Household Debt: Recent Trends and Potential Consequences

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Summary

The financial condition of households has important implications for a number of economic issues relevant to public policy. In the short term, unsustainable growth in debt carried by the household sector has led to a slowdown in consumer spending and contributed to a sluggish economy. In the long term, household saving is intermediated by the banking system to loans that finance investment and promote economic growth. Households that accumulate debt to finance consumption spending without building wealth may reduce funds available to finance productive investment as well as find themselves ill prepared for retirement.

How much debt a household accumulates depends on its willingness and ability to borrow money. Current income and interest rates play a role in how much debt a household is willing to take on, as does wealth. However, one critical variable is difficult to measure: individual expectations about future income. Because debt represents an obligation to make future payments, future income is at least as important as present income. Expectations about future prospects are also subject to change over time. An increase in optimism about the future is likely to increase the amount of debt a household is willing to carry; an increase in pessimism is likely to reduce it.

Household debt has recently fallen slightly, both in absolute terms and relative to personal income. Another measure of the burden of debt on households is required payments relative to the income available to make those payments. That measure has also fallen slightly. Both debt and measures of the debt burden are still high, however, compared to what they have been for most of the last 20 years, and measures of household wealth have been declining following developments in the prices of housing and financial assets.

In some respects, however, the saving rate may be a more meaningful economic measure than debt. To some extent, growth of debt represents dis-saving. Where saving is a shift of current income to future uses, accumulation of debt, at least some of it, represents a shift of future income to current uses. If households increase their borrowing to finance additional consumption, the saving rate will decline. If instead they reduce their outstanding consumer loans, the saving rate will increase. While the debt burden has been declining very recently, the saving rate has been rising. Having been near zero for over three years the household saving rate began to recover in May of 2008, and by mid-2009 was nearly 7%.

Most studies of the relationship between household debt and economic growth suggest that rising debt is not ordinarily a threat to economic growth. Rather than a harbinger of economic hard times, increases in the dollar value of household debt have been associated with a growing economy. For the near future, however, even as the economy begins to recover from the current downturn, growth in household debt seems likely to be somewhat more subdued than was the case in the years leading up to 2007. Even though measures of the debt burden show that it may have eased somewhat, debt levels relative to both income and assets are still higher than they have been for much of the past 20 years. If, for the time being, households seek to repair their balance sheets and if the household saving rate continues to rise, then growth in consumer spending may not be a major immediate contributor to economic recovery.

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During the last economic expansion, between November 2001 and December 2007, household debt grew at an average annual rate of over 10%. Since then it has fallen. Between the first quarters of 2008 and 2009 total household debt fell by over 2%. Debt growth during an expansion may not be surprising, but it doesn't always drop during periods of recession. It has now fallen in three of the last four quarters. It is the first time since 1952 that household debt has fallen in two consecutive quarters.

The recent decline in household debt seems to be the result of a decline in both the availability of credit and in the demand for it. On the demand side, some households found themselves with more debt than they could afford when house prices began to fall and the interest rates on their mortgages were reset. On the supply side, financial institutions holding mortgage-backed securities were unsure what those assets were really worth, and cut back on lending.

The financial condition of households has important implications for a number of economic issues of relevance to public policy. Previously rapid increases in household debt have recently reversed, contributing to a slowdown in consumer spending and a sluggish economy. In the longer run, households promote economic growth by saving and building wealth. If instead, households are accumulating debt, that may have a negative effect on the national rate of investment in productive assets.

As long as debt is balanced by assets, as in the case of mortgages, and the cost of servicing that debt is manageable, households may not feel squeezed. As recent experience shows, however, if the value of those assets falls, households may find themselves holding more debt than they want. That seems to have resulted in a slowdown in consumer spending, and the saving rate, which had been below 1%, has begun to rise. In the longer run, those households that accumulate debt to finance consumption spending and not investment may find themselves ill prepared for retirement. This report examines the economics of household debt.

Why Do Households Borrow?

A standard economic assumption regarding household behavior is that people prefer to smooth out their consumption over the course of their lifetimes. In other words, they seek to insulate their standard of living from both short-term fluctuations in income as well as the typical rise and fall in income that occurs over the course of their lifetimes. In particular, they seek to accumulate enough wealth to offset any decline in income coincident with retirement. One way they do that is to vary their saving rate, saving relatively less early and late in life and saving relatively more during their peak earning years.

Another way to do that is to borrow, or save at a negative rate. Borrowing makes it possible to separate the cost of consumption from the consumption itself. Households can consume more than they might otherwise and shift the cost to a time when their income is higher and it is less of a burden to pay.

In the case of durable goods, such as household furnishings or automobiles, borrowing allows consumers to match a stream of payments more closely to the service life of the good.

Not all household debt is used to finance consumption spending. Borrowing to finance the purchase of a home is different, in that the good is not used up. Repaying a mortgage is a way for many to accumulate wealth. Taking on mortgage debt does, however, make households vulnerable to fluctuations in house prices which may influence the rate of wealth accumulation. As many households recently experienced, due to the fall in house prices some now owe more on their mortgages than their house is worth. Those who are "upside down" in their mortgages may have more debt than they want, and may also find it harder to get additional credit.

Even households with considerable wealth may find it advantageous to borrow rather than sell some of their assets. Some assets, real estate for example, are less liquid than others. That is, they may take a considerable amount of time to sell, and there are costs associated with selling them that make it expensive to convert them to cash.

How much debt a household accumulates depends on both its willingness and ability to borrow money. Current income and interest rates obviously play a role in how much debt a household is willing to assume. But one critical variable is difficult to measure, and that is expectations about future income. Because debt represents an obligation to make future payments, future income matters at least as much as present income. But there is always some uncertainty regarding anyone's economic prospects, and for that reason some may take on more (or less) debt than they would if they had perfect foresight. Expectations about future prospects are also subject to change over time. An increase in optimism about the future would be likely to increase the amount of debt a household would be willing to carry, and an increase in pessimism would reduce it.

