



Key findings from 2019 papers

MRDRC released eight working papers in 2019 on topics such as totalization agreements, global interest rate trends, and retirement inequality.

Informing projections

Interest Rate Trends in a Global Context

Dmitriy Stolyarov and Linda Tesar [WP 2019-402](#);
UM19-05

- ▶ Two methodologies are potentially useful for constructing long-range interest rate projections: semistructural methods of interest rate trend decomposition and standard statistical forecasting models with an extended set of explanatory variables, including forward-looking economic indicators. These methodologies use different data and samples, and they provide complementary pieces of information.
- ▶ We perform a decomposition of the long-run nominal interest rate over the period 1981 to 2019 under the restriction of long-run inflation neutrality. Three variables, the earnings-price ratio of the stock market, the weighted average of past and forecasted consumption growth, and year-on-year productivity growth, explain 87% of variation in the 10-year real rate. The relative importance of the various macroeconomic determinants changes over time, with the earnings-price ratio mattering most in the 1981 to 1988 period and consumption growth most significant following recessions.

- ▶ We add international, forward-looking economic indicators as explanatory variables in a standard macrofinance forecasting model. We find that the model with international variables can outperform the other models by better tracking the falling trajectory of United States interest rates in the post-2008 period, a trend missed by domestic variables. Further, we find that global economic indicators, especially the composite leading indicator for the European Union, are capable of accounting for a large portion of yield variance not only in the U.S. but in other advanced economies as well.

Trends in Health and Mortality Inequalities in the United States

P eter Hudomiet, Michael Hurd, and Susann Rohwedder [WP 2019-401](#); UM19-04

- ▶ Our analysis of Health and Retirement Study data found increasing levels of inequality in health and life expectancy. We assessed the health status of successive cohorts born between 1934 and 1959 when respondents were 54 to 60 years old.
- ▶ We measured socioeconomic status (SES) by both projected Social Security wealth and educational attainment. We found, particularly for those of lower SES, increases in obesity, diabetes, and reported levels of

pain; a decline in self-reported health; and a decrease in subjective survival probabilities.

- ▶ As a result, while we predict overall life expectancy to increase, the increase will be concentrated among those of higher SES, leading to greater mortality inequality.

Effects of totalization agreements

Estimating the Effects of the Totalization Agreements

Ananth Seshadri [WP 2019-403](#); UM19-Q2

- ▶ We find that on average, the totalization agreements reduce United States exports and increase U.S. imports and foreign direct investment. The effect on U.S. exports are more significant both economically and statistically, while the effects on U.S. imports and FDI are not significant statistically until the fifth year after an agreement entered into force.
- ▶ U.S. exports to countries with totalization agreements increase by about 50% on average in the six years between the year leading to the agreement and the fifth year after the agreement. In the absence of the totalization agreement, the estimates suggest that the U.S. exports to those countries would double. This implies that totalization agreements reduce the growth of U.S. exports during the six years by about 50% on average.
- ▶ The effects are heterogeneous across countries/agreements. Although most of the totalization agreements are estimated to reduce U.S. exports, the estimates suggest an increase in U.S. exports due to the totalization agreements with Finland, Ireland, and the Czech Republic. Similarly, the estimates suggest a decrease in U.S. imports due to the totalization agreements with Italy, Germany, Norway, Sweden, Portugal, South Korea, and Australia, while the totalization agreements with most other countries are estimated to increase U.S. imports from those countries.

Labor force participation

Latent Work Capacity and Retirement Expectations

Italo Lopez Garcia, Nicole Maestas, and Kathleen J. Mullen [WP 2019-400](#); UM19-02

- ▶ Our unique data on self-reported abilities show that average abilities overall (across 52 abilities) and across four domains — cognitive, psychomotor, physical, and sensory ability — are high relative to average occupational demands obtained from O*NET database.
- ▶ Age-related declines in ability, overall and across domains are modest. Over the life cycle, physical abilities decline the most, then psychomotor and sensory abilities, and cognitive abilities declining the least. As a result, observed age-declines in ability are largely inframarginal to job demands, and therefore work capacity is relatively stable with age.
- ▶ Alternative measures of work capacity are predictive of current labor supply outcomes. An increase in work capacity from being unable to do any job to being able to do all jobs given the individual's educational level is significantly associated with a 15 to 21 percentage point increase in labor force participation and a 10 to 17 percentage point decrease in the percentage of recipients of Social Security disability benefits.
- ▶ Work capacity is also predictive of subjective expectations about future labor force participation decisions. An increase in an individual's work capacity from being unable to do any job to being able to do all jobs given the educational level is associated with a 7 to 10 percentage point increase in the chance that current workers will work past age 65 or 70 (depending on the individual's age), a 9 to 12 percentage point increase in the chance that retired individuals will return to the labor force, and a 17 to 25 percentage point increase in the chance that individuals with disabilities will return to the labor force.

