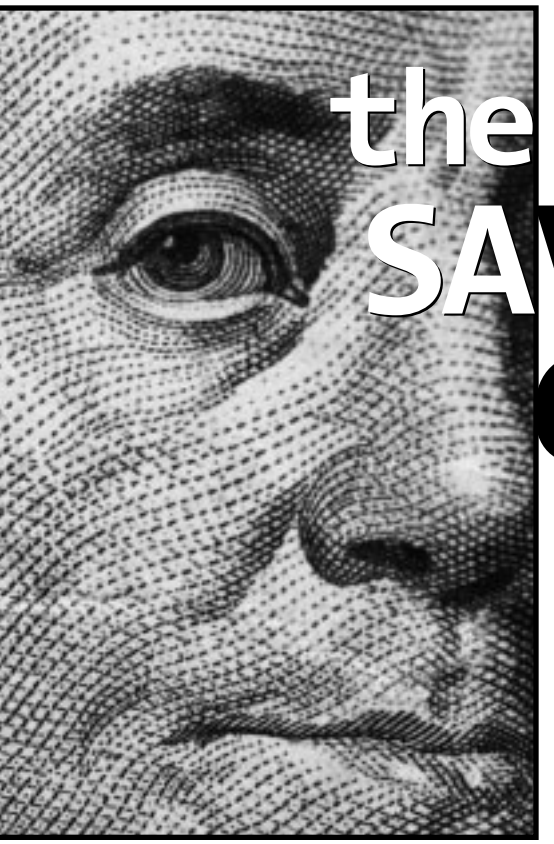

the SAVINGS CRISIS

in the Eye of the Beholder?

By William G. Gale and John Sabelhaus

In the fall of 1998, personal saving, as measured in the United States Government's official National Income and Product Accounts (N.I.P.A.), dipped below zero for the first time since the Great Depression. For the entire year, personal saving totaled just one-half of 1 percent of after-tax income – the lowest since 1933.

Are you worried? Join the crowd. But all is not lost – indeed, all may be fine and dandy. For the closer one looks at the saving "crisis," the harder it is to draw firm conclusions. And while we would by no means dismiss the issue as a misunderstanding, it is apparent that the official saving statistics mean little in the abstract. From one perfectly reasonable perspective, saving rates are higher today than they have been since the 1950's.

For most purposes, the savings rate is just fine, thank you.

Confused? Settle back for some serious bean counting. The issues are complex, but understanding them is worth the effort.

THE CURRENT STATE OF PLAY

Those who have been following the saving statistics for some time have had little reason to be surprised by the dip to zero and below. After all, N.I.P.A.'s personal saving rate has been on a downward spiral for some time, averaging 8.2 percent of GDP in the 1970's, 6.7 percent in the 1980's and 4.8 percent in 1990-94, before dropping to 3.0 percent in 1996 and 2.2 percent in 1997.

But it seems a lot of other people were taken aback. For saving disappeared entirely just as pundits had succeeded in focusing attention on the question of who would pay for the retirement of the baby boomers.

Actually, at least two views of the decline have been clawing their way into the collective consciousness. Those primarily concerned with the growth of the economy view low saving as unadulterated bad news, arguing that it is bound to lead to inadequate accumulation of capital. At a macroeconomic level, low saving makes America ever more dependent on fickle flows of foreign capital; at a micro level, it raises fears that aging wage-earners are burning the candle at both ends.

By contrast, those concerned with sustaining aggregate demand in the near term interpret the low saving rate as good news. Echoing an earlier generation of Keynesians scarred by the Great Depression, they argue that the decline in saving – or rather its flip side, the accompanying rise in consumption – has fueled the long boom in America and is propping up a global economy weakened by the currency collapse in East Asia. They worry that households will soon retrench, driving the global economy into recession.

Personally, we find more validity in a third, more technocratic view, best summarized by William Nordhaus of Yale, who noted a few years ago that the "tools for measuring saving and investment are stone-age definitions in the information age." Standard saving measures correspond only weakly to the concepts of saving used in economics.

