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Book reviews

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Keeping the Promise of Social Security in Latin America. By Indermit S. Gill, Truman Packard and Juan Yermo. The World Bank, 2004, ISBN 0-8213-5817-0, 340 pages, Price $70.00. doi:10.1017/S1474747205212179

Social security reform is one of the few institutions successfully exported from Latin America to the rest of the world. In 1981, Chile moved away from a traditional defined benefit pension, adopting instead a system based on funded individual accounts under private management. Since then, other Latin American countries including Peru, Argentina, Bolivia, Colombia, and Mexico, have also adopted versions of the Chilean model. And more recently, several Eastern European and Central Asian countries have taken the same step, followed by Sweden, in a highly symbolic gesture. One factor motivating much of this global shift was a 1994 World Bank report called *Averting the Old Age Crisis*, outlining the need for a so-called "multi-pillar approach" to retirement security as opposed to the traditional single-pillar pay-as-you-go (PAYGO) system. The present book, *Keeping the Promise*, seeks to evaluate how these Latin American reforms have performed, a decade after the predecessor study. The earlier book was based mainly on the Chilean experience and to a lesser extent that of Peru and Argentina, while the new volume not only updates lessons from those countries but also includes evidence from newcomers as well.

In this volume, the authors offer the same basic policy lesson as in the earlier book: that pension systems should be based on a multi-pillar approach. Yet it also goes a step further, suggesting that the relative size of the various pillars must be reexamined and probably reconsidered. In particular, the authors propose that some sort of PAYGO system should be implemented to reduce old-age poverty, thereby strengthening the first pillar, on top of which can be constructed a consumption-smoothing and perhaps voluntary second pillar. This message is presented in eleven chapters that cover the main features of Latin American systems. The first part of the book offers an overview of the facts and summarizes major conclusions. The second part uses analytical tools to interpret their data and add draw on two surveys about the rationality of pension participants in Chile and Peru. In the book's final section, the authors offer policy implications.

The book comes to a mixed conclusion. On the positive side, the authors find that pension system reforms in Latin America have improved the fiscal position of reforming countries. They also conclude that reforms induced important financial development and reduced the regressiveness of the old systems that they replace. In fact, in the case of Chile, the authors find that the new system has even become progressive. On the negative side, the authors point out that pension coverage has not increased as much as was anticipated by the reformers at the outset.

In my view, the authors are correct in placing strong emphasis on the coverage issue, since this is a main weakness of the Latin American approach. Furthermore, having an antipoverty benefit is consistent with their diagnostic of the evidence, though they tend to overemphasize the importance of having a universal first pillar pension. This is because most Latin American governments face severe financial limitations and significant opportunity costs, which may for example force them to finance better education over universal pensions. An alternative, and perhaps more affordable, approach for countries with an adequate social information system might be non-contributory pensions targeted on the poor. Indeed, the policy section of the volume would have benefited from more discussion regarding ways that governments could focus efforts to help the most needy, while avoiding creating disincentives to save or work. Similarly, it would have been useful to explore a role for contributory minimum pensions, to improve incentives and therefore foster pension savings.

Another useful point made by the authors has to do with their support of asset diversification in the pension portfolio. As the authors suggest, pension assets in Latin American have been too biased towards state securities, except in Chile and Peru. This calls for a renewed agenda with two broad lines of attack. One would be to spur capital market reform, to induce domestic to use formal domestic markets to finance their activities. A second would be to use international diversification of portfolios more intensively.

A weakness of the volume is that it does not cover the industrial organization of the pension sector carefully enough. It would have been interesting to compare how the different schemes are set up in the adopting countries. For instance, Bolivia licensed two providers in order to lower management costs: have the gains outweighed the worries over concentration? Has the Mexican tactic, which separated individual account administration from fund management, diminished barriers to entry? These important questions are left unanswered yet deserve more attention.

I also have reason to be concerned regarding the authors' controversial recommendation to downsize the second, mandatory, earnings related pension pillar in favor of a third, voluntary, pillar. In very poor countries with extreme income inequality, low educational attainment, and poor knowledge of the pension system, their recommendation cannot be taken seriously. Trusting in the evolution of a voluntary pillar appears naïve in such a case: it might be feasible after decades of learning, but for most Latin nations, such a suggestion is premature. Rather, it seems more reasonable to improve the mandatory second pillar, to make it work better with existing labor markets. This idea, however, is absent from this book.

