

MRRC RESEARCHER

*Hugo Benítez-Silva discusses his
MRRC-supported research*

MAY 2008



Q: Economists often use the concept of rationality in trying to understand economic behavior. Talk about how this orientation informs your thinking and research.

A: The rational expectations hypothesis states that, in forming beliefs about future states of the world, people use all available information to assess the probabilities of and make the best possible guess about various outcomes. Early research on rational expectations was mainly interested in understanding how people form expectations about macro-level variables, like prices or inflation. In the mid-1980s, researchers began to apply the rational expectations framework to study micro-level variables. Applied to individual level variables, the theory hypothesizes that people have in their head a probability distribution (which will end up coinciding with what we will observe empirically for the population) about a potential outcome, and that they can give you a good guess as to where on that distribution the likely outcome will fall.

One outcome people were studying in this regard was retirement, and the idea was that people form expectations about when they are likely to retire. Most of the literature to that point had focused on the comparison between expectations with outcomes—with what people say they think is going to happen with what actually does happen. The assumption was that if people are forming rational expectations, then they should, on average, be right. If things do not turn out as people expect, then they are irrational. But, of course, for a given individual many things can happen unexpectedly that affect the outcome. In the case of retirement, an unexpected health shock, for example, can lead to an earlier than expected retirement.

Because of the possibility that people are revising and correcting expectations as they go based on new information, Deb Dwyer and I (and others) began to think about how people form expectations over time, and whether or not this process of expectation formation can be considered to be “rational.” Fortunately, longitudinal datasets, like the Health and Retirement Study (HRS), for example, were coming on-line which asked questions about expectations at multiple waves of data collection. MRRC provided support for some of our research in this area (WP 2003-037, WP 2003-059, WP 2003-062), and our more comprehensive article has recently been published in *Empirical Economics*, after two earlier publications on the topic, one of them dealing with married couples. In the latest publication, using data from two panel datasets and three different types of expectations, we find we cannot reject the rational expectations hypothesis. This means that we can at least continue to rely on rationality, and the strategies used to model it, as a good first approximation to behavior by individual decision makers. I believe we need more realistic economic models, which are likely to be more complex, but also more attentive to details of the process of expectations formation by individuals.

As workers are increasingly exposed to a range of options for financing their retirement, two topics of great interest are annuities and portfolio choice. Describe your work in these areas.

Something that has puzzled economists for a long time is the fact that people do not buy private annuities, despite the fact that they appear to be a good deal. The most simple annuity is a contract which provides a future (constant, in real terms) income stream in return for an initial payment. Rather than an investment, it is more of an insurance policy against outliving your financial resources in retirement. Social Security, for example, is a type of annuity. There is a lot of interest in this as concerns about retirement well-being grow. Do people have enough income in retirement to maintain their customary levels of consumption? For people who might expect to be long-lived, this should be a particular concern, and annuities should be even more appealing.

In my work for MRRC on this topic (WP 2003-055), I placed the decision to annuitize in a model that allows individuals to balance the choice to purchase an annuity against concerns for saving and spending, working as a means to supplement income, and also the presence of Social Security. My work suggests that people may actually be making a rational and optimal decision in not fully annuitizing taking these other variables into account. Also, most annuities are quite expensive, and the person may rightly feel that he is giving up too much in order to have a steady income stream. The puzzle may have more to do with pricing of annuities than irrational behavior.

Another somewhat puzzling fact for economists is why individuals who do hold investments are generally very conservative in their portfolio choice. There was a hypothesis in the literature that people who have flexibility in their labor supply, that is, can work more or less depending on their need for income, might be more willing to take greater risks in stock market investments. The idea is that knowing that they can work more serves as a type of insurance against a bad investment outcome. Our MRRC work on this topic, using the HRS, did lend support for this proposition (WP 2003-056). I think it's quite interesting to consider that people may base investment decisions in part on their labor supply.

Q: Many American workers claim Social Security retirement benefits at the early retirement age of 62. Talk about your work addressing this “puzzle.”

A: Along with many others, we observed the increasing trend toward claiming Social Security benefits at the early age of 62. Because there is an actuarial adjustment that makes it fair to delay claiming until the age of 65, or the Normal Retirement Age (NRA), economists are puzzled by the trend. In my work with Deb Dwyer and Warren Sanderson on this topic, we began by taking a close look at the incentive structure built into rules for claiming. The earnings test is one such incentive that is actually not well understood, as I had discussed in earlier work with Frank Heiland. It is generally understood that if you work too much while claiming Social Security between age 62 and the NRA, your benefits will be reduced. In fact, the government withholds that amount but pays it back to you later when you reach the normal retirement age. Given that, it may make sense to workers to go ahead and claim early, continue working, and be taxed by the earnings test, knowing they will get it back later. But even when we did a good job modeling the incentive structure, there is still this large hump of people claiming at 62 that is not completely explained.

