

Inadequate Household Deleveraging: Income, Debt and Social Provisioning

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This paper uses the Survey of Consumer Finances to analyze changes in US household debt between 1989 and 2013. It focuses on how income levels and debt levels have changed, and what this means for future economic growth and living standards. Prior to the Great Recession, US households had record high debt levels and record low savings rates. Highly leveraged consumption boosted economic growth. However, large debt burdens have led many families to deleverage. Our study finds that deleveraging has been insufficient. Although debt payments have fallen relative to household income, this is mainly due to low interest rates. Debt levels, especially for home mortgages, remain high by historical standards and portend continued stagnation due to lower consumer spending.

Keywords: consumer debt, consumption, deleveraging cycle, economic growth, income inequality, mortgage debt, saving rate, social provisioning process

JEL Classification Codes: E49, E51, I32

This paper investigates changes in debt and income levels for United States households from 1989 to 2013. We give special attention to how debt and income levels changed during the Great Recession and what this means for the economy over the next several years. Leading up to the Great Recession, a rapid rise in consumer borrowing led to an economic expansion not possible with available incomes (Cynamon and Fazzari 2013). Record levels of credit card debt, mortgage debt, education debt and vehicle debt were symptoms of several social and institutional changes—stagnant real incomes, loose lending practices (in some cases fraudulent) by banks, over-borrowing by consumers and disinterested financial regulators (Brown 2007; Wray 2000). Eventually this unsustainable lending and borrowing peaked and asset prices started to fall. At this point, over-indebted households started deleveraging, or paying down debt they found unsustainable given their income and net worth.

Deleveraging is an eventual consequence of a consumption binge fueled by loose lending and prolific borrowing but stagnant real incomes (Minsky 1986). The deleveraging process during the Great Recession was impeded by several institutional factors. First, personal bankruptcy laws in the United States have become more onerous and more expensive for households (Scott 2007). Second, stagnant incomes for most Americans (and falling incomes since 2007) means that households lack flexibility to direct more of their income to pay down debt balances. Third, many households have been saving less over the past two decades. Combined with stagnant income levels, this further reduces the ability of households to deleverage. Fourth, aggregate debt levels increased so much during the consumption binge that it became difficult (given stagnant incomes and less saving) to trim it down considerably. Fifth, many households lack the

bargaining power, knowledge or credit score needed to renegotiate better terms on their outstanding debt. This is particularly true of younger people who are taking on greater debt (e.g., student loans), something that might have long-lasting effects on aggregate demand.

Consumption and Debt

Personal consumption now makes up a greater percentage of United States GDP (around 70%) than at any previous time. Consequently, assessing changes in the balance sheets of households is important for gaining insight into their financial fragility and the ability of consumers to increase aggregate demand (Brown 2007; Cynamon and Fazzari 2013; Wunder 2012). To be able to spend more, households must receive higher real wages or obtain more credit. The former currently looks unlikely while the latter is undesirable over the long term since loans have to be paid back with interest.

One important reason consumers are in such great debt is that real incomes have stagnated over the past quarter century (see Weller 2007). Some of this stagnation is measured well. However, in some respects, official government statistics fail to capture adequately what is happening to average families and misses some of the factors that have been pushing up household debt.

Government measures of real median wages and real median household income indicate what most families already knew—wages and household incomes have both stagnated for some time. Over the past 25 years, there has been virtually no change in real household incomes or in real wages. Moreover, many households have had to work more hours (overtime and sending additional family members into the labor force) in order to maintain their standard of living or real household income.

At the same time that living standards have stagnated, what is regarded as necessary for a family to survive has increased over time. This speaks to the issue of social provisioning—a process that highlights the fact that “people have social lives” and need to eat, be educated, raise children and survive in society (Lee and Jo 2010, 4). Social provisioning is imbedded in our societal institutions, cultural values, social activities and ecological system. These complex relationships between society and the economy highlight how people’s needs change over time. We focus on one aspect of social provisioning, which is how household incomes, debt levels and saving rates have changed so that they are able to purchase essential goods and services.