Another issue is that the authors also claim that some of the Latin systems suffer from moral hazard, since they give workers investment choice but also promise them a minimum pension. Their argument is that workers will have an incentive to invest in the riskiest portfolios, as they are protected from below. While this may be a conceptually reasonable hypothesis, the fact is that in Chile the opposite is true – though the system offers both minimum pensions and multiple funds (multifondos). Here, the well-educated high-income workers that invest the most in the riskiest funds, and they will not likely need the minimum pension guarantee. Low income individuals, by contrast, remain with the safer 'default' life cycle fund.

The book also suffers from several data errors that should be corrected in the next edition. In some cases, they are anecdotal, but in others they are important. Probably the most important error has to do with the gross overstatement of administrative costs in the Chilean system. Furthermore, the authors offer some policy recommendations that appear to be based on sound theoretical analysis but which are not buttressed by empirical evidence. As an example, they state that "the reforms appear to have improved the incentives to contribute to the formal system." This extremely important claim is based on only a single piece of aggregate data; it deserves more careful evaluation.

Guillermo Larrain
Professor of Macroeconomics, University of Chile

Developing an Annuity Market in Europe. Eds. Elsa Fornero and Elisa Luciano. Edward Elgar Publishing, 2004, ISBN 1 84376 476 8, 296 pages, Price $115. doi:10.1017/S1474747205222175

I am enchanted by the elegance of life annuities that offer insurance against living too long, with easy mathematical adaptations for joint lives, guaranteed periods, inflation, and projected mortality improvements. These are such a delightful idea, as recognized by several of the authors in this volume. Nonetheless, the 'annuity puzzle' remains as profound as ever: in the real world, the demand for life annuities is invariably found to be thinner than predicted. This volume brings formidable expertise to resolving this puzzle through empirical analysis, theoretical development, and, and as promised in the title, policy changes that might allow annuity markets to fit the theory better. Most of the contributors are from the UK or US, and they discuss issues arising in those more developed markets. In addition, there are three interesting chapters describing the institutional structure of continental pensions.

The editors make it clear in their first overview chapter that they beg the question of why we need efficient annuity markets. In fact, I would like to see more exploration of the underlying and highly relevant policy question of how retired people might be provided with financial security in an equitable and sustainable fashion, with the minimum of distortion to labour and capital markets and to social, in particular family, structures. Resolving the puzzle may get us there – if slowly. In theory, modeling the utility of an annuity to a retired person inevitably shows that they dominate alternative retirement investments. Mitchell and McCarthy show "equivalent worth measures", developed in some of their earlier work, which represent the increase in utility from annuitization. For the least risk-averse 65-year old US male with half of his initial wealth in a pre-existing annuity, they find the increase is at least 33% for an annuity appropriately adapted for inflation. These authors go on to investigate a possible explanation for the annuity puzzle, namely, that annuities offer investors poor value for money. Their results show that calculated value-for-money-ratios seem to be entirely reasonable in the six markets that the authors investigate. In the chapter by Edmund Cannon and Ian Tonks, they also come to this conclusion for the UK over the past 30 years.

These results are consistent with my experience of actuarial approaches to annuity pricing and the experience of insurance companies reporting significant losses from their annuity portfolios in the past few years. The actuarial literature suggests that sales commissions should be set more or less proportionately to profit targets. Sales commissions will normally be significantly larger than profits; for annuities, they would normally vary from 0.5% to 5%. Money's worth ratios of 90% are therefore entirely consistent with this approach. Unfortunately, the temptation to price too keenly and risk excessive losses, which is a concern in competitive markets, is also a crucial issue. As Philip Davis notes, some of the prudential and market conduct regulation of insurance companies and private retirement funds over the last decade has fallen short in this regards. The Equitable in the UK, and the difficulties faced by Japanese insurers during a super-low interest rate environment, illustrate how easy it is to fail to envisage risks confronting institutions offering long-term guarantees.

Soares and Warshawsky turn to an evaluation of the investment risks faced by defined contribution (DC) funds. As indicated in the actuarial literature and implemented in some countries, the authors find that annuitants can avoid excessive exposure to volatility by phasing in their annuity purchases. This conclusion, however, seems to cast doubt on the premise that participants in funded retirement schemes would do better by limiting their exposure to efficient annuity markets. In the search for other resolutions of the annuity puzzle, a variety of additional factors have been suggested: a bequest motive, underestimation of life expectancy, compulsory annuitization of state benefits, and that a sufficient level of wealth or family support makes longevity insurance unnecessary. Hurd and collaborators test the hypotheses that arise from these suggestions using US panel data, and they conclude that rates of annuitization are low. While wealth clearly has an impact, none of the other variables they examine proves significant.

