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The Fall and Rise of Household Saving

Abstract
[Excerpt] Household saving matters for two reasons. First, it is an important source of funds to finance domestic investment. Second, it is the means by which workers accumulate wealth and maintain their living standard into retirement. Congress has indicated its desire to promote household saving by, among other things, creating individual retirement accounts, and saving is an important consideration in proposals to reform Social Security. At a time, however, when policymakers have been looking for ways to increase spending to minimize the downturn and get the economy growing again, households have begun to save more.

For the 40 months between January 2005 and April 2008, the personal saving rate averaged 1.8%. In contrast, in the 1970s, the average personal saving rate was 9.6%. In May 2008, the personal saving rate began to rise. It remains too early to tell with certainty if that represents the reversal of the long-term decline. What may seem unusual is that it occurred at a time of general economic weakness. The increase in household saving resulted in more than $300 billion less in consumer spending than would have occurred had the saving rate not risen.

Prudent individuals might be expected to save enough to avoid a substantial decline in their living standard on retirement. If consumers seek to maintain a fairly stable level of consumption over their entire lives, then the level of consumption at any given point in their lives will depend on their current wealth and some expectation about their income over the rest of their lives.

Changes in household net worth in recent years seem to have contributed to the swings in the household saving rate. In the 1990s, equity prices rose substantially. Between 1991, the beginning of an economic expansion, and 2001, the year it ended, the Standard and Poor's index of 500 stock prices rose by 217%. It is widely believed those increases in equity prices contributed to a decline in the household saving rate.

After the turn of the century, increased house prices insulated household balance sheets from the effects of a decline in equity values, and the household saving rate fell to near zero.

More recently, both equity and house prices have fallen. The combined drop in asset prices had a significant effect on household net worth. At a time when current incomes have been falling, the personal saving rate rose to more than 5%. It may be that the economic downturn is limiting the saving response to the decline in household net worth. If that is the case, the saving rate might be expected to continue to rise, or at least remain steady at current levels, when the economy begins to recover, unless asset prices recover to levels now considered by many to have constituted a "bubble."

Keywords
household saving, Congress, personal wealth, public policy, economic growth

Comments

Suggested Citation
Cashell, B. W. (2009). *The fall and rise of household saving*. Washington, DC: Author.
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Congressional Research Service

The Fall and Rise of Household Saving

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September 1, 2009

Congressional Research Service
7-5700
www.crs.gov
R40647

CRS Report for Congress
Prepared for Members and Committees of Congress

Summary

Household saving matters for two reasons. First, it is an important source of funds to finance domestic investment. Second, it is the means by which workers accumulate wealth and maintain their living standard into retirement. Congress has indicated its desire to promote household saving by, among other things, creating individual retirement accounts, and saving is an important consideration in proposals to reform Social Security. At a time, however, when policymakers have been looking for ways to increase spending to minimize the downturn and get the economy growing again, households have begun to save more.

For the 40 months between January 2005 and April 2008, the personal saving rate averaged 1.8%. In contrast, in the 1970s, the average personal saving rate was 9.6%. In May 2008, the personal saving rate began to rise. It remains too early to tell with certainty if that represents the reversal of the long-term decline. What may seem unusual is that it occurred at a time of general economic weakness. The increase in household saving resulted in more than $300 billion less in consumer spending than would have occurred had the saving rate not risen.

Prudent individuals might be expected to save enough to avoid a substantial decline in their living standard on retirement. If consumers seek to maintain a fairly stable level of consumption over their entire lives, then the level of consumption at any given point in their lives will depend on their current wealth and some expectation about their income over the rest of their lives.

Changes in household net worth in recent years seem to have contributed to the swings in the household saving rate. In the 1990s, equity prices rose substantially. Between 1991, the beginning of an economic expansion, and 2001, the year it ended, the Standard and Poor's index of 500 stock prices rose by 217%. It is widely believed those increases in equity prices contributed to a decline in the household saving rate.

After the turn of the century, increased house prices insulated household balance sheets from the effects of a decline in equity values, and the household saving rate fell to near zero.

