This book addresses the major supply and demand challenges affecting the quasi-market of mandatory defined contributions (DC) plans, including the role of market power and behavioral inertia. It underlines the inadequacy of several policy interventions and highlights the key risks related to DC plans. Major added value is provided through its recommendations, which address flat fees and related subsidies, hybrid organizational models (combining procurement and quasi-market models), cost-based tariffs, life-cycle default investment options, and targeted annuitization funds. I strongly recommend that all pension stakeholders read this book.

—André Laboul, Head of OECD Financial Affairs Division and Secretary General of International Organisation of Pensions Supervisors

Against the backdrop of the global financial crisis, this volume takes a much needed look at how the market for defined contribution pensions has evolved and how it can be strengthened, with careful attention to tradeoffs between risk and return, fees, bundling of services, and the ultimate outcome—retirement security. Policy makers and pension design analysts around the world will find this book essential in charting a path that balances equity, efficiency, and transparency in the pension marketplace.

—Olivia S. Mitchell, Executive Director of the Pension Research Council, Wharton School, University of Pennsylvania

Though defined contribution pension systems have addressed fiscal, intergenerational, and financial issues, the limited involvement of consumers in this market has caused strong market power, excessive marketing expenses, and high administrative fees by pension firms. Essential to understand the pending challenges of recent pension reforms, this book succeeds in disentangling macroeconomic and industrial organization predicaments, while proposing innovative alternatives to address these concerns. A must read for policy makers and academics working in the area of pension fund administration.

—Moisés J. Schwartz, President of CONSAR, Mexico's National Commission for Retirement Savings

New Policies for Mandatory Defined Contribution Pensions

INDUSTRIAL ORGANIZATION MODELS AND INVESTMENT PRODUCTS

Gregorio Impavido, Esperanza Lasagabaster, and Manuel García-Huitrón

THE WORLD BANK
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THE WORLD BANK
Washington, D.C.
The recent financial crisis is challenging the reform approach to mandated pension schemes that has emerged over recent decades across the world. This reform approach is characterized by a move toward multipillar pension systems and includes the creation or extension of a mandatory funded pillar with defined contribution design. The rationale and viability of such a pillar is contingent on an enabling environment and the delivery of high risk-adjusted net rates of return that beat the natural benchmark, which is the internal rate of return that an unfunded mandated scheme is able to achieve. The (mostly temporary) decline in asset prices of mandated funded pillars, which have been introduced in more than 30 countries, has caused the mind to refocus and ask for innovative policies that are better able to shield individuals from the vagaries of financial markets while providing the expected retirement income.

Two key aspects of mandated and funded defined contribution schemes have been under discussion and investigation since dedicated pension funds were created: (a) the high fees levied by privately organized pension funds and the consequence for the net rate of return and (b) the investment products of these funds and their capability to address the investment risks and to deliver the expected retirement income in a life-cycle context. To this end, country policies have experimented with a variety of approaches to improve outcomes with some important leads but overall modest results.

This book proposes to take a fresh and highly innovative look at both policy issues. It suggests stepping back and looking at the underlying causes of the issues at stake instead of merely trying to address their symptoms. In addressing the high fees of pension funds, it focuses on the less-than-ideal conditions—inert consumers facing firms with market powers—and proposes to apply solutions derived from industrial organization models and pricing methods that better reflect the cost structure of the supply of pension services. In addressing the investment risks, it asks how to improve fund managers’ risk-adjusted investment performance when participants are inert. The book proposes moving beyond the current default options and suggests a rule-based or risk-based framework,
depending on the enabling framework and the level of financial market development.

The proposed new policies are very timely and highly encourage enrichment of the pension design and reform discourse. They are based on sound economic thinking and empirical evidence, and they reflect the deep experience of the authors in pension design and implementation issues. Yet the presentation is fully accessible to a broader audience interested in pension reform.