The authors of the two actuarial chapters share my fascination with annuity mathematics. Pitacco discusses projections of mortality and long term care claim rates, while Ballotta and Haberman formally derive closed-form analytic formulae for the value of the guaranteed annuity options that proved so expensive to the Equitable in the UYK context. These contributions are interesting and helpful, but the real difficulty in managing annuity risks has to do with 'model risk' or "Knightian uncertainty," rather than actuarial calculation. In particular, neither past developments nor medical prognostication are particularly informative regarding the pattern of future mortality improvements. In addition, investment markets are too fat-tailed (as in the volatility smile), and too irregular, to be accurately described by the closed-form formulae produced. As Frank Knight pointed out, these are entrepreneurial questions, and they cry out for innovation and creativity as much as analysis.

This volume concludes with three chapters on the institutions of private and public pensions in Germany, Switzerland, and Italy, respectively. Reinhold Schnabel focuses on recent reforms in Germany scaling back the generosity of the first (government-financed) pillar, and thereby made space for a third (individually-financed) pillar. Italy is somewhat ahead in this process, and Borella and colleagues describe how the accumulation of severance pay (*Trattamento di fine rapporto*, or TFR), accumulating at the rate of some 7% of income, has been diverted to occupational pension schemes. Switzerland has always had a smaller first pillar and larger second (occupational) pillar in the form of mandatory funded schemes; Bütler chapter's concentrates on the recent "crisis" of falling funding levels following the fall in the stock market. Borella and colleagues also analyze the factors leading to greater contributions to the largely annuitized Italian pension schemes and insurance policies paying lump sums; here too, rates of participation are low and income and wealth levels are important. The authors report that an increase in contractual savings appears to be related to the reduction in first-pillar benefits; they also review sociological factors seldom discussed in the actuarial and dominant economic literature. Admittedly, the complex tangle of cultural, political, and behavioural institutions and biases is difficult to analyze and explain, but this work is necessary for policy recommendations. These three chapters provide many insights into how convoluted and sub-optimal institutions develop and are maintained by vested interests and inertia. The German legal environment, for instance, is shown to allow for five different types of retirement fund and four different types of tax treatment. The Swiss second pillar contradicts itself by offering tax concessions for lump sums and also subsidising annuity options. Italian retirement schemes require payroll taxes as high as 33%.

It is evident that the Anglophone systems are no simpler nor more sensible. Indeed, the tax and legal environments appear even more complicated, while what might be described as the ideological superstructure may lead people away from sensible decisions. Mitchell and McCarthy refer to the impact of people's perceptions and the role of financial advisors; it would be logical to recognize that the advisors are driven, at least in part, by self interest. In such a case, behavioural changes may well require political reform, rather than research and more education. Such reform may be facilitated by identifying favoured groups and suggesting alternative trade offs. A particular instance may be the lower costs (and more extensive insurance cover) offered by group schemes, where annuity markets are not required. Davis makes this suggestion, and Borella and collegues confirm that in Italy, as elsewhere, group schemes are considerably less expensive to administer than individual policies.

Returning to the annuity puzzle, it might be expressed as a preference for liquidity. Mitchell and McCarthy suggest that one reason for this liquidity requirement is the need to cover medical and other contingencies, which can be better addressed by insurance. Schnabel however suggests another, with a throwaway comment that "households of the elderly also devote about 7% of disposable income to private transfers." Evidence I have seen shows such transfers going not only to extended families, but also to a variety of helpers and other causes. This issue could be described as one of micro-politics. I would suggest that one good reason for compulsory annuitization, of a significant portion of pension wealth is the protection it gives to older people against the manipulation that may underlie such transfers.

If markets for nominal annuities are thin, then those for inflation-protected annuities are invisible. This remains true despite many analysts, including Mitchell and McCarthy, Davis, and Soares and Warshawsky, arguing that they are superior financial products. Liquidity is not an issue, although higher subjective rates of discount may be, because nominal annuities pay more initially. Understanding may be a problem, with people perhaps not appreciating the risks of high levels of unexpected inflation. Davis appears to fall into this trap by mentioning, without comment, UK limited price indexation which caps pension adjustments to 5% annually (and in the process of being reduced to 2.5%), just when they begin to matter. Perhaps it is also a question of personal interests, with the financially sophisticated hoping to benefit during periods of high inflation (redistributing away from those on fixed incomes).

