REFERENCE LIST
August 2010

Social security

ISSA update

As noted in the October 2009 reference list, the ***16th International Conference of Social Security Actuaries and Statisticians*** was held in Ottawa, Canada, 16 to 18 September, 2009, at the invitation of two Canadian members of the ISSA, the Office of the Superintendent of Financial Institutions of Canada and Human Resources and Skills Development Canada. The reports are now available on the ISSA website; go to http://www.issa.int/News-Events/Events/16th-International-Conference-of-Social-Security-Actuaries-and-Statisticians and view the Event Reports listed on the right hand side.

Pension systems reform

"Pension Participation and Uncovered Workers", Nadia Karamcheva and Geoffrey Sanzenbacher (2010), CRR Boston IB#10-13, http://crr.bc.edu/images/stories/Briefs/ib_10-13.pdf

Summary: In 2008, the Obama campaign proposed a "Plan to Strengthen Retirement Security." One of the more far-reaching proposals would require employers with 10 or more employees to automatically enrol their employees in Individual Retirement Accounts (IRAs). As a default, 3 percent of each worker's earnings would be invested in a low-risk portfolio, but workers could choose to change the defaults or opt out of the plan. Employers would not be required to make a matching contribution, but employees who participate would be eligible for an expanded Saver's Credit.

This brief explores the participation issue and estimates how many workers would participate if 401(k)-type coverage were extended to those who currently lack it. The first section summarizes trends in pension coverage. The second section describes the data and methodology used for estimating participation, while the third discusses the results. The final section concludes that, while offering convenient savings options to low-income workers should help improve their retirement security, fewer individuals may take advantage of the opportunity than policymakers hope.

"Lowering Social Security's Duration-of-Marriage Requirement: Distributional Effects for Future Female Retirees", Tamborini, Christopher R. and Whitman, Kevin (2010), Journal of Women & Aging, Vol. 22, No. 3, pp. 184-203. Full copy needs subscription.

Summary: A number of alternatives to Social Security's auxiliary benefit system have been proposed in the context of changes in American family and work patterns. This article focuses on one modification therein - lowering the 10-year duration-of-marriage requirement for divorced spouses. Using a powerful microsimulation model (MINT), we examine the distributional effects of extending spouse and survivor benefit eligibility to 5- and 7-year marriages ending in divorce among female retirees in 2030, a

population largely comprised of baby boomers. Results show that the options would increase benefits for a small share of female retirees, around 2 to 4%, and would not affect the vast majority of low-income divorced older women. However, of those affected, the options would substantially increase benefits and lower incidence of poverty and near poor. Low-income divorced retirees with marriages between 5 and 9 years in length and a deceased former spouse face the greatest potential gains.

"Earnings Sharing in the U.S. Social Security System: A Microsimulation Analysis of Future Female Retirees", Iams, Howard, Reznik, Gayle and Tamborini, Christopher R. (2010), The Gerontologist, Vol. 50, No. 4, pp. 495-508, 2010. Full copy needs subscription.

Summary: As part of an ongoing effort to analyze the distributional implications of potential policy reforms to the U.S. Social Security system, we consider the widely discussed reform of earnings sharing. Such an approach has been viewed as a way to "update" Social Security's family benefits based on marital status and as a means to make the system more marriage neutral. We use the Social Security Administration's Modeling Income in the Near Term model to simulate the distributional effects of two earnings sharing alternatives, a basic option and a modified inheritance option, on the projected retiree population in 2030. We focus our analysis on uncovering how different subgroups of women would be affected under the alternative system. Widows and surviving divorced women, particularly those in lower socioeconomic groups, would face some of the steepest benefit decreases. Adding an inheritance provision would mitigate reductions across the board; however, it may not provide as much benefit adequacy to widows as might be expected. Certain groups of women would fare far better under the current Social Security system than under earnings sharing. Linking benefits with earnings sharing would be particularly problematic for lower income widows and single-earner married couples. Never-married persons are unaffected.

