Asset Allocation of Retirement Plans: An Analysis of OECD Panel Data

Shinae Choi, Iowa State University[1]
Clinton G. Gudmunson, Iowa State University[2]
Gong-Soog Hong, Iowa State University[3]

The shift in age structure associated with aging populations has a profound impact on a broad range of economic, political and social conditions (United Nations, 2002). Specifically, increasing longevity can result in growing demands for retirement funds and rising risks for lack of money earmarked for retirement years. Longevity risk, the risk of outliving retirement savings, is a real concern for retirees. In general, social security, employer-provided pensions, and annuities purchased from personal savings are sources of income that can help retirees to manage their longevity risk (Society of Actuaries, 2006) because the benefits extend until death. A key challenge for consumers is to accumulate sufficient savings to finance the kind of lifestyle that is desired in retirement (Kerr, 2008). The role of private retirement funds is becoming increasingly important and consumers may underestimate the importance of decision-making regarding allocation of financial assets.

This study was concerned with understanding the asset allocation of retirement plans in six developed countries; each representing a very different retirement allocation strategy. Comparison data were obtained from the Organization for Economic Co-operation and Development (OECD) Metadata in 2011 (http://stats.oecd.org). We focused our analysis on comparisons of allocations to private retirement plans, such as 401(k) and IRAs. Private retirement accounts such as these represent one of the traditional pillars of financial support for retirement. The other pillars include national social security plans, and occupational retirement plans. The major purposes of this study were (1) to examine current retirement assets and selected national characteristics including life expectancy at birth and household net saving rates and, (2) to compare the trends of retirement funds asset allocation among OECD countries between 2001 and 2010.

The OECD member nations we included were the Czech Republic, Denmark, Germany, Italy, Korea, and the United States. The selection criteria were as follows: first, having a three pillar retirement system; second, a geographic balance among the OECD countries [America, Europe (West, North, South, and East), and Asia-Pacific]; and third, data availability. Two of the most important factors to consider for managing the portfolio of retirement funds are life expectancy and household net saving rates. Longer life expectancy needs more sufficient accumulation of assets. Retirement tends to be the most important saving motive, making a change in pensions and expected length of the retirement period important demographic variables in saving decisions (IMF, 2010).

We examined life expectancy at birth and household net saving rates as social and financial factors in our description of retirement asset allocation. The descriptive analysis of life expectancy at birth shows that there were significant gender differences in the pensionable years. The average level of pensionable years for women was five years longer than men. The result implies that women need more retirement funding than men. The pensionable years of Italy, Korea, and Czech Republic were longer than average of OECD while Germany, U.S., and Denmark were shorter than the average of OECD. German household net saving rates as a percentage of household disposable income were the highest while Danish that have the shortest pensionable years were the lowest in selected OECD countries. The household net saving rates in countries such as the U.S. have been steadily low while it has fluctuated in Korea. The existing retirement programs may need to be recalibrated because Korean household net saving rates were very low even though Korean pensionable years were long.

We compared and contrasted the trends of retirement funds' asset allocation. Since the onset of the recent global financial crisis, the percentages for equities in total investment of retirement funds were decreased in selected OECD countries except in Germany which had the highest household saving rate (11.1%). The results indicate that the asset allocations in the U.S. were concentrated in equities such as stocks and mutual funds. In general, the expected return of equities is higher than other asset classes but expected volatility is also highest among equities. Therefore, the assets of U.S. retirement plans have been most strongly impacted by recessionary stock market conditions.

[1] Visiting Scholar, Human Development and Family Studies, 4380 Palmer Building, Suite 1321, Iowa State University, Ames, IA. Phone: (515) 294-1983. Email: shinae@iastate.edu.
[2] Assistant Professor, Human Development and Family Studies, 4380 Palmer Building, Suite 1323, Iowa State University, Ames, IA. Phone: (515) 294-8439. Email: cgudmuns@iastate.edu.
[3] Professor and Chair, Human Development and Family Studies, 4380 Palmer Building, Suite 2330, Iowa State University, Ames, IA. Phone: (515) 294-9659. Email: shong@iastate.edu.

As a consequence, the global economic recession may have hurt retirement prospects for U.S. citizens more than citizens in other countries. Current U.S. retirement assets may need to be rebalanced to increase financial security of retirees. On the other hand, the Czech Republic and Denmark had retirement assets concentrated in bills and bonds, and Korea had retirement assets concentrated in cash and deposits. In good economic times, those countries did not benefit as much by investing in lower-yield funds. These countries might need to gradually rebalance the funds for long-term investment with higher returns.

The asset allocation of retirement plans has important implications for individual, household, and aggregate social financial welfare. Through this comparative study on the asset allocation of the retirement plans in households' retirement funds between selected OECD countries, we hope that our contribution will have direct and indirect effects on retirement policies that could ultimately benefit individual consumers, families, and policymakers.

References

International Monetary Fund. (2010). *Republic of Korea selected issues*. IMF country report No. 10/271, September.

Kerr, M. (2008). *Redefining the retirement market*. MetLife special report, May.

Society of Actuaries. (2006). *Longevity: The underlying driver of retirement risk*. 2005 Risks and Process of Retirement Survey report, July.

United Nations. (2002). *World population aging 1950-2050*. Population Division.

Acknowledgements

This work was supported by the National Research Foundation of Korea Grant funded by the Korean Government [NRF-2011-356-C00002].