If households overestimate future income they may end up holding more debt than they want, or than they can afford. In recent years, it became apparent that, because many expected the upward trend in house prices to continue, some households had taken on mortgage debt that they otherwise might not have, or that might not otherwise have been made available to them.

The ability of households to get credit depends on their income and also on the intended use of the debt. Those loans that are used to finance the purchase of a car or a house are secured and so carry less risk to the lender. Those loans that are used to finance current consumption expenditures are generally unsecured, pose a greater risk to lenders, and so may have higher interest rates. Consequently, they may be more difficult to get.[1]

Recent Trends in Household Debt

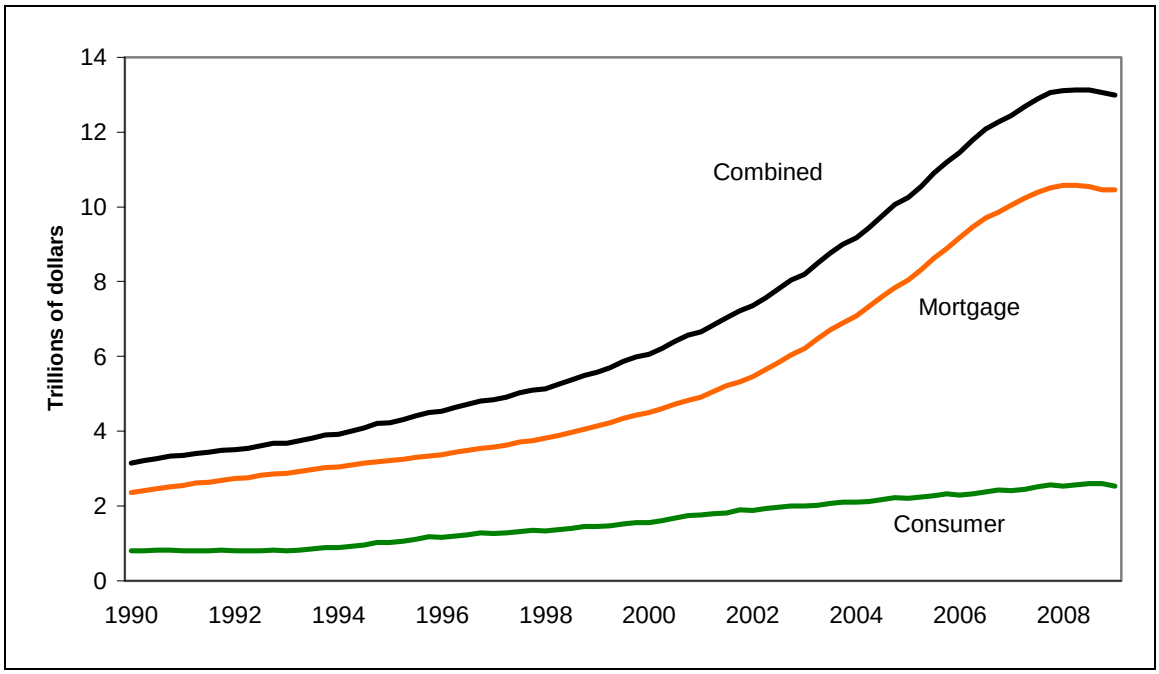
Household debt grew rapidly during the economic expansion of the 1990s. Between the first quarter of 1991, at the beginning of an economic expansion, and the first quarter of 2001, when that expansion came to an end, total household debt had doubled, increasing at an annual rate of 7%. Even as the March 2001 recession began, household debt continued to grow, demonstrating that growth in household debt is not necessarily tied to a growing economy. In the expansion that followed, debt growth accelerated. Between the fourth quarter of 2001 and the final quarter of 2007, household debt grew at a 10% annual rate. Over the long run, household debt reaches a new

[1] See CRS Report RL34393, *The Credit Card Market: Recent Trends and Regulatory Actions*, by Darryl E. Getter.

high about every second quarter.[2] Reaching a "record" level of household debt, in nominal dollars (i.e., unadjusted for inflation), would seem to be an unremarkable event.

Since the current contraction began at the end of 2007, however, household debt has fallen. It continued to rise in the first quarter of 2008, but fell in three of the next four quarters. **Figure 1** shows recent trends in the level of nominal household debt.

Figure 1. Outstanding Household Debt



Source: Board of Governors of the Federal Reserve System.

At the beginning of 2000, mortgage debt accounted for 74% of total outstanding household liabilities. At the end of 2007, it accounted for more than 80% of total household debt.[3] The share of household debt accounted for by mortgage debt has been increasing, and between 1999 and 2007, the increase in mortgage debt accounted for 86% of the increase in overall household debt.[4]

Increased availability of mortgage credit may have contributed to the rise in household debt through 2007. To some extent that increase in credit availability was due to innovations in financial markets such as credit scoring and securitization. It also appears to have been partly the result of imprudent lending due to the underpricing of risk.[5]

[2] François Velde, "The Household Balance Sheet—Too Much Debt?" *Chicago Fed Letter*, September 2002, no. 181a.

[3] Data on household debt are from the Flow of Funds Accounts (FOF) published by the Board of Governors of the Federal Reserve System. Home mortgage and consumer debt do not account for all of the liabilities of the household sector. Debts of non-profit institutions are consolidated into the household sector in the FOF. Other types of household debts not classified as consumer loans include student loans, and borrowing against insurance policies.