"The Effect of Social Entitlement Programs on Private Transfers: New Evidence of Crowding Out", Gerardi, Kristopher S. and Tsai, Yuping (2010), abstract available at: http://ssrn.com/abstract=1646968

Summary: We use the introduction of a large social security program in Taiwan to estimate the effect of an exogenous increase in government transfer payments to the elderly on the private transfer behaviour of their adult children. Using the Panel Study of Family Dynamics (PSFD), a nationally representative dataset of Taiwanese households for the years 2002, 2004, and 2006, we adopt an instrumental variables (IV) strategy that accounts for the endogeneity of receiving public transfers. Our empirical results show strong evidence of crowding out on the extensive margin (the probability of providing a positive transfer), and weaker evidence of crowding out on the intensive margin (the amount of the transfer conditional on it being positive).

"When can Insurers Offer Products that Dominate Delayed Old-Age Pension Benefit Claiming?", Sanders, Lisanne, De Waegenaere, Anja M.B. and Nijman, Theo E. (2010) Netspar Discussion Paper No. 04/2010-011, http://arno.uvt.nl/show.cgi?fid=103637

Summary: It is common practice for public pension schemes to offer individuals the option to delay benefit claiming until after the normal retirement age and adjust the annual benefit level as a result. This adjustment is often not actuarially neutral with respect to the age at which benefits are claimed. The degree of actuarial nonequivalence varies by interest rates as well as individual characteristics such as gender and age. In this paper we show that actuarial nonequivalence can imply that deferring benefit claiming is suboptimal, irrespective of the preferences of the individual. Specifically, we derive preference-free conditions under which delaying benefit claiming is dominated by claiming benefits early, and using them to buy super-replicating annuity products from an insurance company. We find that the degree of actuarial nonequivalence in public pension schemes is such that such dominating strategies can exist even when the purchase of annuities would be significantly more costly than what is currently

observed. If individuals choose to strategically exploit these dominating strategies, this will affect benefit claiming behaviour, which in turn affects long run program costs.

"Coverage of the Fully Funded Private Social Security System in Chile, Colombia, and Mexico", Aguila, Emma, Attanasio, Orazio and Quintanilla, Ximena (2010). RAND Working Paper Series WR- 642 (***in Spanish only***), http://www.rand.org/pubs/working_papers/2010/RAND_WR642.pdf

Summary: This paper compares the differences of individual coverage in the fully-funded social security systems of three Latin American countries. Chile, Columbia, and Mexico each have defined contributions social security systems, yet there are significant differences in system design and incentive that may affect individuals' participation. Here, we examine social security coverage by comparing the system design, economic performance, and labour market structure of each country. We consider the different macroeconomic paths and labor markets structures of each country, especially those regarding the informal labour sector. Micro-data is also used to examine how personal and household characteristics affect the social security system participation. For Colombia, only cross-section estimations are carried out, while panel data for Chile and Mexico allows control for unobserved heterogeneity. Our study reveals the low coverage rates of each social security system is strongly related to economic cycles and the lack of compulsory contributions to the system by self-employed workers. We find a higher probability to contribute to the system for men, head of households, higher number of household members, married, and higher levels of education. Also, females with high levels of education are more likely to contribute to the social security system.

"Social Security Benefits Formula 101: A Practical Primer", Lipman, Francine J. and Williamson, James E. (2010), American Bar Association, Taxation Section of News Quarterly, Vol. 29, No. 4, abstract available at: http://ssrn.com/abstract=1638234

Summary: Despite the broad and deep reliance on US Social Security benefits, very few of the hundreds of millions of current and future beneficiaries understand how the program works. This article presents through a hypothetical couple some of the basic concepts of the Social Security benefits formula.