That does not rule out the hypothesis that saving is too low or, for that matter, that a consumption binge is needed. But holders of this view would not draw these (or any other) conclusions from the official saving numbers. Our goal here is to show how measures closer to what economists have in mind affect recent trends. We do not attempt to determine the causes or consequences of the saving decline. Indeed, some of our measures suggest that the saving rate is rising, not falling.

SO, WHAT IS SAVING ANYWAY?

According to Econ 101, saving is what's left-over from today's consumption that could be consumed tomorrow. With this idea in mind, saving is alternately defined as "income" minus "consumption," or the change in "wealth," or the change in the supply of "capital." If each of the terms in quotation marks could be pinned down and measured consistently, all three definitions would amount to the same thing. In practice, though, there's

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many a slip twixt cup and lip.

Start with the fact that the simplest definition, income less consumption, flounders on the question of defining income. Add the fact that saving measures differ in their breadth. A narrow measure, often used in studies of households, focuses on changes in financial assets and liabilities. A very broad measure – the stuff of macroeconomics – would include changes in the value of financial, physical, intangible, human, public, natural, and even environmental, capital.

From one perfectly reasonable perspective, savings rates are higher today than they have been since the 1950's.

Now mix in the reality that saving can be measured in real or nominal dollar terms, and either gross or net of depreciation in the existing stock of capital. For most economic purposes, it is makes sense to measure saving in real terms and net of depreciation. But "most" doesn't mean "all."

Which measure of saving is most appropriate may well depend on the question. To understand how well households are preparing for retirement, for example, it would be logical to focus on personal wealth measures – ones that include Social Security and Medicare. If the goal is to examine government policies that encourage saving, though, it would be logical to include the effects on government saving as well as on private saving. After all, a policy that increased private saving but led Washington to increase the budget deficit (or reduce the surplus) by an equivalent amount, would have no net impact on saving for the economy as a whole.

Or, if the goal is to understand the share of output that society is devoting to increasing production in the future, it makes sense to include not only conventionally measured saving, but investment in workers' skills, research, and other forms of intangible capital. Whether capital gains should be included may well depend on the source of the gain. Much more on that later.

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A more technical version of this paper may be found in The Brookings Papers on Economic Activity, 1999:1.

THE GOSPEL ON SAVING, ACCORDING TO NIPA

The N.I.P.A. measure of personal saving comes as part of a broader accounting framework whose main purpose is to measure current production and the income generated thereby. Personal saving represents the portion of production made available by households for purchasing new machinery, buildings and the like. The household sector includes families, pension funds, trust funds, non-profits and unincorporated businesses.

N.I.P.A. measures the difference between personal disposable income and personal consumption. Personal income is the sum of wages and other labor income, returns to unincorporated business, other personal income (rents, interest, dividends) and government benefits. Personal disposable income is just personal income less taxes, while the vast bulk of personal consumption consists of outlays for goods and services.

The N.I.P.A. measure is not intended to correspond with what Joe Six-Pack considers saving. First, capital gains are excluded.

Second, N.I.P.A. treats consumer durables (automobiles, refrigerators, etc.) differently than housing, even though both provide an ongoing stream of consumption benefits. Spending on owner-occupied housing is considered saving, with the imputed rental income included in personal income, and the imputed value of the use of the space in consumption expenditures. By contrast, purchases of other consumer durables count as current consumption.

N.I.P.A. saving includes interest receipts as income and interest payments as outlays. However, in the presence of inflation, economists would argue that only the "real" component of interest should count on either side of the ledger. Thus, if a corporation pays a household $100 in interest on a $1,000 bond and the inflation rate and real interest rate are each 5 percent, N.I.P.A. overstates real household saving by $50 and understates real corporate saving by $50.

Finally, N.I.P.A. counts all pension contributions as saving, even though pensions carry deferred tax liabilities. A household that makes a $100 tax-deductible contribution to a pension and is in the 20 percent tax bracket has actually saved only $80. The remaining $20 is deferred taxes, which represents neither reduced current consumption nor increased future consumption for the household – and thus should not be counted in personal saving.

