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# Optimizing the Aging, Retirement, and Pensions Dilemma

Marida Bertocchi Sandra L. Schwartz William T. Ziemba

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MARIDA BERTOCCHI SANDRA工. SCHWARTZ WILLIAM T. ZIEMBA



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May you live in interesting times.

Planning for retirement, however, is one of these issues which can be encapsulated in the observation that there is good news and bad news: the good news is that we are living longer, the bad news is we have to pay for it.

In 2009, we are in the worst economic crisis since the 1930s, with large losses in pensions, incomes, and savings. Renewal from the crisis will require a global shift in consumption and saving patterns. These are indeed very interesting times, if you look at issues in economics and finance, but especially for pensions and retirement. Old adages like stocks for the long run and the safety of index and exchange-traded funds have not worked to protect asset values. Moreover, losses of retirement assets in the near term have coincided with job losses and reductions in value of other assets, including property. Almost all asset classes have become increasingly correlated as credit has contracted and economic growth has slowed sharply. Many individuals and investment vehicles charged with saving for retirement looked to make up gaps in financing by shifting into different asset allocations. Major corrections in corporate bonds, exchange traded and private equity, and alternative assets mean that making up the shortfall may be prolonged as individuals face the risk of elevated unemployment for a long period.

This book began as an attempt to fill the gap identified by the OECD and others on the need to improve financial education for retirement. As originally envisioned, this was mainly a question of wealth and asset liability allocation over time. Ensuring sufficient resources for retirement encompasses a complex set of decisions involving tax issues, assumptions of future salaries and potential loss of income with change of jobs, asset allocation for defined contribution (DC) pension plans, longevity, interest rates, inflation and, on retirement, whether to buy an annuity. All this in the face of changing

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demographics and social factors, including increased life expectancy and the switch to defined contribution pension plans. All of these issues require careful individual decision making in the face of increasing risk.

The shortcomings of individuals in providing for their retirement are legion: insufficient savings, inability to access and deal with risk, lack of understanding of asset allocation, inability to read and understand reports from their pensions, lack of determination of the funds needed to retire, lack of understanding of longevity risk, and so on. This book will help individuals plan better for retirement, making use of government and corporate entities to help them while assessing the risks to their own balance sheets. It also addresses some of the macro economic issues such as whether an economy can effectively save without investing in productive assets. Rather than setting a retirement age, we suggest that society as a whole to consider retirement a phase that depends on ability to work, gets phased in, and lasts a limited time until expected death. This would be a reversion to long-held life cycle ideals. In doing so, we would likely need to create a path for work that could continue as strength declines.

All that said, the scope of this book has been expanded to include a discussion of the current worldwide economic crisis and how that impacts retirement savings. We are sitting on a potential retirement time bomb, but there is still time to defuse it—and that is what this book is about.

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# One

# The Aging Population: Issues for Retirement



## **Issues in Retirement**

We begin by discussing the changing demographics and the evolution of retirement.

over the course of decades we have evolved a hodge-podge of promises and policies relating to retirement. Our image of retirement has evolved from that of an infirm old age into a picture of ceasing work at a vigorous middle age, perhaps 60, having a life of leisure activities in a nice home with easy access to health care when it is needed and no financial worries. A confluence of issues have put this idyllic picture at risk. First is demographics: we are living longer. Second is affordability. Both public and private retirement provisions are at risk.

### Roots of the Problem

Social provision for retirement grew over the decades, without prior planning, as a series of responses to a variety of economic and social issues. The roots of the growing *retirement and pension* problem come from a number of areas:

- 1. The social desire to avoid poverty in the aged population, to insure income when one is too old to work.
- 2. The entitlement to leisurely old age meets up with changing demographics, age distribution becoming top heavy with fewer workers to support each retiree.
- 3. The attempt to put off labor negotiations by trading off current income for retirement income This led to company pensions.

Number 1 is both a reflection of a charitable instinct and the social trends of the elderly living independently of their families, who have often scattered to other regions and no longer directly support them. This was the beginning of social security legislation. This is important; even though economics is considered the selfish science, nevertheless a social instinct exists.

Number 2 became a problem over time. This is the modern feeling that one should not need to work all of one's life. This led to various methods of shifting income into the future. When retirement benefits were first granted, the population was younger, originally few people were eligible and the benefits were modest. The program grew far beyond its roots into a full-blown provision for retirement income.

Number 3 is akin to the subprime crisis: business put off to the future the hard decisions and gave in to labor in the short term to avoid the longer-term issues of labor-management relations—this was good for neither and has left the economy deprived of real innovation, with huge unpayable debt and further distrust.

All jurisdictions and corporations have attempted to tinker with the problem: programs have been changed in marginal, efficiency-improving ways. Countries might, for example, increase the number of years used to calculate the base of the social security payment (for example, France went from counting the best 10 years to the best 25). These tactics do not solve the problem but they do ameliorate it. (See Chapter 8.)

In this chapter we look first at the changing demographics. Then we explore the evolution of the concept of retirement and the assets available on retirement. We conclude with a road map for the rest of the book.

# 1.1 LONGEVITY AND CHANGING DEMOGRAPHICS ACROSS THE WORLD

Let's look at a compilation of various tables from the UN cited in Haas (2007). Together these paint a vivid picture of changing demographics. Table 1.1 shows that fertility rates have dropped below replacement in all countries in the survey except India. Japan was the earliest in the late 1950s; China was the latest through severe penalties for families with more than one child, a policy that began in 1979 and dropped the country below replacement beginning in the 1990s.

Table 1.2 shows the rapid growth in life expectancy from 1960–1965 to 2000–2005. There has been an average increase of 14.5 years in a 40-year period. In China the increase was more than 30 years and India almost 25. Russia added less than one year, so leaving it out would raise the average to more than 16 years. All these years are essentially added to retirement under current cultural expectations!

Table 1.3 presents the percent of the population over 65 in 1950, 2000, and projections for 2050. The numbers are astounding. On average almost