

WORKING PAPER

Executive Summary

MARCH 2008, WP# 2008-2

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RETIREMENT
RESEARCH
AT BOSTON COLLEGE

SAVING AND WEALTH ACCUMULATION IN THE PSID, 1984-2005

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The U.S. household saving rate has fallen from 10 percent of income in the early 1990s to less than one percent in 2005-06. However, the macroeconomic studies have shown a remarkable lack of consensus on the causes of the reduced saving. Competing hypotheses include consumption increases induced by the wealth gains of the 1990s, lighter taxes on capital gains, and innovations in mortgage finance and housing credit. However, it has become apparent that, in the absence of greater variation and repeated episodes of similar changes within the United States or other countries, the macroeconomic data are not sufficient to distinguish among the various competing hypotheses.

In this paper, we turn to an alternative micro-level data set to investigate the saving behavior of American families. We analyze data from the Panel Study of Income Dynamics (PSID), which has information on both families' net wealth and a division of wealth accumulation between saving and capital gains/losses (passive saving). The dataset covers a representative sample of individual family units over the period of 1984 to 2005.

We first describe the methods used to construct the measures of wealth covering 7-8 thousand households in seven wealth surveys. We compare the measures of wealth in the PSID with aggregate wealth estimates from the Flow of Funds Accounts and the Survey of Consumer Finances (SCF). We find that the respective wealth estimates for the PSID and SCF are very similar up to the 95th percentile of SCF wealth. In addition, the PSID implies a rate of growth of aggregate family wealth over the 1985 to 2005 period that is very similar to that of the Flow of Funds Accounts and somewhat greater than that recorded in the SCF. Thus, we conclude that the PSID is a useful dataset for analyzing the wealth accumulation of "typical" families. However, above the 95th percentile, the PSID severely underestimates family wealth holdings. The lack of coverage for large wealth holders is a major shortcoming for examining the distribution of wealth, but we believe that it is offset by the advantage of the PSID in following the wealth accumulation of individual families over time.

Furthermore, the PSID is unique in providing information on wealth changes. Additional questions on net purchases and sales of specific wealth components make it possible to separate the change in wealth into an active saving component (net purchases) and a residual of passive saving (capital gains/losses).

We divide wealth into three components: (1) equity in main residence, (2) wealth subject to capital gains/losses, and (3) fixed income assets. We compute active saving and valuation changes for each wealth component. The sample used to measure wealth accumulation and saving is smaller than the full set of respondents used for the wealth estimates because it is restricted to families that participated in wealth surveys in the beginning and end of a period and whose family head has not changed. For each of the six subperiods covering years 1984 to 2005, the number of observations varies between 4,674 and 6,764 observations. This subset of respondents shows a greater rate of wealth accumulation than for the full sample since a significant portion of young families and those with adverse changes have been excluded.

This sample is used to measure wealth accumulation and saving across a wide range of families differing in age, marital status, education, income, and the composition of their wealth holdings. The differences in saving across the socioeconomic groups are stable over time and are aligned with prior expectations. However, the saving rates do not follow the pattern of the macroeconomic data in that they show no sustained decline over the full period. The mean saving rate does decline in the 1989-94 period, but it recovers in 1994-99 and subsequent periods. The median saving rate, on the other hand, provides consistent evidence of a secular decline in saving. However, the median significantly differs from the mean and this difference grows over time.

In contrast to saving rates, the estimates of wealth change are broadly consistent with the pattern shown in the Flow of Funds Accounts in indicating relatively low rates of accumulation in 1989-94 and 1999-03 and strong gains in other subperiods. The period-to-period variation after 1999, however, is less in the PSID. In part, the self-reported value of equity holdings seems less volatile than implied by market indexes, whereas the gains in home values have also been very large and sustained across the period. The wealth-income ratio rose from 3.1 in 1984-89 to 4.1 in 2002-05, and 60 percent of the gain was achieved through active saving compared to 40 percent for passive saving.

Analysis by various socioeconomic characteristics shows that saving is concentrated among young and middle-aged families. However, the apparent change in the pattern for aged families is striking. In the data for the 1984-89 and 1989-94, families with a head over age 60 did exhibit negative rates of saving, consistent with the life cycle model; but their rates of active saving are substantially positive after 1994. The aged also have lower rates of passive saving, reflecting a lower proportion of their wealth in equities. Saving rates also differ by educational attainment, with more educated families having substantially higher rates of saving. The differences in rates of total wealth accumulation, however, are quite variable because of greater fluctuations in passive saving for those with some college education. Homeownership does not appear to have any consistent impact on mean saving rates, although the rapid increase in home values after 1994 does seem to have contributed to a faster rate of wealth accumulation. The median rates of saving and wealth accumulation, however, indicate consistently higher rates for homeowners, and the evidence of declining saving rates is largely limited to non-homeowners. Finally, both mean and median rates of saving are consistently higher for families with equity holdings than those without. Conversely, the gains in wealth accumulation are less consistent because of wide period-to-period variation in rates of passive saving. Again, any pattern of falling saving rates is restricted to the median estimates for families without equity holdings.

The large differences between the mean and median rates of saving are indicative of the large disparities that we observe in the data set, even within seemingly similar groups. It is also likely that the disparities are exaggerated because of various types of response error. A plausible explanation is that the survey respondents do not adequately distinguish between active saving decisions and capital gains in accounting for increases in their wealth. We also note that individual responses to the wealth components often appear inconsistent across the various wealth surveys, and estimates of active saving will occasion-

ally change between subperiods by implausibly large amounts. Given the strong gains in asset values over the past decade, it is possible that active saving is overstated. At present, however, our analysis is insufficient to provide an informed explanation.

This paper also presents some simple regression models of saving behavior that take advantage of the panel dimension of the PSID data set to eliminate household fixed effects. Because the first three subperiods are five years in length while later subperiods are two years in length, we estimate two separate fixed-effect regressions, each with three subperiods of data. We observe that those with an employer-based pension typically save less outside the pension, though the effect appears to decline with income in 1984-99, something we do not find in the 1999-05 data set. There is a large and consistently negative correlation with initial wealth, which we interpret as being consistent with target-saving behavior where the target for wealth is defined by income, age, and other household characteristics. Divorce has an expected large negative impact on saving. Transfers and family income both have highly significant positive effects on saving. In simple regressions that relate active saving to our measure of passive saving, the later has a negative effect on active saving equal to about 8 percent. However, the residual nature of the measure of passive saving implies that it will incorporate measurement errors that are correlated with the measurement error in active saving. Our effort to address the measurement error problems leads to large reductions in the estimated role of passive saving and it actually changes sign in some instances.

The panel dimension of the PSID is potentially of great value in evaluating a wide range of hypotheses about saving behavior because it has observations on wealth and saving over several periods spanning as much as two decades in length. However, our initial attempts to explore the usefulness of the data for resolving issues about the influence of capital gains on saving were disappointing. The exercise suggests that measurement errors are a particularly serious problem in the time series data, and that more powerful methods of controlling for their influence need to be applied to any future analysis.

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