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Is Household Debt Inhibiting the Recovery?

by David Altig, Susan M. Byrne, and Katherine A. Samolyk

When the profits of trade happen to be greater than ordinary, overtrading becomes a general error both among great and small dealers. They do not always send more money abroad than usual, but they buy upon credit both at home and abroad an unusual quantity of goods.... The demand comes before the returns, and they have nothing at hand with which they can either purchase money or give solid security for borrowing.
Adam Smith, *Wealth of Nations*, 1776.

Forecasting short-run economic activity is a tenuous business. Though all economic contractions and expansions have certain well-defined characteristics, history never completely replicates itself. Thus, the particulars of past economic downturns are distinct, and the task of forecasters is something of an art — that of identifying the relevant caveat in the current economic outlook.

One particular of the most recent recession and the current period of sluggish economic activity — a particular in most forecasters' bag of caveats — is the level of household debt. By the end of 1990, the ratio of household debt outstanding to disposable income was at a historically high 99 percent. The corresponding ratio of household debt to assets stood at a similarly unprecedented 19 percent.

Many observers believe that such household debt burdens will, at the very least, constrain consumer spending and inhibit the economy's recovery from recession. This concern was succinctly expressed in a May 1991 *Wall Street Journal* editorial: "What's different about this recession — what is retarding or blocking these normal financial responses to recession — is the abnormally heavy burden of ... household debt."[1]

Implicit in this argument is the presumption that the borrowing behavior of the 1980s has significantly weakened the viability of consumer financial positions. Two fundamental concerns are at the core of this presumed weakness. First is the issue of consumers' ability to service debt in the short run, which is generally viewed as being inversely related to household debt-to-income ratios. Second is the issue of consumers' solvency, or their ability to pay off debts in the long run. A household is solvent as long as its assets are greater in value than its liabilities. The probability of insolvency is therefore generally viewed to be inversely related to a household's debt-to-asset ratio.

But how relevant are observations such as "the ratio of household debt to income is 99 percent" or "the ratio of household debt to assets is 19 percent" when evaluating patterns in business activity? Although rarely discussed in popular debates, a complete analysis of the

In the 1980s, the ratios of household debt to income and household debt to assets reached historically high levels, causing some to conclude that the financial fragility of consumers has substantially decreased the economy's ability to fight its way out of recession. Examined in a historical context, however, this recent pattern of debt and asset levels is not unusual, and there is little evidence to suggest that the consumer debt buildup of the last decade is playing any greater role now than did the debt positions of households in previous recessions.

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influence of consumer debt on economic activity requires a distinction between the *level* of debt-to-asset and debt-to-income ratios and *changes* in the level of these ratios. Stated alternatively, assessing the role of debt in business-cycle fluctuations requires distinguishing between the effects of *trend* behavior in household debt and the *cyclical* behavior of such debt.

Existing theoretical and empirical research does implicate household debt as a factor in propagating (if not in fact causing) downturns in economic activity. Yet, no convincing case has been made, and we believe none exists, for the claim that the current household debt situation and its effects on overall economic activity are in any way extraordinary by historical standards.

In this *Economic Commentary*, we examine trends in household debt burdens in their historical context. We propose that the much-maligned growth in debt-to-asset and debt-to-income ratios that characterized the 1980s appears to be a return to a long-term trend that, for whatever reason, was interrupted in the 1970s. In fact, these debt measures have been increasing since the turn of the century. If the severity and length of recessions are truly correlated to the level of household leverage, then past recessions should have exhibited increasing amplitude and duration over time. This does not appear to have been the case.

We also examine cyclical patterns in household debt-to-income and debt-to-asset ratios over the post–World War II period. Although these patterns may be important for understanding the short-run performance of the macroeconomy, an aggregate perspective yields little evidence that the consumer debt buildup of the 1980s played any greater role in our present economic fortunes than did the debt positions of households in previous recessions. Consequently, we believe that if the current sluggishness of the U.S. economy is truly an anomalous circumstance frustrating our best forecasters, then the burden must arise from some beast other than the aggregate level of household debt.