More recently, both equity and house prices have fallen. The combined drop in asset prices had a significant effect on household net worth. At a time when current incomes have been falling, the personal saving rate rose to more than 5%. It may be that the economic downturn is limiting the saving response to the decline in household net worth. If that is the case, the saving rate might be expected to continue to rise, or at least remain steady at current levels, when the economy begins to recover, unless asset prices recover to levels now considered by many to have constituted a "bubble."

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Introduction

In the 1970s, the average personal saving rate was 9.6%. At one time, in 2005, it was less than 1%. For the 40 months between January 2005 and April 2008, the personal saving rate averaged 1.8%. That it was so low for an extended period of time would seem to be cause for worry. In the past, Congress has indicated a desire to promote household saving by, among other things, creating individual retirement accounts, and saving is an important consideration in proposals to reform Social Security.

In May 2008, the personal saving rate began to rise. It is too early to tell with any certainty whether that represents the reversal of the long-term decline.

What may seem unusual is that the recent rise in household saving occurred at a time of general economic weakness. While policymakers hope to stimulate aggregate demand with an expansionary fiscal policy, the increase in household saving resulted in more than $300 billion less in consumer spending than would have occurred had the saving rate not risen.

Household saving is important for at least two reasons. First, most households must accumulate wealth over the course of their working lives if they are to avoid a decline in their standard of living after retiring. A negligible rate of saving might seem unlikely to afford a comfortable retirement for many, especially if Social Security benefits are ever reduced as part of any reform plan, as many workers fear may occur. Second, household saving is an important source of funds to finance capital investment, increasing the capital stock and adding to worker productivity.

People save for a variety of reasons. In addition to retirement saving, they save to provide for the proverbial rainy day, and this is sometimes referred to as "precautionary" saving. That day seems to have come, with incomes stagnant or falling and the unemployment rate rising, and households might be expected to save less in an effort to maintain their standard of living. But at the same time, asset prices have been falling, pushing down household net worth, which might be expected to prompt households to save more. At a time when the federal government is trying to use policy to stimulate spending to revive the economy, households have cut back their spending by more than the drop in income.

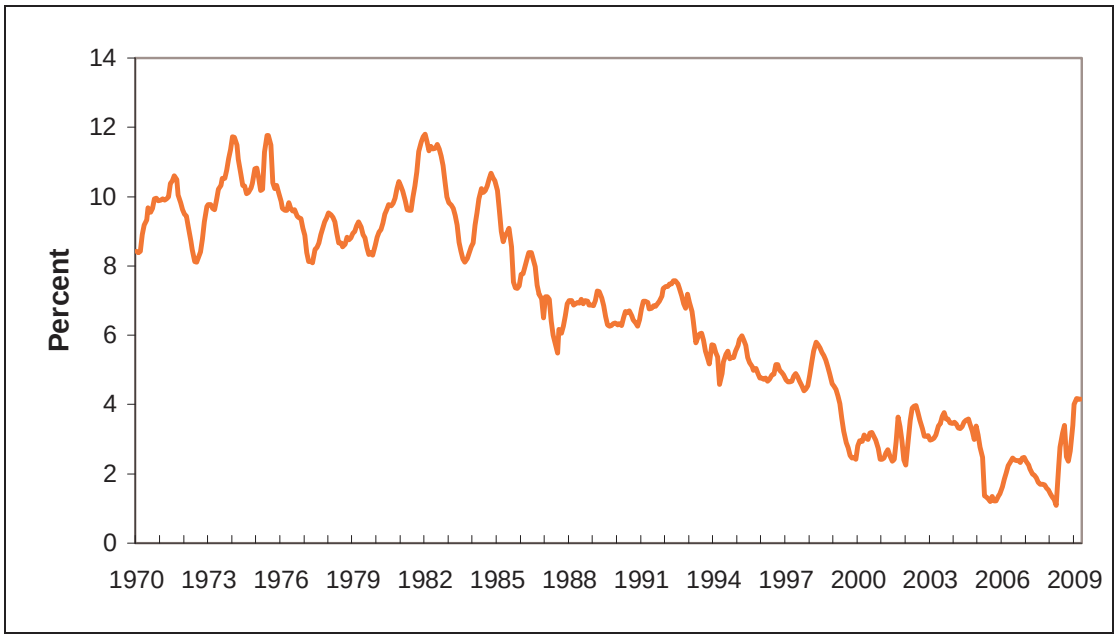
This report begins by showing how the household saving rate has varied in recent years. Next, it explains how household saving is measured, and it provides some detail on how saving varies across the income distribution. Finally, it discusses factors that may account for the long decline in household saving, as well as prospects for its recovery.[1]

Is the Long-Term Decline in Household Saving Over?