Corporate saving – a.k.a. retained corporate earnings – is the undistributed profits of corporations plus adjustments for changes in inventory value and capital depreciation. As with personal saving, N.I.P.A. corporate saving does not adjust interest for inflation.

TRENDS IN NIPA SAVING

Enough with the definitions. Table 1 shows N.I.P.A.'s measures of sources of funds for investment for various periods over the last 40 years. And the smoking gun is not hard to spot: personal saving fell from 3.5 percent of GDP in the early 1990's to 0.4 percent in 1998. To mix a metaphor, though, there's not always fire where there's smoke. Table 1 also shows that net private investment increased from 5.3 percent of GDP in 1990-94 to 8.2 percent of GDP in 1998.

That is, the decline in measured personal saving was more than offset by increased saving in other sectors. Total government saving rose from -2.0 percent of GDP in 1990-94 to 2.7 percent in 1998 as chronic budget deficits morphed into towering surpluses. Meanwhile, corporate retained earnings rose by 1.2 percent of GDP and net inflows of foreign saving rose by 1.5 percent of GDP.

Net investment was about 2 percent of GDP lower in 1997-98 than in the 1960's and 1970's. Government saving and retained corporate earnings represented about the same share of GDP in the late 1990's as in the 1960's. But personal saving has fallen by about 5 percent of GDP, while net foreign saving increased by almost 3 percent of GDP.

TWEAKING THE NIPA SAVING MEASURES

It is possible to bring N.I.P.A. estimates closer to theoretical concepts of saving by adjusting the data for a variety of factors. To add durable goods to saving and investment, we use data from the Federal Reserve Board's Flow of Funds accounts. To provide consistent treatment of government and private pensions, we include contributions and interest and dividend earnings to saving – and, to avoid double counting, exclude benefit payments from income in both cases. To adjust saving for inflation, we subtract the product of the percentage change in the inflation rate and the credit-market debt from nominal saving. However, we do not adjust equity

holdings for inflation, because the N.I.P.A. framework does not include capital gains. To account for deferred taxes in pension saving, we multiply pension-fund saving by an assumed tax rate of 20 percent. For simplicity, we credit the entire revenue to the Federal Government.

The adjusted numbers in Table 2 show the same general trends in the level of national saving as the unadulterated N.I.P.A. data in Table 1. In both, net domestic investment rises in the 1990's, but is below the levels of the 1960's and 1970's. Net domestic investment financed by domestic saving fell from 12.3 percent of GDP in the 1960's to 8.1 percent in 1998, with the gap covered by foreign saving.

But the adjustments do alter the composition of the decline. While N.I.P.A. personal saving declined by 3.1 percent of GDP in the 1990's, adjusted personal saving fell by only 1 percent of GDP. Compared to the 1970's and 1980's, N.I.P.A. personal saving in 1998 had fallen by almost five percentage points, and N.I.P.A. private saving fell by almost four percentage points. Adjusted private saving, however, fell by only 2 percent of GDP.

The inflation adjustment makes a big difference. It reduces net saving of the two creditor sectors (households and foreigners) and raises net saving of the two borrowing sectors (government and corporations). What's more, from the 1970's to 1995 fully five-sixths of the decline in the personal saving rate can be accounted for by the decline in inflation. Likewise, roughly 40 percent of the decline in personal saving from 1995 to 1998 is linked to inflation. Remember, though, that as a matter of definition, the inflation adjustments for Government and corporations on the other side of the ledger cancel out the adjustments on the household side.

Investment in consumer durables was 2.3 percent of GDP in 1998, and increased by about 1 percent of GDP over the decade. Adding durables does not change long-run investment trends very much, however, because the fraction of GDP devoted to durable goods in 1998 is close to its historical average.

