households are actually setting aside a larger share of their resources than the official figures suggest. In addition, government saving has risen markedly, leading to an increase in overall domestic saving that has helped finance a surge in U.S. investment.*

The U.S. personal saving rate has fallen dramatically since the early 1990s. It surpassed earlier record lows in 1999 and, on occasion this year, even dipped below zero (Chart 1). The decline has prompted fears that households have become financially overextended—a condition that could slow or reverse the recent strong growth of consumer spending. Adding to the concern is the belief, voiced by many observers, that overall saving and capital formation in the United States are inadequate.

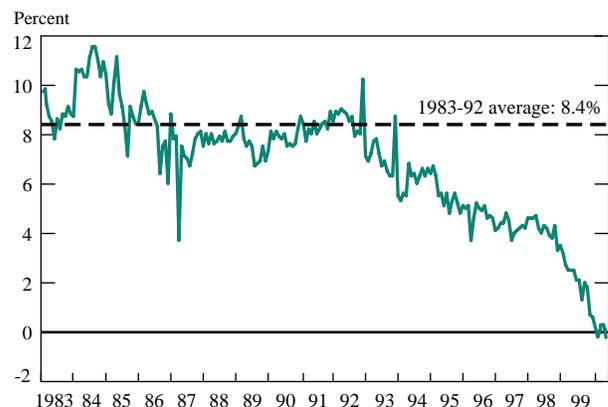
In this edition of *Current Issues*, we argue that these fears are not well founded. The low reported personal saving rate provides a very distorted measure of the state of household finances and the ability of consumers to continue spending. Alternative measures of personal saving remain firmly in positive territory and, in some cases, have not declined at all in recent years. In addition, the decline in the personal saving rate has obscured more favorable trends in saving by the economy as a whole. National saving has been rising as a share of GDP since the early 1990s. This increase, along with foreign capital inflows, has helped to fund a pronounced increase in the rate of growth of the nation's capital stock.

### Problems with the Personal Saving Measure

The Bureau of Economic Analysis produces the standard measure of personal saving as part of its National Income and Product Accounts (NIPA).<sup>1</sup> The saving

measure is derived from the NIPA measure of disposable personal income, which is defined as personal income after the payment of payroll and income taxes. Personal saving is calculated as disposable personal income less personal outlays, while the personal saving rate is computed as the ratio of personal saving to disposable personal income (expressed as a percentage).

**Chart 1**  
**Personal Saving Rate**  
National Income and Product Accounts Measure



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

In recent years, the saving rate has declined because growth in disposable income has not kept pace with growth in consumer outlays. Yet there is good reason to believe that measured disposable income may in fact understate the true resources of U.S. households. If so, then the reported rate of personal saving may also understate what households are actually putting away.<sup>2</sup>

What evidence do we have for saying that the income measure understates household resources? To begin with, the National Income and Product Accounts are designed to measure the goods, services, and structures produced in the current period and the incomes earned in the course of that production. Because “production, or ‘current production,’ and its related incomes do not include gains or losses from the sale of nonproduced assets, such as land, or of financial assets, such as stocks and bonds” (U.S. Department of Commerce 1998, p. M-1), capital gains are not counted as part of NIPA personal income. Yet certainly one can argue that capital gains—either realized or unrealized—are an important form of household income. By excluding capital gains, the NIPA calculations may very well underestimate the real state of household income and, consequently, saving.

Aggravating this conceptual problem is the NIPA treatment of capital gains taxes. Like most other forms of taxes, those paid on realized capital gains are subtracted from personal income to derive an estimate of disposable income.<sup>3</sup> However, it is quite likely that households draw the funds they need to pay capital gains taxes from the gains themselves, rather than from wages or other forms of current income. If the payment of capital gains taxes does not materially affect the ability of households to save out of other types of income, then the practice of subtracting such taxes may contribute to misleadingly low estimates of disposable income and saving. Indeed, this practice may help to explain the timing of the decline in the personal saving rate, since capital gains taxes have increased rapidly in recent years.