Beginning in the mid-1980s, the personal, or household, saving rate fell from close to 10% to less than 1% in 2005. **Figure 1** shows the monthly personal saving rate since 1970.

[1] For a complete accounting of saving in the United States, see CRS Report RS21480, *Saving Rates in the United States: Calculation and Comparison*, by Brian W. Cashell.

Figure 1. Personal Saving as a Percentage of Disposable Personal Income



Source: Department of Commerce, Bureau of Economic Analysis.

Note: Data are four-month moving averages.

The decline in the personal saving rate was persistent and pronounced, but some see signs of a recent reversal in that long downward trend. To understand what has happened, it is important first to explain what this measure of saving takes into account. As is the case with many economic statistics, there are differences between the theoretical notion of saving and the results of statistical efforts to measure it.

Measuring Saving

The simplest definition of saving is income minus consumption. What is not spent is saved. In practice, however, what counts as income and how to measure consumption is not necessarily straightforward. The national income and product accounts (NIPA) published by the Bureau of Economic Analysis (BEA) of the Department of Commerce are the primary source for statistics on overall U.S. economic activity.[2] The aim of the NIPA is to account for both income and expenditures that are related to the current production of goods and services. Changes in asset values are not included since they have nothing to do with current production. Thus, capital gains and losses are not counted as income in the NIPA.

Even though capital gains are not included in the NIPA measure of personal income, they still affect the measurement of the personal saving rate. Tax payments on capital gains realizations are included in personal tax payments. Thus, after-tax personal income is reduced by the amount of

[2] This is the source for the data shown in **Figure 1**.

the tax payments. Personal (or household) saving, which is calculated by subtracting consumption from (after-tax) income, is reduced as well.

The NIPA measure of saving differs from saving in the theoretical sense in its treatment of consumer durable goods.[3] Ideally, the consumption of durable goods would be measured by the value of the flow of services they provide over their useful lives, similar to an investment. In the NIPA, however, consumption of durable goods is treated like any other type of consumer spending, by simply counting the expenditures on those goods.

A similar difference occurs with respect to expenditures on education. They are treated in the NIPA as consumption spending, but given that they yield benefits over an individual's lifetime they might more appropriately be counted as investment spending. If they were, that would raise the measured saving rate.

If the actual measure of saving more closely approximated the theoretical measure it would likely be higher but unless the difference between the theoretical and actual measure has changed significantly, it would still show a trend decline since the 1980s.

