careful to point out any potential data deficiencies to the reader so not to mislead or overstate significance.

The final two chapters address 'new' paternalism, current approaches to pension design and methods for improving plan architecture in the future. The penultimate chapter discusses the authors' views regarding 'new' paternalism and their opinions may be controversial to some. The authors make clear that they are not convinced that recent popular changes to plan design such as automatic enrollment, automatic escalation and default investment options, like target date funds, are always for the best depending on the way they are implemented. While the chapter may not convince readers to change their position on the worth of these features – especially as individuals tend to have strong opinions on this matter – even those who disagree will find value in the points the authors ask them to consider. As they do throughout the book, the authors use data to support their assertions and warn that 'new' paternalism could become authoritarian if not carefully applied. For example, the authors question whether participants can safely be assumed to have tacitly consented to automatic decisions made for them. The survey evidence they present demonstrates a diversity of opinions and expectations among participants regarding their willingness to allow the plan sponsor to take responsibility for or provide advice related to risk in their investment portfolios. They conclude that these varied expectations raise a red flag and this is justification for incorporating adequate consultation with participants related to each automatic decision made for them.

Finally, the authors conclude the book with a chapter that focuses on recommendations for institutional design and policy. This chapter should be of particular interest to policy makers and plan sponsors. The chapter begins with a discussion of the definition of pension adequacy and then proposes solutions to plan design based on best practices. The authors consider both employer ambivalence and the costs of individual decision-making in their approach. Their discussion considers the benefits and challenges of multi-level default settings, the application of 'gates' to allow participants access to more sophisticated products and possible 'hurdles' to limit access only to participants capable of understanding the more complex options. They also discuss what is effective engagement of participants, among other important points. The book concludes with the authors opinions regarding pensions issues specific to the UK. Readers will find the authors discussions may alter their views of pension reform or at least cause them to reflect more deeply about their positions.

I recommend this book to practitioners, policymakers, academics and those readers new to retirement issues. It achieves an important goal of supporting Herbert Simon's scissors metaphor (1956), which is frequently referred to in the book's early chapters and a basis for the authors claim that environment matters. This metaphor suggests that human behavior is the intersection between intrinsic cognitive capacity and environment. In the metaphor, each of these components represents a scissor blade. Throughout the book, the authors show us the error of overlooking the importance of the environmental blade. In doing so, they promote a more integrated approach to decision-making research. Such an approach should help enhance our understanding of individual financial decision-making and will most likely result in novel ideas for pension reform. Since retirement preparedness is a global problem, a book like this that challenges current methods of thinking is a welcome addition to the debate.

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> Pension Finance: Putting the Risks and Costs of Defined Benefit Plans Back Under Your Control. M. Barton Waring. Wiley Finance, 2011, ISBN 978-1-118-10636-5, 298 pages. doi:10.1017/S1474747213000243

Barton Waring's preface sets out his 'aspiration to provide a thoughtful and persuasive background for those considering how to reform pension finance and accounting'. He also hopes to provide a text to describe the true operations of defined benefit (DB) retirement schemes – predominantly in the US.

The bare bones of his proposals for reform are to require that the present value of the DB pension scheme liabilities are calculated at a risk free rate of interest; that the assets are invested largely in fixed interest assets which will minimize the risk of future investment losses; and that the current deficits should be made good in a relatively short period, 'say 10 years', by additional contributions and benefit reductions. He highlights the penultimate chapter 'Tough love' as the most important, as it considers how to persuade relevant parties to address the enormous deficits in some of these funds.

The argument of the book is helpfully set out at the start with a list of 22 propositions that are argued in more detail through the book. In summary, these are:

- 1. Accounting rules do not change the ultimate cost of benefits, but they can mislead by allocating costs to the wrong periods and by misstating the value of liabilities.
- 2. Investing the assets of pension schemes in equities is risky both in the short and long runs.
- 3. DB pensions are largely predetermined cash flows and should be valued at the risk free rate, perhaps with small adjustments for credit risk.
- 4. The present value of liabilities and the accrual of pension benefits is therefore not affected by investment policy (i.e., investing in equities cannot be said to reduce the cost of pension benefits).
- 5. The current accrued liability should be negotiated between employers and employees.