■ Balance Sheets, Financial Fragility, and Economic Activity

As the opening quote from Adam Smith indicates, concerns about debt accumulation and its potential impact on economic activity are hardly a recent phenomenon. And although our understanding of the role of credit markets in the business cycle has advanced dramatically in the past 15 years or so, the essential intuition was captured by Irving Fisher in 1933:[2]

> *There may be an equilibrium which, though stable, is so delicately poised that, after departure from it beyond certain limits, instability ensues, just as, at first, a stick may bend under strain, ready all the time to bend back, until a certain point is reached, when it breaks. The simile probably applies when a debtor gets "broke," or when the breaking of many debtors constitutes a "crash"....* (p. 339)

In other words, debt levels that are not problematic in good times may turn out to be the vehicle for increasing difficulty during bad times.

An essential feature of arguments that have followed in the tradition of Fisher's analysis is that cyclical increases in the ratio of household debt to assets heighten the probability of financial distress because they diminish consumers' ability to meet contractual debt obligations and further limit their access to credit markets through a reduction in the collateral base. To maintain the integrity of their balance sheets, consumers may therefore shift their desired asset holdings away from durable consumption goods and toward more liquid financial assets.

In "normal" times, the process of financial intermediation would channel these resources into alternative investment opportunities. However, in times of general economic distress, the reduced ability of lenders to separate bad borrowers from good, and the costs associated with defaults and delinquencies, can inhibit the performance of loan markets. Thus, adverse shocks to the economy can be amplified by increasing restrictiveness on the part of lenders, who find their own balance sheets deteriorating and who face increasing difficulties in assessing the financial viability of potential borrowers.

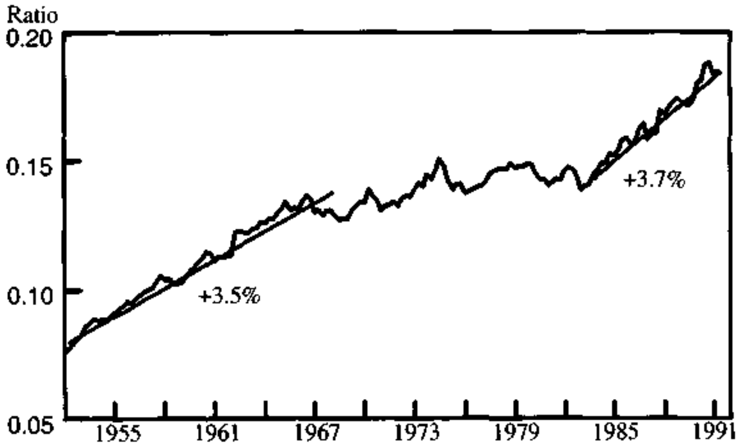
Thus, even if recessions are not caused by high debt-to-asset or debt-to-income levels, cyclical increases may magnify the economy's exposure to payment and bankruptcy problems in the event of temporary declines in economic activity. The direct and indirect effects of credit problems on household consumption demand and investment, and the resulting direct or indirect effects on aggregate production, can play an important role in determining the duration and severity of a recession.[3]

Several prominent economists have found evidence that financial stress in the household sector can exacerbate negative shocks to the macroeconomy. Frederic Mishkin has argued that deterioration of household balance sheets — in the form of increasing debt-to-asset ratios — prolonged and deepened both the 1974–1975 recession and the Great Depression. Similar arguments have been made by Ben Bernanke.[4]

■ Household Debt in the 1980s: The Age of Profligacy or a Return to Normalcy?

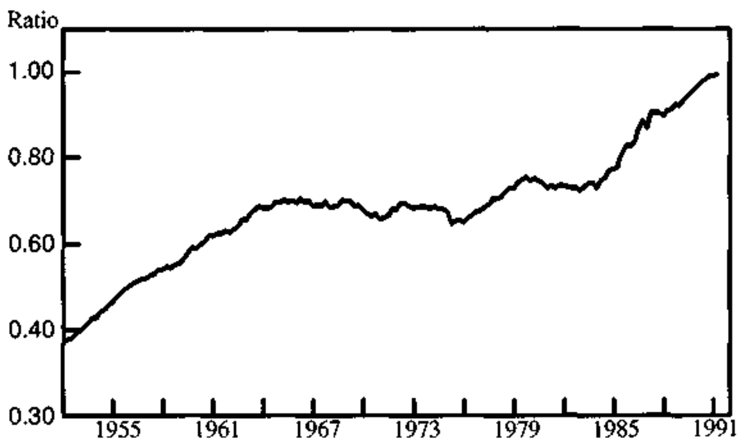
Evidence of the type cited by Bernanke and Mishkin has caused both policymakers and private analysts to fear, if not conclude, that the unprecedented levels of household debt realized by the end of the 1980s have substantially decreased the ability of the U.S. economy to fight its way out of recession. The logic of this concern, taken at face value, is persuasive: Since debt burdens are extraordinarily high by historical standards, wouldn't we expect the constraining effect of such burdens to be all the more binding in the current situation?

