



# THE BANK CREDIT ANALYST

## THERE IS NOT A PROBLEM OF LOW U.S. SAVINGS

- Concerns about low personal savings in the U.S. are greatly overdone. The official data are very misleading and bear little relation to how most consumers would regard their saving.
- Alternative measures of personal saving do not show a major collapse in recent years. Meanwhile, corporate saving has held at a high level and government saving has risen.
- The national saving rate is far above its recent lows and is close to its historical average. The U.S. has a large current account deficit, not because savings are excessively low, but because investment has been very high.
- Consumer debt levels are at a peak, but assets have risen at an even faster pace. Balance sheets are strong, despite the decline in the stock market. Loan delinquency rates give no indication of major financial stress in the consumer sector.
- Consumers are overextended and will retrench this year. However, beware of Armageddon forecasts based on the view that the U.S. saving rate needs to rise massively.

*Annual income twenty pounds, annual expenditure nineteen nineteen and six, result happiness. Annual income twenty pounds, annual expenditure twenty pounds ought and six, result misery.*

*David Copperfield,*  
by Charles Dickens

The low level of personal savings is widely regarded as one of the most serious problems facing the U.S. economy. According to national income data, the saving rate is in negative territory for the first time since the Great Depression and the trend still seems to be down. There would be a crushing retrenchment in spending if consumers decided to rebuild the saving rate back to the 6% average level of 1992 to 1997, the period before the stock market boom moved into a manic phase.

The trend in savings paints a picture of consumers afflicted with a kind of mass financial insanity: spending far beyond their incomes and

marching deeper and deeper into debt. The NASDAQ bubble showed that euphoria and greed can override common sense. Are U.S. consumers heading blindly like lemmings over the financial cliffs?

The collapse in the reported saving rate supports those who are predisposed to a pessimistic



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view of U.S. economic prospects. However, the measurement of personal income and saving in the national income accounts is a quagmire of complex accounting conventions, and bears little relation to how most consumers regard their finances. The saving rate, as most would understand it, is considerably higher than the official data suggest.

There is not a crisis of low saving in the U.S. Consumers will be under pressure in the coming year because of a deteriorating job market and they probably will decide to increase savings, as occurs in most economic downturns. However, talk of a deep structural problem or a “mean reversion” in the saving rate is misplaced and reflects a misunderstanding of the statistics.

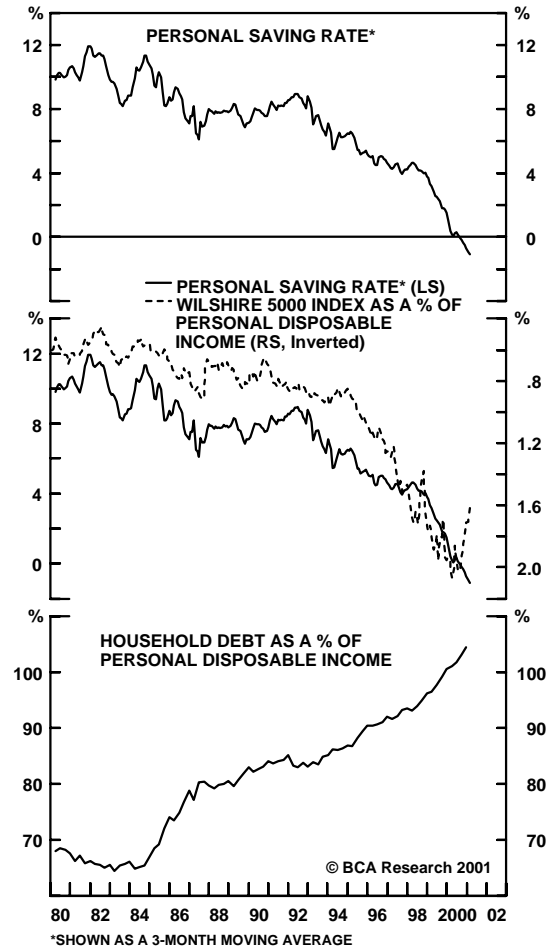
### The Bear Case

The personal saving rate moved into negative territory in mid-2000 and averaged minus 1.3% in the first two months of this year (Chart 1). The only previous time it was negative was in 1932 and 1933 (-0.8% and -1.5% respectively), in the depths of the Great Depression. Then, the saving rate fell because disposable incomes had declined by 45% over a period of four years and there was a limit to how much consumers could cut spending. This time, the decline in saving has occurred during a boom, with consumers spending at a rate far in excess of income growth.