One thing we thought might be important in trying to understand why so many people claim as soon as possible is Americans' uncertainty about the long-term availability of Social Security benefits. There is certainly a lot of talk in the media about the coming insolvency and the need to address that problem. We think that many people might be thinking “I better get these benefits while I can.” There are good reasons for this. For example, the earnings statement every working American receives from SSA now says they may not be able to pay the full amount in the future but only about 75 cents on the dollar. In our MRRC paper looking at this (WP 2006-134), we find that expectations about potential

future cuts in Social Security help to explain early claiming quite well. Once the appropriate earnings test incentives are modeled, and we account for the probability of reforms to the system, an increase in the normal retirement age (NRA) has little effect on claiming behavior, and it can even increase the proportion of individuals claiming before the NRA.

Q: Where are you headed next?

A: Building on this work that seeks to accurately represent system incentives in understanding people's behavior, I am interested in investigating knowledge about Social Security rules. It is important for accurate modeling of the system's incentives to know whether or not people have a full understanding of the program rules. This work would also contribute to the literature on financial literacy by studying the role of people's knowledge of Social Security rules on their welfare. It is actually an open question as to whether lack of financial information necessarily leads to bad financial outcomes, which may have serious welfare consequences. What if we were to find that people have low levels of information about Social Security program rules and yet still find that they go ahead and claim, more or less, at their optimal time? It could be that, even though they have no prior information, when they get to retirement age, they will look around and see their friends all claiming benefits. Without the benefit of prior knowledge, they will just follow the crowd. So we would be interested in evaluating the welfare cost to individuals of not obtaining information about Social Security Program rules. I would also like to take this opportunity to thank the SSA and the MRRC for their support, which has been very important to my continued research in these policy relevant areas.

Sources:

"Expectations in Micro Data: Rationality Revisited" (with Deb Dwyer, Wayne-Roy Gayle, and Tom Muench), *Empirical Economics*, Vol. 34-2 381-416, 2008.

"The Rationality of Retirement Expectations and the Role of New Information," (with Debra S. Dwyer), *Review of Economics and Statistics*, Vol. 87-3, 587-592, 2005.

"Expectation Formation of Older Married Couples and the Rational Expectations Hypothesis," (with Debra S. Dwyer), *Labour Economics*, Vol. 13-2 191-218, 2006.

"The Social Security Earnings Test Revisited: Information as a Work Incentive," (with Frank Heiland), *Journal of Policy Analysis and Management*, Vol. 26(3) 527-555, 2007.

"Early Claiming of Social Security Benefits and Labor Supply Behavior of Older Americans," (with Frank Heiland), forthcoming in *Applied Economics*, 2008.



Hugo Benítez-Silva is Associate Professor of Economics at SUNY-Stony Brook. His research includes the study of disability and other programs in the United States, dynamic life-cycle models of annuity and portfolio decisions with an emphasis on modeling the effects of uncertainty in wage income and capital investments, retirement expectations, and labor supply effects of early retirement rules. His current work

includes estimation of a dynamic structural life-cycle model of retirement and disability, modeling of expectations regarding future reductions of retirement benefits, accuracy of self-reported housing values, welfare effects of having imperfect information of Social Security rules, and the connection between health investments and retirement behavior.

THE MICHIGAN RETIREMENT RESEARCH
CENTER IS SUPPORTED BY A COOPERATIVE
AGREEMENT WITH THE SOCIAL SECURITY
ADMINISTRATION (10-P-98362-5-04).

DIRECTOR — JOHN P. LAITNER
ASSOCIATE DIRECTOR FOR EXTERNAL
RELATIONS — AMANDA SONNEGA
CENTER ADMINISTRATOR — BECKY BAHLIBI
CENTER SECRETARY — JESSICA TAYLOR
DESIGN SPECIALIST — KELLYN JACKSON

REGENTS OF THE UNIVERSITY
OF MICHIGAN

JULIA DONOVAN DARLOW, ANN ARBOR
LAURENCE B. DEITCH, BINGHAM FARMS
OLIVIA P. MAYNARD, GOODRICH
REBECCA MCGOWAN, ANN ARBOR
ANDREA FISCHER NEWMAN, ANN ARBOR
ANDREW C. RICHNER, GROSSE POINTE PARK
S. MARTIN TAYLOR, GROSS POINT FARMS
KATHERINE E. WHITE, ANN ARBOR
MARY SUE COLEMAN, EX OFFICIO

MICHIGAN RETIREMENT RESEARCH CENTER
INSTITUTE FOR SOCIAL RESEARCH
UNIVERSITY OF MICHIGAN
426 THOMPSON STREET, ROOM 3026
ANN ARBOR, MI 48104-2321

PHONE: (734) 615-0422
FAX: (734) 615-2180
E-MAIL: MRRC@ISR.UMICH.EDU
WEB: [HTTP://WWW.MRRC.ISR.UMICH.EDU](http://WWW.MRRC.ISR.UMICH.EDU)

University of Michigan
Retirement
Research
Center