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The Impact of Risk and the Financial Crisis on Perceptions of Privatized Social Security and Retirement Planning

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There is an increasing movement to give workers greater control over pensions, allowing them to personally manage their retirement investments. However, there is growing empirical evidence that individuals may not make substantially wiser decisions when managing their own retirement funds. For example, there is a growing literature measuring financial literacy and showing how it correlates with measures of savings, retirement planning, and investment choice. Financial literacy is measured as the ability to answer a series of questions measuring basic numeracy skills and financial knowledge necessary to make decisions for long-term savings and investment. In general, those with lower education and income are less likely to be able to do basic division, work with probabilities, and understand compounding, inflation and diversification on investment returns. Even among the educated and financially literate, experienced and educated investors engage in return chasing, overconfidence, and myopic loss aversion, resulting in lower returns for their personally managed investments relative to diversified, passively managed ones. Thus, it is unclear if fully-funded systems based on private accounts can yield more efficient outcomes and greater wealth at retirement than traditional pension models with government management.

This paper contributes to this literature by examining how investors responded to default investment risk reassignment and market volatility in Mexico's privatized pension market for the period surrounding the financial market crash. This event and context provides insights on several levels. First, the government liberalized investment regulations for the system near the height of the financial market bubble, allowing fund managers to invest more heavily in equity indexes and real estate derivatives. Account holders were moved by age as a default into newly-created higher-risk funds. This default allocation creates a natural experiment in risk exposure and returns experienced in the privatized social security account.

We consider several questions. How did risk exposure in the social security account impact risk preferences as individuals learned about risk? How did risk exposure impact knowledge of system rules, risk of alternative investments, knowledge of own account balances? How did risk exposure impact stated dependence on social security for funding retirement? How did risk exposure impact stated valuation of social security benefits? And how did risk exposure impact formal sector labor market participation by age and gender?

Overall, we find some evidence that returns caused an increase in financial knowledge among subgroups in the population. We find increases in risk aversion for older male workers who experienced lower returns. We find some evidence that younger male workers were more able to answer compound interest questions in the Big 3 financial literacy battery correctly if they had lower returns. Older male workers and younger female workers were also more likely to understand risk and diversification concepts if they were exposed to lower returns. We find some evidence among older female workers that higher returns increased knowledge of retirement rules in the system, suggesting that larger account balances cause them to find out the rules governing use of the pension account. We also find that higher returns caused older women to say that they use banks and investment vehicles to save (as opposed to informal savings mechanisms popular in Mexico), and to say that they will depend on their Afore account as one of their primary sources for financing their retirement. Interestingly, we do not find that increased returns increase formal sector participation. We find the opposite for men, suggesting that the impact of increased unemployment insurance benefit withdrawal with increased returns outweighed an increased incentive to work in the formal sector for the savings benefits during the economic downturn.

The full working paper is available on our website www.nber.org/programs/ag/rrc/books&papers.html as paper NB12-07.

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