[4] Karen E. Dynan and Donald L. Kohn, "The Rise in U.S. Household Indebtedness: Causes and Consequences," *Finance and Economics Discussion Series Working Paper 2007-37*, Board of Governors of the Federal Reserve System, August 2007.

[5] Ben S. Bernanke, "The Crisis and the Policy Response," Speech, Jan. 13, 2009, available at
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Some home-secured debt may finance consumer spending as well as building home equity. Of those households with home-secured debt, the share of those with home equity lines of credit rose from 10.6% in 1998 to 18.4% in 2007.

Not all of measured consumer debt represents borrowing in the typical sense. A considerable share of credit card debt is paid off before it accrues any interest charges. Figures from the Federal Reserve Board's Survey of Consumer Finances (SCF) show that in 2007, 73% of families had credit cards, and of those families only 60% had an outstanding balance at the time of the survey. More than half of families (55%) reported in 2007 that they usually paid off their credit card balances in full each billing period. It appears that a substantial share of the population uses credit cards more for convenience than as a source of credit.[6]

A study published by the Federal Reserve Board examined the contribution of the convenience use of credit cards to the increase in consumer debt. The study estimated that in 1992, convenience use accounted for about 6% of outstanding credit card debt, and that by 2001 that proportion had risen to about 11%. The study also estimated that if convenience use had not increased between 1992 and 2001, growth in total credit card debt would have been one percentage point per year slower over the period.[7]

In 2003, the four agencies that regulate the financial institutions that issue credit cards announced new guidelines regarding minimum payments on outstanding credit card balances.[8] Specifically, the agencies expected lenders to require minimum payments for each outstanding balance sufficient to amortize the debt over a "reasonable period of time."[9] In response, many credit card companies began increasing their minimum payment requirements in 2005.[10] This development may have slowed growth in credit card debt below what it otherwise would have been.

Another recent change may have influenced the willingness of households to borrow. The 109th Congress passed bankruptcy reform (P.L. 109-8), establishing a means test for those filing for bankruptcy. The amount of debt relief available to filers above specified income thresholds is now restricted.[11]

Alternative Debt Measures

Measures of household debt outstanding say little about how much of a burden the debt is, or how much of a risk it poses to the financial health of the population. One measure that may be more useful is the level of debt relative to current income.[12] Whether a given level of debt is likely to

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http://www.federalreserve.gov/newsevents/speech/bernanke20090113a.htm.

[6] See Peter S. Yoo, "Charging Up a Mountain of Debt: Accounting for the Growth of Credit Card Debt," Federal Reserve Bank of St. Louis *Review*, March/April 1997, pp. 3-13.

[7] Kathleen W. Johnson, "Convenience or Necessity? Understanding the Recent Rise in Credit Card Debt," *Finance and Economics Discussion Series*, 2004-47.

[8] The four agencies are the Board of Governors of the Federal Reserve System, The Federal Deposit Insurance Corporation, the Office of the Comptroller of the Currency, and the Office of Thrift Supervision.

[9] See Federal Deposit Insurance Corporation Press Release PR-02-2003, January 8, 2003.

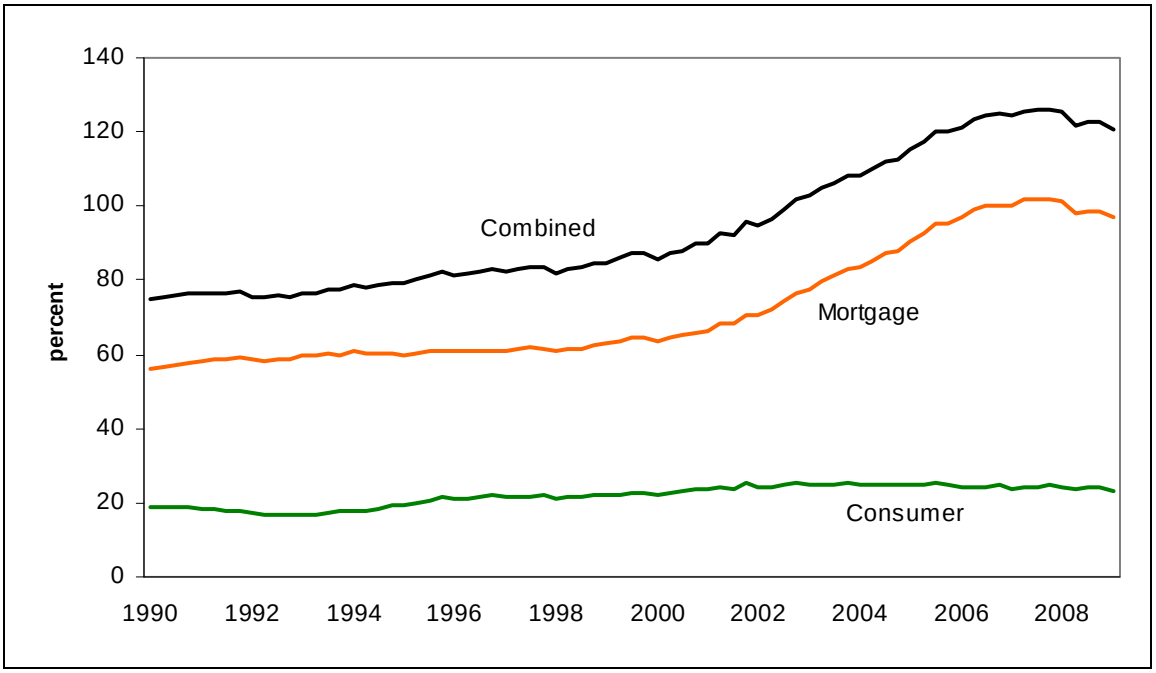
[10] See CRS Report RS22352, *Credit Card Minimum Payments*, by Pauline Smale.