The propositions are closely argued with generalized formulae; the variables and terms used being summarized in a helpful appendix. The arguments go into some detail as to actuarial and accounting jargon: Waring has worked extensively as a pension consultant and is adept at explaining the concepts – although perhaps at more length and more repetitively than necessary.

The preface begins with an acknowledgment that the arguments of the book can be seen as controversial. Certainly the author is indignant at current actuarial and accounting practice in the US and believes that pension finance under his approach would be 'suddenly much more understandable and manageable. Indeed it becomes sensible and rational'.

Waring does not really explore arguments for alternative positions, rather assuming that readers will be familiar with current practice and its justification. These include the practice of using the expected return on the assets rather than a risk free rate, and significant investment in equities. Waring argues that the former arises from a misunderstanding of financial economics and understates the economic value of the fund's liabilities. The latter, he suggests, arises from misunderstanding the impact on the volatility of the real costs of the benefits, and exposes funds and sponsors to excessive risk. In the main, I think he is right, and that all academics, and most practitioners, would largely agree.

The assumption listed at point 3 above can, however, be disputed. There is a view that many DB schemes were not intended to guarantee benefits in this way. Some do not, as Australian academic members of the Unisuper DB scheme are acutely aware. Waring discusses the Dutch system with approval, but does not mention that benefits are also partly dependent on investment returns. To the extent that benefits are variable, the assumption in point 3 is wrong and the consequence in point 4 becomes much more complicated. To the extent, however that most DB funds in the US are meant to be guaranteed, his propositions seem unassailable.

In the US, therefore, the propositions have been widely accepted for some time. Cramer and Neyhart (1980) made much the same arguments. In 2003, the US Society of Actuaries hosted 'The Great Controversy: Current Pension Actuarial Practice in Light of Financial Economics Symposium'(http://www.soa.org/news-and-publications/publications/ other-publications/monographs/m-rs04-1-toc.aspx). A number of papers made arguments similar to Waring's, and none of the 22 papers presented seem to have even attempted a case against them. The intellectual controversy was already over even then.

Book reviews

One of the themes of the book is the failure of the actuarial literature to recognize the implications of financial economics. As an actuary, I do feel embarrassment at his criticism of actuarial practice. I do, however, think he was unfair to the literature and to Exley *et al.* (1997) particularly. The overall cost and investment implications of poor practice are covered very carefully in their paper. They also go on to consider the interaction of scheme design with management, remuneration and employee behaviour, which are not addressed by Waring.

My view would be that Waring's indignation would be better directed if informed by wider political and social considerations. The real issue seems to me not so much the failure of actuarial theory to understand financial economics, but how policy decisions have been captured by vested interests: it is not stupidity but cupidity, duplicity and naivety to which we should look.

Cupidity, in that, excessive and unfunded benefits were first 'negotiated' by management and unions in many cases knowing that they were inadequately costed and funded. Waring says neither of these groups is at fault, both having been misled by poor information, but he does note that deficits were built up even with overly optimistic reporting.

Duplicity, in that those with power, and their advisors, turned a blind eye to the excesses in order to protect their positions and are apparently satisfied that reporting remains inadequate. Waring does point out that the practice of amortizing new past service benefits 'does interfere with telling oneself the truth'. As Gordon and Jarvis (2003) put it:

'Clients, in most cases, will prefer to have actuaries delivering ... advice that minimizes the need for cash contributions or unpleasant financial disclosures. This inevitably creates a pressure to avoid change from the traditional and malleable expected returns-based actuarial approach'.