Finally, the behavior of “other labor income” over the past several years may have contributed to holding down the personal income and saving numbers. This component of the NIPA income measure consists of all employer payments for fringe benefits, including employer contributions to defined-benefit pension plans. These contributions have leveled off in recent years, after a long period of rapid growth. The slow-down stems in part from the rise in the stock market, which has raised the value of the assets held by such plans and thereby lessened the need for employer contributions. The decline in these contributions has depressed reported personal income and saving, but clearly has not affected the resources or cash flow of

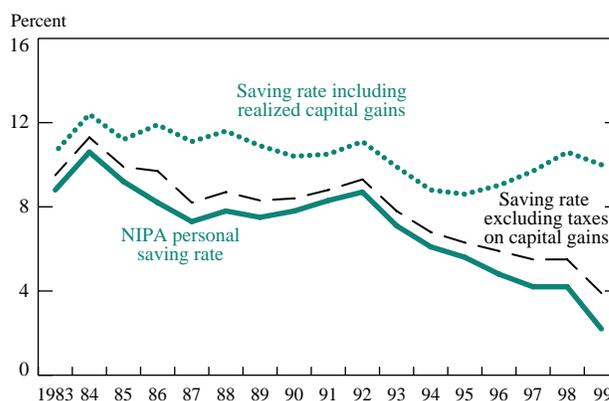
any retiree or worker enrolled in these plans—current benefits are being paid and the rise in the stock market helps to secure promised future benefits.<sup>4</sup>

### Alternative Saving Measures

There are several possible ways to correct the personal saving rate for the misleading trends arising from the treatment of capital gains and capital gains taxes.<sup>5</sup> One is to increase disposable income and saving by removing taxes paid on capital gains from the personal tax data (Chart 2, dashed line).<sup>6</sup> While this change still results in a declining saving rate over the past six years, the recent level of the personal saving rate would be increased about 1½ percentage points. Another way to correct the reported saving rate is to keep capital gains taxes in the tax series but add capital gains realizations to personal income (Chart 2, dotted line).<sup>7</sup> In that case, the personal saving rate in 1999 would have been about 7¼ percentage points higher than officially reported and would have declined very little in the 1990s.

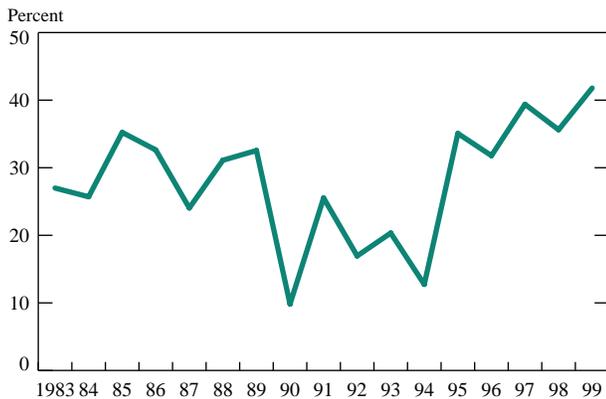
These adjustments suggest that the true flow of resources available to the household sector is larger than the official NIPA income and saving measures suggest. An even larger upward adjustment would occur if all capital gains, realized and unrealized, were included in disposable income (Chart 3). In effect, this adjustment redefines saving as the change in household wealth, since, by definition, all increases in wealth arise from either saving or capital gains. By this measure, the saving rate has risen markedly in recent years. It is not necessary, however, to include in saving *all* increments to household wealth to suggest that the reported decline in the personal saving rate gives a deceptive impression of consumer behavior. As we have seen, simply including realized capital gains in income reverses the downward

Chart 2  
Adjusted Personal Saving Rate



Sources: U.S. Department of Commerce, Bureau of Economic Analysis; U.S. Congressional Budget Office; authors' calculations.

**Chart 3**  
**Personal Saving Rate Including Realized and Unrealized Capital Gains**



Sources: Board of Governors of the Federal Reserve System; U.S. Department of Commerce, Bureau of Economic Analysis.

Notes: The saving rate is calculated as the change in household net worth divided by adjusted income. Adjusted income is defined as disposable personal income – saving + change in net worth.

