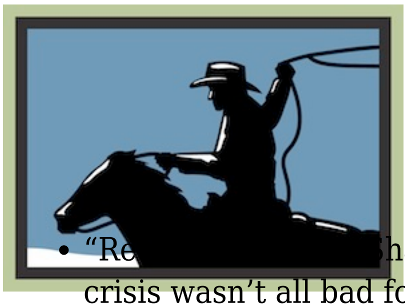
Research Roundup

By Kerry Pechter *Fri, Oct 18, 2019*

Recent research offers new insights into financial decision-making, the decision to work after retirement, and reveals surprising links between aging and interest rates, the rise of the service economy, and the 'shadow banking' phenomenon.



Five recent working papers from the National Bureau of Economic Research offer intriguing insights into the economic implications and effects of an aging society. The papers are listed below (links and extended summaries follow):

- “Retirement in the Shadow (Banking)” suggests that the main culprit in the financial crisis wasn’t all bad for retirement savers.
- “Demographics and Monetary Policy Shocks” shows that interest rate fluctuations may impact older investors most.
- “Population Aging and Structural Transformation” links the graying of America and our increasingly health care-driven service economy.
- “A Retrieved-Content Theory of Decision-Making” asserts that there’s more to behavioral finance than “thinking fast and slow.”
- “The Effects of Job Characteristics on Retirement” shows that psychological factors, in addition to economic factors, affect when, how, and why Americans retire.

“**Retirement in the Shadow (Banking)**” *by Guillermo Ordoñez University of Pennsylvania and Facundo Piguillem of the Einaudi Institute for Economics and Finance. NBER Working Paper 26337, October 2019.*

Here’s a puzzler for both actuaries and quants: Are recent gains in post-retirement life expectancy related to the expansion of securitization and shadow banking (defined as borrowing, lending, saving and investment activities that take place outside the regulated banking system)? If so, is that good or bad?

Guillermo Ordoñez of Penn and Facundo Piguillem of Italy’s EIEF (Einaudi Institute for Economics and Finance) explain that the need for higher returns among >65 savers in the U.S., who hold about one-third of total wealth in the U.S., created demand for the assets created and brokered by investment banks.

“When expecting to live longer, [investors] rely more heavily on intermediaries that use securitization, with riskier but higher returns,” the economists write. “[Our] model shows the potential of the demographic transition to account for a boom in credit and output, but only when it triggers a more extensive use of securitization and shadow banking."

In terms of national output, aging and securitization combined to create a significant net gain, they claim. "The gains from operating with shadow banking from 1980 to 2007 were in the order of 60% of 2007 GDP. Further, even if we blame the great recession exclusively to the operation of shadow banks, its cost was in the order of 14% of 2007 GDP… In short, our model suggests that there were net gains to having shadow banks, even if it were true that they single handedly generated the recent crisis."

They leave open the question: Were the causers of the crisis also the winners?

"**Demographics and Monetary Policy Shocks**," *by Kimberly A. Berg (Miami U.), Chadwick C. Curtis (U. of Richmond), Steven Lugauer (U. of Kentucky), and Nelson C. Marks (Notre Dame). NBER Working Paper 25970, October 2019.*

Anecdotally, working-age people ignore news of upticks or downticks in the Fed funds rate but retirees pay closer attention to CNBC and The Nightly Business Report. In this paper, four economists explain why retirees might be relatively more engaged by monetary policy changes.

Older people tend to be wealthier, their income often fluctuates with the value of their financial capital, and Fed interest rate policy directly affects that value. Using data from the Survey of Consumer Finances, the economists "point out that They point out that older households are more likely to be retired, and to be financing their consumption from investment income or from the sale of accumulated assets than their younger counterparts.

"Older households are also much more likely to hold long-term assets, whose values are sensitive to changes in interest rates. Thus an increase in interest rates—a shift toward a more contractionary monetary policy—would reduce wealth by more for older than for younger households. This wealth effect in turn leads to lower consumer spending."

"**Population Aging and Structural Transformation**," *by Javier Cravino, Andrei A. Levchenko, and Marco Rojas, all of the U. of Michigan economics department. NBER Working Paper 26327.*

Over the past 35 years, Americans have gradually been spending more of their income on services and less on goods. Between 1982 and 1991, we spent about 63% of our money on goods (cars, furniture, clothes, etc.) and the rest on services (health care, utilities, dining out). Between 2002 and 2016, the balance shifted to 57% on goods and 43% on services.