It must always be kept in mind that what is essential to be a respected member of society varies from time to time and from place to place. One hundred years ago, a car and a telephone were not regarded as necessities. Today they are essential for middle-income families because they are required for functioning in our society.

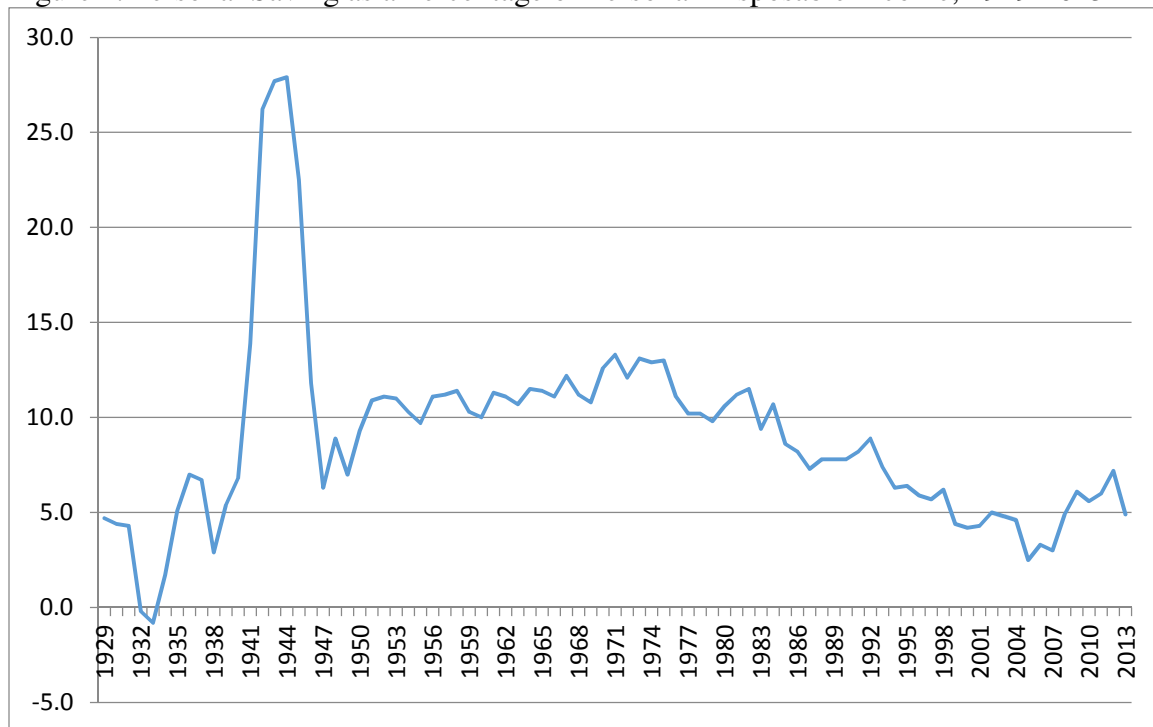
Twenty-five years ago, families did not have cell phones, computers, internet service or cable TV. Today these are regarded as necessary expenses. In addition, as noted above, more families are dual-income, so if they have young children then child care (or additional child care) is a necessary expenditure. Moreover, a college education is increasingly necessary to get a good job. Finally, cars are becoming safer and less polluting. These “quality improvements” are subtracted from the price increase of cars from the Bureau of Labor Statistics, and so do not get counted as part of the official government inflation rate. As a result, American consumers are buying higher priced cars, and spending more money on transportation, but they lack the higher real income to pay for it. Standard economic indicators do not take this into account. If households are

already barely getting by and have little or no savings, this means that they cannot purchase a more expensive new car unless they go into debt.

