Household Saving and Social Security

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Two related themes for today’s talk

1. The coming financial challenges of the US Social Security system

2. Preliminary empirical work on whether households who are now in their 40s and 50s look like they are on track to be financially secure in retirement

The empirical work is motivated by knowledge gaps that I encountered doing policy work at the Treasury Department in the 2010s

People working on issues such as the trade-offs associated with different proposals for Social Security reform and the design of policies to encourage private retirement saving didn’t have a comprehensive picture of how many and which households were likely to be financially prepared for retirement.
The empirical question of how well Americans are preparing for retirement is not new but merits revisiting. We follow in the footsteps of many studies done with household surveys a couple of decades ago (e.g., Engen, Gale, and Uccello, 2000).

But:

1. The answer has likely changed over time given the evolution of private pensions, the trend decline in interest rates, swings in asset prices, business cycle fluctuations, etc.

2. Good policy decisions require more information about heterogeneity across households.

3. We have (considerably) better data on households now.
The coming financial challenges of the US Social Security system
Background on the US Social Security system

The program takes in “contributions” from US employers and workers and pays out disability and retirement (including survivor) benefits

   Employees pay 6.2 percent of earnings up to a maximum of $147,000, which their employers match

   People born in 1960 or later can claim full retirement benefits at age 67 (can claim reduced benefits starting at age 62)

   The level of full retirement benefits depends on a worker’s earnings and is adjusted for inflation and the general rise in real wages

At the end of 2020, Social Security was providing monthly retirement/survivor benefits to about 55 million people (roughly 1 in 6 Americans)
Social Security replacement rates are higher at lower levels of lifetime income

Median Replacement Rates for Workers Born in the 1960s

Replacement rates vary depending on what’s in the denominator but are generally 2-3 times as high in the lowest quintile as in the highest quintile

Screenshot from CBO (2019)
Social Security plays a very important role reducing poverty among older Americans

Percent of Adults (65+) in Poverty

38%  9%
Excluding Social Security  Including Social Security

The 65+ poverty rate without Social Security benefits would be 38% rather than 9%, all else equal.

Relatedly, economists attribute most of the big drop in the 65+ poverty rate—from more than 35% in 1959—to increases in Social Security benefits (Englehardt and Gruber, 2006).

Source: CBPP, based on data from the Census Bureau Current Population Survey, March 2021

Screenshot from CBPP (2022)
Workers’ returns on their contributions will be lower for later birth cohorts than earlier birth cohorts

Real Internal Rate of Return for Married-Couple Workers by Year of Birth

This is primarily because the earliest cohorts did not contribute as much while working as later cohorts

Screenshot from Burtless (2019); returns based on what’s payable given currently scheduled benefits
The financial challenges for the Social Security system stem from population aging.

The share of the US population that is 65 or older was around 12 percent in the 1990s and early 2000s. It is now around 17 percent and is projected to rise to 22 percent over the next 30 years.
Under current law, Social Security is likely to only be able to pay scheduled benefits for a limited time.

After reforms in 1983, the Social Security system generated large surpluses, which were invested in trust funds holding US government securities.

The surpluses for the retirement portion of Social Security continued to add to the trust fund until 2009 (just after the earlier Baby Boomers reached the age at which they could start claiming benefits).

Since 2010, the costs of the Social Security program have exceeded its non-interest revenues, with the difference covered by trust fund reserves.

This can occur until the trust fund reserves are exhausted, at which point, in the absence of reform, the system will only be able to pay benefits equal to incoming revenues.
The 2021 Social Security Trustees report projects the trust fund for the retirement program (OASI) will be depleted in 2033.

The revenues of the program are projected to be able to cover 78% of scheduled costs in 2034, falling to 74% by the end of the 75-year projection period.
What needs to be done to make the Social Security system sustainable?

The key number in the Trustees report is the actuarial deficit as a percent of taxable payroll—3.46 percent for the retirement portion of the program [3.54 percent for combined retirement and disability insurance]

This means, for example, that we could fund the shortfall with an immediate hike in Social Security taxes from 12.4% to 15.9% (workers would pay 7.9% instead of the current 6.2% and the same for employers)

Alternatively, we could eliminate the deficit with a 21% across-the-board cut in benefits
Considerations

The actuarial deficit is a projection—we may have more time before it is exhausted (considerably more time with a lot of good luck)

If you increase taxes, who do you increase them for? (Just raising the taxable earnings maximum will eliminate only 57-73% of the deficit)

If you cut payments, who do you cut them for? (Who is going to suffer hardship? How do you think about what’s “fair” given rising income inequality? How do the politics change if the program is not longer viewed as universal?)

If you raise the standard retirement age, do you worry about lifespans not having increased for the lower parts of the income distribution?

What is the right timing for phasing in increases in taxes and cuts in benefits?

What kind of behavioral response can you expect from any given changes?

Is there a case for increases in benefits for some parts of the population?

Is there a case for using general revenues for shoring up the system (in the short-run or permanently)?

informed by the empirical research we are doing
Are Americans on track to be financially secure in retirement?

Data issues
Creating a comprehensive picture of how prepared people are for retirement requires a rich data source

We use the Panel Study of Income Dynamics

Longitudinal data on income, employment, demographics, wealth, and consumption (latest full data set for 2019 with a bit of information for 2021)

Roughly 7000 to 8000 total in recent waves, of which 1500 to 2000 are families with wealth data in their 40s, and 1200 to 1500 are families with wealth data in their 50s

Poverty oversample means there are significant numbers of minority-headed families
The PSID offers much more than it did a couple of decades ago

(Obviously) more years of data—the first wave was in 1968, so now we have a full earnings history that can be used to estimate Social Security and private pension wealth

Much more information about consumption, which allows for more analysis of hardship in retirement

More and better information about household balance sheets

Caveat—defined-contribution pension wealth has to be pulled in from another part of the survey, cleaned up, and added to the standard PSID wealth measures—we follow the methods in Cooper, Dynan, and Rhodenheiser, 2019
Once DC assets are included, the PSID tracks wealth data from the “gold standard” Survey of Consumer Finances at the median.