An Alternative Measure

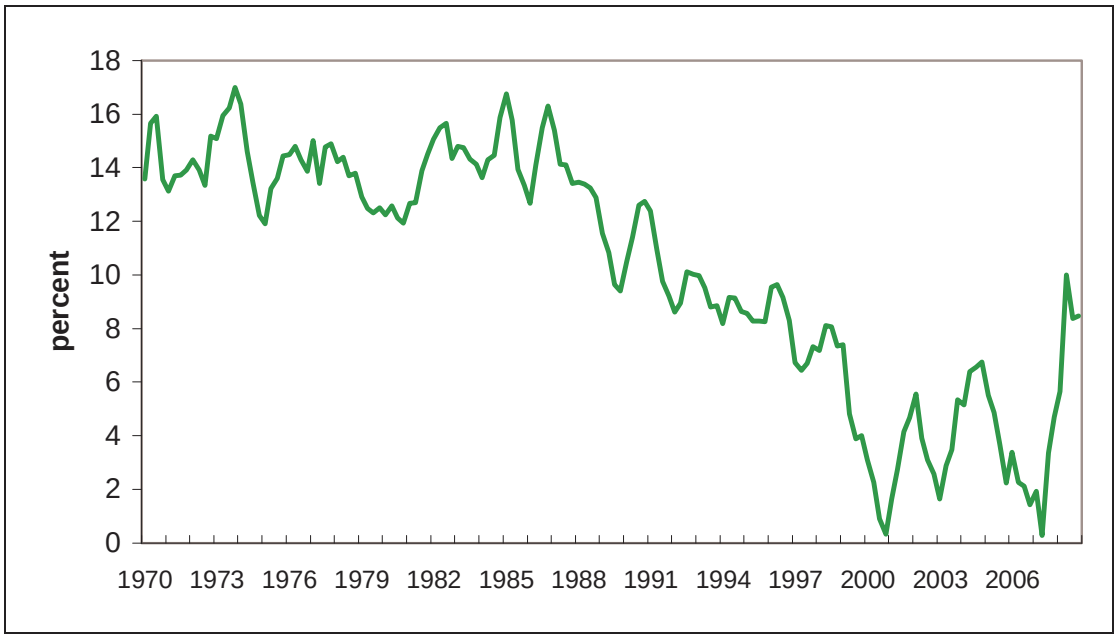
The Board of Governors of the Federal Reserve Board (Fed) publishes an estimate of household saving that differs somewhat from the one published by BEA. The BEA estimate of household saving is calculated by subtracting consumption expenditures from income. In contrast, the Fed estimate is based on a balance sheet for the household sector. When households save, it shows up in the Fed's flow of funds accounts as an increase in household net worth. The gross increase in household net worth is the sum of the net acquisition of financial and tangible assets minus the net increase in household liabilities. The Fed publishes two estimates of household saving; one that includes net investment in durable goods (mostly automobiles) and one that does not. The one that does not is conceptually equivalent to the BEA measure of saving.

Figure 2 shows the household saving rate from the flow of funds accounts including the net increase in household durable goods. The alternative Fed measure shows the same steady decline as the BEA measure. But instead of falling from about 10% to less than 1%, the Fed measure shows a decline from more than 14% in the 1970s to about zero. The Fed measure of the household saving rate suggests a similar rebound beginning in 2008.

Accounting for net investment in consumer durables as saving is arguably appropriate, given that saving is defined as income less consumption. But when policymakers express concern about the low saving rate, the distinction between the Fed measure and the BEA measure may not make much difference. One public policy concern over low household saving relates to retirement saving, and investments in automobiles and household furnishings are not likely to be a source of money income for retirees. What is significant is that the independent measures both suggest that, the recent rebound notwithstanding, the household saving rate remains at relatively low historical levels.

[3] Consumer durable goods include automobiles, furniture, and household equipment.

Figure 2. Flow of Funds Household Saving Rate



Source: Board of Governors of the Federal Reserve System.

Note: Data are four-quarter moving averages.

Household Saving and Wealth Accumulation

The standard model of consumer spending used in economic analysis assumes that consumers seek to avoid large swings in their living standards over the course of their lifetimes. Thus as incomes rise and fall both in the short and long term, individuals are expected to vary their saving rate in order to minimize the effect on their consumption.

Typically, over the course of an individual's lifetime, income has a tendency first to rise over the course of a career, and then fall in retirement. The model of saving based on this "life cycle" presumes that, in order to dampen the effects of the lifetime income cycle on consumption and living standards, individuals vary the rate at which they save.[4] Saving will thus tend to be relatively higher during their peak earning years, and lower at the beginning of their careers and during retirement.[5]

From an economic perspective, there is no "ideal" saving rate. The rate at which an individual saves is, for the most part, simply a reflection of his willingness to consume less now in order to

[4] Any explanation of consumer saving behavior must reconcile two seemingly contradictory observations. At any given time, cross-section data suggest that individuals with low incomes tend to have low rates of saving, while those at the higher end of the income distribution tend to have relatively high rates of saving. That might suggest that as incomes rise over time, saving rates would also tend to rise. That has not been the case. Over the long run, saving rates have not increased as incomes have grown.

[5] The life cycle model only partly explains consumer behavior. For many households, consumption depends on current income, and those households do not smooth their consumption over the course of their lifetimes. See N. Gregory Mankiw, "The Savers-Spenders Theory of Fiscal Policy," *American Economic Review*, May 2000.

be able to consume more in the future. Taking the life cycle model as a guide, however, prudent individuals might be expected to save enough to avoid a substantial decline in their living standard on retirement.