In addition, income inequality has increased sharply in the United States since the 1980s (Cynamon and Fazzari 2013). This leads to several social and psychological forces that generate more spending, sometimes more spending than income, thus resulting in consumer debt. Thorstein Veblen coined the term “conspicuous consumption” to refer to people trying to keep up with their neighbors by spending more because the ownership of goods demonstrates one’s status to be above those below. “Pecuniary emulation,” another term coined by Veblen, refers to the practice of imitating the consumption standards of those with higher status, hoping to appear to possess that status or to obtain that status vicariously (Veblen [1899] 1994). Robert Frank (1999) has argued that keeping up with the Jones’s and keeping ahead of the Joneses’ is important in a world of winner-take-all markets. If we want to get hired for a job, we need to look as good, or better, than all other candidates for the job. That means buying a more expensive suit than others. But if everyone tries to do this, we all wind up spending a lot more money on interview suits but no one gains an advantage over anyone else. Whatever the social-psychological motivation (a mixture of needs and wants), it is clear that low-income households (as well as many middle-income households) have borrowed beyond their means to sustain their consumption in the face of falling incomes and rising expenses.

Figure 1 shows that household saving rates were at historic lows before the Great Recession. The only time the personal saving rate has been lower was during the Great Depression (not an enviable comparison). The average personal saving rate over this 85-year period was 9%—far higher than the 2013 rate of 4.9%.

Figure 1. Personal Saving as a Percentage of Personal Disposable Income, 1929-2013



Note: Authors' calculations using Federal Reserve's (FRED) economic data (Federal Reserve Bank of St. Louis 2014).

Falling Incomes, Rising Costs

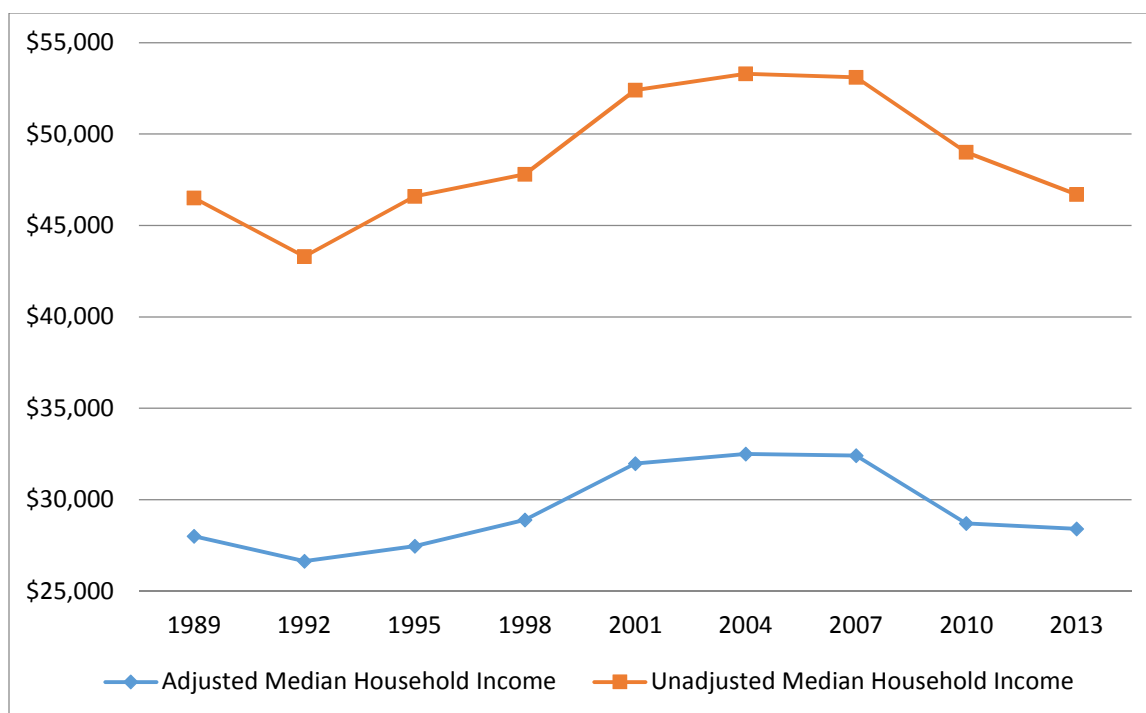
In our analysis we adjust all incomes for family size using the Organisation for Economic Co-operation and Development's (OECD) equivalence scale (or "original" scale) (see Atkinson, Rainwater and Smeeding 1995). Because additional household members produce additional needs (though not proportionally) it is desirable to adjust incomes according to household size and age of people in the household. The OECD's equivalence scale assigns a value of 1 to the first adult member of the household, 0.7 for each additional adult and 0.5 for each child. This technique is particularly important when discussing the social provisioning process because we are most interested in how much money median income households have available to spend on necessities (the same logic used to adjust poverty thresholds for family size). Adjusting incomes for household