While the need for further research is a recurring theme in many of the chapters, no clearcut agenda emerges. I suggest that a start might be made by obtaining greater clarity as to the objective. In particular, more work could be done by investigating the finances, health, and satisfaction levels of retired people, as well as the differences between those that have annuities and those that do not. It may well be that the theoretical advantages of annuities are overstated: for instance, existing models may give inadequate consideration to the advantages of liquidity. Alternatively, the elderly may not want more money than the relatively low level provided by state schemes. Like St Paul, they may have "learnt to be content in all circumstances". In any event, greater insights into their experience should help shape perceptions, and create the political impetus for institutional reform should that be necessary.

Additionally, I was disappointed in the superficial treatment of distributional problems that I see in the development of annuity markets. First is the question of how risks are distributed. The investment and longevity risks of retirement are gigantic; mechanisms are required to spread them throughout the economy. Some governments do so through large first pillar social pension schemes, and even when the risks are shifted to other pillars they are often undergirded with government guarantees of inflation-adjusted income and longevity risks. It seems to me that annuitants must absorb some of these risks. The defined benefit (DB) and with-profit mechanisms that have historically allowed such risk sharing have been revealed to be inadequate; Bütler is accurate in her description of DB funds as incomplete contracts complemented by political processes that have failed. My analysis the Equitable's problems is that with-profit contracts have also failed for the same reasons. More complete contracts or more effective political processes are required.

A second concern has to do with distribution of the product. Markets require marketing, which can be divided into four P's: product, price, place and promotion. The first two are relatively well covered in this volume, but the latter two are under-investigated here. They require analysis of compulsion, choice, and the marketing efforts of annuity providers; their views need to be heard, and their efforts analysed. The third issue concerns distributive equity and efficiency; this topic incorporates taxation and means tests that often integrate the retirement pillars. The latter is a critical issue barely mentioned in this book, as is the issue of arbitrage between different investment vehicles which can arise when assets backing annuities are exempted from income tax.

How to build and develop annuity markets is a crucially important issue for countries reducing overgenerous state schemes. This book provides a useful gateway into the actuarial and economics literature on annuity products, and helps set the agenda for future collaboration.

Anthony Asher
Australian Prudential Regulation Authority

Pay Without Performance – The Unfulfilled Promise of Executive Compensation. By Lucian Bebchuk and Jesse Fried. Harvard University Press, 2004. ISBN 0-674-01665-304 pages, Price $24.95. doi:10.1017/S1474747205232171

This book argues that CEOs of publicly traded corporations shape compensation plans for their private benefit, a strategy the authors term the "managerial power perspective." Bebchuk and Fried first describe how arm's length optimal contracting between CEOs and boards of directors should take place in theory, drawing on executive compensation research by financial economists. They then argue that this view is unable to explain observed CEO compensation practices, and they instead offer their managerial power approach to explain observed compensation practices. After offering evidence supportive of their approach, the authors then propose recommendations for reforming executive compensation and corporate governance.

The authors contend that CEOs of publicly traded corporations dominate boards of directors because they effectively appoint the boards, which makes the directors dependent on CEO goodwill. Accordingly, the CEOs can dictate the terms of their own compensation packages, which leads to excessive and inefficient compensation agreements. The ability of shareholders and the market to constrain or sanction such behavior is supposedly limited by proxy voting procedures and anti-takeover protections. Although directors, shareholders, and the market are generally unable to curb excessive and inefficient compensation agreements, CEOs do face some constraints on their ability to extract rents because of "outrage costs." These are defined as negative reactions by outsiders to agreements perceived to be abusive or egregious. An implication of the outrage cost hypothesis is that CEOs attempt to camouflage their compensation, through mechanisms that are opaque or not widely scrutinized. In particular, the book proposes that executive pensions, deferred compensation plans, severance agreements, post-retirement consulting agreements, and loans are used to camouflage compensation excesses.

