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## Research Roundup

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By Kerry Pechter     Thu, Apr 29, 2021

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*We summarize four recent papers: 'Portfolios for Long-Term Investors,' 'What is the Value of Annuities?,' 'Public Economics and Inequality: Uncovering Our Social Nature,' and 'Financial and Total Wealth Inequality with Low Interest Rates.'*

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How should pre-retirees invest their savings? What's the difference between the “money's worth” of an annuity and its “insurance value”? Is economic inequality consistent with human nature? What is the link between economic inequality in the US in 2021 and the gradual decline in prevailing interest rates since 1982?

These are big, timely questions. They are asked and insightfully answered in the four research papers in this month's edition of Research Roundup. As you might expect, a lot of retirement research enters *RIJ*'s airspace every day. We can't keep up with all of the papers, but we try to read a dozen per month and then summarize four to six of them.

The writers are all people worth knowing about: John H. Cochrane, a Hoover Institution fellow who calls himself The Grumpy Economist; Emmanuel Saez of Berkeley, co-author with Gabriel Zucman of an 2019 [book](#) on tax-dodging by the wealthy; Alicia Munnell and her team at the Center of Retirement Research at Boston College, and MIT's Daniel L. Greenwald (accompanied here by a team from Stanford and Columbia).

**“Portfolios for Long-Term Investors,”** by John H. Cochrane. [NBER Working Paper No. 28513](#), February 2021.

A macroeconomist at the Hoover Institution who blogs as [The Grumpy Economist](#), Cochrane used his keynote address at this spring's National Bureau of Economic Research conference to ask (and formulate an answer to) the question, “How should long-term investors form portfolios in our time-varying, multifactor and friction-filled world?”

His immediate answer was: “Two conceptual frameworks may help: looking directly at the stream of payments that a portfolio and payout policy can produce, and including a general equilibrium view of the markets' economic purpose, and the nature of investors' differences.” That statement sounded relevant to anyone specializing in retirement income planning.

“We should focus on the stream of dividends, or more generally payoffs, that an investment

can produce, rather than focus on one-period returns,” he adds. “Second, we should take a general equilibrium perspective. An investor should ask, what is the economic function of markets, and what is my role in it? If I want to buy, who is selling and why? Answering this question can cut through knots of algebra and statistics, and avoid many fallacies.”

Cochrane’s speech contains both mathematical formulas and pithy, informal asides. For instance here’s a comment on indexing. “If you’re an average investor—if you know that you’re no different from the average—or if you don’t really know you are different and how—you’re done, you know the answer,” he writes. “Off to the total market portfolio with you.”

“The need to properly hedge outside income or liability streams looms large, and I think it is something done poorly by our current portfolio theory and practice,” he concludes. “That involves thinking about payout policies as much as portfolio policies. Risk management – describe what the bad states of the world are to you the investor, and make sure your portfolio isn’t bad at just that time—should be the core of investing, portfolio management and evaluation, not a small afterthought.”

**[“What Is the Value of Annuities?”](#) by Alicia Munnell, Gal Wettstein, Wenliang Hou and Nilufer Gok. Center for Retirement Research at Boston College Brief, March 2021, Number 21-5.**

“No one has addressed this topic in two decades,” write a team of economics researchers at the Center for Retirement Research. Their recent brief estimates the money’s worth and the wealth equivalence of immediate, inflation-indexed immediate, and deferred annuities (bought at age 65 and start payments at age 85) “to capture both the expected value of such products and the value of the insurance they provide.”

The “money’s worth” of an income annuity is the ratio of the expected present value (EPV) of its payouts to its premium (generally quoted per \$100,000). In a sense, it is the average investment value of the annuity. Despite changes in interest rates and mortality rates, “Money’s worth has remained stable over time, with an expected payout of about 80 cents per premium dollar for immediate and indexed annuities and about 50 cents per dollar for deferred annuities,” the researchers write.

“Wealth equivalence,” by contrast, means “the share of starting wealth an individual would require to be as well off with annuitization as without it. The smaller the necessary share of wealth, the better the product.” In other words, how much more money would you need at retirement if you wanted to self-insure against out-living your financial resources. This is the insurance value of an annuity: It frees up capital that you might have needed to hoard

against the possibility of living to 100.

“The results confirm the intuition that groups with lower life expectancies have lower expected returns from lifetime income products. Blacks have lower returns than whites of similar relative education, and those with lower education have lower returns than those with higher education within racial groups,” the authors conclude. “However, this pattern does not hold when accounting for the insurance value of annuities.”