The drop in the saving rate has coincided with the rise in the stock market and a steady increase in household debt. Thus, the data tell a consistent story of consumers embarking on a debt-financed spending binge on the assumption that stock prices would provide a steady stream of capital gains for the indefinite future. The bursting of the equity bubble ended any such delusions, and the fear now is that consumers will be forced to rebuild savings aggressively, leading to a deep spending crunch and a severe recession.

The record current account deficit represents the evil twin of the low personal saving rate and seems to provide further evidence that the U.S. has behaved in an irresponsible spend-thrift manner. The bear scenario of a spending implosion typically also builds in a dollar crisis

CHART 1  
An Overextended Consumer?



as foreigners finally cease to be willing buyers of U.S. assets. The extreme pessimistic view predicts a vicious self-feeding downward spiral in consumer and business incomes and spending, rising loan defaults, a collapsing dollar and stock market, and a protracted deflationary slump.

The U.S. economy faces many challenges in the coming years. However, the above scary scenario that is built on the premise of a low saving crisis presents an exaggerated view of the dangers facing the economy.

### Saving: More Than Meets the Eye

The national income and product accounts (NIPAs - the source of the official data on the personal saving rate) define saving as after-tax incomes less spending. That seems clear and sensible. However, we immediately run into

problems in terms of defining what constitutes income and spending. There are three particular problems that have large effects on measured personal saving.

**Problem 1: The treatment of consumer spending on durable goods.**

The issue here is whether spending on autos and other durable goods should be treated as consumption spending or as investment. The NIPA data treat it as consumption and the full value of such items are included at the time the spending occurs. However, a strong case can be made for spending on durables to be treated as investment on the grounds that they are long-lived assets and thus depreciate over a number of years. The Federal Reserve treats durables as investment within the flow-of funds accounts while the NIPAs treat them as investment in the case of the business sector.

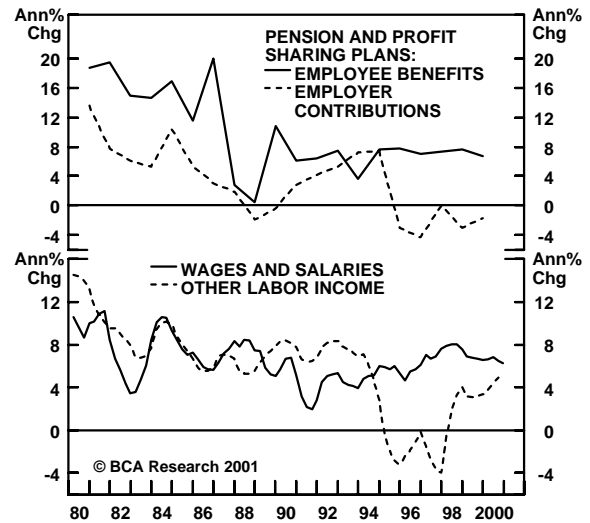
If durables are treated as investment goods, then the consumption data should only include the depreciation that occurs in each period. Most durable goods are assumed to have a 10-year service life which means that one-tenth of the original purchase cost would be included in each year for a period of ten years.

Consumer spending last year would have been lowered by \$233 billion (3.4%) if spending on durables were treated as investment rather than consumption. That simple change would have been sufficient to boost the reported saving rate from minus 0.1% to 3.2%. Of course, this change would also have boosted reported investment, and thus would not have altered the consumer sector’s overall financial position.

**Problem 2: The treatment of pension income.**

The NIPAs treat the pension sector as part of the household sector and this affects the measurement of incomes and saving. For example, benefits paid by pension funds to individuals are not treated as income. The rationale is that benefits are regarded as a transfer within the personal sector rather than a source of external income. Instead of benefits, pension-related personal incomes include employer contributions to pension funds and the interest and dividend in-

CHART 2  
The Pension Drag On Income



come earned by those pension funds. This treatment is consistent with the NIPA approach of measuring only saving associated with current production. Effectively, benefits are paid out of pension reserves built up by previous saving, and are not related to current production.

The above approach may make sense within the NIPA framework, but it bears little relation to the cash flow received by consumers. Most consumers are likely to regard their income as the money that they have available to spend each month. The distinction has become important in the past couple of years because the stock market boom allowed employers to cut the contributions to pension funds and this showed up as a decline in the “other labor income” component of NIPA personal income (Chart 2). However, pension benefits continued to increase and consumers did not suffer any adverse effects on their cash flow.

The effect of the recent decline in employer contributions to pension funds can be offset by assuming that the “other labor income” component grew at the same pace as wages and salaries during the second half of the 1990s. This would have the effect of adding another 3% to last year’s saving rate.<sup>1</sup>

<sup>1</sup> The implication of making this adjustment is that corporate profits would be correspondingly lower. As discussed later, this nets out if we look at national savings.