size provides a more accurate measurement of the money available for family provisioning.

The Federal Reserve's Survey of Consumer Finances data is collected triennially. It samples around 5,000 American households (2010 and 2013 had sample sizes over 6,000) and is the most comprehensive data available on household finances (see Board of Governors 2014). Using this data we estimated that real median adjusted household income in the United States decreased 12.4% (\$32,409 to \$28,407 in 2013 dollars) between the 2007 and 2013 surveys. Since 1989 real median (adjusted) household income increased only 1.4% or \$200 (\$46,500 to \$46,700 in 2013 dollars). This is not an annual increase; it is the *total* increase in household median income over 25 years.

Furthermore, as we argued above, more goods and services are necessary in order to be a functioning member of society. Stagnant incomes and greater needs have produced a double squeeze on US households. In order to provide the necessities of life for their families, households have reduced their savings and increased their debt levels. But increased debt in conjunction with stagnant income levels is not sustainable; over the past several years households have been trying to deleverage or reduce their indebtedness.

Figure 2. Real Median Adjusted US Household Income and Real Median Unadjusted US Household Income (2013 dollars), 1989-2013



Note: Authors' calculations using Survey of Consumer Finances weighted data (Board of Governors 2014).

Deleveraging Cycle and the Social Provisioning Process

Deleveraging has not been able to bring household debt back to more sustainable (1989) levels. Substantial debt overhang remains and puts downward pressure on household spending. It is generally believed that reducing household debt will automatically lead to faster economic growth, as consumers can spend on new goods and services rather than having to make payments on past debt (Mian and Sufi 2014).

Table 1. Mortgage Debt, Consumer Debt and Debt Payments as Ratios of Adjusted Incomes (Median Monthly Total Debt Payments in 2013 Dollars)

SCF Years	Mortgage Debt-to-Income	Consumer Debt-to-Income	Median Monthly Total Debt Payment	Total Debt Payment-to-Income
1989	0.84	0.48	\$394	0.3
1992	1.06	0.43	\$359	0.31
1995	1.25	0.43	\$424	0.32
1998	1.29	0.51	\$479	0.34
2001	1.30	0.44	\$521	0.32
2004	1.69	0.54	\$570	0.34

2007	1.82	0.62	\$624	0.36
2010	1.85	0.64	\$521	0.33
2013	1.63	0.61	\$400	0.29

Notes: Authors' calculations using Survey of Consumer Finances weighted data (Board of Governors 2014).

We can see the extent of deleveraging (or lack thereof) in Table 1, which shows ratios of mortgage debt to adjusted household income, consumer debt to adjusted income and monthly total debt payments to adjusted income. Consumer debt includes any credit cards, automobile loans, student loans, and various other installment loans. Total monthly debt payments are what a household pays each month for all its debt (mortgages, consumer debt, etc.)—this includes anything from minimum payments on credit cards to paying interest and principal on a mortgage. Median monthly debt payments are low because we use the entire sample (including the nearly 30% of all households having no debt). Truncating the data by looking only at households with debt, gives us larger figures but does not change the results about consumer deleveraging shown in this column.

From this table, we can draw some important conclusions regarding household debt, the deleveraging process and the prospects for future economic growth.

First, the median monthly total debt payment (consumer debt and mortgage debt payments combined) has not changed much (in real terms) over the past quarter century, but has declined since 2007. In 1989, the median real debt payment was \$394 a month; after rising to over \$600 per month in 2007, median monthly real debt payments fell to \$400.