Naivety, in underestimating the complex nature of the institutional structures underpinning the inadequacies he describes. Klumpes (1994) describes the political lobbying in Australia against the disclosure of accounting information. While not all DB fund practices are corrupt, Ashforth and Anand (2003) description of the normalization of corruption applies with some force to the issues deserving Waring's outrage:

'We argue that three mutually reinforcing processes underlie normalization: (1) institutionalization, where an initial corrupt decision or act becomes embedded in structures and processes and thereby routinized; (2) rationalization, where self-serving ideologies develop to justify and perhaps even valorize corruption; and (3) socialization, where naive newcomers are induced to view corruption as permissible if not desirable. The model helps explain how otherwise morally upright individuals can routinely engage in corruption without experiencing conflict, how corruption can persist despite the turnover of its initial practitioners, how seemingly rational organizations can engage in suicidal corruption and how an emphasis on the individual as evildoer misses the point that systems and individuals are mutually reinforcing'.

Waring's 'Pension Finance' is possibly too tendentious to be a good text book. It is to be hoped, however, that it has a role in moving regulators to reform pension accounting and to persuade those that control DB funds to address unwarranted investment risk and unfunded deficits. Those who have the power to make changes need be challenged by books such as this.

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Book reviews

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> U.S. Health in International Perspective: Shorter Lives, Poorer Health. Steven H. Woolf and Laudan Aron, eds. The National Academies Press, 2013, ISBN 978-0-309-26414-3, 394 pages. doi:10.1017/S1474747213000255

The book deals with the puzzle that although the US is a well-off nation with the world's highest spending per capita on health care, Americans on average live shorter and less healthy lives than their counterparts in many other countries. The book is a sequel to the 2011 National Research Council report 'Explaining divergent levels of longevity in high-income countries', which focuses on mortality at ages 50 years and above. To follow up on the investigations, the current report examines mortality and morbidity under age 50, comparing the US against 16 high-income countries that include Canada, Australia and Japan as well as Western European countries. The topics covered in the report are not directly related to pension economics, but they appeal to a broad interest in the levels and differentials of health and mortality.

The book is divided into three parts. Part I (Chapters 1–2) documents mortality and morbidity differences between the US and its peer countries. The US disadvantage is pervasive, existing in multiple health outcomes and affecting all age groups, and has been growing in the past three decades. Nine domains where the US fares worse are listed out: (1) birth outcomes (e.g., low birth weight and infant mortality); (2) injuries, accidents and homicides; (3) adolescent pregnancy and sexually transmitted infections; (4). HIV and AIDS; (5) drug-related mortality; (6) obesity and diabetes; (7) heart disease; (8) chronic lung disease; and (9) disability. The US health disadvantage is not limited to the socioeconomically disadvantaged or uninsured subgroups.

Part II (Chapters 3–8) explores potential explanations of the US health disadvantage by reviewing existing research on the following factors: health care system, individual behaviors, social and economic circumstances, physical and social environmental factors, and policies and social values. Together with the evidence in Part I, the review dispels the widespread perception that the US health care system is the main culprit of its health disadvantage. The US health system is highly fragmented with weak public health and primary care and a large uninsured population, but such inadequacies cannot explain why Americans suffer from higher violent mortality or why the insured rich groups fare worse than their counterparts elsewhere. Unlike the 2011 report that provides numbers on the contributions of specific factors such as smoking and obesity to the US health disadvantage, the book takes a more holistic approach and emphasizes the inter-connections between the sets of factors. Additionally, the book embraces the life-course perspective, emphasizing that risk or protective factors accumulate and interact with each other at various stages of the life course to influence health outcomes.

Part III (Chapters 9–10) proposes future directions for understanding the US health disadvantage. It discusses data needs, methodological development and research funding to meet the challenges. Table 9-1 provides a list of publicly available longitudinal datasets around the world, and showcases the data gaps in various countries. The recommendations not only stress the need for longitudinal data analysis, but also acknowledge the importance of collecting periodic cross-sectional samples so that birth cohorts can be traced over the life course and compared with each other. Data collection emphasizes international collaborations and public data access. As a researcher based in Australia, I noted that the only public dataset for