TABLE 1  
Historical Personal Saving Rates

	NIPA measure	Alternative 3*	Alternative 4**	Net worth measure
1960s	8.3	11.6	14.5	23.2
1970s	9.6	12.8	15.1	29.1
1980s	9.1	11.9	15.3	30.2
1990s	5.9	9.9	12.7	27.1
2000	-0.1	7.8	13.9	-13.7

\* NIPA measure with adjustments for durable goods, pension contributions and capital gains taxes.  
\*\* As in Alternative 3, plus after-tax realized capital gains.

### **Problem 3: The Treatment of Capital Gains.**

This problem occurs because the NIPA measure of personal disposable income does not include capital gains, but it does subtract out taxes on capital gains. This is consistent with NIPA methodology - capital gains are not related to income from current production, while the taxes do have to be paid. Once again, what may be statistically “pure” has little relation to the financial flows that actually occur in the household sector.

From an individual consumer’s point of view, realized capital gains are part of income. They can either be spent, or reinvested in another asset. There are two adjustments that can be made to deal with the capital gains issue. One would be to add back the capital gains tax. The other would be to leave in the taxes, but also to add the realized capital gains into income.

Last year’s saving rate would be boosted by 1.8% by adding capital gains taxes back into income. The saving rate for last year would be boosted by a stunning 6.7% if realized capital gains (after taxes) were added to income.

It is important to recognize that there will continue to be large capital gains realizations this year, even though the stock market has fallen sharply. Only those people who purchased stocks within the last two years and then sold them will have realized losses. Most people bought their stocks some time ago and there are also capital gains from other assets (private equity, real estate etc.). The inclusion of realized

capital gains would probably add at least 5% to this year’s saving rate, despite the drop in share prices.

### **Putting it All Together**

Chart 3 shows how the adjustments discussed above would impact the saving rate. If we make adjustments just for spending on durable goods, pension income and capital gains taxes, then the saving rate for last year would be 7.8%, rather than the official minus 0.1%. The series still shows a downward trend in recent years, but at a less alarming pace than the official NIPA measure. If we also take account of realized capital gains, then the saving rate for the year 2000 rises to almost 14% and the falling trend disappears.

It is possible to go even further and argue that consumer spending behavior is influenced by *total* capital gains, whether realized or not. On that basis, one can construct a saving rate that is based on the change in the household sector’s overall net worth. This would take account of changes in wealth associated with securities, real estate, equity in private business and in pension and life insurance reserves.

The all-inclusive measure of saving is shown in Chart 4. The dramatic collapse in the past year is eye-catching and reflects the implosion in equity values. However, it is important to note just how high the rate has been historically. As shown in Table 1, it averaged 27% in the 1990s. In other words, the recent drop in share prices has to be put in the context of the huge accumulated amount of wealth that has built up over the years.