Retirement savings

"401K Follies: A Proposal to Reinvigorate the United States Annuity Market", Secunda, Paul M. (2010), American Bar Association, Taxation Section News Quarterly, forthcoming, available at SSRN: http://ssrn.com/abstract=1656093

Summary: Even given potential issues with requiring an annuity option for 401K plans, the time has come to hedge as a society against the risk associated with the recent embrace of the 401K as the private retirement funding vehicle of choice in the United States. The proposal described herein seeks to diminish the retirement security deficit through three interlocking regulatory parts: (1) a requirement to offer an annuity as part of 401K distribution options; (2) mandatory education pre-distribution on annuities; and (3) mandatory fee disclosure by annuity providers. These steps will likely reinvigorate the annuities market in the United States and help to bring an end to the 401K Follies.

"The Importance of Defined-Benefit Occupational Pension Schemes in Selected OECD Countries", Eich, Frank (2010), Pension Corporation Research, available at: http://ssrn.com/abstract=1660996

Summary: This paper discusses the role which (funded) defined benefit private sector occupational pension schemes play in national pensions in a sub-group of OECD countries. The paper shows that in the majority of countries under consideration statutory (state) pension schemes are the main if not only source of income in retirement for most people, with occupational pensions only playing at most a minor role. In several countries private sector occupational pension schemes do play an important role in providing

pensioner incomes though. In these countries there has generally been a shift from DB to DC pensions, with the risks associated with pensions moved from businesses to individuals. Australia, for example, shifted from DB to compulsory DC pensions a generation ago, leaving only a few major businesses with any sizeable DB pension liabilities now. The US has undergone a similar shift though there is no compulsion. In the UK the economic and financial crisis has accelerated the closure of existing DB pension schemes and dealing with the legacy of DB pension liabilities is becoming a major issue. The picture is similar in the Netherlands and Ireland. The paper also shows the diverging DB arrangements in the private and public sectors, with governments in a number of countries continuing to offer (unfunded) DB pension promises when they have become less popular in the private sector.

"Revisiting Retirement Withdrawal Plans and Their Historical Rates of Return", O'Flinn, Christopher and Schirripa, Felix (2010), available at: http://ssrn.com/abstract=1641382

Summary: This paper examines the historical record of the so-called 4% rule, the popular guideline for sustainable real annual withdrawals in a self funded retirement. Our findings indicate that a withdrawal plan following this rule ("4R") carries an historical risk of failure for a long retirement that is much higher than generally acknowledged. For example, we find that 15% of the historical 35-year retirements failed when funded with equal parts of stocks and bonds. The "real" withdrawal plans that generated no historical failures were all less than 4%, sometimes far less, when retirements exceeded 25 years. The historical failures are not random. Rather they occur in clusters of years in which the majority of new retirement withdrawal plans fail. A key driver of these failures was a rapid, significant and lasting increase in the rate of inflation - this event increased withdrawals and contributed to a declining real rate of return that was ultimately unable to support the withdrawal plan.

"Accounting for Non-Annuitization", Pashchenko, Svetlana (2010), FRB of Chicago Working Paper No. 2010-03,
http://www.chicagofed.org/digital_assets/publications/working_papers/2010/wp2010_03.pdf

Summary: Why don't people buy annuities? Several explanations have been provided by the previous literature: large fraction of preannuitised wealth in retirees' portfolios; adverse selection; bequest motives; and medical expense uncertainty. This paper uses a quantitative model to assess the importance of these impediments to annuitisation and also studies three newer explanations: government safety net in terms of means-tested transfers; illiquidity of housing wealth; and restrictions on minimum amount of investment in annuities. This paper shows that quantitatively the last three explanations play a big role in reducing annuity demand. The minimum consumption floor turns out to be important to explain the lack of annuitisation, especially for people in lower income quintiles, who are well insured by this provision. The minimum annuity purchase requirement involves big upfront investment and is binding for many, especially if housing wealth cannot be easily annuitized. Among the traditional explanations, preannuitised wealth has the largest quantitative contribution to the annuity puzzle.