[11] CRS Report RS20777, *Consumer Bankruptcy and Household Debt*, by Mark Jickling.

[12] Debt relative to *expected future income* might be more interesting, since that would give a better idea of how much (continued...)

pose financial risks depends on how much income is available to cover its costs. **Figure 2** shows household debt as a percentage of disposable (after-tax) personal income.

Figure 2. Household Debt as a Percentage of After-Tax Income



Source: Board of Governors of the Federal Reserve System.

The ratio of debt to income is not sufficient to determine when, or if, households are carrying *too much* debt for their own good, but changes in the ratio over time may suggest relative degrees of risk faced by households. **Figure 2** suggests that those risks have been rising relatively rapidly since 2000. At the beginning of 2000, total household debt represented roughly 86% of annual after-tax income. At the end of 2008, that proportion was 134%.

That ratio is high relative to the recent past. But it is not out of line with the ratios in some other developed countries. According to the Organisation for Economic Co-operation and Development (OECD), household debt as a percentage of disposable income in the United Kingdom has also been rising in recent years and was 183% in 2008. In Canada the ratio in 2008 was 142%.

Income is not the only resource available to households against which to measure their financial risks. If necessary, households can rely on other assets, financial or real, to secure or pay off existing debts. While liquidating assets to cover the costs of debt may help avoid more serious financial consequences, it is still a sign of financial vulnerability.

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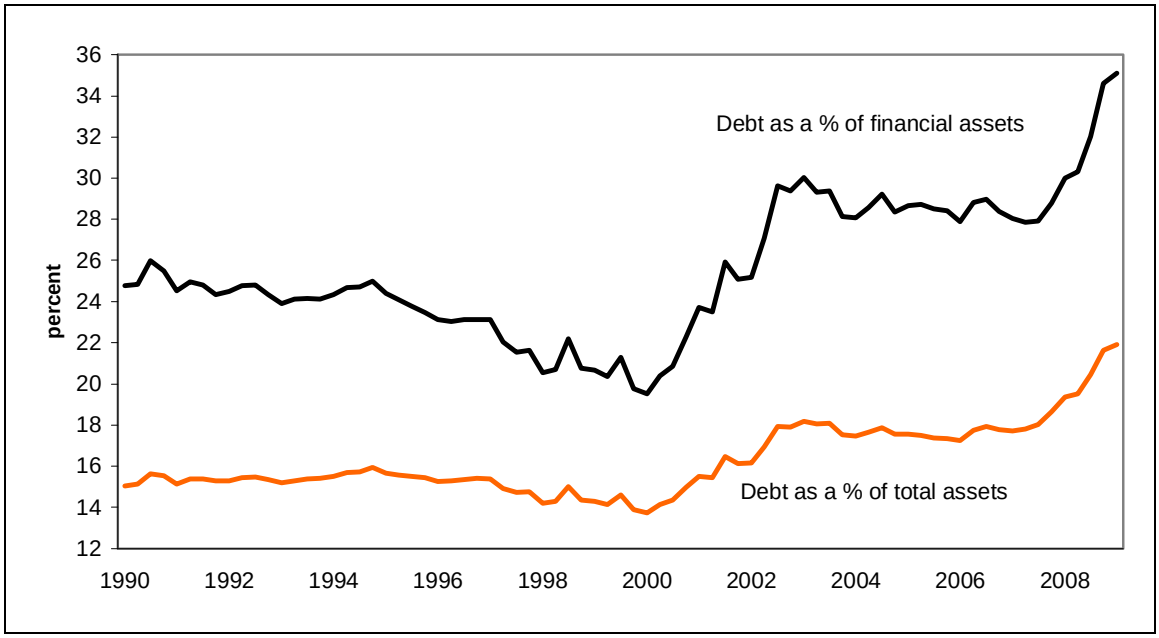
debt households felt they could afford. Such a measure is not readily available. Those who expect their incomes to rise over time may be willing to take on more debt than those who do not, even in cases where current incomes are equal. Younger householders may be willing to hold more debt relative to current income if they expect their earnings to rise over the course of their careers. Households may also borrow less than they might otherwise because of uncertainty about future income streams.

Selling real assets, such as land, can take time and often involves considerable transaction costs. Selling financial assets takes less time, but it may be that they must be sold at an inopportune moment. Nonetheless, the more assets a household has, the more likely it is that it will be able or willing to take on additional debt, and the less likely it is that it will default on those debts. **Figure 3** shows the ratio of household debt to household assets. This measure of assets includes both the market value of financial and tangible assets. Tangible assets include equity in real estate, as well as in consumer durable goods, mainly automobiles.

Figure 3. Household Debt as a Percentage of Household Assets



Source: Board of Governors of the Federal Reserve System.

Between 1983 and the mid-1990s, the ratio of debt to assets tended to rise modestly, as was the case with the debt-to-income ratio. But, unlike the debt-to-income ratio, the ratio of debt to assets fell between the mid-1990s and 2000. Much of that decline was attributable to the large increase in stock prices. Between 1994 and 2000, total household liabilities increased by 57.7%. Over the same period, total household assets increased by 66.9%, and the market value of equity held directly or indirectly by households increased by 167.9%. Between 2000 and 2002, stock prices fell, contributing to an increase in the ratio of debt to assets. The stock market recovered between 2002 and late 2007, but during that period debt continued growing at about the same pace as asset values. Beginning in late 2007 the stock market declined significantly and the ratio shot up again. Total household debt is now 22% of total assets, which is a higher ratio than it has been for at least the past 20 years.