CHART 3  
Alternative Measures of the Personal Saving Rate

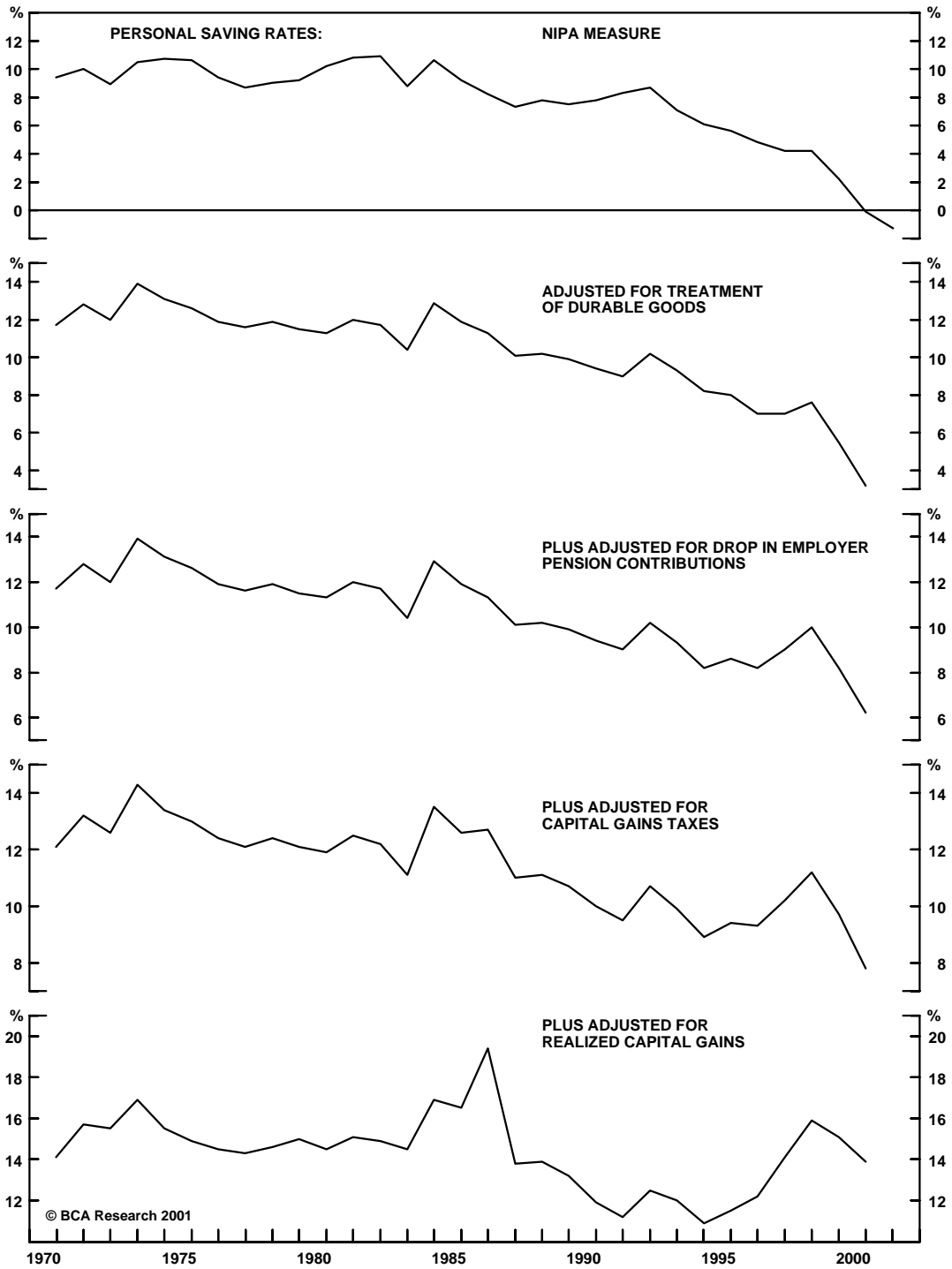


CHART 4  
The Net Worth  
Measure of Saving

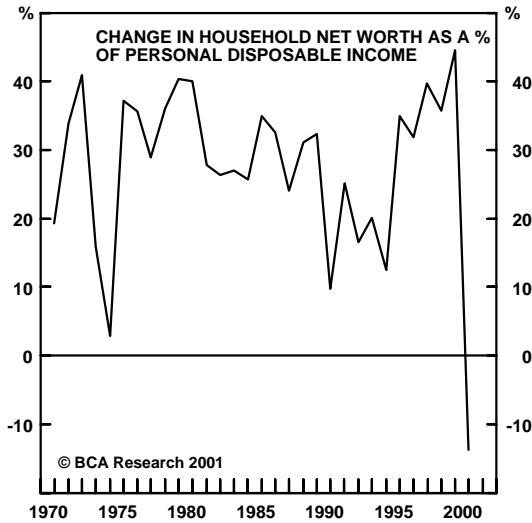
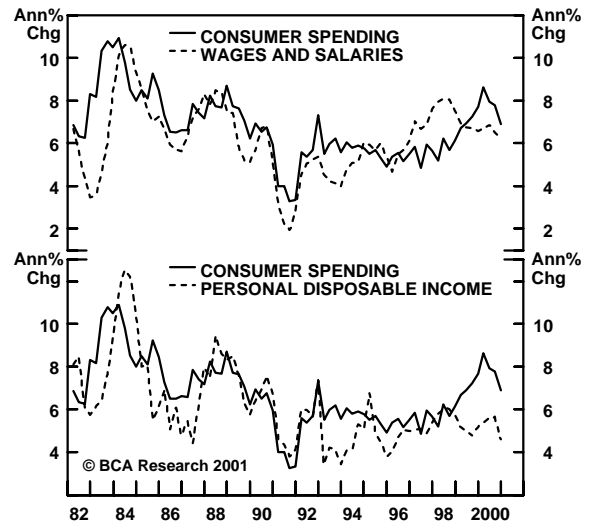


CHART 5  
Spending Has Grown in  
Line with Wages and Salaries



A final point to note with regard to the NIPA data is that consumer spending growth has increased broadly in line with wages and salaries (Chart 5). This emphasizes the point that the distortions to saving relate to the measures of the other components of personal income.