FIGURE 1 DEBT-TO-ASSET RATIO, 1952–1991



NOTE: Data are quarterly through 1991:IIQ.
SOURCE: Board of Governors of the Federal Reserve System.

FIGURE 2 DEBT-TO-INCOME RATIO, 1952–1991



NOTE: Data are quarterly through 1991:IIQ.
SOURCES: U.S. Department of Commerce, Bureau of Economic Analysis; and Board of Governors of the Federal Reserve System.

TABLE 1 DEBT MEASURES AND THE BUSINESS CYCLE

Recession (Peak to Trough)	Duration (Months)	Decline in Industrial Production[a]	Debt-to-Asset Ratio	Debt-to-Income Ratio
1953:IIIQ–1954:IIQ	10	0.79	0.087	0.414
1957:IIIQ–1958:IIQ	8	0.92	0.103	0.531
1960:IIQ–1961:IQ	10	1.71	0.112	0.560
1969:IVQ–1970:IVQ	11	0.64	0.134	0.691
1973:IVQ–1975:IQ	16	0.54	0.145	0.686
1980:IQ–1980:IIIQ	6	0.98	0.148	0.747
1981:IIIQ–1982:IVQ	16	0.93	0.143	0.729
1990:IIIQ–1991:IIQ[b]	9	0.53	0.187	0.980

a. Average monthly percent decrease in the Industrial Production Index.

b. Estimated.

SOURCES: U.S. Department of Commerce, Bureau of Economic Analysis; and Board of Governors of the Federal Reserve System.

A look at the data does confirm the general impression that U.S. consumers have accumulated debt at a rapid pace since the 1981–1982 recession. From the first quarter of 1983 to the end of 1990, the household debt-to-asset ratio rose by one-third, from 12 percent to 16 percent. Over the same period, the debt-to-income ratio rose from 73 percent to 99 percent.

However, these increases seem remarkable only when compared with the experience of the 1970s. As indicated by figure 1, the 3.7 percent average annual growth rate in the household debt-to-asset ratio from 1983 through 1990 closely matches the average rate of 3.5 percent realized from 1952 through 1967. In fact, household debt as a percentage of net worth has been increasing since at least the turn of the century.[5]

Figure 2 illustrates the trend behavior of the household debt-to-income ratio over the postwar period. The pattern is very similar to that of the debt-to-asset ratio shown in figure 1. Specifically, the debt-to-income ratio grew consistently from 1952 until about 1967, stalled from the late 1960s to the early 1980s, and then returned to its earlier trend.

From this longer-term perspective, deleterious effects of the trend toward higher debt-to-asset and debt-to-income ratios are not apparent. In particular, the incidence, magnitude, or persistence of macroeconomic distress does not appear to be reliably or consistently related to the level of household debt. This observation is reinforced by examining table 1, which reports debt levels at the peak of each officially designated recession since 1950. Clearly, debt-to-asset and debt-to-income ratios have generally been higher at the outset of each successive recession. In fact, the two longest and most severe downturns of the entire postwar period — the 1974–1975 and 1981–1982 contractions — were the only instances in which one or both of the debt measures were lower at the beginning of a recession than at the previous peak.

The historical pattern of household debt accumulation likely reflects the increasing sophistication of financial markets. These changes not only permit a more efficient allocation of resources, thus enhancing overall consumption and investment opportunities, but also provide the mechanisms by which financial markets are better able to withstand the pressures of economic downturns. Indeed, the only postwar period during which the household debt-to-asset ratio failed to rise substantially was the 1970s, hardly a period with an economic performance worth repeating.[6]