Accumulation in government retirement accounts and trust funds is substantial, rising from about 1 percent of GDP in the 1960's to 1.7 percent in 1998. Shifting these funds from the Government to households alters saving

TABLE 1: SOURCES OF INVESTMENT FUNDS

	PERCENT OF GDP							
	1960-69	1970-79	1980-89	1990-94	1995	1996	1997	1998
NET DOMESTIC INVESTMENT:	10.6%	9.4%	7.8%	5.3%	6.3%	6.9%	7.6%	8.2%
Personal Saving	5.2	5.7	4.8	3.5	2.7	2.2	1.5	0.4
Corporate Retained Earnings	3.6	2.9	2.3	2.4	3.5	3.4	3.7	3.6
Federal Government Surplus	0.3	-1.9	-3.2	-3.4	-2.4	-1.4	-0.3	0.9
State and Local Government Surplus	2.1	2.1	1.9	1.4	1.5	1.6	1.7	1.8
NET SAVING FROM FOREIGNERS	-0.6	-0.2	1.8	1.0	1.4	1.6	1.7	2.5
(STATISTICAL DISCREPANCY)	-0.1	0.7	0.1	0.4	-0.4	-0.4	-0.7	-1.0

SOURCE: National Income and Product Accounts

in both sectors, but does not change conclusions about the recent drop in personal saving because government pension saving has been stable – or even falling – in the last decade. Adjusting for taxes reduces personal saving by about 1 percent of GDP for the last 30 years, but does not significantly alter the trend.

All told, the adjustments raise the level of saving, reinforce the notion that saving has declined, and shuffle the source of the decline. In particular, official N.I.P.A. personal- and private-saving figures show larger declines than adjusted measures do.

With minor differences, F.F.A. personal saving is meant to capture the same information as the N.I.P.A. numbers. However, the two use different sources and approaches to tracking saving, which allows us to slice and dice the numbers in different ways.

The F.F.A. saving rates, shown in Table 3, reveal the same decline in saving found in the N.I.P.A. data. F.F.A. private saving fell from an average of 15 percent of income in the 1980's to 9 percent from 1996-98. The equivalent measure of household saving fell from 12.2 percent of expanded disposable income in the 1980's to under 5 percent in 1996-98.

TABLE 2: ADJUSTED MEASURES OF SAVING AND INVESTMENT

	PERCENT OF GDP							
	1960-69	1970-79	1980-89	1990-94	1995	1996	1997	1998
ADJUSTED NET DOMESTIC INVESTMENT (Includes consumer durables)	12.8%	11.6%	9.8%	6.8%	8.2%	8.9%	9.7%	10.5%
ADJUSTED TOTAL PRIVATE SAVING	10.6	9.0	8.7	7.2	8.0	7.6	7.6	6.9
ADJUSTED PERSONAL SAVING:	6.3	4.1	5.1	3.7	3.8	3.5	3.4	2.9
Equals NIPA Personal Saving	5.2	5.7	4.8	3.5	2.7	2.2	1.5	0.4
Plus Investment in Consumer Durables	2.2	2.2	2.0	1.4	1.9	2.0	2.1	2.3
Plus Saving in Government Retirement and Social Insurance Funds	1.0	0.8	1.9	1.9	1.6	1.4	1.9	1.7
Plus Inflation Adjustment	-1.8	-4.0	-2.6	-2.2	-1.5	-1.2	-1.1	-0.6
Less Deferred Tax Adjustment	-0.4	-0.6	-1.1	-1.0	-0.8	-0.8	-1.0	-0.9
ADJUSTED CORPORATE RETAINED EARNINGS:	4.3	4.9	3.7	3.5	4.2	4.0	4.3	4.0
Equals NIPA Corporate Retained Earnings	3.6	2.9	2.3	2.4	3.5	3.4	3.7	3.6
Plus Inflation Adjustment	0.7	2.0	1.4	1.1	0.7	0.6	0.6	0.3

SAVING ACCORDING TO THE FLOW OF FUNDS ACCOUNTS

When in doubt, more information is better than less. And our second perspective on saving uses data from the Federal Reserve's Flow of Funds Accounts (F.F.A.). The F.F.A. measures wealth and debt at moments in time, along with the acquisition and disposition of assets and liabilities. It does not, however, take capital gains into account.