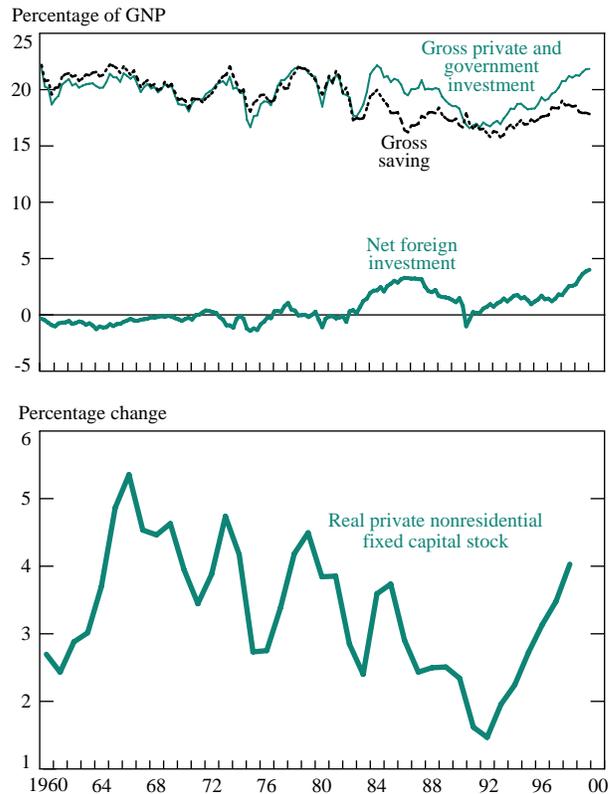
trend.<sup>8</sup> Thus, we have reasonable grounds for concluding that the growth of household spending has not outstripped the flow of resources to the household sector.

**Trends in Gross National Saving, Gross Investment, and Capital Formation**

Households are not the only savers in the U.S. economy. To obtain a complete picture of national saving, we need to add business and government saving to that of households. While the NIPA measure of personal saving has been trending lower, gross saving and gross investment—measured as a percentage of current-dollar GNP<sup>9</sup>—have been increasing (Chart 4, top panel). To be sure, the investment share of current-dollar GNP still falls short of some earlier peaks. But the effect of the recent increase in investment has been magnified by declines in capital goods prices, and the result has been a significant strengthening in the rate of growth of the real private capital stock since 1995 (Chart 4, bottom panel). Net inflows of foreign capital, which are also used to finance internal investment in the United States, have increased over the period as well, reaching 4.0 percent of GNP in the first quarter of 2000.<sup>10</sup> But the rise of domestic saving alone would have been sufficient to fund a significant increase in domestic investment.

The upturn in gross saving stems largely from the sharp improvement in government finances. Government saving rose from -2.8 percent of GNP in the third quarter of 1992 to 5.1 percent in the second quarter of 2000, more than offsetting the decline in the NIPA personal saving measure.<sup>11</sup> The improvement has been most pro-

**Chart 4**  
**Gross Saving, Investment, and Capital Formation**



Sources: U.S. Department of Commerce, Bureau of Economic Analysis; authors' calculations.

nounced at the federal level but has occurred at the state and local levels as well.

Of course, the strengthening in government finances partly reflects increased payments of capital gains taxes. In a consistent accounting system, correcting the personal saving rate as we proposed earlier—that is, by adding capital gains tax payments back into disposable income—would lessen the improvement in government saving because the capital gains tax revenue would be “withdrawn” from the government sector. Nevertheless, this reallocation would leave gross saving unaffected.

**Are Households Overextended?**

The decline in the personal saving rate has raised two concerns. The first is that overall capital formation will be restrained. It appears, however, that capital formation has proceeded at a quite vigorous pace during the period in which personal saving dropped, helped by increased saving from other sectors and large foreign capital inflows. The second concern is that the decline in personal saving is symptomatic of reckless behavior by American households—behavior that will ultimately

result in widespread financial distress and a collapse of consumer spending. This view of consumer behavior is a key aspect of the “bubble economy” explanation of the sustained strong growth of the U.S. economy.

We have shown that redefining the personal saving rate to include capital gains eliminates its downward trend. However, we have not directly addressed the issue of household behavior or potential financial distress. Since the overwhelming bulk of capital gains accrue to a thin stratum of households, it is possible that favorable developments for a few people are masking troubling trends for the larger population.