Robert Holzmann
Research Director and Senior Adviser
World Bank
March 2010
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Introduction

Recent Developments

The pension reforms of the past few decades had almost inevitably three key objectives:\(^1\)

- To improve the actuarial features of the pension system in a way that would also increase its intergenerational fairness\(^2\)
- To reduce the defined benefit (DB) and increase the defined contribution (DC) component in financing retirement income with the objectives (among others) of (a) diversifying the financing mechanisms for pensions, (b) strengthening the consumption-smoothing component of the system, and (c) increasing the risk-adjusted return on pension contributions
- To increase the level of funding in the system as a means of increasing the value of the collateral behind the pension promise and of promoting national savings\(^3\)

In many countries, these objectives were achieved through the introduction of second pillars. Second pillars are occupational or personal, fully funded plans targeting formal sector workers, with mandatory participation and with financial assets as the funding or collateral of the pension promise (Holzmann et al. 2005).

Currently, mandatory DC pension second pillars are present in a large number of economies, with coverage easily exceeding 100 million participants.\(^4\) In Latin America, economies include, but are not limited to, Chile, Colombia, Mexico, and Peru.\(^5\) In Europe, economies include Bulgaria, Denmark, Hungary, Poland, Sweden, Switzerland, and the United Kingdom.\(^6\) In Asia and Oceania, economies include Australia; Hong Kong, China; and New Zealand.
Many of these countries used the Chilean reform of 1981 as a model. This reform was influential in achieving a radical paradigm shift in the way pension income is considered best financed. The new paradigm is based on a larger role for markets and on individual savings complementing intergenerational risk sharing. In addition, reducing the fiscal pressure created by generous mandatory DB plans is considered essential. Finally, the new paradigm is believed to be more resilient to demographic shocks, although this resilience, in reality, can be achieved only by policies aimed at increasing labor productivity and future per capita gross domestic product.

The Objective of This Book

This book has three main objectives: (a) to discuss the main implications that consumers’ inability to make rational choices can have on the functioning of second pillars, (b) to describe how jurisdictions have tried to address these problems through ad hoc policy interventions, and (c) to propose new policy directions that potentially could address these concerns more effectively.

The common thread throughout the book is the limited capacity of individuals to choose what is best for them. This problem stems from a combination of lack of financial education, bounded rationality, and use of simplistic “rules of thumb” in the decision-making process.

This limited capacity of individuals to make rational choices has two main implications for the functioning of second pillars: (a) pension firms enjoy disproportionate market power that translates into administrative fees that exceed average costs and socially undesirable high levels of marketing expenditures, and (b) consumers—especially those close to retirement—can be exposed to excessive investment risk.

These two policy concerns increase the costs of financial intermediation for contributors as measured by lower risk-adjusted expected net rates of return. Disappointing ex post risk-adjusted net rates of return imply disappointing ex post replacement rates (that is, the value of pensions relative to salaries). The latter, in turn, may imply higher than expected levels of poverty among elderly individuals and raise concerns about the advantages of an individual account pension system. Hence, policies aimed at either lowering fees or increasing risk-adjusted expected returns will strengthen the rationale for introducing mandatory DC pensions as a key element of a pension system.

The rest of this section summarizes (a) the nature of these two policy concerns, (b) the policy interventions typically adopted in many jurisdictions to address those concerns, and (c) new policy directions for exploiting individuals’ inertia and the biases in their decision-making process to help improve the performance of second pillars.
INTRODUCTION

The Concern about Firms’ Market Power

Pension markets are characterized by high barriers to entry, and consumers do not typically react to price signals such as administrative fees and risk-adjusted rates of return because of their lack of financial education or simple lack of interest. When they do react, they tend to follow rules of thumb that are not rational according to the standard economic theory. These factors, jointly with a production function for pension services that is characterized by important economies of scale, create market power, which, in turn, leads pension firms to treat their clients as captive and to choose prices well above average production costs. High prices finance excessive marketing activity, thereby further increasing barriers to entry, or they translate into supernormal profits for pension firms.

Administrative fees are clearly not without limits. For instance, one upper limit is determined by the desire to minimize entry, which can be costly for incumbents because of the ensuing marketing wars. An alternative upper limit is determined by fears of government intervention stemming from the public reaction to welfare losses for participants. However, these limits are not related to cost structures, and equilibrium prices are significantly above average production costs.

The divergence between prices and average production costs is socially undesirable because it redistributes rents from consumers to pension firms. Such redistribution potentially reduces the value of pensions relative to preretirement earnings (expected replacement rates) and undermines the policy objectives that had justified introducing second pillars in the first place.