Understanding Job Transitions and Retirement Expectations Using Stated Preferences for Job Characteristics

Nicole Maestas, Kathleen J. Mullen, David Powell, Till M. von Wachter, and Jeffrey Wenger

[WP 2019-396](#); UM17-08

- ▶ In general, workers transition to jobs with characteristics more closely aligned with their preferences. Workers who switch away from having certain attributes tend to value those attributes less than those who remain in jobs with the same attributes. Similarly, workers who switch to jobs with certain attributes tend to value those attributes more than those who remain in jobs without the same attributes.
- ▶ We are not able to draw strong conclusions about differences between those who exit employment with certain attributes versus those who remain in jobs without certain attributes.
- ▶ Narrowing in on older workers, among those ages 50 to 61, we find weak evidence that workers who have lower expectations of working at age 62 tend to value nonwage job characteristics more than those who have higher expectations of working at age 62. However, we do not find any differences between individuals 62 and older who are working versus not working.
- ▶ Our findings are consistent with previous work showing that older workers tend to value nonwage working conditions more than younger workers.

Wealth and retirement income

How Would 401(k) ‘Rothification’ Alter Saving, Retirement Security, and Inequality?

Vanya Horneff, Raimond H. Maurer, and Olivia S. Mitchell [WP 2019-398](#); UM19-12

- ▶ Levying taxes on workers’ pension contributions instead of their payouts would lead to later claiming ages, particularly for the better-educated.

- ▶ It would also reduce lifetime tax payments, and increase consumption as well as wealth inequality.

State and local pensions

How Reliant are Older Americans on State and Local Government Pensions?

Philip Armour, Michael Hurd, and Susann Rohwedder [WP 2019-399](#); UM19-07

- ▶ State and local government pensions cover about 19.5 million participants, and many participants are heavily reliant on these pensions for income in retirement. Most of these plans, however, are underfunded.
- ▶ We quantify how many Americans have had employment in state and local government and the importance of pension income to them. To do so, we assess preparation for retirement among respondents 67 to 72 years of age in the 2004, 2008, and 2014 waves of the Health and Retirement Study.
- ▶ We find that state and local government workers are better prepared for retirement than others, in part because they are better educated, worked longer, and have had higher income than others.
- ▶ We estimate that cutting their pensions by 50 percent could reduce the proportion who are adequately prepared for retirement by 3 or 4 percentage points, with effects greatest among those with at least 20 years of experience in this sector.

The Growth and Geographical Variation of Nursing Home Self-Pay Prices

Sean Shenghsiu Huang, Richard Hirth, Jane Banaszak-Holl, and Stephanie Yuan [WP 2019-397](#); UM17-14

- ▶ We provide empirical evidence of the association between nursing home private-pay prices and organization types and market structures. However, we find these determinants explain relatively little about price growth.

- ▶ While we include resident characteristics to control for the differences in resident profiles, there can be unobservable and differential resident selection into different organization types which may bias our results. To account for this issue in future research, we suggest using resident-level data and the instrumental variables approach. Theoretically, this can randomize the likelihood of a resident being admitted to a particular type of nursing homes.
- ▶ We do not control for quality differences between nursing homes and the observed price variations to some extent can be related to underlying quality. Future work should consider adopting structural modeling techniques that can simultaneously account for price and quality differences between nursing homes. A more comprehensive price data set including more markets and years will be useful to provide more market-level variations overtime.
- ▶ We show that nursing home prices have consistently outpaced both the consumer and medical care inflations. While it may partly reflect better quality and more comprehensive services provided at nursing homes over the study period, private-pay residents still face greater financial burdens. Given the significant portion of the elderly's wealth at stake, it is important to understand whether the escalating prices mostly reflect better quality, or to some extent, are the results of market inefficiencies.
- ▶ We find statistically significant price differences between the for-profit and nonprofit, as well as chain and nonchain, nursing homes. The results suggest that when evaluating the value of nursing home care (quality over price), the private-pay price is an important factor to consider in future analyses. ❖

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