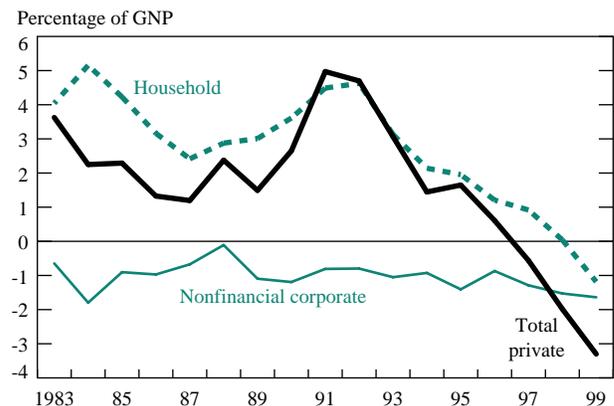
To some observers, the unusual recent behavior of aggregate financial flows is a sign that the private sector—which includes both households and nonfinancial corporations—is exceeding its means and that household finances in particular are threatened.<sup>12</sup> This line of reasoning starts with the examination of the difference between private saving and investment. Traditionally, this difference has been positive. In other words, the supply of funds to the capital market from U.S. households has in general been more than adequate to meet business financing needs, making the private sector as a whole a net supplier of funds. However, this situation has changed radically in recent years. At the end of 1999, the sum of household and nonfinancial corporate capital expenditures exceeded private gross saving by about 3 percent of GNP, a very large imbalance by the standards of the past forty years. The funds used to close this gap stem ultimately from government surpluses and foreign capital inflows.

The source of the shortfall in gross saving is evident in Chart 5, which breaks out the private sector financial balance into separate balances for households and nonfinancial corporations. Most of the decline in the total private financial balance has originated in the household sector, which has now become, unprecedentedly, a net demander of funds. The financial needs (or “financing gap”) of the nonfinancial corporate sector have also increased, but by no more than is customary during economic expansions.

The decline in the household financial balance goes hand in hand with the decline in the standard personal saving rate measure. Households are indeed reducing their net investment in financial assets, partly by increased borrowing.<sup>13</sup> This trend raises the question, Is such a low rate of financial investment sustainable?

Fortunately, the aggregate data, when looked at in a broader context, are reassuring. Although household debt has grown relative to disposable income over the past few years, it has shrunk relative to household financial assets.<sup>14</sup> A truly massive decline in the market

**Chart 5**  
**Private Sector Financial Balances**



Sources: Board of Governors of the Federal Reserve System; U.S. Department of Commerce, Bureau of Economic Analysis.

Notes: Household financial balance = gross saving – capital expenditures. Gross saving = NIPA personal saving + net investment in consumer durables + consumption of fixed capital. Nonfinancial corporate financial balance = U.S. internal funds + inventory valuation adjustment – capital expenditures. U.S. internal funds = profits before tax – profit tax accruals – dividends + consumption of fixed capital. Total private financial balance = gross private saving – gross private domestic investment (NIPA).

value of household assets would be required to bring the ratio of aggregate debt to financial assets back up to levels associated with the economic downturns of the early 1980s and early 1990s. Moreover, interest rates since the early 1990s have in general been substantially lower than in other recent decades. As a consequence, the growth of debt service as a percentage of disposable income has been fairly modest in recent years, and the level of that ratio remains below levels reached in the late 1980s. Finally, aggregate delinquency rates on consumer installment loans have been declining since mid-1997 and are substantially below levels reached in the late 1980s and early 1990s.

Ideally, the state of household finances should be determined by looking at data on individual households. Unfortunately, we do not have detailed and up-to-date information on the finances and spending patterns of individual households. However, the aggregate data provide some information suggesting that typical or representative households—which probably have not had massive capital gains in the stock market—are not being particularly extravagant in their spending. One form of income that has risen quite rapidly is wages and salaries—an increase that is associated with the strong growth in productivity over the past few years. Indeed, from 1996 through the middle of 1999, growth of wage and salary income exceeded growth of personal consumption expenditures, often by a substantial margin

**Chart 6**  
**Wages versus Consumption**



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

(Chart 6). This pattern seems inconsistent with the notion of a spendthrift consumer, since wages and salaries clearly make up the bulk of most households' income (in the aggregate, wages and salaries represent nearly two-thirds of total personal income). Overall, we find it doubtful that the decline in the personal saving rate stems from a new willingness to spend one's wages freely. Rather, the decline most likely reflects a reduced propensity to save out of nonwage forms of income, including dividends, rents, interest, and proprietors' income. For many households, spending a larger portion of these forms of income may be a way of tapping the increased wealth they have accumulated from capital gains.