Second, the decline in median monthly debt payments has reduced the fraction of (adjusted) income that households now devote to making consumer debt payments. As the last column of Table 1 shows, debt payments are back to around 30% of adjusted

household income, down from a high of 36% in 2007.

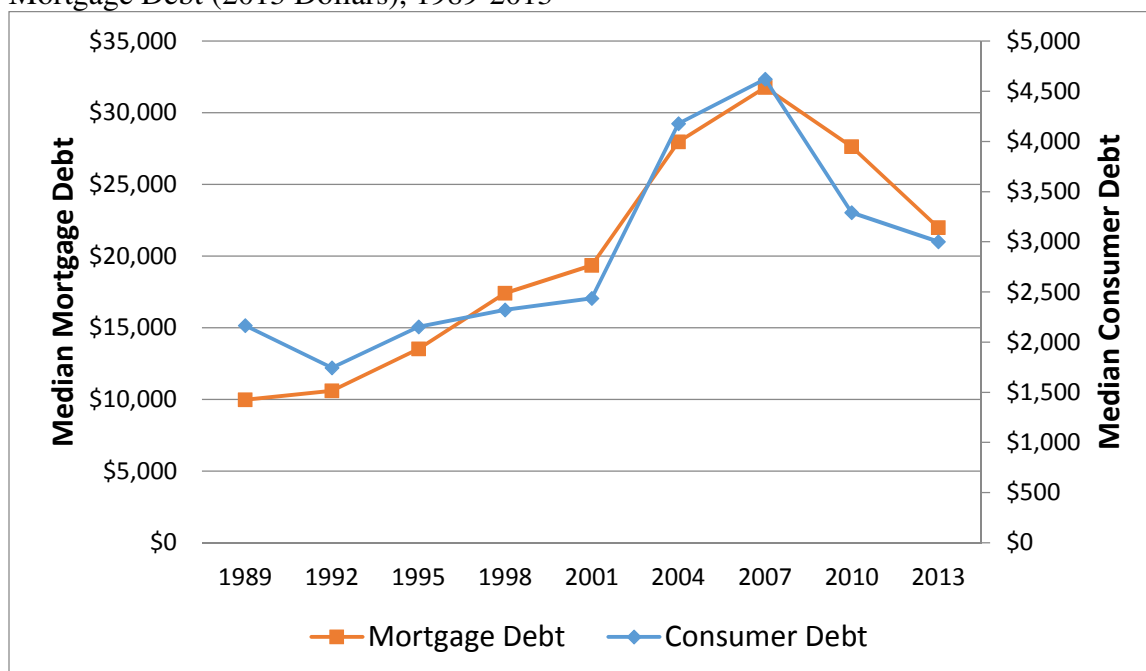
But it is not all good news. The decline is less a result of households paying down their consumer debt and more because of low interest rates on their debt due to aggressive monetary policy by the Federal Reserve over the past 7 years. We can see this by looking at consumer debt-to-income (column 3), which has not fallen much since 2007, an insignificant drop from 0.62 to 0.61. It remains far above the 1989 figure of 0.48, despite median monthly debt payments (column 4) falling 35.9% in real terms (\$624 to \$400). This means that the reason debt payments have fallen, and the reason the ratio of debt payments to income has fallen, is that low interest rates have helped consumers meet their debt obligations. Once the central bank starts raising interest rates (probably in 2015), monthly consumer debt payments will start rising in real terms and increase relative to household income. This will further inhibit household spending.

The only debt category that grew though the deleveraging cycle is student loans; and the increase here was significant. The Federal Reserve only started collecting data on student loan debt in 2006, when they totaled \$600 billion (in 2014 dollars). At present (third quarter of 2014), student loan debt exceeds \$1.3 trillion. Delinquency rates on student loans are higher than any other debt category, currently 10.9% (Federal Reserve Bank of St. Louis 2014). This will likely create a drag on spending by recent college graduates (and those with college loans who did not graduate) that will last for many years. This increase is also one reason the deleveraging of consumer debt was not more drastic—much of the reduction in all other consumer debt categories were offset by increases in student loan debt.