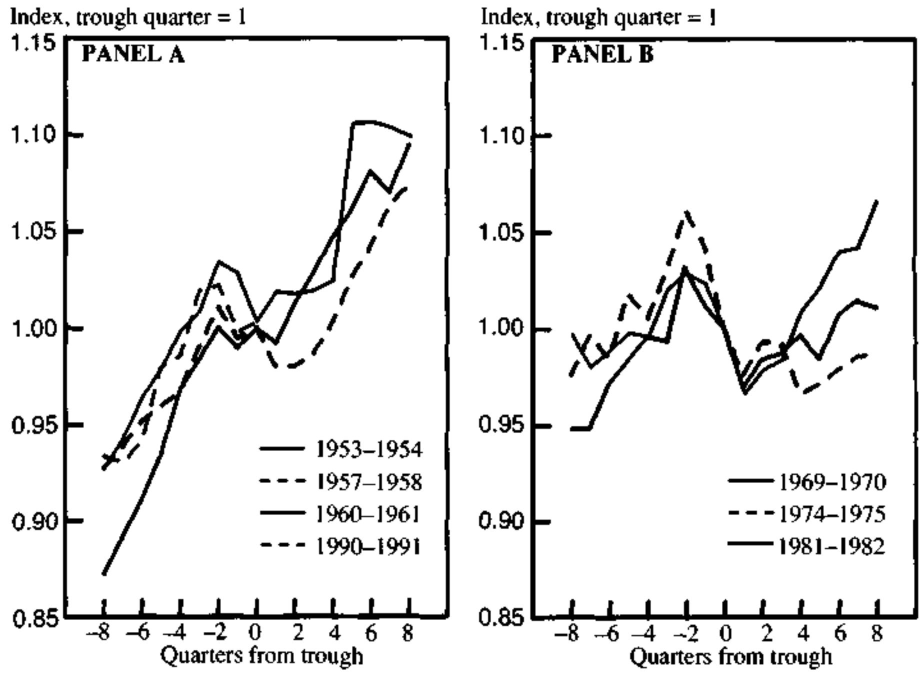
Debt and Recessions

In the long run, then, there appears to be little evidence that high household debt levels are negatively related to economic activity. But does debt play any role in the short run? In particular, does the behavior of household debt-to-asset ratios distinguish the 1990–1991 recession from other postwar downturns?

Figure 3 depicts the behavior of household debt-to-asset ratios around business-cycle troughs for all postwar recessions, with the exception of the brief downturn of 1980.[7] To emphasize cyclical patterns and to maintain comparability, the two panels present a debt-to-asset index for each recession, where the index takes the value one at each business-cycle trough. Panel A plots index values for the 1953–1954, 1957–1958, 1960–1961, and 1990–1991 recessions. Panel B plots index values for the 1969–1970, 1974–1975, and 1981–1982 recessions. We assume the latest business-cycle trough was in the second quarter of 1991.

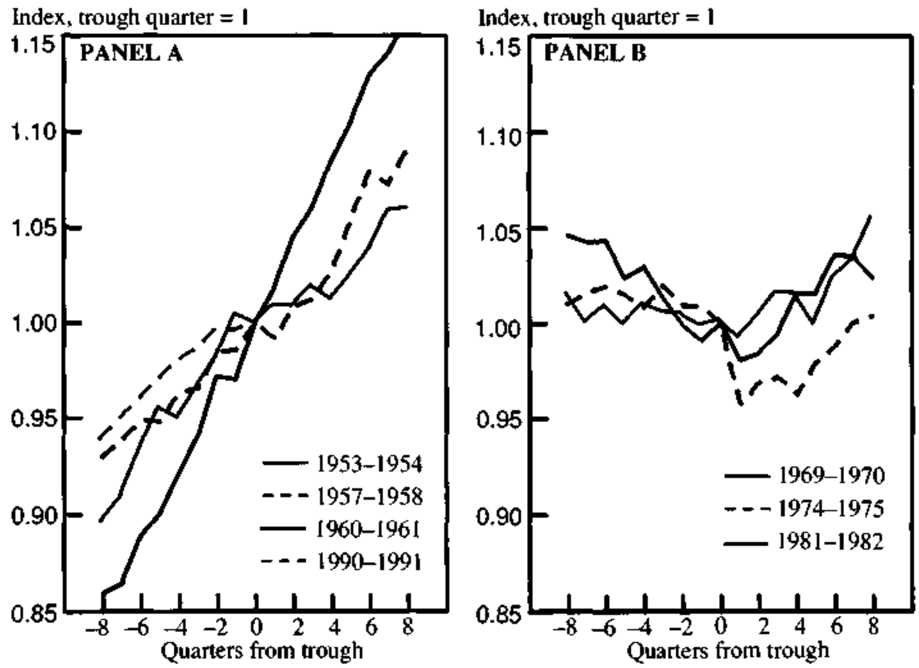
A fairly consistent pattern emerges. Typically, debt-to-asset ratios increase until one or two quarters prior to the business-cycle trough, at which point they drop off before resuming the trend growth rates apparent in figure 1. These declines are more pronounced, and of longer duration, in the recessions from 1969 to 1982 shown in panel B, a period when growth in debt-to-asset ratios was minimal.