An increase in the relative prices of services (like high-tech health care) vs. the prices of goods (like Chinese-made apparel) accounted for about two-thirds of that shift. But the aging of the U.S. population caused about 20% of it, according to this paper by three U. of Michigan economists. They believe that the impact of aging on the consumption of services will be even stronger in the decades ahead.

"Changes in the US population age distribution accounted for about a fifth of the increase in the share of services in consumption expenditures observed between 1982 and 2016," they write. "According to our quantitative model, population aging plays a much larger role than changes in real income in accounting for the structural change observed in the US during this period."

The rising percentage of the population over 60 and their larger consumption of health seem to be the key factors.

"Households 65 and older accounted for 10.4% of total expenditures in 1982, and 19.8% in 2016, a 90% increase. The share of expenditures that goes to households 80 and older nearly tripled, going from 1.2% to 3.4%. The counterpart of this increase is the decline in the share of expenditures that goes to households 30 and younger, from 47.3% to 31.6%."

Moreover, "The largest disparity (between spending on services by young and old) arises in health expenditures, where the consumption expenditure share of the 60-65 (80+) age group is 5.6 (15.3) percentage points larger than that of the 25-30 age group." The service consumption expenditure share for those ages 80+ is 15.3 percentage points higher than the younger group.

"**A Retrieved-Context Theory of Financial Decision-Making**," *by Jessica A Wachter and Michael Jacob Kahana of the U. of Pennsylvania. NBER Working Paper 26200, August 2019.*

A new etiology of behavioral finance is proposed in this paper by a finance professor and a psychology professor at Penn. Jessica A. Wachter and Michael J. Kahana challenge Daniel Kahneman's Nobel Prize winning idea that cognitive biases such as loss aversion and narrow framing explain apparently irrational decisions.

Instead, they point to human learning and memory as the hidden determinants in financial decision-making. They hypothesize, for instance, that investors panicked in 2008 because the Lehman Brothers bankruptcy revived traumatic memories of the Great Depression, and not because their financial security was threatened.

"Our hypothesis is that the financial crisis was a psychological event caused by the failure of Lehman Brothers. The actual realization of an important financial institution failing in the absence of insurance reminded investors of the Great Depression. Some felt that they had—literally—returned to the Great Depression," they write.

"Investors experienced what the memory literature refers to as a jump back in time. Once this feeling entered the discourse, it proved hard to shake. Subsequent events showed that in fact there was no Great Depression. This was only revealed, though, over time. Somehow, what emerged from the crisis and recession was not a feeling of relief but rather a renewed emphasis on the fragility of the financial sector and the possibility that a Great Depression might in fact occur."

The authors go on to explain the mechanism behind their hypothesis. "Three major laws govern the human memory system: similarity, contiguity, and recency:

- Similarity refers to the priority accorded to information that is similar to the presently active features
- Contiguity refers to the priority given to features that share a history of co-occurrence with the presently active features
- Recency refers to priority given to recently experienced features.

All three "laws" exhibit universality across agents, feature types, and memory tasks and thus provide a strong basis for a theory of economic decision-making." The researchers do not believe that the crisis revealed an inherently fragile shadow banking system overdosing on leverage; rather, it reflected investor over-reaction.

"**The Effects of Job Characteristics on Retirement**," *by Péter Hudomiet, Michael D. Hurd, Andrew Parker and Susann Rohwedder, RAND Corporation. (NBER Working Paper 26332).*

Older Americans would be almost twice as agreeable to working longer if employers offered them flexible work hours, according to a survey conducted by the RAND Corporation. Analysts there found that "the fraction of individuals working after age 70 would be 32.2% if all workers had flexible hours, while the fraction working would be 17.2% if none had the option of flexible hours."

The survey revealed a strong preference among Americans for making a clean break from employment; that is, for retiring "directly and completely" from a full-time job. About half preferred to retire this way. Almost a quarter preferred to ease into retirement with a part-time job, while 8% preferred a period of self-employment before retirement, and a little over 10% said they preferred to work "forever."

Women were more inclined to a part-time job or self-employment before full retirement, and they were less likely to prefer never retiring. Part-time employees and self-employed workers were more likely than full-time employees to prefer the gradual pathways.

Stress, heavy physical and cognitive job demands, the option to telecommute, and commuting times also influenced attitudes toward working at an older age. The survey showed people would like preretirement jobs to be less cognitively and physically demanding and more sociable compared to their current jobs. Most workers said they worry about their health and the demands of their jobs when they think about their future work trajectory, but relatively few worried that their employers would not retain them.

"Standard theory ignores psychological factors, but our results suggest that they may be useful to understand heterogeneity in the population that is not explained by standard economic variables," the RAND researchers concluded.