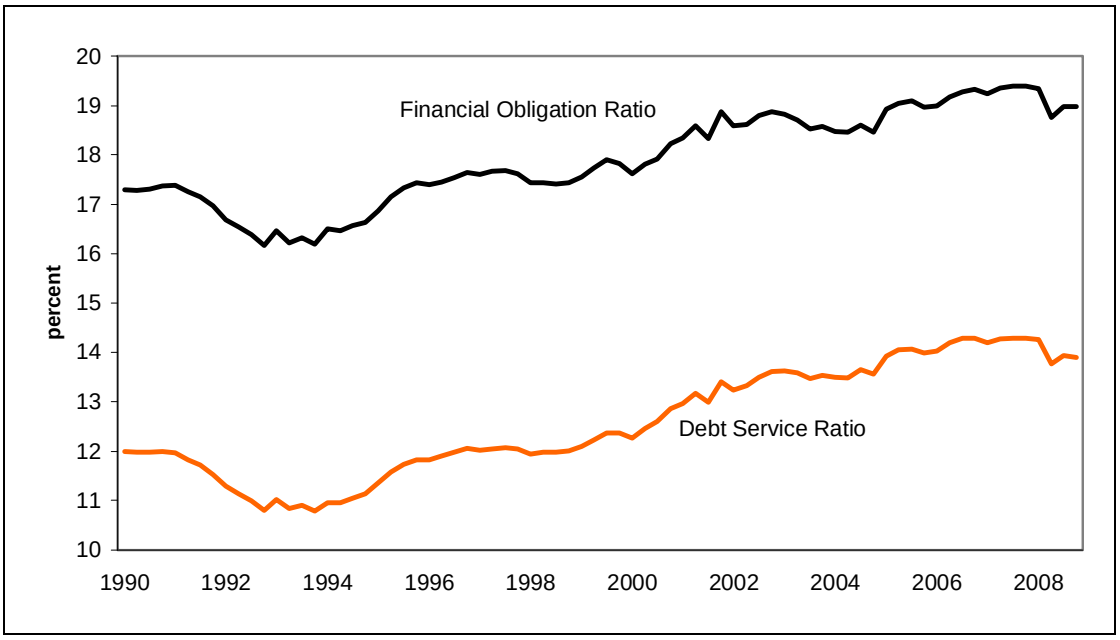
The willingness, and ability, of households to borrow is affected by their wealth. But the extent to which estimates of wealth, at any given time, are perceived to be durable may also be an important consideration. In other words, if household wealth rises because of an increase in the stock market, whether households are more willing to borrow may depend on the extent to which stock market gains are perceived to be permanent, and not the result of "irrational exuberance," a phrase coined by former Federal Reserve Board Chairman Alan Greenspan in 1996. More recently, households apparently took on more mortgage debt than they might have otherwise, in

anticipation of continuing appreciation in house prices. Anyone who suspected that the runup in house prices constituted a "bubble" might have been reluctant to borrow against those gains.

Income and wealth affect a household's willingness and ability to take on additional debt. But there are other important considerations as well. The burden a debt places on a household's finances is determined not just by the amount of the debt, but also by the interest rate and the term of the loan. In the case of an installment loan or a conventional mortgage, the payments are fixed at the time of the loan and, unless the loan is refinanced, will not change over the term of the loan. In the case of revolving credit, a credit line, or a variable rate mortgage, the burden of any borrowing depends on the interest rate at the time, and is subject to change.

Perhaps a better measure of the burden of debt on households is the ratio of required payments on that debt relative to the income available to make those payments. The staff of the Board of Governors of the Federal Reserve System publishes estimates of the burden of debt service payments on households. The measures are referred to as the debt service ratio and the financial obligations ratio (FOR).[13] The debt service ratio is a measure of the minimum, or required, debt payments relative to income. The financial obligations ratio is a measure of total recurring obligations, whether it be debt service or auto lease payments, rent, homeowners insurance, or property taxes, all relative to income. Including rent recognizes that just as changes in interest rates and the size of mortgage loans can affect a homeowner's liquidity, changes in rent may affect the ability of renters to take on additional debt. **Figure 4** shows the behavior of these two ratios since 1990.

Figure 4. Debt Service and Financial Obligation Ratios (FOR)



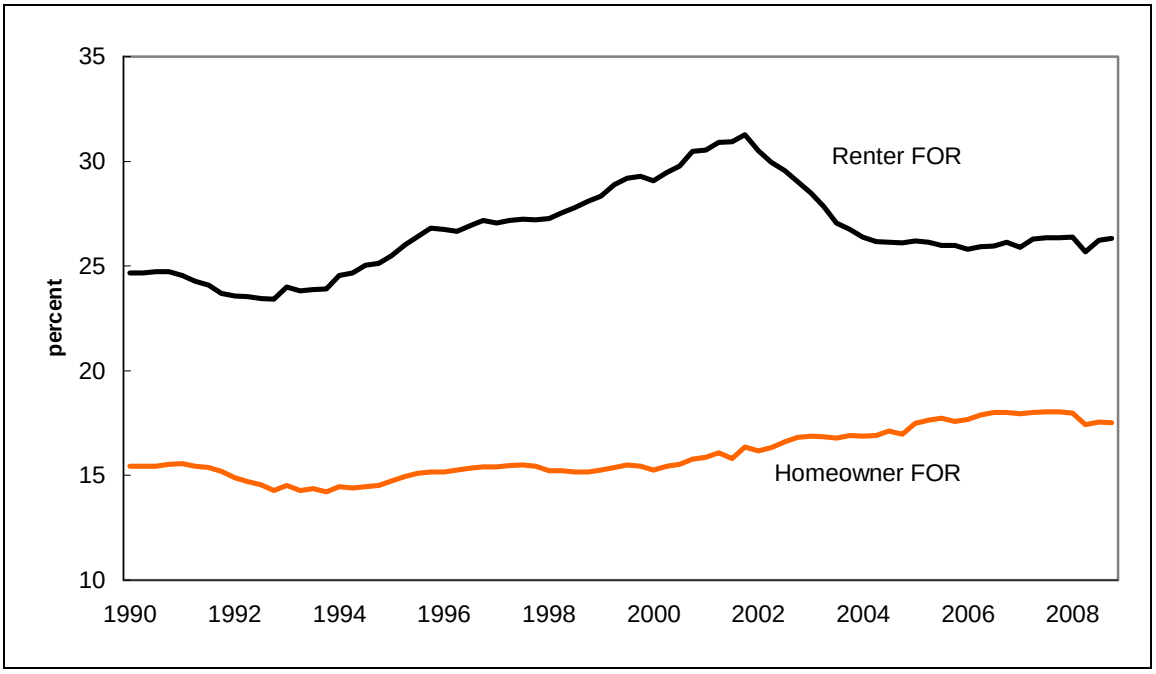
Source: Board of Governors of the Federal Reserve System.