FIGURE 3 DEBT-TO-ASSET INDEX IN POSTWAR RECESSIONS



SOURCE: Board of Governors of the Federal Reserve System.

FIGURE 4 DEBT-TO-INCOME INDEX IN POSTWAR RECESSIONS



SOURCES: U.S. Department of Commerce, Bureau of Economic Analysis; and Board of Governors of the Federal Reserve System.

Of special interest is that the pattern for the 1990–1991 recession is fully consistent with those of other postwar recessions. Also, looking at debt and assets separately would indicate that movements in the debt-to-asset ratio are driven primarily by changes in the value of household assets, while short-run changes in household liabilities deviate little from their long-run trend. Although the recent recession has exhibited a decrease in assets and an increase in the debt-to-asset ratio, these changes are not appreciably different from those of other downturns.

Analogous to figure 3, figure 4 shows the behavior of household debt-to-income ratios in and around recessions. As before, the ratios are reported as an index, equal to one at the trough of the recession, in order to emphasize cyclical patterns and to maintain comparability.

Figure 4 reveals no evident pattern in the behavior of debt-to-income ratios during recessions. Indeed, these ratios appear to be almost entirely dominated by the trend that existed at the time of the downturn: Debt-to-income ratios were essentially flat for the 16 quarters surrounding the troughs of the 1969–1970, 1974–1975, and 1981–1982 recessions; the ratios tended to grow consistently through the troughs of the 1953–1954, 1957–1958, 1960–1961, and 1990–1991 recessions.

Cross-Sectional Caveats

Although the recent pattern of debt and asset levels is not unusual, it could be that circumstances underlying these numbers make the current environment riskier than usual. Of particular concern are the possibilities that recent growth in household debt is concentrated among households where solvency is in question and that the trend in debt-to-asset and debt-to-income ratios reflects a diminished ability to service debt in the short run.

Direct evidence on these questions is slim, and indirect evidence is mixed. As noted above, there is generally a positive link between debt-to-income ratios, bankruptcies, and payment problems. A study of the 1983 and 1986 Survey of Consumer Finances did find that the share of aggregate debt payments held by households with high debt-to-income ratios rose substantially between 1983 and 1986.[8]

However, the 1986 study also suggests that, due to changes in debt maturity and loan rates, conventional debt measures may not be useful indicators of excessive debt-service burdens. Furthermore, much of the increase since 1986 has been due to growth in borrowing through home equity loans. Because home equity lines of credit tend to be held by high-income households, distress is less likely to originate with debt positions from this source.[9] Also, evidence from the 1989 Survey of Consumer Finances indicates that much of the personal debt increase since 1983 has been accounted for by households reporting the most financial assets.[10]

Still, cross-sectional factors may indeed be important. But the evidence linking these factors to aggregate debt-to-income or debt-to-asset ratios is still lacking. Moreover, it is far from clear that cross-sectional relationships at a particular time are useful for making inferences about the effects of long-term trends in household leverage.

Conclusion

It is not our intention to dismiss out of hand all concerns about the financial fragility of the household sector. Nor do we believe that we should be entirely sanguine about the debt buildup of the 1980s. *National* saving rates, conventionally measured, were especially low over the past decade. To the extent that trends in household leverage reflect a shift away from providing future consumption opportunities, such trends may be a cause for concern.

Instead, we contend that the highly emphasized increase in household leverage during the past decade seems to be a return to a long-run trend that was interrupted during the 1970s. Furthermore, controlling for this trend, it does not appear that current household debt levels have resulted in cyclical effects that distinguish our latest recession from earlier ones. To the extent that economic recovery is (so far) less robust than in past recessions, the reason will likely be found in explanations that do not rely on the presumed irresponsibility of consumers in the 1980s.