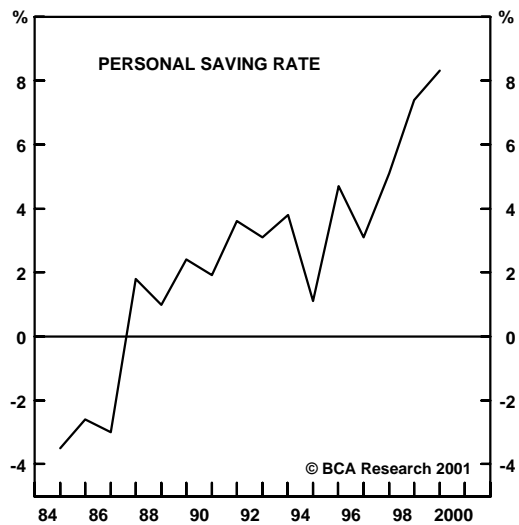
### Alternative Measures of Saving

The above analysis suggests that the reported saving rate data should be treated with a healthy dose of skepticism. There are many different ways to measure saving and the NIPA definition is not particularly well suited to explaining consumer behavior.

There are some alternative data sources that can provide some additional insights on household saving. The income and spending data from the Bureau of Labor Statistics' annual Consumer Expenditure Survey (CES) can be used to derive estimates of the average consumer saving rate. The CES is used to derive the weights for the consumer price index. The saving rate implied by the CES is shown in Chart 6 and it shows a marked increase in the past few years, reaching a peak of 8.3% in 1999 (the latest year available). The income used in this measure does *not* include capital gains.

The CES data is not totally reliable because it requires people to accurately record details of

CHART 6  
The Saving Rate From the Consumer  
Expenditure Survey



their income and spending. Nevertheless, it is significant that the saving rate did not collapse in the 1990s in line with the NIPA measure.

A final source of data is the Federal Reserve's triennial Survey of Consumer Finances. According to the most recent survey (1998), 55.9% of families reported that they saved in the preceding year. This was up slightly from 55.2% in the 1995 Survey, but was down from 57.1% in 1992. The Survey does not provide information about the amount of saving, but the results contradict the notion that saving



behavior has dramatically changed in recent years.

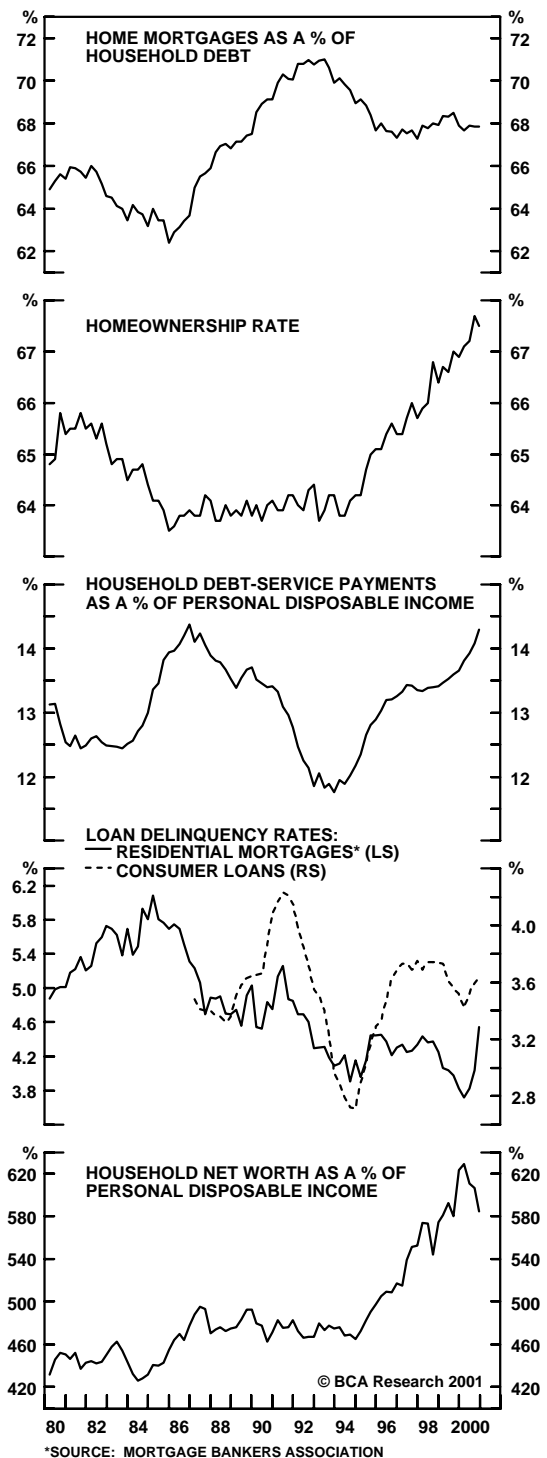
### What About Debt?

Even if the trend in savings is open to question, the data on consumer debt are valid. Total household debt reached a new peak last year, exceeding 100% of income for the first time. Isn't this a huge problem?