If consumers seek to maintain a fairly stable level of consumption over their entire lives, then the level of consumption at any given point in their lives will depend on their current wealth and some expectation about their income over the rest of their lives.[6]

A number of implications follow from this model of consumer behavior. One is that an unexpected one-time income windfall is more likely to be saved than spent. A rise in income that is temporary is less likely to raise consumption than one that is permanent as long as consumers seek to maintain a relatively constant standard of living. A permanent increase in income is more likely to induce an increase in consumption, so that the saving rate will be less affected. Similarly, an increase in overall wealth raises consumption possibilities over the long run. An increase in wealth is likely to reduce the measured rate of saving.

Consumption is ultimately constrained by income and wealth. An increase in wealth increases potential lifetime consumption and diminishes an individual's incentive to save. The effect of an increase in wealth on consumption and saving may depend on a number of variables. Most important, if the life cycle model is correct, only a fraction of any increase in wealth would affect current consumption because any rise in consumption would be spread out over one's remaining lifetime. Some increases in wealth may not be viewed as permanent as might be the case with assets whose prices tend to be highly variable. If there is uncertainty about the permanence of an increase in wealth then it is less likely to affect consumption and saving. In addition, a strong desire to leave a bequest may dampen the influence increasing wealth has on consumption. The effect works in both directions. A decline in wealth is likely to result in a drop in consumption and an increase in saving, other things being equal.

Numerous studies of wealth and consumer spending have been conducted. Empirical estimates of the magnitude of the effect of changes in wealth on consumption vary, but they tend to be fairly small. The estimates suggest that for each additional dollar of wealth, consumption spending might be expected to rise by some amount between one cent and seven cents.[7]

Asset Prices and Personal Saving

One of the most striking aspects of past three economic expansions has been the dramatic gains in asset prices. For example, between 1991, the beginning of one expansion, and 2001, the year it ended, the Standard and Poor's index of 500 stock prices rose by 217%, the Dow Jones Index rose by 247%, and the NASDAQ stock price index increased by 313%. Then, beginning in late 1997, the price of housing rose rapidly relative to prior years. Between late 1997 and late 2007, the house price index published by the Office of Federal Housing Enterprise Oversight (OFHEO) nearly doubled.[8]

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[6] To the extent that consumers can borrow against future income, that enhances their ability to maintain a fairly steady level of consumption over a long period of time.

[7] See Martha Starr-McCluer, "Stock Market Wealth and Consumer Spending," Finance and Economics Discussion Series, 1998-20, Board of Governors of the Federal Reserve System, April 1998. Also, Congressional Budget Office, *The Economic and Budget Outlook: An Update*, August 1998, p. 19.

[8] There are theoretical reasons to believe an increase in the value of houses might have less of an effect on household (continued...)

Given the model of saving behavior described above, it might be reasonable to suppose that those increases in asset prices had something to do with the coincidental decline in the personal saving rate.

A number of studies have found that the decline in the personal saving rate was due at least in part to the rise in equity prices. Lusardi, Skinner, and Venti found that between one-half to two-thirds of the decline in the personal saving rate was attributable to the effect of wealth gains on consumption spending.[9] They also point out that because of rising equity prices, firms were able to reduce their contributions to defined benefit retirement plans and still keep those plans fully funded. Pension benefits could be paid out of the capital gains of the pension fund. That tended to reduce a component of personal income (employers' contributions to pension funds) without reducing consumption and thus contributed to the decline in the saving rate.

Maki and Palumbo analyzed the drop in saving of the 1990s and found that almost all of it could be attributed to the performance of the stock market.[10] Moreover, they found that those households with the highest incomes experienced the largest gains in wealth and also the largest declines in saving rates. They concluded that, between 1992 and 2000, almost all of the decline in the aggregate personal saving rate can be attributed to reduced saving of those households in the top 20% of the income distribution. They also found that the saving rate of those households in the bottom 40% of the income distribution actually rose over the same period.