Table 3 breaks net saving into gross saving, gross borrowing and their components. And the numbers reveal a striking fact: The long-run decline in saving is largely linked to a reduction in gross saving – and, within gross saving, in the acquisition of financial assets. Acquisition of financial assets fell from about 13 percent of GDP in the 1980's to just 6 percent in 1996-98.

The importance of borrowing has varied

over time. In the 1990's, the rise in private borrowing accounts for more than 100 percent of the decline in private saving. But comparing recent years to earlier decades suggests little real change. Borrowing rates in 1995-97 were somewhat lower than in the 1970's and 1980's, and the borrowing rate in 1998 was just 1 percent of GDP higher.

Table 3 also shows how borrowing changes relative to household investment in the tangible assets – notably housing – which most people use as collateral. Investment in housing net of mortgage debt has actually been negative during the last 30 years. Thus, the data do not suggest that increased borrowing has led to the recent decline in saving.

TABLE 3: PRIVATE BORROWING AND SAVING IN THE FLOW OF FUNDS ACCOUNTS

	PERCENT OF EXPANDED DISPOSABLE INCOME							
	1960-69	1970-79	1980-89	1990-94	1995	1996	1997	1998
HOUSEHOLD AND CORPORATE SECTORS NET SAVING:	17.2%	16.7%	15.2%	12.1%	11.2%	9.8%	9.6%	9.3%
CORPORATE SECTOR NET SAVING	5.0	4.0	3.1	3.2	4.6	4.5	4.8	4.9
HOUSEHOLD SECTOR NET SAVING:	12.2	12.7	12.2	9.0	6.6	5.3	4.8	4.4
EQUALS HOUSEHOLD SECTOR GROSS SAVING:	16.6	19.5	19.1	13.9	13.0	11.8	10.9	12.5
Investment in Owner-occupied Housing	2.5	3.3	3.1	2.8	2.7	2.9	2.2	2.7
Investment in Consumer Durables	3.1	3.0	2.7	1.9	2.5	2.7	2.8	3.1
Investment in Non-profit Tangible Capital	0.9	0.5	-0.1	-0.2	0.2	0.3	0.9	0.8
Net Acquisition of Financial Assets Less Accrued Taxes	10.1	12.7	13.4	9.4	7.7	6.0	5.1	6.0
LESS HOUSEHOLD SECTOR GROSS BORROWING:	4.5	6.8	6.9	4.9	6.5	6.5	6.2	8.0
Mortgage Borrowing	2.4	4.3	4.7	3.4	3.1	4.3	3.9	5.8
Consumer and Other Debt	2.0	2.5	2.2	1.5	3.4	2.2	2.3	2.2

SOURCE: Flow of Funds Accounts

MAYBE THE BABY BOOMERS REALLY ARE WORRIED ABOUT RETIREMENT

Table 4 separates retirement saving – pensions, 401(k)s, I.R.A.'s, Keoghs – from other saving. Pension saving is measured explicitly in the F.F.A., and we use data from a variety of sources to estimate I.R.A. saving.

While Table 3 showed that the decline in saving was fully explained by a decline in acquisitions of financial assets, Table 4 suggests the source can be pinpointed more closely. It will come as no surprise that retirement saving, fueled by the growth of 401(k)s, remained strong throughout the period. Almost all of the saving decline, it seems, occurred in saving outside retirement accounts. Personal saving fell by almost 7 percent of disposable income from the 1970's and 1980's to 1998 – as did households' acquisition of non-retirement financial assets.

Accumulation in private and government pensions have represented relatively stable shares of GDP over the last three decades. I.R.A. saving has not fallen, either, though its tax deductibility was restricted after 1986.

CAPITAL GAINS: THE 800-POUND GORILLA

For all the insights to be had from a careful look at the N.I.P.A. and F.F.A. numbers, nei-

ther can shed light on the role of capital gains. And given the multi-trillion dollar run-up in stock market values in recent years, that is equivalent to giving a party and forgetting to invite the guest of honor.

Table 5 compares the magnitude of capital gains against measured F.F.A. saving over the past 40 years. Note first that capital gains have dominated conventional saving as a source of wealth change except during the 1960's and all of it. Capital gains on pension assets alone have equaled 10 percent of income since 1995.