There are several points to make with regard to debt.

- The debt-income ratio has been in a secular uptrend for most of the post-WWII period. The fact that it is at a new peak has little relevance unless one can be sure that it is now at a critical level that threatens consumer solvency.
- Almost 70% of household debt is accounted for by home mortgages and this debt is collateralized by property (Chart 7). Contrary to popular opinion, homeowners still have about 55% equity in their homes and this share has not changed much in the past five years. A strong rise in the homeownership rate has also fostered more mortgage debt. This is bullish because it encourages forced saving (via mortgage paydowns) and, in many cases, monthly mortgage payments might be less than rental costs.
- The increase in debt may partly reflect the increased market penetration of credit cards and the increasing use of these for loyalty benefits such as frequent flyer miles. In other words, it need not imply that the same group of consumers is moving ever deeper into debt.
- Debt levels have reached new peaks, but debt-servicing burdens have not. The ratio of debt servicing payments to income has only just moved back to the peak reached in late 1986.
- Debt represents only one side of the balance sheet. Assets have increased even more dramatically in recent years, and not just because of the stock market boom. Between end-1996 and end-2000, the rise in real estate values alone exceeded the total increase

CHART 7  
Some Perspectives on  
Consumer Debt



in household debt. Despite the past year's drop in equity prices, the household sector's net worth is at an extremely high level relative to incomes.

- Measures of consumer loan delinquency rates have edged up in recent quarters, but are still low by historical standards. There is not yet any indication that consumers are under any major financial stress.

There is no doubt that some consumers have taken on too much debt and are in dire financial straits. However, there is not any compelling evidence that overall indebtedness is at a crisis level. That being said, a deepening recession would take a severe toll on consumers and debt problems would escalate sharply, as has occurred in past downturns.

### What if Equity Prices Keep Falling?

How much damage would falling equity prices do to consumer finances and thus spending? This is a legitimate question given how much household sector balance sheets benefited from rising equity prices during the stock market mania in the second half of the 1990s. As we showed earlier, net worth has already taken a big hit during the past year.

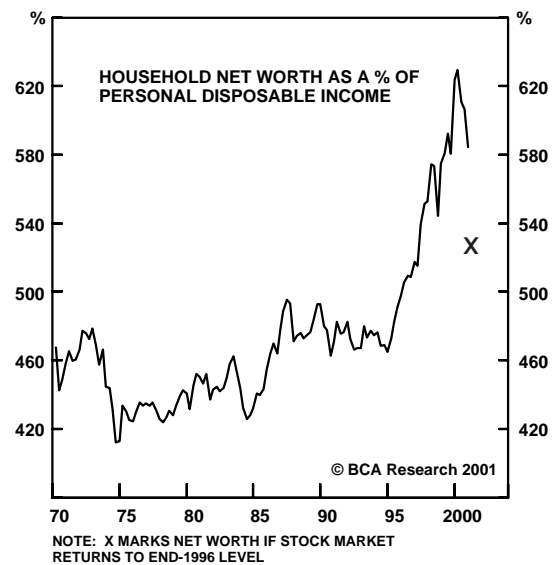
Currently, the Wilshire 5000 index is still 50% above its end-1996 level, when Fed Chairman Alan Greenspan first expressed concern about irrational exuberance. What if stock prices returned to that level (implying a drop of 40% from end-2000 levels or 33% from current levels)?

At the end of last year, equities (both owned directly and via mutual funds and pensions) accounted for only 34% of the household sector's total financial assets and 24% of total assets (including real estate).<sup>2</sup> Thus a 33% decline in equities would reduce total household assets by less than 8%. Nevertheless, as shown in Chart 8, the ratio of net worth to income would decline sharply, and there would be a severe negative impact on confidence and spending. Fortunately, such a sharp drop in equity prices has a very low probability.

The impact of lower equity prices on consumer finances must also take account of the

<sup>2</sup> This data come from the Fed's flow of funds report. Equities represent about 56% of discretionary household portfolios. This measure excludes assets held indirectly through pension funds, trusts and life insurance companies.

CHART 8  
The Wealth Impact of an  
Equity Market Collapse



distribution of share ownership. Although more than 50% of households own some equities, the vast bulk is owned by the very rich. For example, in 1998, for those equity owners in the median income group (\$25,000 to \$50,000 of income), the median value of holdings was only \$11,500. This was far below the holdings of bonds and cash (Table 2). This helps to explain why consumer confidence and spending have held up better than might have been expected given recent stock market developments.

Many economic models assume a wealth effect of around 3%. In other words, consumers spend three cents of every dollar increase in wealth. Almost \$4 trillion was wiped off stock market capitalization in the past year, implying a wealth effect on spending of around \$120 billion, or 1¾%. That does not seem overly dramatic and probably is exaggerated because it is not reasonable to measure the change in wealth from the absolute peak in prices.