Because capital gains can contribute just as much to a household's retirement nest egg as saving, it might be appropriate to include them in measures of retirement saving. After all, the aim of saving for retirement is to accumulate enough wealth to be able to continue, in retirement, the lifestyle to which one has become accustomed during one's working life. Gale and Sabelhaus have calculated what the saving rate might have been if capital gains were included in the current measure of personal saving.[11] They found that, after adjusting for inflation, household wealth rose at least as rapidly in the late 1990s as at any time since 1960.

The stock market cooled off in 2001, but an increase in housing prices that began in late 1997 may have contributed to a continued decline in household saving.

There has also been a number of studies attributing the drop in household saving to housing price appreciation. Belsky and Prakken found that in the long run, the effects on household saving of house and equity price variations were similar.[12] They also found that house price appreciation

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(...continued)

saving behavior than stock equity price appreciation. An increase in house prices increases the wealth of current homeowners, but it also increases the cost of housing. For renters, that might result in a reduction in saving in order to pay increased rents. For many homeowners, an increase in housing wealth may simply translate into an increase in consumption of housing, rather than spending more for other goods and services. In that case, an increase in housing prices would be unlikely to show up as a reduction in saving out of current income.

[9] Annamaria Lusardi, Jonathan Skinner, and Steven Venti, "Saving Puzzles and Saving Policies in the United States," National Bureau of Economic Research, Working Paper 8237, April 2001.

[10] Dean M. Maki and Michael G. Palumbo, "Disentangling the Wealth Effect: A Cohort Analysis of Household Saving in the 1990s," Board of Governors of the Federal Reserve System, Finance and Economics Discussion Series, 2001-21, April 2001.

[11] William G. Gale and John Sabelhaus, "The Savings Crisis: In the Eye of the Beholder?" *The Milken Institute Review*, Third Quarter 1999, pp. 46-56.

[12] Eric Belsky and Joel Prakken, "Housing's Impact on Wealth Accumulation, Wealth Distribution and Consumer Spending, "National Association of Realtors National Center for Real Estate Research, 2004, available at (continued...)

had a more immediate effect and that the effect of equity price appreciation took longer to be fully reflected in the saving rate. The authors suggested that may be because historically equity prices have been more volatile than house prices, and so households may be more confident in the durability of house price gains. The authors also indicated that the strong effect of the post-2000 boom in house prices may have been partly due to the simultaneous decline in interest rates, which encouraged homeowners to refinance as well as borrow. They left open the question of whether, in other circumstances, house price appreciation would have the same effect on household saving.

Benjamin, Chinloy, and Jud found that changes in real estate wealth had a greater effect on spending and saving than did variations in financial wealth.[13] The authors found that for each $1 increase in real estate wealth, household saving would fall by 8¢, while for each $1 increase in financial wealth household saving would fall by just 2¢. They suggest that the effect of variations in financial wealth might be smaller because much financial wealth is tied up in pension and insurance funds and gains are not easy to withdraw. They also point out that financial wealth is concentrated and that some financial asset holding may represent controlling interests in businesses and thus not be readily liquidated.

Muellbauer found the wealth effect of housing had changed over time. He argues that developments in capital markets, such as credit scoring and securitization, enhanced households' ability to tap into gains in home equity.[14] Prior to those changes, he estimated the wealth effect of housing to be very small. During the housing market boom, he estimated that households might have increased spending by six cents or seven cents for each dollar increase in home equity.

The Decline in Household Net Worth and the Recent Increase in the Saving Rate

After peaking in early 2007, house prices fell significantly. Between April 2007 and February 2008, the OFHEO house price index fell by nearly 10%. Stock prices reached a peak in mid-2007. Between May 2007 and May 2009, the S&P500 stock price index fell by more than 40%. The combined drop in asset prices had a significant effect on household balance sheets. Between the second quarter of 2007 and the fourth quarter of 2008, total household net worth fell by an estimated $12.9 trillion, a drop of 20%. Other things being equal, that might be expected to prompt households to cut spending and to save more out of current income to offset the decline in wealth. But with current income falling, it might also seem to be the proverbial rainy day when an increased share of consumption would be financed by reducing saving or drawing on existing wealth.