Various critiques of the managerial power perspective are worth noting. For one thing, the authors overlook the fact that investors can choose to not invest in companies seen to be in the grip of managerial power. For another, the authors state that CEO compensation practices are inefficient because of managerial power, but they do not quantify the costs and benefits of constraining managerial power. This raises the question of whether observed executive compensation practices may be optimal "second best" contracts. On the other hand, the managerial power perspective does garner some empirical support in the financial economics literature on executive compensation. For example, empirical analysis by Wharton faculty members John Core, Robert Holthausen, and David Larcker shows that CEOs with greater power over their firms' boards of directors receive higher compensation levels which are also less sensitive to performance.

Our main interest in the remainder of this review is what the book says about pensions and deferred compensation plans. The authors make two key claims about CEO pensions and deferred compensation plans: first, that they are insensitive to CEO performance; and second, that CEOs use them to use camouflage excessive compensation. Evaluating these claims is difficult because there is minimal research on the provision of pensions and deferred compensation plans provided to CEOs. At present, we do not know how much compensation these mechanisms provide, which companies provide them to CEOs, and how they are related to performance. In any event, the book argues that CEOs extract rents through pensions and deferred compensation plans because these are subject to less stringent disclosure requirements than salary, bonus, stock options, and restricted stock. To support their claim, Bebchuk and Fried state that the provision of pensions and deferred compensation plans to CEOs increased after the SEC imposed more stringent disclosure requirements on other forms of compensation in 1992. Several points regarding this claim are worth noting. While the author's claim may be true, no substantiating evidence is provided. Also, the SEC does have disclosure requirements regarding pensions and deferred compensation plans. In particular, proxy statements must reveal the estimated annual pension payments to be paid during retirement to the top five executives. As a result, interested parties can estimate the present value of the pension benefits. Regarding deferred compensation plans, proxy statements must disclose the annual amount deferred by the executive and the value provided from above-market interest rates.

The authors also claim that CEO pensions and deferred compensation plans are insensitive to corporate sponsor performance. Once again, this claim is unsubstantiated, and several salient points should be considered. First, benefits provided under pension and deferred compensation plans are ordinarily determined by salary and bonus, which have been shown by Murply to vary with absolute firm performance. Second, executive plans are typically unfunded for tax purposes, thus making the CEO an unsecured creditor of the firm. If the sponsor enters bankruptcy or encounters financial distress, the executive might lose the entire pension and deferred compensation benefit. Third, pensions and deferred compensation plans can provide incentive effects, which the authors do not discuss. Finally, firms are usually not legally obliged to provide non-qualified pension benefits and can revoke them if, for example, the executive joins a competitor or disparages the firm. An example of this is *Bryan vs. The Pep Boys*, in which the Eastern District US Court in Pennsylvania ruled that a company can terminate non-qualified plan benefits if a former employee engages in competitive behavior.

While this book does leave many claims unsubstantiated, it does add to the discourse about executive compensation and corporate governance by offering an alternative view of the factors underlying executive compensation.

Joseph Gerakos,
Doctoral Candidate in Accounting
The Wharton School, University of Pennsylvania

Pension Design and Structure – New Lessons from Behavioral Finance. Ed. by Olivia S. Mitchell and Stephen P. Utkus. Oxford University Press, 2004, ISBN 0199273391, 294 pages, Price $74.50. doi:10.1017/S1474747205242178

This book represents a timely collection of academic articles on the application of behavioral finance principles to pension fund design and management. While many groups with great goodwill advocate increasing pension plan saving, this book demonstrates that consumers often fail to act and plan rationally in their own self-interest. Behavioral finance therefore draws together various disciplines including economics, psychology, and adult learning, to apply their principles in a cohesive manner to financial decisions. While some discussions of behavioral finance consider professionals' behaviour in investment markets, this book instead focuses on individual consumer decisions.

In the introductory chapter, Mitchell and Utkus offer an introduction to the field that should be compulsory reading in this industry. In a very readable way, the authors overview the whole field and offer concise conclusions for pension plan design. Amongst the most critical of these is the default design of the plan, which effectively involes a series of recommendations (for example, is the default a zero participant contribution, or a "safe" investment selection). Following on this, psychologist Selnow details why the retirement savings ethic is resistant to normal motivators. The reality is retirement saving represents a payoff that is too distant and uncertain, and pleasure promised tomorrow means pain today. In fact, not saving today yields an immediate reward and there are no immediate penalties.

Indeed, compulsion, which fortunately, we have in Australia, may be the only way to ensure success.