[13] Karen Dynan, et al., "Recent Changes to a Measure of U.S. Household Debt Service," *Federal Reserve Bulletin*, October 2003, pp. 417-426.

These measures of payments relative to income indicate that for a brief period following the economic contraction of 1990-1991, household financial obligations declined relative to income. They also show that since then, obligations rose steadily until 2008. According to the Federal Housing Finance Agency, house prices increased by nearly 50% between 2001 and the first quarter of 2008. Over the same period, mortgage debt grew at an even faster rate, according to data published by the Federal Reserve Board. Since early 2008, both ratios have fallen. Debt has fallen in absolute terms and relative to income, while interest rates have also come down. Between December 2007 and July 2009, the average rate on conventional mortgages fell from 6.1% to 5.2%.

Financial obligations ratios are available separately for renters and homeowners. These data are shown in **Figure 5**. The ratio for renters is significantly higher than it is for homeowners. Renters tend to spend a higher share of their income on both housing and consumer debt payments. Between the early 1990s and 2001, the ratio for renters rose much more rapidly than the homeowner ratio. One reason for that was that renters' incomes increased much more slowly than homeowners' incomes.[14] Since then, the gap between the two groups has narrowed.

Figure 5. Homeowner and Renter Financial Obligation Ratios

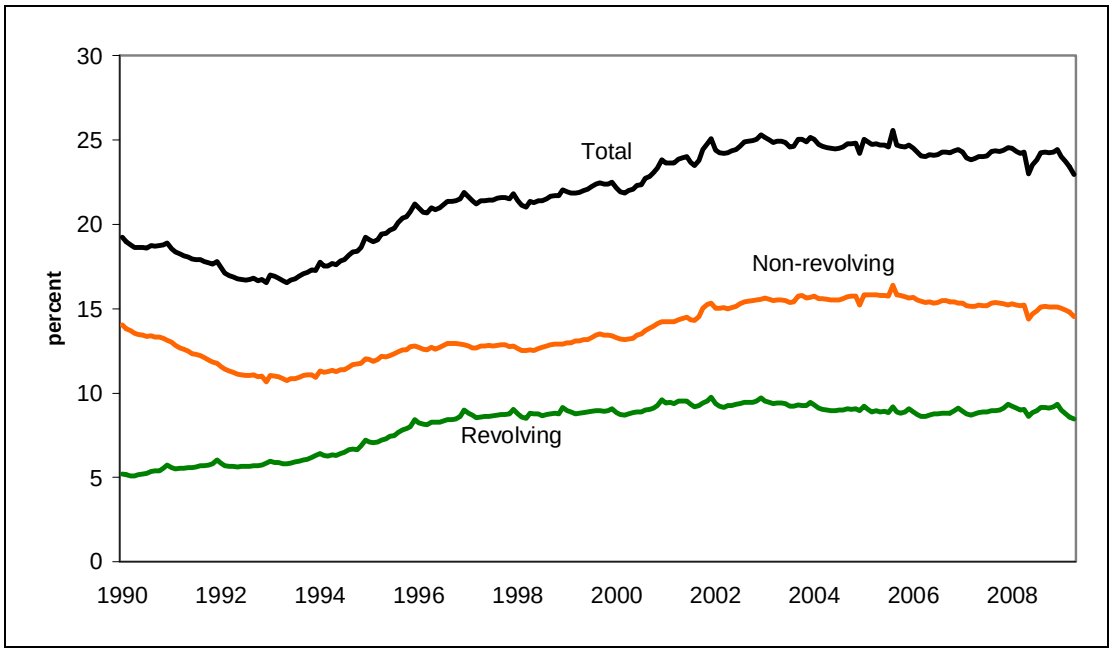


Source: Board of Governors of the Federal Reserve System.

Consumer debt comes in two forms, revolving and non-revolving. Non-revolving debt includes fixed-term loans such as those for automobiles. Revolving debt includes credit card debt and other lines of credit. **Figure 6** shows the components of consumer debt as a percentage of after-tax income.

[14] Ibid. It may be worth noting that renters are typically younger than homeowners. Data from the 2000 Census show that 40% of renter householders were under the age of 35. That figure for homeowners was 13%. In 2007 the median income of renters was about half that of homeowners.

Figure 6. Consumer Debt as a Percentage of After-Tax Income



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

Non-revolving debt fell between the mid-1980s and the early 1990s. That reflected both a decline in interest rates, and an increase in the length of maturity of automobile loans. Since then, non-revolving debt has risen steadily. Revolving debt, until 2001, had been rising relative to income. Since then, that ratio has fallen slightly. Some of the increase in revolving debt in the 1980s and 1990s was due, in part, to the increased number of credit cards in circulation. The increase in revolving debt is also attributable to the increased use of credit cards as a substitute for cash. Although total consumer debt relative to income has declined slightly over the past few years, this ratio is still higher than it has been over much of the past 25 years.