Median Household Wealth
2016 dollars

- Total
- Excluding Home Equity

2016 Dollars

Source: Authors’ calculations using PSID, SCF

Shot from Cooper, Dynan, and Rhodenheiser, 2019
Are Americans on track to be financially secure in retirement?

Key patterns over time
Result 1: Defined-benefit (DB) pensions have diminished sharply across the income distribution.

Share of Families with DB Pensions

Heads 40-49

Full sample with weights; DB pensions for head and spouse, current and past jobs.

Share of Families with DB Pensions

Heads 50-59

Full sample with weights; DB pensions for head and spouse, current and past jobs.
Result 2: DB pensions traditionally have provided significant retirement income

Real DB Pension Income
Retired Families in their 60s with DB Pension Income

Full sample with weights; deflated with current-methods CPI (2019 dollars); reliable estimates of this variable begin in 2003.
What to make of the decline in DB pensions?

Factors driving the decline are thought to include higher costs of sponsoring a DB plan due to changes in the regulatory environment and increases in worker longevity, under-funding of plans due to declining interest rates, changes in worker characteristics, and changes in the structure of the economy.

Whether good or bad for households depends …

- DC plans are generally better for short-tenure workers.
- DB plans put major decisions about retirement saving (how much, how to invest) and the investment risk on employers; traditional schemes with annuitized payments and survivor benefits provide significant insurance.

A key question is whether retirement saving through DC plans or other vehicles rose to offset the decline in DB coverage.
Result 3: Families without DB pensions do not save more

Median Wealth-to-Income Ratios by Whether Family Has a DB Pension
Families with Heads 50-59

Lowest Income Tercile
Middle Income Tercile
Highest Income Tercile

Full sample with weights; terciles based on previous year money income.
Result 4: Defined-contribution pensions have not expanded very much in the 2000s

Share of Families with DC Pensions
Heads 40-49

Share of Families with DC Pensions
Heads 50-59

Full sample with weights; includes DB pensions for head and spouse.
Result 5: Financial wealth has declined relative to income for lower- and middle-income families nearing retirement

Nonhousing Wealth Relative to Income
Families with Heads 50-59

Lowest Income Tercile
Middle Income Tercile
Highest Income Tercile

Full sample with weights; terciles based on previous year money income.
Result 6: Homeownership has fallen for lower- and middle-income families ...

Share of Families with Owned Home
Heads 50-59

- highest income tercile
- middle income tercile
- lowest income tercile

Full sample with weights.
Result 7: Housing wealth has fallen for lower-income families

Housing Wealth Relative to Income
Families with Heads 50-59

Lowest Income Tercile

Middle Income Tercile

Highest Income Tercile

Full sample with weights; terciles based on previous year money income.
Result 8: Total wealth has declined relative to income for lower- and middle-income families

Levels of wealth in the SCF are a bit higher relative to income but patterns over time are similar
Are Americans on track to be financially secure in retirement?

(Rough) calculations of preparedness for retirement
Social Security provides significant retirement income

Share of Social Security Income in Total Money Income
Retired Families in their 60s Who Have Social Security Income

Deflated with current-methods CPI (2019 dollars); reliable estimates of this variable begin in 2005; combined social security income for head and spouse.
Rough calculations of retirement-income replacement rates for families in their 50s

Numerator for each family is the sum of:

- an estimate of the family’s future annual withdrawal from wealth (for now, equal to 0.04 * [financial wealth plus housing wealth])
- an estimate of the family’s future annual DB pension income (for now, if they have a DB pension, a random draw from the distribution of DB pension income in their income tercile)
- an estimate of the family’s future annual Social Security income (for now, based on CBO’s estimate of SS replacement rates—exhibit 11 of this report)

Denominator for each family is its average income thus far in their 50s
Implied retirement-income replacement rates for families in their 50s (as of 2019)

Estimates of Median Retirement Income Replacement Rates
Families with Heads 50-59

Lowest Income Tercile

Middle Income Tercile

Highest Income Tercile

Very rough—do not cite!
Conclusions thus far

Many families will be even more dependent on Social Security benefits than before

During the past two decades, non-pension wealth has declined relative to income for many lower- and middle-income families

Also, defined benefit pensions have diminished sharply across the income distribution

Any future reduction in Social Security benefits—even if concentrated among higher-income families—could significantly constrain consumption in retirement unless offset by higher private saving

Based on current rough estimates, retirement-income replacement rates appear to be under 60 percent for many middle- and upper-income families in their 50s
Are Americans on track to be financially secure in retirement?

Future work
Refine the replacement rate calculations (much scope for improvement)

Exploit the longitudinal dimension of the PSID to estimate Social Security and defined-benefit pension wealth

- Adapt methods in *Catherine, Miller, and Sarin* (2020) to estimate Social Security wealth
- Adapt methods in *Sabelhaus and Volz* (2020) to estimate defined-benefit pension wealth
Incorporate data for 2021

As yet, only very limited PSID data are available for 2021, but there are reasons to believe the changes might be meaningful.

After-tax Income and Consumption

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BEA via FRED (here and here)

Aggregate Wealth by Income Percentile

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<th>Trillions</th>
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<td>2019:Q4</td>
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Fed Distributional Financial Accounts

Dynan Macro Policy Seminar