Footnotes

1. See Harold van B. Cleveland, " '80s Debt Caused the Recession; '80s Debt Is Prolonging It," *Wall Street Journal*, May 30, 1991.

2. See Irving Fisher, "The Debt-Deflation Theory of Great Depressions," *Econometrica*, vol. 1 (October 1933), pp. 337–57.

3. See Stephen D. Williamson, "Financial Intermediation, Business Failures, and Real Business Cycles," *Journal of Political Economy*, vol. 95, no. 6 (December 1987), pp. 1196–1216; and Ben Bernanke and Mark Gertler, "Agency Costs, Net Worth, and Business Fluctuations," *American Economic Review*, vol. 79, no. 1 (March 1989), pp. 14–31, for examples of models with the general characteristics described here.

4. See Frederic S. Mishkin, "What Depressed the Consumer? The Household Balance Sheet and the 1973–75 Recession," *Brookings Papers on Economic Activity*, no. 1 (1977), pp. 123–64; and "The Household Balance Sheet and the Great Depression," *Journal of Economic History*, vol. 38, no. 4 (December 1978), pp. 918–37. See also Ben S. Bernanke, "Bankruptcy, Liquidity, and Recession," *American Economic Review*, vol. 71, no. 2 (May 1981), pp. 155–59; and "Nonmonetary Effects of the Financial Crisis in the Propagation of the Great Depression," *American Economic Review*, vol. 73, no. 3 (June 1983), pp. 257–76. For a survey of the intellectual history of theories concerning the role of debt and credit markets in the business cycle, see A.W. Mullineux, *Business Cycles and Financial Crises*, Ann Arbor, Mich.: University of Michigan Press, 1990. An older survey is in Alvin H. Hansen, *Business Cycles and National Income*, New York: W.W. Norton and Co., 1951.

5. See Edward N. Wolff, "Trends in Aggregate Household Wealth in the U.S., 1900–83," *Review of Income and Wealth*, series 34, no. 3 (March 1989), pp. 1–29.

6. It is also worth noting that the debt-to-asset ratio rose from 1900 to 1933, fell from 1933 to 1945, and then grew until the late 1960s (see Wolff, ibid.). We are again left with the impression that stable and falling debt-to-asset ratios are related to periods of relatively poor economic performance.

7. The behavior of household debt and assets in and around the 1980 recession does not conform to the patterns seen in other postwar contractions. That recession, however, was anomalous in several respects. First, it was extremely brief, officially spanning only two quarters. Second, the economic environment was dominated by credit controls imposed by the Carter administration, a circumstance that was replicated in no other cyclical downturn. Third, the 1981–1982 recession followed closely on the heels of the 1980 trough. The index numbers surrounding the 1980 recession therefore overlap those of the later, more significant recession.

8. See Robert B. Avery, Gregory E. Elliehausen, and Arthur B. Kennickell, "Changes in Consumer Installment Debt: Evidence from the 1983 and 1986 Surveys of Consumer Finances," *Federal Reserve Bulletin*, vol. 73, no. 10 (October 1987), pp. 761–78. See also the discussion in Glenn B. Canner and Charles A. Luckett, "Payment of Household Debts," *Federal Reserve Bulletin*, vol. 77, no. 4 (April 1991), pp. 218–29. For evidence on the relationship between debt-to-income levels and bankruptcy, see K. J. Kowalewski, "Personal Bankruptcy: Theory and Evidence," Federal Reserve Bank of Cleveland, *Economic Review*, Spring 1982, pp. 1–29. A survey of the evidence on household bankruptcy and macroeconomic activity is provided in Charles A. Luckett, "Personal Bankruptcies," *Federal Reserve Bulletin*, vol. 74, no. 9 (September 1988), pp. 591–603.

9. See Glenn B. Canner and Charles A. Luckett, "Home Equity Lending," *Federal Reserve Bulletin*, vol. 75, no. 5 (May 1989), pp. 333–44.

10. See Arthur Kennickell and Janice Shack-Marquez, "Changes in Family Finances from 1983 to 1989: Evidence from the Survey of Consumer Finances," *Federal Reserve Bulletin*, vol. 78, no. 1 (January 1992), pp. 1–18.

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