(...continued)

http://www.realtor.org/research/ncrer/rewealtheffect.

[13]John D. Benjamin, Peter Chinloy, and G. Donald Jud, "Real Estate Versus Financial Wealth in Consumption," *Journal of Real Estate Finance and Economics*, vol. 29, no. 3, 2004.

[14] John N. Muellbauer, "Housing, Credit and Consumer Expenditure," paper prepared for the Federal Reserve Bank of Kansas City's Jackson Hole Symposium, August 2007, available at http://www.kansascityfed.org/publicat/sympos/2007/PDF/2007.08.15.Muellbauer.pdf.

If the estimates are correct that consumption falls by about five cents for each dollar decline in wealth, then the drop in household net worth might have been expected to result in a decline in consumer spending of more than $600 billion. The increase in household saving since May 2008 amounted to about half of that. It may be that the economic downturn is limiting the saving response to the decline in household net worth. If that is the case, the saving rate might be expected to continue to rise, or at least not to fall, when the economy begins to recover, unless asset prices recover substantially.

The recent rise in the personal saving rate also coincided with tax rebates subsequent to the enactment of the 2008 economic stimulus (P.L. 110-85),[15] and some might suggest that the rebates had something to do with the rise in personal saving. The life cycle model would seem to suggest that a temporary tax cut is more likely to be saved than spent. Because it has little effect on the anticipated stream of lifetime income, it might seem unlikely that a temporary tax cut would have as large an effect on consumption as a permanent one.[16]

Some evidence suggests that the rebates were not saved but rather led to a significant increase in consumer spending, perhaps in part because they were targeted at lower-income households, which tend to save less of their income than those at the other end of the income distribution.[17] Broda and Parker examined household expenditures both before and after receipt of the tax rebates. They found an increase in spending which they attributed to the rebate. They found a larger increase in spending among lower-income and less wealthy households. They also found an increase in the share of overall spending at discount supercenters.

A study by the Federal Reserve Bank of San Francisco compared the current financial situation of U.S. households with that of Japanese households when stock and real estate prices declined sharply in Japan between 1989 and 1991.[18] The authors projected that if U.S. households reduce their debt-to-income ratio at roughly the same pace as Japanese households did then, the U.S. household saving rate would gradually rise to 10% by the end of 2018. That increase in the saving rate would mean about 0.75% slower annual growth in consumption spending than would occur if the saving rate held steady, slowing the recovery from the current downturn.

Who Saves?

The saving rates shown in **Figure 1 and Figure 2** are averages. But not everyone saves at the same rate and it might be informative to have an idea of how saving rates vary across households, by income in particular. **Table 1** presents data on saving by quintile of income. The lowest quintile represents the bottom 20% of the income distribution, the second quintile represents the second lowest 20% in the distribution, and so on. The figures in the first row show saving rates.[19]

[15] CRS Report RS22850, *Tax Provisions of the 2008 Economic Stimulus Package*, coordinated by Jane G. Gravelle.

[16] It may be worth noting that to the extent that the tax cut is saved it represents a shift of saving from the federal government to households.

[17] Christian Broda and Jonathan Parker, "The Impact of the 2008 Tax Rebates on Consumer Spending: Preliminary Evidence," July 2008, available at http://www.voxeu.org/index.php?q=node/1541.

[18] Reuven Glick and Kevin J. Lansing, "U.S. Household Deleveraging and Future Consumption Growth," Federal Reserve Bank of San Francisco *Economic Letter*, May 15, 2009, available at http://www.frbsf.org/publications/economics/letter/2009/el2009-16.pdf.

[19] These saving rates should not be taken as precise estimates. They are derived by subtracting expenditures from income as reported in a survey. If the estimates of income and expenditures are biased in opposite directions then there (continued...)

They are derived from data from the 2007 Survey of Consumer Expenditures, published by the Bureau of Labor Statistics. The figures in the second row are taken from the 2007 Survey of Consumer Finances published by the Board of Governors of the Federal Reserve System.[20]

Both sets of numbers indicate that those at the upper end of the income distribution account for most saving. On average, they save at a higher rate than those lower in the distribution, and a larger proportion of them save.