Consumer debt, however, is a minor problem compared to mortgage debt.

Column 2 of Table 1 shows that the mortgage debt-to-income ratio in 2013 was only 10.4% below its 2007 figure. The ratio skyrocketed from 0.84 in 1989 to 1.85 in 2010; in 2013 it fell back slightly, to 1.63. Both types of debt increased over the past 25 years—consumer debt by 38.5% and mortgage debt by 120% (see Figure 3). But the biggest increase in dollar figures and in outstanding debt relative to income was for mortgages.

Figure 3. Real Median Outstanding Consumer Debt and Real Median Outstanding Mortgage Debt (2013 Dollars), 1989-2013



Note: Authors' calculations using Survey of Consumer Finances weighted data (Board of Governors 2014).

Looking at Figure 3 we see that mortgage debt has risen sharply over nearly a quarter century. This has hurt the balance sheets of American households. Median mortgage debt remains much higher than in 1989 (over twice as much in real terms) and has not fallen substantially from the peak of the housing market (down 30.8% from 2007, after increasing 218% in real terms from 1989 to 2007). Too many households remain underwater on their mortgages (slightly under 20%). Another 20% or so have some equity in their homes (Zillow 2014); however, the equity is insufficient to be able to sell

their homes, which requires paying realtor fees, lawyer fees, moving expenses, etc. You just cannot pick up and go. Lacking enough equity and with insufficient savings, these homeowners remain stuck in a house they cannot afford. This situation has several undesirable macroeconomic consequences.

First, job growth and income growth have been very slow in the recovery from the Great Recession. One important source of job growth is small business creation. However, there have been fewer new business start-ups in the past several years compared to other economic recoveries. Home equity is typically a popular source of funding for new businesses. Households borrow the equity in their homes, taking a chance that their business will earn them a lot more money than they lose in interest from taking out the loan. But without home equity this is impossible to do. Laderman and Leduc (2014) estimate that the shortfall in new business start-ups has resulted in more than 760,000 fewer jobs created.

If new businesses are not being created, it is harder to get jobs (Haltiwanger, Jarmin and Miranda 2010). The supply of unemployed and underemployed workers puts a downward pressure on wages throughout the economy. This makes it harder for households to pay down their debt, and makes it more likely they will need *more* debt to maintain their fixed and normal expenses.

Second, despite an alphabet soup of government programs to aid homeowners (e.g., Home Affordable Modification Program, or HAMP) these programs have done little to address this problem. Homeowners remain burdened by mortgage debt and many homeowners have little or no equity in their home. More worrisome is the fact that HAMP modifications, which reduced mortgage rates to as low as 2%, will expire over the

next four years. One million mortgages will reset at higher rates, with severe negative consequences for household balance sheets and for the entire economy.

Third, inadequate home equity locks in households geographically because they cannot sell their home. This makes it harder for households to pick up and move to places where better paying jobs and more jobs are available. It also hinders deleveraging because households cannot downsize to smaller homes with lower mortgage payments or rentals.

Conclusion

Using the Federal Reserve's Survey of Consumer Finances data from 1989 to 2013, we find that households have experienced stagnant real (adjusted) incomes. More worrisome is the fact that households have not adequately deleveraged since 2007 to allow for increases in consumption and saving. These findings explain, in part, the anemic recovery of the United States economy over the past several years. This makes it hard to believe that in the near term robust economic growth will be driven by increased consumer spending. The debt hangover (consumer debt and especially housing debt) continues to constrain household discretionary incomes and will suppress demand growth for at least the next few years. Only a significant increase in wages, or government programs to write down mortgages, can solve the problem plaguing household balance sheets, increase consumption and improve the economic outlook of the United States. Without household debt reduction, outstanding debt obligations will continue to place a heavy burden on consumption, on economic growth and on American living standards.

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