A study by the Federal Reserve found an additional reason for a rise in credit card payments relative to income.[15] Credit scoring has become widespread and allows lenders to charge interest for consumer loans based on the risk characteristics of each borrower. That makes it possible to offer loans to relatively high risk borrowers, typically those at the lower end of the income distribution, that might not have had access to credit previously. Relatively less risky borrowers may, at the same time, have experienced reduced interest costs, which, in theory, increased the amount of credit they were able to afford.

The Demographics of Household Debt

The significance to the overall economy of a given level of household debt varies depending on how that debt is distributed. For example, an increase in the total amount of debt might signal an increase in the risk of defaults, or of a prospective cutback in consumer spending that might lead

[15] Kathleen W. Johnson, "Recent Developments in the Credit Card Market and the Financial Obligations Ratio," *Federal Reserve Bulletin,* Autumn 2005, pp. 473-486.

to a slowdown in economic growth. But if that increase in debt is attributable to increased borrowing by relatively well-off households, it might be of less concern than if it were due to increased borrowing by those households with fewer resources. Other things being equal, an increase in the indebtedness of households might pose increased risks for the economic outlook, but there is no one level of indebtedness above which an economic downturn becomes "likely."

Table 1 shows the percentage of families that have debt, of any kind, in selected income percentiles for 1998, 2001, 2004, and 2007.[16] The data indicate that there is a tendency for the share of families that have debt to rise with income. **Table 1** does not provide evidence of a significant trend over time, although the largest increase in the proportion of households with any kind of debt was in the lowest 20% of the income distribution.

Table 1. Share of Households Holding Debt of Any Kind, by Income Percentile

Income Percentile	1998	2001	2004	2007
All families	74.1	75.1	76.4	77.0
less than 20%	47.3	49.3	52.6	51.7
20% to 39.9%	66.8	70.2	69.8	70.2
40% to 59.9%	79.9	82.1	84.0	83.8
60% to 79.9%	87.3	85.6	86.6	90.9
80% to 89.9%	89.6	91.4	92.0	89.6
90% to 100%	88.1	85.3	86.3	87.6

Source: Board of Governors of the Federal Reserve System.

The burden of debt, and the risks it may pose to households, depend not on whether households hold debt, but on the cost of financing that debt relative to their financial resources. **Table 2** presents the ratio of debt payments to income, by income percentile. The numbers suggest that debt burdens are similar across the income distribution with the notable exception of those families in the top 10%.

[16] These data are from the Survey of Consumer Finances, published by the Federal Reserve Board. This is a triennial survey. Because of recent developments in financial markets, the Federal Reserve Board hopes to re-survey those households which participated in the 2007 survey by the end of 2009, and to make those results available in 2010.

Table 2. Ratio of Debt Payments to Income

Income Percentile	Percent						
	1989	1992	1995	1998	2001	2004	2007
All families	12.6	14.4	14.1	14.9	12.9	14.4	14.5
less than 20%	15.3	16.4	18.9	18.8	16.1	18.2	17.6
20% to 39.9%	12.6	15.7	17.3	16.6	15.8	16.6	17.2
40% to 59.9%	16.3	16.3	15.4	18.7	17.1	19.4	19.8
60% to 79.9%	16.8	16.7	18.0	19.1	16.8	18.5	21.7
80% to 89.9%	16.1	15.6	16.7	16.8	17.0	17.3	19.7
90% to 100%	8.1	11.4	9.6	10.3	8.1	9.3	8.4

Source: Board of Governors of the Federal Reserve System.

One measure of financial distress is the share of families at least sixty days late in making debt payments. **Table 3** shows these data, again by income percentile. Not surprisingly, a larger percentage of lower income families have been late making payments compared to those families with higher incomes. More and more households in the middle of the distribution, however, have also had trouble making payments on time. The decline between 2004 and 2007 in the share of families having difficulty making payments on time came before the bursting of the credit market bubble and the sub-prime mortgage crisis.

Table 3. Families With Any Payment 60 Days or More Late

Income Percentile	Percent						
	1989	1992	1995	1998	2001	2004	2007
All families	7.3	6.0	7.1	8.1	7.0	8.9	7.1
less than 20%	17.9	11.0	9.9	13.0	13.4	15.9	15.1
20% to 39.9%	12.3	9.3	10.7	12.4	11.7	13.8	11.5
40% to 59.9%	4.9	6.9	8.7	10.0	7.9	10.4	8.3
60% to 79.9%	6.0	4.4	6.4	5.9	4.0	7.1	4.1
80% to 89.9%	1.1	1.8	2.8	3.9	2.6	2.3	2.1
90% to 100%	2.4	1.0	1.0	1.6	1.3	0.3	0.2

Source: Board of Governors of the Federal Reserve System.

Household Debt and Economic Growth

The typical concern expressed with rising levels of household debt is that at some point it will lead to a reduction in consumer spending and initiate, or magnify, a slowdown in the rate of economic growth. In theory, there are several ways in which this might happen. Once above a given level of debt, any change in consumer confidence about the near-term economic outlook may trigger a cutback in spending, and an unwillingness to take on additional debt.

It may also be that above certain debt levels, households are more sensitive to fluctuations in interest rates. The debt burden measures discussed above depend on the level of debt, the maturity of those debts, and the interest cost of servicing the debt. A change in any one of those variables can affect the related burden of the debt.

The debt burden also depends on income. To the extent that income expectations are realized, the debt burden may not be a problem. But an unexpected drop in income, or in wealth for that matter, may raise the debt burden above what households intended and motivate them to cut back on either any additional borrowing they may have planned, or on their spending. This seems to have contributed to the current economic downturn.