"GAINS-INCLUSIVE" SAVING RATES

To examine saving rates that include capital gains, we incorporate capital gains in the F.F.A. saving rates calculated in Tables 3 and 4. The rates of wealth accumulation in Table 6 are noticeably lower than the values in Table 5 because capital gains increases the denomina-

TABLE 4: SAVING IN RETIREMENT AND NON-RETIREMENT VEHICLES

	PERCENT OF EXPANDED DISPOSABLE INCOME							
	1960-69	1970-79	1980-89	1990-94	1995	1996	1997	1998
HOUSEHOLD AND CORPORATE SECTORS NET SAVING:	17.2%	16.7%	15.2%	12.1%	11.2%	9.8%	9.6%	9.3%
SAVING IN RETIREMENT VEHICLES:	2.0	3.5	5.9	5.2	4.3	4.4	5.3	4.7
Private Pensions	1.3	2.4	2.8	2.5	2.2	1.8	2.4	2.5
Government Pensions	0.7	1.0	1.9	1.6	1.1	1.5	1.6	1.2
Individual Retirement Accounts			1.2	1.0	1.0	1.0	1.3	1.0
SAVING IN NON-RETIREMENT VEHICLES:	15.2	13.2	9.4	7.0	6.9	5.4	4.3	4.6
EQUALS HOUSEHOLD NET ACQUISITION OF NON-RETIREMENT ASSETS:	14.7	16.1	13.2	8.7	8.7	7.5	5.7	7.7
Life Insurance and Trust Assets	1.0	1.3	0.9	0.9	0.9	0.6	2.1	1.5
Other Non-retirement Assets	13.7	14.7	12.4	7.8	7.8	6.9	3.6	6.2
PLUS CORPORATE RETAINED EARNINGS	5.0	4.0	3.1	3.2	4.6	4.5	4.8	4.9
LESS GROSS BORROWING	4.5	6.8	6.9	4.9	6.5	6.5	6.2	8.0

SOURCE: Flow of Funds Accounts

from 1990-94.

Second, the overall rate of capital gains accumulation since 1995 is very large, and will prove even larger when the decline in inflation is taken into consideration. Since 1995, capital gains have accounted for a whopping 80 percent of the increase in household net worth. In 1997 and 1998, capital gains were more than 10 times traditional saving.

Third – no surprise here – the composition of gains has changed. In the 1970's and 1980's tangible capital such as real estate accounted about half of the gain, while in the 1990's financial assets accounted for almost

tor of the fraction significantly – especially in recent years. Nevertheless, the late 1990's still stand out as a period of explosive growth in wealth. The annual change in households' net worth has averaged around 35 percent of "gains-inclusive" income since 1995. This greatly exceeds the rate of accumulation in the 1960's and the early 1990's, and is about the same as the rate in the 1970's and 1980's.

Wait, though: the story gets better. Thus far, the rates have been calculated in terms of nominal dollars. And adjusting for inflation dramatically changes the results.

The real increase in household net worth

in the 1970's amounted to 13 percent, compared to a 33 percent gain in nominal terms. For the 1960's, 1980's and 1990-94 periods, the annual increases in household net worth are trimmed by about 10 percent when inflation is factored out. But the inflation adjustment for the late 1990's is small. Thus, the inflation-adjusted "gains-inclusive" rates of real wealth accumulation in the late 1990's are higher than at any time in 40 years.

Big capital gains do, of course, imply big tax liabilities down the road. So we adjust accrued capital gains on pensions by 20 percent and accrued capital gains on taxable assets by a plausible 10 percent. Figure 1 shows the fully adjusted saving rates on an annual basis. Once again, the wealth accumulation figures are larger, relative to income, than at any time in the past 40 years.

Note, by the way, that the adjustment for deferred taxes has a significant impact on the time path of the Federal budget surplus. Unpaid taxes on pensions and I.R.A.'s alone have risen by $2 trillion dollars since 1980 – or about half the amount of the Federal debt.