It makes more sense to assume that consumers react to a smoothed trend in share prices. Using a trailing six-month average of prices, the market cap has suffered a peak-to-trough decline of \$1¾ trillion. The 12-month average of the Wilshire 5000 Index dropped by less than \$800 million.

None of this rules out a big drop in consumer spending if companies are forced to make



TABLE 2  
Household Holdings of Financial Assets (1998)

Income \$000s	Deposits*	Bonds*	Stocks**
Less than 10	7.5	1.8	4.0
10 to 24.9	21.3	9.4	9.0
25 to 49.9	17.0	25.6	11.5
50 to 99.9	19.3	20.0	35.7
100+	41.0	109.5	150.0
All families	18.1	45.8	25.0

\* Excludes holdings via mutual funds and retirement and other managed accounts.

\*\* Includes equity holdings via mutual funds and retirement and other managed accounts.

Note: Table shows median holdings for families that hold the asset in question.

Source: Federal Reserve Board, Survey of Consumer Finances.

huge cutbacks to jobs. Thus far, the spike in lay-off announcements has not translated into a big drop in employment because there are still pockets of labor shortages. However, the labor market seems certain to deteriorate and that poses the main threat to consumer incomes and spending. Employment trends rather than the stock market will determine the path of consumer spending.

### A Look at National Saving

Some of the distortions to NIPA personal saving occur because of the difficulties in allocating income between sectors. For example, deducting capital gains taxes reduces personal disposable incomes, but it boosts government revenues and thus government saving. Similarly, reported personal incomes are reduced if companies cut pension contributions, but profits and corporate saving are boosted. We can solve this problem by aggregating all of the sectors and looking at total national saving. The results are shown in Chart 9.

While the NIPA personal saving rate has declined sharply, the corporate sector rate has held close to its peak at 13% of GDP and the government saving rate has improved by about 8% of GDP in the past eight years. Adding them together, we get a gross national saving rate of 18% of GDP, broadly in line with its average rate of the past 30 years.

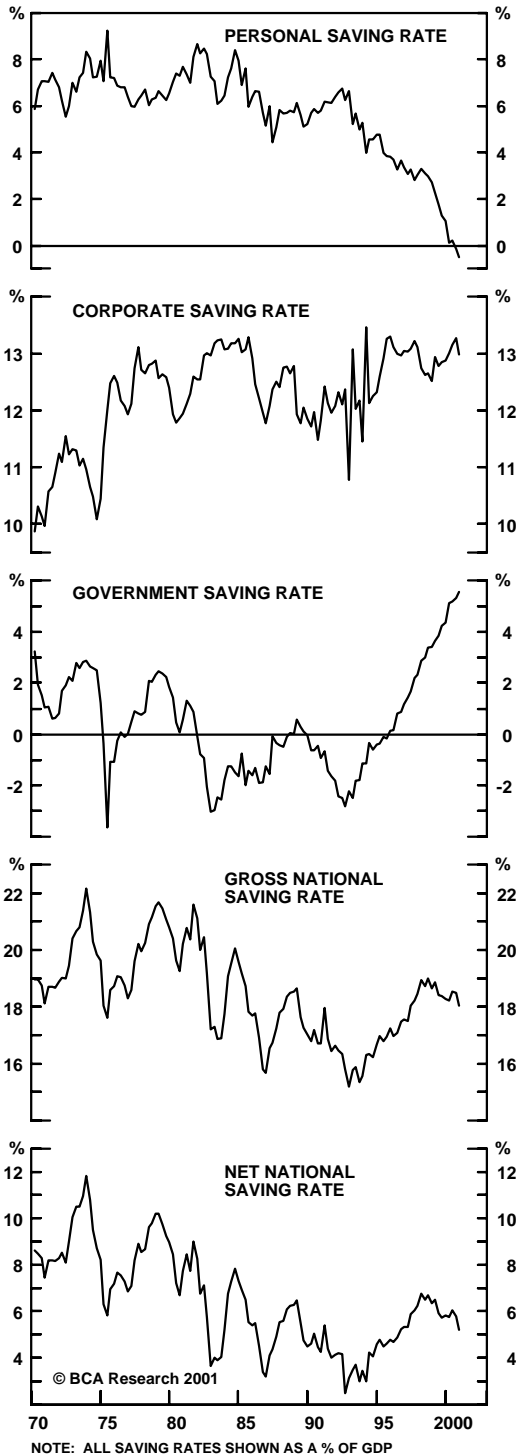
Saving is important because it provides the finance for investment. In the NIPAs, saving equals investment. Because the prices of capital goods have declined in recent years, a dollar of savings buys more effective investment today than it did in the past. We can adjust for this by creating a measure of the real (or inflation-adjusted) national saving rate. Real savings represent savings deflated by the price index for capital goods, and we divided this by real GDP to create a real saving rate. This measure of savings has reached a post-WWII peak of almost 20% (Chart 10).

