

Wade Pfau's Submission for the 3rd International Conference of the Japan Economic Policy Association

Paper Title:

"Toward Intergenerational and Intragenerational Equity in Social Security Reform: An Application of Stochastic Forecasting"

Abstract:

This paper provides a framework for analyzing potential Social Security reform proposals in the United States. In this paper, I combine traditional hypothetical worker analyses of Social Security with the techniques of stochastic forecasting. The hypothetical workers are born in different years, and they also vary in characteristics of lifetime employment earnings, family status, and ages of death. Rather than using the Social Security Administration's (SSA) deterministic forecasts for economic variables including inflation and wage growth, I develop a series of forecasts using Monte Carlo simulations in order to analyze more realistically the prospects of Social Security reform. Specifically, I compare an increase in the payroll tax, an increase in the normal retirement age, a switch from wage-indexing to price-indexing of benefits, and a reduction in the cost-of-living adjustment. Each reform is accompanied by a change in the payroll tax rate, such that each reform should approximately restore the 75 year actuarial balance of the Trust Fund. From the policy perspective, the normal retirement age increase and price indexing plans perform particularly poorly for most workers born in 1960 and later, as a straightforward tax increase or cost-of-living adjustment provide larger returns. Effort will be made to explain who the winners and losers would be with each reform proposal and also to quantify the differences in outcomes between my stochastic and the SSA's deterministic approach. Stochastic forecasts deserve stronger consideration because they add important details about the underlying probability distribution of the outcome measures.

Keywords: Social Security reform, stochastic forecasting

Area: Category 10: Social Security and Pension Reform

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