### Conclusion

Many commentators have interpreted the decline in the personal saving rate as evidence that consumers are living beyond their means—a pattern that could eventually precipitate a sharp cutback in consumer spending and hurt overall economic growth. But a closer look at the data suggests that the risk of such an outcome is exaggerated. The NIPA income data on which the saving rate is based have substantially understated the true flow of resources to the household sector. In addition, the decline in the NIPA measure of personal saving has been more than offset by increased government saving; overall domestic saving flows have been on the upswing. This increase in domestic saving, along with large foreign capital inflows, has been the source of funding for the surge in U.S. investment. Although households have been borrowing substantially, household assets have been rising even faster, while declining interest rates through the end of 1998 have mitigated the increase in debt burdens on household budgets. Finally, the notion that ordinary consumers have been spending recklessly

is countered by the observation that in recent years overall spending has been growing no more rapidly than wages and salaries. Thus, the personal saving rate could well remain quite low for some time without jeopardizing household spending or finances.

### Notes

1. See Seskin and Parker (1998) for a general overview of the National Income and Product Accounts.
2. The Bureau of Economic Analysis has itself acknowledged that "the NIPA definitions of income and saving are not the only reasonable definitions" (Larkins 1999, p. 9).
3. Estate and gift tax payments are not subtracted from personal income in the NIPA. Federal individual income taxes have been rising more rapidly than personal income in recent years. From fiscal year (FY) 1994 to FY1999, federal individual income taxes increased at a very rapid compound annual rate of 10.1 percent. Along with the rapid increase in capital gains taxes, this growth has been fueled by a shift in the income distribution toward higher income taxpayers. For more on these developments, see U.S. Congressional Budget Office (2000).
4. For additional discussion of the conceptual issues surrounding the NIPA personal saving rate, see Gale and Sabelhaus (1999). For discussion of the factors behind the longer term decline of the personal saving rate, see Parker (2000).
5. It is difficult to correct the data for the softness in business contributions for employee pension plans. One might like to restate the income data by removing the business contributions from income and adding back the pension payments themselves. However, in principle one might also want the data to reflect the value of plan enhancements to current workers. Such an adjustment would be difficult to make, but the current procedure of including business contributions to the plans can be viewed as a means of acknowledging such enhancements.
6. For 1997, 1998, and 1999, these taxes are estimated at \$80 billion, \$87 billion, and \$100 billion, respectively. Data on capital gains taxes for 1997 and 1998 are estimates provided by the Congressional Budget Office. Data for 1999 are authors' estimates.
7. Capital gains realizations are estimated at \$365 billion in 1997, \$450 billion in 1998, and \$510 billion in 1999 (see note 6, above, for the sources of these estimates). These amounts are the sum of capital gains reported on individual tax returns with positive capital gains. They exclude capital gains realized within nontaxable accounts such as IRAs, 401(k) plans, and life insurance policies, as well as those realized by pension plans.
8. During the 1990s, taxable capital gains realizations were far less than accrued gains. Corrado and Steindel (1980) and Harris and Steindel (1991) discuss in more detail the connections between household wealth accumulation, saving, and capital formation.
9. GNP is GDP minus payments made to foreign owners of assets employed in domestic production plus the return to U.S. residents on their investments abroad. In the NIPA, the statistical discrepancy is a balancing entry that makes the sum of total incomes equal the sum of total expenditures. By strict definition, gross saving plus the

statistical discrepancy equals gross investment. For our purposes in Chart 4 and related charts, we divide the statistical discrepancy evenly between saving and investment.

10. For an explanation of the relationship between the current account balance and foreign capital inflows, see Higgins and Klitgaard (1998).

11. Government saving is defined as the sum of the NIPA current surplus and depreciation of the public capital stock, which in turn equals the sum of the cash surplus less estate and gift taxes (see note 3 above) plus government capital spending. Of course, one might argue that the personal saving rate has declined in part because households believe that the increase in government saving is being done on their behalf. For a review of the literature on this issue, see Seater (1993). See Auerbach (2000) for a discussion of the recent trends in federal government finances.

12. For example, see International Monetary Fund (1998) and Godley (1999).

13. The seeming discrepancy between a net financial inflow to the household sector and a positive, albeit low, saving rate is largely explained by the categorization of housing purchases as investment, not consumption, in the NIPA. Households are viewed as saving when they acquire a home, although almost all need to borrow to make the purchase.

14. The ratio of liabilities to assets for the aggregate household sector fell from .157 at the end of 1994 to .141 at the end of 1999 (Board of Governors of the Federal Reserve System 2000, Table B100, p. 97).

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