Longevity and life expectancy

"Stochastic Mortality, Macroeconomic Risks, and Life Insurer Solvency", Katja Hanewald, Thomas Post, and Helmut Gründl (2010), Netspar Discussion Paper 05/2010 – 020, http://arno.uvt.nl/show.cgi?fid=106171

Summary: Motivated by a recent demographic study establishing a link between macroeconomic fluctuations and the mortality index *kt* in the Lee-Carter model, we develop a dynamic asset-liability model to assess the impact of macroeconomic fluctuations on the solvency of a life insurance company. Liabilities in this stochastic simulation framework are driven by a GDP-linked variant of the Lee-Carter mortality model. Furthermore, interest rates and stock prices react to changes in GDP, which itself is modelled as a stochastic process. Our simulation results show that insolvency probabilities are significantly higher when the reaction of mortality rates to changes in GDP is incorporated.

ILC-UK and Actuarial Profession: Joint debate: The Economics of Preventative Health

The Actuarial Profession, Staple Inn Hall, High Holborn, London, WC1V 7QJ, 3 November 2010

ILC-UK and the Institute of Actuaries will organise a joint debate on "The Economics of Preventative Health in an Ageing Society" on Wednesday 3 November 2010. While perhaps not quite in the PBSS remit, the affordability of age pensions is closely connected with the affordability of public health, so this debate may be of interest.

The event will seek to address a number of questions including:

• Does an ageing society make preventative healthcare a necessity?
• How can the economic benefit of health prevention best be assessed?
• How can preventative healthcare support continued employment and well-being in the over 50s?

The opening speech will be given by a leading academic in the field of Health Economics followed by a case study on adult vaccination. Panellists will include representatives from government, the NHS and employers.

ILC-UK blog

Posting: The Cost of an Ageing Population will "Dwarf" the Financial Crisis

In his Emergency Budget earlier this month, Chancellor George Osborne hinted at the impact of an ageing society on public finances. Whilst his speech wasn't explicit about demographic change being a cause of some of the fiscal challenges we face, he described the cost of public service pensions being one of the greatest long term pressures facing our nation's finances.

Mr Osborne argued out that "by 2015-16 we will be spending over £10 billion a year simply to meet the gap between pension contributions and payments to the unfunded pensions they support". At the same time, he announced plans to accelerate the increase in the State Pension Age to 66.

Read more at http://blog.ilcuk.org.uk/2010/06/29/the-cost-of-an-ageing-population-will-%E2%80%9Cdwarf%E2%80%9D-the-financial-crisis

Regulation

"The Impact of the Financial Crisis on Defined Benefit Plans and the Need for Counter-Cyclical Funding Regulations", Juan Yermo and Clara Severinson (2010), OECD Working Paper on Finance, Insurance and Private Pensions No. 3,
http://www.oecd.org/dataoecd/22/11/45694491.pdf

Summary: Three essential goals of pension plan funding are the long-term viability, stability and security of member benefits. Reform of funding regulations for defined benefit (DB) pension schemes to make them more counter-cyclical in nature can help achieve these goals as well as make DB schemes more attractive to plan sponsors that are increasingly moving away from DB towards defined contribution plans. If designed properly, funding regulations could help maintain DB systems for the long-term and provide greater member security. Broadly speaking, DB funding regulations should (i) encourage deficit reduction contributions and appropriate build up of surplus when plan sponsor finances are strong; (ii) help maintain predictable costs and dampen volatility; and, (iii) give plan sponsors more control to manage risks and costs.

This paper discusses the impact of the crisis on DB pension schemes and the temporary responses taken by regulators to help ease financially strained plan sponsors. Furthermore, the paper presents suggestions to governments and policy-makers for making funding regulations more counter-cyclical in nature. Such measures could strengthen the security of DB benefits and help to maintain DB plans for future workers.

Other

"Financial Literacy: Implications for Retirement Security and the Financial Marketplace", Pension Research Council WP2010-11, http://www.pensionresearchcouncil.org/

Summary: Leading academics, pension sponsors, and their advisors met recently to measure and remedy low levels of financial literacy in the United States and around the world at the 2010 Wharton Impact Conference sponsored by the Pension Research Council and the Boettner Center for Pensions and Retirement Research. This presents a comprehensive summary of the proceedings from this event, co-organized by Olivia S. Mitchell and Annamaria Lusardi.