Table 1. Saving by Income Quintile

	Income Quintile				
	Lowest	**Second**	**Third**	**Fourth**	**Fifth**
Saving as a percent of aftertax household income (2007)	-94.3	-13.6	6.0	18.2	35.9
Percentage of families that saved (2007)	33.7	45.1	57.8	66.8	78.9

Sources: Department of Labor, Bureau of Labor Statistics; Board of Governors of the Federal Reserve System.

Are Households Saving Enough?

Even if the decline in the saving rate could be explained, it does not answer the question of whether Americans are saving enough, or accumulating enough wealth, to avoid experiencing a decline in their living standard in retirement. One study attempted to estimate how much households need to set aside in order to maintain their living standards into retirement.[21] Using a retirement planning financial model and data from a survey of the financial status of households approaching retirement, the authors found that low-income households (those with incomes below $15,000) needed to save only about 1% of their income. But that assumed that there would be no cuts in Social Security benefits. The authors estimated that if Social Security benefits were to be cut by 30% 15 years into the future, the desired saving rate would rise to 6%.

Households that have higher incomes need to save at higher rates if they are to avoid a decline in their living standards on retirement, because Social Security benefits will account for a much smaller share of their retirement income. The desired saving rate for those households with incomes between $15,000 and $100,000 was about 14%, but rose to about 20% in the case where future Social Security benefits were to be cut.[22]

(...continued)

could be considerable error in the resulting saving estimate. To some, the extreme negative saving rates for households in the lowest income quintile suggest that they may be significantly under-reporting income. John M. Rogers and Maureen B. Gray, "CE Data: Quintiles of Income Versus Quintiles of Outlays," *Monthly Labor Review*, December 1994, available at http://stats.bls.gov/opub/mlr/1994/12/art4full.pdf.

[20] This survey is conducted every three years. See the survey Web page at http://www.federalreserve.gov/pubs/oss/oss2/scfindex.html.

[21] B. Douglas Bernheim, Lorenzo Forni, Jagadeesh Gokhale, and Laurence J. Kotlikoff, "How Much Should Americans Be Saving for Retirement?," Federal Reserve Bank of Cleveland Working Paper 00-02, January 1999, available at http://www.clevelandfed.org/Research/workpaper/2000/Wp0002.pdf.

[22] Ibid, p. 9.

Another study examined data from the University of Michigan Health and Retirement Study (HRS) to see if households were saving enough to maintain their living standards at retirement.[23] The authors found that more than 80% of the households in the survey had accumulated enough wealth to avoid a drop in their standard of living, and that for many of those who had not, the shortfall was not large. Given the drop in household net worth since the time of that study, that estimate might now be lower.

Conclusion

The drop in personal saving that occurred over the past 25 years may not have been as dramatic as might first appear, at least with respect to retirement planning, for several reasons. The decline in personal saving coincided with large increases in equity values and housing wealth. When changes in personal wealth are taken into account, the decline in the official saving measure may have been more modest.

Changes in asset values work both ways. The decline in asset values over the past year seems to have inspired households to save more, even at a time when incomes are falling. It may be that households are saving enough for retirement, and the saving rate seems to have recovered somewhat. The increase in household saving, however, is likely to be more than offset by a large decrease in public sector saving.

The federal government surpluses of the late 1990s have reversed, and the outlook is for substantial federal budget deficits for some time to come. For the immediate future, the public sector saving rate is expected to be much lower than it was in the late 1990s. Without a substantial increase in private saving, either investment spending will fall, or the United States will have to attract increasing amounts of capital from abroad.

If foreigners were to reduce or stop their investments in the United States, then the decline in demand for U.S. financial assets would cause their prices to fall. Interest rates would rise, unless there is an offsetting increase in domestic saving. A rise in interest rates would be likely to result in a decline in domestic investment.

The recent increase in the household saving rate may have longer-run benefits, but in the short run, if the household saving rate continues to climb, it could have the effect of slowing the economic recovery, and further moderating the effectiveness of current or prospective fiscal stimulus measures.

[23] John Karl Scholz, Ananth Seshadri, and Surachai Khitatrakun, “Are Americans Saving “Optimally” for Retirement?,” *Journal of Political Economy*, 2006:4.

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