Echoing an observation by Moshe Milevsky, the pensions and annuity expert at York University in Toronto, they write, “In particular, Blacks tend to get better value than whites despite their lower expected returns from such products, because Blacks have more uncertain longevity alongside lower expected lifespans.”

**“Public Economics and Inequality: Uncovering Our Social Nature,”** by Emmanuel Saez. [NBER Working Paper No. 28387](#), January 2021.

With the Biden administration asking affluent Americans to sacrifice personal wealth (via higher taxes) to enhance public wealth (better infrastructure and social insurance), University of California-Berkeley economist Emmanuel Saez has published a timely paper exploring the boundary between our drive for individual gain and our instinct for cooperation.

The paper, which connects economics and anthropology, focuses on the degree to which a nation’s citizens are willing (or not) to cooperate on the provision of universal education, health care, retirement benefits, and support for the poor.

“The standard economic model is based on rational and self-interested individuals who interact through markets, yet it is obvious that humans are also social beings who care about and act within groups such as families, workplaces, communities, or nations,” Saez begins.

“Our social nature, absent from the standard economic model, is crucial to understand our large modern social states and why concerns about inequality are so pervasive. Taking care of the young, the sick, and the elderly has always been done through families and communities and likely explains best why education, health care, and retirement benefits are carried out through the social state in today’s advanced economies.” But there are limits. “Humans are willing to pool resources with the social group they identify with but typically not others,” he writes.

With respect to retirement benefits, Saez points to two important reasons why, in advanced countries, “the problem of retirement is resolved at the social level, not at the individual level.” First, “individuals are not able to save on their own and invest wisely,” he writes. Second, a program like Social Security relieves adult children of the cost of supporting their elderly parents and uses risk-pooling to reduce the aggregate cost of supporting retirees.

Today, commentators have said that it’s useless to raise taxes on corporations or the wealthy because they will merely avoid the tax or pass the cost on to others. Saez seems to have that type of “behavior response” when he concludes:

“A social system functions best when individuals internalize the social objective. For example, means-tested support for those in need works best if recipients do not try to game the system; a tax system works best if taxpayers do not systematically try to avoid and evade their tax obligations. Behavioral responses are not only costly in terms of public funds, but they can also undermine trust in the social program which is perhaps an even greater harm. Therefore, it is better to design the social system to try and eliminate behavioral elasticities rather than take existing behavioral elasticities as a given as public economists generally do.”

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**“Financial and Total Wealth Inequality with Low Interest Rates,” Daniel Greenwald, Matteo Leombroni, Hanno Lustig, Stijn Van Nieuwerbergh. [NBER Working Paper 28613](#), April 2021.**

After World War II, the price of a 30-year inflation-indexed term annuity steadily declined and, after 1982, steadily increased. Over the same period, wealth inequality in the US steadily declined until 1982, then rose. According to this paper, that wasn’t coincidental.

The fall in interest rates after 1982 is the key ingredient. It fostered a rising stock market, and stock ownership is concentrated in the wealthiest fifth or tenth of households (even though more than half own some mutual funds). But the authors of this paper say that people holding any assets with “long durations”—houses, long-term bonds, buy-and-hold stocks—would have grown richer from falling rates.

As financially literate investors know, a bond’s or portfolio’s duration is its sensitivity to interest rate movements. For instance, the market price of a 30-year bond changes much more than a short-term bond when the prevailing interest rate changes. If you hold high duration investments, declining rates help you and rising rates hurt you.

Using data from the Survey of Consumer Finances, the researchers found that “Low-wealth households have low financial durations, driven by their higher share of deposit-like assets, the presence of consumer debt, and lower shares of housing, private business, and stock market wealth. The reverse is true for high-wealth households. This heterogeneity in financial duration is a new empirical finding, and crucial for the response of financial inequality to interest rates.”

This process, they say, is *natural*. They also suggest that falling rates *demand*s certain savings behavior. “A persistent decline in real interest rates, like the one experienced in much of the world between the 1980s and the 2010s, naturally leads to a rise in financial wealth inequality. Households whose wealth is predominantly made up of financial rather than human wealth, and particularly those with short-maturity assets, must increase savings to be able to afford the same consumption plan,” the paper said.

In this scenario, young people and low-income people are hurt the most. “While all households require more financial wealth to finance the old consumption allocation, young households require the largest compensation. Since they must save for retirement for many years, the loss in compound interest hits them particularly hard,” the paper said.

“While the wealthy see a large increase in financial wealth under the compensated distribution (as much of 38% of the increase in aggregate wealth goes to the top-1%), the top-1% and top-10% financial wealth shares and the [gini](#) nevertheless fall since the required increase in financial wealth for the young is greater still. In other words, the large human wealth of the young does not provide a large enough hedge against interest rate declines.”