"Clear and present danger" is an apt metaphor used by Weber to explain that risk attitudes vary as the more specific and near term the consequences draw nigh. Since consumers prefer not to think of negative situations, defaults then become essential. It is also submitted that pension savings may be a field where compulsory behavioral changes are needed before positive attitudes and knowledge emerge (similar to community perceptions of smoking). In his review, Statman discusses a range of portfolio theories and explais the need to match participant's hopes for riches, against their fear of loss. Both insurance and lottery tickets have their place! Freedom seems a good thing when the path is clear, but if the road gets rocky, paternalism and collective mechanisms are preferred. Statman muses that the pendulum is swinging to downside protection after the marker bust at the turn of the century.

Some interesting research by Sethi-Iyengar and colleagues examines more than 900,000 401(k) accounts administered by Vanguard, where they find that participants suffer tremendously from "choice overload". They find that, for every ten investment options offered, participation rates decline by 1.5% to 2%. The highest voluntary participation rates are found when there are fewer than 10 options provided. In other words, offering multiple choices might best be paired with a tiered menu (eg 10 main choices, plus a link to "many more" in some other account, such as brokerage account for which a higher fee is charged). Steve Utkus and partners at Vanguard also have research identifying behavioral investors. They show that retirement information tends to be directed at participants who enjoy planning, but fully one-third of pension participants report that they cannot think past the present, or that money issues have negative connotations.

Some interesting research by Choi and colleagues explores the question of why worker invest so much in their own employer stock. They explain that past returns influence both the initial investment level (high recent returns increase own stock contributions) and later trading decisions (high recent returns have the contrary effect, influencing a move to other equities). This points to the role of financial education in pension investment. One informative study on this theme is the work of Duflo and Saez, who focus on peer pressure. In addition to analyzing default investment rules, this work shows that individual participation is heavily influenced by behavior within plans, rather than across firms. Further research on communication and education from Lusardi shows that retirement seminars touch very few plan participants, yet these seminars can increase total wealth and particularly influence those with low education, or low savings. One group particularly needing financial education is women, as examined by Clark and colleagues. They too find that financial seminars have a positive effect on retirement saving, and that women appear more responsive to financial education than men.

Communication mediums are further considered by Scott and Stein, who explore the use of Financial Engines, an online advisory product. Consistent with prior research on choice overload, fewer options (in fact, a single recommended option) improves the likelihood of adoption. They also explain that advertising such a service through email is more effective than hard copy material. Saliterman and Scheckley recommend tailoring financial education in an individualistic way. That is they conclude that consulting with participants and probing their needs boosts their engagement in pension saving plans.

Pension decumlation patterns are covered in the last section of the book, with a useful piece by Ameriks focusing on the timeseries decline in annuitization. In a provocative piece, Panis shows that retirees having a higher share of income from an annuitized source tend to be more satisfied than those trying to self-fund. He also reports that older persons are more satisfied, and he surmises that the experience of living through the Great Depression moderated this cohort's expectations. The last chapter outlines that people assume a lower likelihood of bad outcomes happening to them. Drinkwater and Sondergeld detail what we all would like to believe – that *other people* will be in nursing homes after retirement. The irony is that this translates to many retirees ending up underprepared for financing long-term care.

Overall, the book is of a very high academic standard, as one would anticipate from this series. Admittedly the language and statistics might be challenging without practitioner-level experience; laypersons would do well to read the introduction to get a 'feel' for the key conclusions. Then subsequent chapters offer good introductions and conclusions that give a sense of the key research findings. This is certainly a book I will appreciate owning and sharing with colleagues.

Rosemary Vilgan
Chief Executive Officer, Government Superannuation Office,
Queensland, Australia

The Economics of an Ageing Population: Macroeconomic Issues. Paolo Onofri, ed. Edward Elgar, 2004. ESRI Studies Series on Ageing; ISBN 1843767791, 448 pages, Price $150.00. doi:10.1017/S1474747205252174

This book represents perspectives from various authors on the possible economic effects of global population aging. Economic theory provides neither a unique framework nor definite answers to this question, and similarly, this book offers a *smorgasbord* of studies with the unifying thread being the likelihood of an aging-driven stagnation of market economies. The reader has a rather difficult path, covering labor market changes to aggregate demand modifications; from saving adjustments to redistributive effects of social security reform; from technological change to the diversification effects of pension funding. In the end, one comes away with the view that aging should not be regarded as a potential catastrophe, but rather as a social change that can be properly managed with farsighted and intelligent policies.