Adjustments for deferred taxes, however, cannot change the long-term fiscal outlook. For attributing the tax accruals to Federal accounts when the accruals occur means that they cannot be attributed again in the future. Nevertheless, an accounting fix that banked taxes on unrealized capital gains when the gains occurred would lead to the conclusion that fiscal policy was not nearly as profligate as it appeared in the 1980's.

TABLE 5: SOURCES OF CHANGE IN HOUSEHOLD SECTOR NET WORTH

	PERCENT OF EXPANDED DISPOSABLE INCOME							
	1960-69	1970-79	1980-89	1990-94	1995	1996	1997	1998
TOTAL CHANGE IN HOUSEHOLD SECTOR NET WORTH:	27.8%	39.5%	37.1%	17.9%	42.4%	35.8%	51.0%	48.0%
HOUSEHOLD SECTOR NET SAVING	12.2	12.7	12.2	9.0	6.6	5.3	4.8	4.4
CAPITAL GAINS:	15.7	26.8	24.9	8.9	35.8	30.5	46.2	43.6
GAINS ON TANGIBLE ASSETS	4.8	14.7	11.6	0.6	3.1	3.2	6.8	6.5
GAINS ON FINANCIAL ASSETS:	10.8	12.2	13.3	8.3	32.7	27.3	39.4	37.1
Retirement Assets	0.3	0.3	1.9	2.6	10.4	8.7	14.0	13.7
Non-retirement Assets	10.5	11.8	11.4	5.7	22.3	18.6	25.5	23.4

DO CAPITAL GAINS BELONG IN MEASURED SAVING?

By now it is obvious that interpretations of recent saving behavior hinge on whether capital gains are included. And while it may seem equally obvious that capital gains represent wealth – why else are the streets of Palo Alto and San Jose clogged with BMWs? – it doesn't necessarily follow that the gains should be included in national saving.

Alan Auerbach of the University of California at Berkeley notes that if saving is defined as the creation of resources today with the goal of consuming more tomorrow, then much depends on the source of the gain. If the underlying assets have become more productive, the capital gain should indeed be considered saving. However, if the gain results from, say, a shift in tastes that don't affect fu-

ture productivity they should not be included.

For example, a decline in the value of a bulldozer linked to its decline in productivity as it wears out clearly should be counted as negative saving. But a decline in value in the old bulldozer due to the invention of a better bulldozer should not count as a fall in saving since the physical productivity of the old machine does not decline.

lead to a different conclusion in an economy open to international investment. If, for example, the Japanese are willing to trade more automobiles for an acre of real estate in Beverly Hills, the gain is real to Americans.

In practice, determining which capital gains fall in which category is difficult. David Bradford of Princeton acknowledges that changes in interest rates could cause changes

TABLE 6: GAINS-INCLUSIVE SAVING RATES

PERCENT

	1960-69	1970-79	1980-89	1990-94	1995	1996	1997	1998
CHANGE IN HOUSEHOLD SECTOR NET WORTH OVER GAINS-INCLUSIVE INCOME	26.0	33.3	32.1	18.6	35.2	30.9	39.1	37.5
Adjusted for Inflation	16.7	13.6	19.6	6.0	30.4	26.2	35.4	35.4
Adjusted for Accrued Taxes	25.3	32.4	30.8	17.1	32.6	28.7	36.4	34.9
Adjusted for Inflation and Accrued Taxes	15.8	12.0	17.9	4.0	27.3	23.6	32.4	32.6
ADDENDUM								
Accrued Tax Liabilities on Household Sector Assets, % of GDP	0.8	1.2	1.7	1.4	4.0	3.1	4.7	4.3
Federal Surplus Adjusted for Accrued Taxes, % of GDP	1.1	-0.7	-1.5	-2.0	1.6	1.6	4.4	5.2

Or suppose each generation owns land as its only store of value, and sells the land to the next generation to finance its retirement. And further suppose that a change in the price of land that occurs because one generation has a different "discount rate" – the rate reflecting how much people must be compensated to consume tomorrow rather than today. Then the land will change in value but not in productivity. And the capital gains on the land will not represent saving for the economy as a whole.