A significant portion of overall savings represents depreciation allowances that must be used to replace worn out capital equipment. It is only net savings (gross saving minus depreciation) that are available to finance new investment. The trend in net national saving is less favorable than that for gross saving. Nevertheless, this measure is also significantly higher than its lows of the early 1990s.

If there is not a problem of low savings, then why does the U.S. have a large and growing current account deficit? Doesn't this confirm that the U.S. as a nation is spending too much relative to its income?

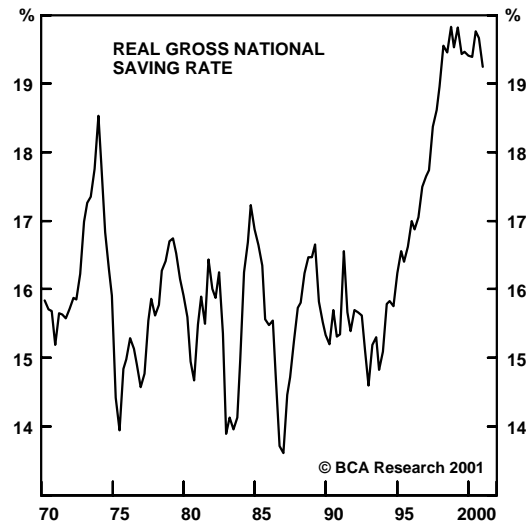
The current account deficit indeed reflects the fact that domestic savings have not been high enough to finance investment. The problem

CHART 9  
Saving Rates by Sector



has not been excessively low savings per se. It is that investment growth has been unusually strong in recent years. The information technology revolution provided good justification for increased investment spending, but the stock market bubble provided additional fuel. Investment spending is

CHART 10  
Real Gross National Savings  
at a Record High



now cooling and that will lead to a narrowing of the current account deficit.

There are good reasons to believe that the official data overstate the current account deficit. For example, a recent U.S. government study concluded that exports are understated by up to 10%, partly because export shipments of less than \$2,500 do not have to be recorded.<sup>3</sup> This omission may be increasing in importance if the Internet is leading to a rise in low-value exports. In addition, global current balances sum up to more than negative \$200 billion. This makes no sense as the world cannot be in a deficit to itself. Clearly, some deficits must be overstated or surpluses understated. Given the importance of the U.S. in the world economy, it is likely that a significant part of the error lies in an overstatement of the U.S. deficit, perhaps by as much as \$100 billion.

### Investment Conclusions

The U.S. economy faces many problems. Corporate profits are in recession and both businesses and consumers are likely to retrench significantly in the coming months. Meanwhile, the technology sector faces a painful adjustment following a period of excessive investment and the bursting

<sup>3</sup> The report can be found on the Internet at [www.census.gov/foreign-trade/aip/expunder2.html](http://www.census.gov/foreign-trade/aip/expunder2.html)

of the tech- stock bubble. Nevertheless, as we have discussed at length in recent issues, the problems in the U.S. are more cyclical than structural. This also applies to the issue of savings.

It is likely that consumers will want to increase their saving rate this year in response to weakening job prospects and a decline in stock market wealth. Nevertheless, we do not share the bearish view that a negative personal saving rate represents a grave economic threat. It is misleading to talk about the personal saving rate needing to revert to a rate of 6% or so, with dire implications for spending. As we have discussed, there are good reasons to be skeptical about the NIPA measure of personal savings and alternative definitions paint a more encouraging picture.

In preparing this article, we have had extensive discussions with experts at the Bureau of Economic Analysis (the producers of NIPA data) and the Federal Reserve. It is clear from these discussions that the measurement of savings is a very complex issue. The NIPA definition of personal saving fulfils a certain function, but should not be regarded as the most appropriate measure with which to analyze and predict consumer behavior.

The U.S. does depend excessively on foreign borrowing, even though the current account deficit may be overstated. The dollar will decline as part of the inevitable adjustment to a lower current account deficit. However, the period of maximum risk of a dollar crisis may have passed given that the stock market is probably past the worst and economic expectations have already been downgraded.

The message from our analysis of the saving issue is to beware of Armageddon forecasts that are based on the view that the U.S. does not save enough. As a nation, the U.S. saves plenty, but has invested even more. Some of this investment may have been misallocated, but most went into productive areas that should continue to deliver strong gains in productivity.

Martin H. Barnes  
Managing Editor