Macroeconomic issues and cross-country comparisons receive high visibility, with a focus on Japan and Italy, which, though geographically and culturally apart, still offer strong similarities in their economic performance since World War II. The first part of the book is mainly directed at analyzing the relationship between Japanese aging and growth; here the main message is that aging is not a "time-bomb", but rather a slow and predictable process to which the economy will inevitably adjust. Moreover, adjustments need not necessarily imply lower growth. As the authors show, if the demographic depression is decomposed into the reduction in fertility and the rise in longevity, one can detect forces which will compensate for the negative effect on growth usually associated with aging in standard macroeconomic models. This conclusion has of course important policy implications, because the compensating forces can be made stronger by appropriate measures.

For instance, using a theoretical approach, Fukuda and Morozumi offer the unusual result that an increase in the share of the retired population has a *positive* impact on per capita GDP growth. Why then do previous studies lead to different results? Because their saving rate is exogenous, and they ignore the positive effect on savings deriving from a higher life expectancy. Although the positive flavor of the chapter is commendable, more recent literature emphasizes growth-driven savings rather than savings-driven growth. Analysis by Hayashi and Prescott uses a standard neoclassical production function to interpret the behavior of output per (working age) people over the 1990–2000 period and to forecast future performance. They assume that total factor productivity (TFP) will increase at 0.29% per year, as over 1991–2000. Since their results depend crucially on this assumption, additional research effort should be devoted to determining which policy would boost productivity to higher levels. Kurokawa *et al.* focus on the relationship between ageing and technological change against the backdrop of the recent Japanese economic downturn: while they see a past mismatch between labor force and technological change, they have a more positive perspective for the future since information technology investments are substitutes for young workers with low human capital and complements to the highly educated. The chapter by Aoki and Yoshikava offers a Keynesian-type, demand-constrained growth model, where the demand of each good follows a logistic curve over time. Aggregate demand keeps expanding only if new goods enter the market and technical progress is important not because it generates TFP growth, but because it creates new products. Although similar to a Solow model with exogenous technical progress, the model works differently, with the constraint lying in the creation of new goods rather than in diminishing returns.

The second section of the book deals with the impact of pension reform on saving and distribution. It seems clear that pension reform is needed so that the pensions function efficiently, without imposing too many distortions and dead-weight losses. Drawing on a microsimulation model, Bosworth and co-authors consider how three alternative social security reforms would affect US outcomes. They evaluate payroll tax increases to sufficient to pay scheduled benefits; tax increases sufficient to attain actuarial equilibrium; and benefit reductions integrated with mandatory individual accounts. After taking aggregate feedbacks into account, their simulations suggest that low income earners would be better off under the present system. In a companion chapter, Burtless analyzes how financial risks might have influenced pension wealth if workers had had individual retirement accounts in France, Germany, Japan, and UK, over the period 1927–2002. He computes replacement ratios for representative, overlapping cohorts, following investment strategies involving stocks alone, bonds alone, and an equally-weighted stock-bond portfolio. Investing in stock turns out to be the dominant strategy, but the high volatility of stock returns burdens workers with substantial financial risk. Baldini and co-authors focus on Italy, and ask whether households compensated for cuts in national pension wealth as a result of the reforms of the 1990s. Some additional private accumulation resulted but the effect was unevenly distributed across cohorts, with older ones remaining largely unaffected, and more response among the younger more affected cohorts. Distributional effects of the newly established pension funds, mainly financed through a diversion of severance pay flows, are also considered, supporting the view that fiscal incentives to the funded component are indeed present, although not very effective.

The third section of the book consists of a single chapter by Bryant and McKibbin, which integrates the picture by allowing capital movements to play their role in the international diversification of risk. In a stylized version of the world economy consisting of two countries, the authors analyze the effects of both symmetric and asymmetric demographic changes. The second type (a baby boom followed by a demographic depression) produces a long phase of higher growth, followed by a long period of adjustment where growth slows down, interest rates decrease, and the currency appreciates. The whole cycle lasts about a century. The message is that aging also affects global financial markets, so that a simple comparison between rates of returns of differently-financed pension systems is far too simple for policy analysis of the transition to a funded system.

Although the volume does not provide easy recipes against the possible negative consequences of aging, it does offer interesting perspectives on which future researchers can build. Its sober approach to a usually over-dramatized problem is an additional merit and a good reason to ponder it, even if more doubts are ultimately raised than resolved.

Elsa Fornero
Professor of Economics, University of Turin and CeRP