Thus, just because it is appropriate to include capital gains in measuring the wealth of an individual or group does not automatically imply that it is appropriate to include such gains in aggregate wealth.

Auerbach's land example, however, may

in market values. But he concludes, nevertheless, that market value remains a more useful saving concept than the N.I.P.A. measure of wealth. By contrast Charles Schultze of The Brookings Institution suggests that most gains have little to do with increases in future production or income – and thus, as a rule of thumb, should not be counted as saving.

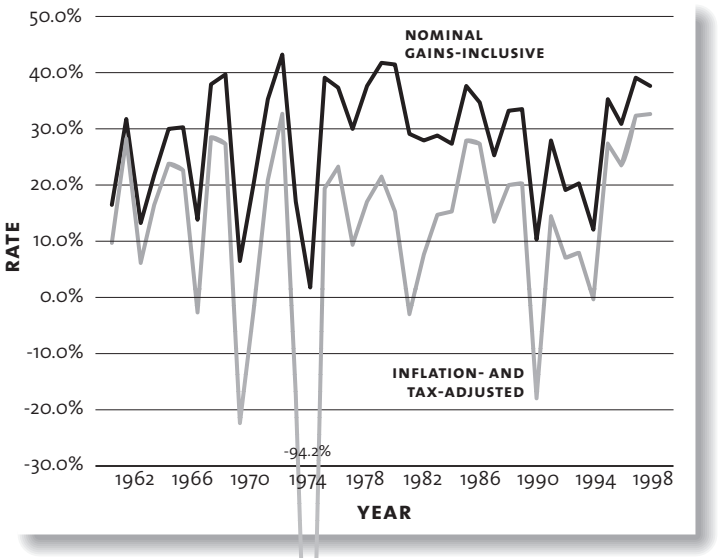
More recently, the journalist James Glassman along with Kevin Hassett of the American Enterprise Institute have taken a different tack. They argue that the recent run-up in stock prices is due in large part to the decline of the "equity risk premium" – the extra return demanded for holding stocks rather than assets like Treasury bills that do not fluctuate in value.

This is more likely to be result of changes

in investors' attitudes toward risk than the result of optimism about the future of corporate earnings or a boundless faith in the so-called "new economy." From this perspective, the run-up in stock prices should be considered an increase in national saving only to the extent that it raises Americans' ability to purchase items from abroad.

However, Robert Hall of Stanford offers an opposing view. His estimates indicate that capital gains on corporate stock can be interpreted as increases in the quantity of capital under certain conditions – notably the absence of monopoly profits. And over time, he says, the aggregate value of corporate securities does more or less move in synch with the quantity of capital.

FIGURE 1: SAVING RATES INCLUDING CAPITAL GAINS



THE LAST WORD

Like others, we believe that official saving statistics poorly reflect basic economics, and that adjusted measures tell a very different story. Set aside the question of how to deal with capital gains. Less controversial adjustments to the N.I.P.A. numbers suggest that adjusted private saving has fallen only modestly since the 1970's – enough to matter, but hardly the catastrophe some infer from the unadjusted data on personal saving.

The adjusted Federal Reserve F.F.A. saving data show a similarly modest decline. They also show that borrowing is not significantly out of line with past decades – and that the bulk of the decline in saving is linked to lower rates of accumulation of non-retirement assets.

Adding capital gains fundamentally changes the trends. With all capital gains included, the household saving rate is the highest it's been in at least the last 40 years. Just how to weigh that finding, though, remains controversial.

Remember, too, that broader definitions of wealth could further alter views about trends in saving. Intangible capital – technology, human capital – may be growing rapidly, but these expenditures are not treated as saving or investment in any of the official stats. Tangible government assets – schools, hospitals, military equipment – generate flows of services that, in theory, must be weighed, too.

We believe that the appropriate measure of saving must remain a judgment call, and – at the risk of repeating ourselves – depends on the question being asked. But that should not be read as call for anarchy: Developing theoretically consistent measures of saving would surely be helpful. M

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