What for borrowers is a burden, is income for lenders. As long as borrowers are able to meet their debt obligations, these payments are simply a transfer, or exchange, of income. Perhaps more important than the level of debt is how the borrowed money is spent. Borrowing may finance either consumption or investment spending. In the case of consumption, the borrowing is a shift of resources from the future to the present. In other words, a claim on future income finances an increase in current consumption. Households that borrow to increase consumption spending can enjoy a higher standard of living now than they otherwise could, but will be worse off in the future if they must reduce their consumption to pay off their debt.[17]

If a household makes its debt payments on time, then the shift in resources involves only that household. It is consuming more now at the expense of its own future consumption. But if that household defaults on its debt, then its consumption will have risen at the expense of the lender's future consumption. In this case, the lender may be inclined to reduce his current consumption to make up for the loss in wealth.

In cases where a household borrows to finance the purchase of durable goods such as household furnishings or an automobile, payments on the debt usually coincide with the life of the good. Rather than shifting future income to present uses, payments are made as the good is consumed (e.g., as the automobile depreciates). If the good purchased still has value after the loan is paid off, then to that extent the payments actually represented saving.[18] If households default on this type of loan, then the lender may be able to cover his losses to the extent of the remaining value of the good, and the transfer of resources is limited.

In the case of borrowing to finance the purchase of a home, a large component of the debt payments represents saving. By paying off mortgage debt, households acquire an asset. If borrowers default on mortgage debt, the lender is protected from loss by the value of the asset, and the borrower may even have accumulated some equity in the house; thus, there is little transfer of wealth either from borrower to lender or lender to borrower. As with all loan defaults, however, there may be significant administrative costs. To the extent that the borrower has built

[17] There is also the possibility that an investment fails to yield enough income, or utility, to offset its finance costs, or that its price falls below the amount borrowed to pay for it.

[18] There are two sources for saving data in the United States. The Department of Commerce, Bureau of Economic Analysis publishes the National Income and Product Accounts, and the Board of Governors of the Federal Reserve Board publishes the Flow of Funds Accounts. In the Flow of Fund Accounts measure of saving, automobile purchases by households are counted as investment and hence are also reflected in household saving. In the National Income and Product Accounts, only business purchases of automobiles are counted as investment.

up equity in the house, there may have been a shift in resources from the present to the future.[19] This is saving.

Saving is defined as income less consumption. If households borrow heavily to increase consumption spending, they may have a negative saving rate. For the past several years the average U.S. household saving rate has been very low, meaning that, in the aggregate, households are consuming most of their current income.

In some respects, the saving rate may be a more meaningful economic measure than debt.[20] An important determinant of the long run rate of economic growth is the national rate of saving and investment. The more out of current income that is saved, the more there is available to invest and add to the domestic stock of capital. A larger capital stock makes workers more productive and raises incomes and living standards. To some extent growth of debt represents dis-saving. Where saving is a shift of current income to future uses, accumulation of debt, at least some of it, represents a shift of future income to current uses. But not all household debt has that effect. If households increase their borrowing to finance additional consumption, it will be reflected as a decline in the saving rate. If instead, they reduce their outstanding consumer loans, that will be reflected as an increase in the saving rate. If households increase borrowing to finance the purchase of a home, that will also be reflected as an increase in the saving rate.[21] Changes in the saving rate are thus probably a better measure of these intertemporal shifts than are changes in outstanding debt.

As it turns out, while the debt burden has been declining of late, the saving rate has been rising. Having been near 1% for over three years, the household saving rate began to recover in May of 2008, and by mid-2009 was nearly 7%.[22]

Are measures of household debt helpful in assessing the economic outlook? Intuitively, it might seem that households' sensitivity to interest rate changes would increase with their debt load. An increase in interest rates would normally raise their debt service payments and induce them to curtail other spending.

Most studies of the relationship between household debt and economic growth suggest that, for the most part, rising debt has not been a threat to economic growth.[23] Instead of being a harbinger of economic hard times, rising household debt has been found to be associated with a growing economy. Changes in consumer debt tend to be a leading indicator of consumer spending, and thus of overall economic growth. One reason for this may be that increases in consumer borrowing are an indication of confidence in the economy, both on the part of borrowers and lenders.[24]

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[19] In some cases, households may not have accumulated enough equity to cover the costs of foreclosure. In cases where households are at risk of foreclosure, they may sell the house themselves and pay off the loan in order to avoid the additional costs associated with foreclosure.

[20] For the most recent saving rate data, see CRS Report RS21480, *Saving Rates in the United States: Calculation and Comparison*, by Brian W. Cashell.

[21] In the case of automobile purchases, only the Flow of Funds measure will reflect the increase in saving.

[22] See CRS Report R40647, *The Fall and Rise of Household Saving*, by Brian W. Cashell.

[23] See C. Alan Garner, "Can Measures of the Consumer Debt Burden Reliably Predict an Economic Downturn?" Federal Reserve Bank of Kansas City, *Economic Review*, Fourth Quarter 1996, pp. 63-76.

[24] See Dean M. Maki, *The Growth of Consumer Credit and the Household Debt Service Burden*, Board of Governors of (continued...)

For the near future, however, even as the economy begins to recover from the current downturn, growth in household debt seems likely to be somewhat more subdued than was the case in the years leading up to 2007. Even though measures of the debt burden show that it may have eased somewhat, debt levels relative to both income and assets are still higher than they have been for much of the past 20 years. If, for the time being, households seek to improve their balance sheets and if the household saving rate continues to rise, then growth in consumer spending may not be a major immediate contributor to economic recovery.

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