The Concern about Investment Risk

The recent financial crisis has reignited the debate on whether pension participants bear excessive investment risk. The debate is particularly relevant within the component of mandatory DC pensions, where participants fully bear such risk, especially in the case of cohorts who are close to retirement and would not have sufficient time to recuperate from adverse market shocks.

What is important for the objective of this book is whether risk-adjusted rates of returns are low ex post because individuals expose themselves to excessive investment risk by being unable to choose the right investment strategy or fund over their life cycle. Ample evidence indicates that even in normal times individuals generally lack the necessary skills to monitor portfolio management; therefore, they tend to make an uneducated selection of portfolios during their life cycle. In addition, the lack of a long-term target for pension fund managers appears to leave too many degrees of freedom to asset managers in implementing the strategic asset allocation. This problem is compounded by the lack of a connection between the
accumulation phase and the retirement phase, which exposes individuals to annuitization risk. In other words, the institutional mechanism to force asset managers to invest consistently with participants’ long-term preferences is weak.

Policy Responses to These Two Key Concerns

Jurisdictions seeking to protect individuals against pension firms’ market power have introduced measures aimed at reducing administrative fees and redistributing rents in favor of consumers. The policy menu has generally included (a) soft interventions such as prohibiting firms from charging different individuals different prices for the same services, reducing the number of fees that can be charged, and bundling pension services; (b) more draconian interventions such as imposing price controls, imposing restrictions or bans on switches, and informally accepting market agreements aimed at avoiding marketing wars; and (c) specific institutional arrangements such as using centralized agencies or auction mechanisms for certain pension services and using automatic assignment rules for undecided consumers.

The key problem with these measures is that they have been often ad hoc in the sense that they have tried to achieve simultaneously conflicting objectives. In other words, while addressing one problem, they have often created other problems.

Jurisdictions seeking to protect individuals from their ability to expose themselves to excessive investment risk have adopted some form of life-cycle funds as default investment choices for undecided individuals. Jurisdictions that have introduced these investment products appear to have managed to shield individuals close to retirement from the high market volatility of the last two years, relative to jurisdictions that have not yet introduced these investment products.

Nonetheless, several issues arise with these default investment choices. First and foremost, very few jurisdictions have introduced these measures. Second, the way in which undecided individuals are assigned to investment funds by default could be further improved to promote better intertemporal risk diversification. Finally, such measures leave individuals exposed to annuitization risk when they need to convert cash balances in annuities at retirement.

New Policy Directions

The book acknowledges the usefulness of financial education programs as a means of improving individuals’ rationality. However, it contends that rationality is in the end bounded and that individuals’ decision-making process will inevitably be dominated by the use of rules of thumb. These heuristic solutions are not rational according to traditional economic
theory but are broadly predictable; therefore, they display systematic biases. These biases can be exploited (rather than corrected) by policy makers to design interventions that are more effective at protecting individuals from themselves than are the ad hoc policy interventions that are currently used.

The book provides clear recommendations on new policy directions for exploiting individuals’ inertia and the biases in their decision-making process in order to promote a reduction in administrative fees and an increase in risk-adjusted expected returns over the life cycle. In addition, it provides a clear distinction between policies that can be safely adopted by the majority of jurisdictions and other policies that, while promising, require further research or present more marked trade-offs.

The new policy menu recommended in the book, to be used selectively by different jurisdictions, includes (a) more use of flat fees to increase pricing efficiency and reduce incentives for marketing and cream skimming; (b) introduction of transparent flat subsidies from the budget to pursue equity policy objectives; (c) more use of hybrid industrial organization models, together with unbundling of pension services, to address the problem of participants’ inertia; (d) use of cost-based tariffs where price controls cannot be avoided; (e) generalized adoption of life-cycle funds default investment options to improve intertemporal risk diversification and to protect inert individuals who are near retirement from market risk; (f) identification and adoption of long-term investment targets to benchmark asset managers’ performance; and (g) introduction of life-cycle-based investment products that mitigate annuitization risk by reconnecting the accumulation phase with the retirement phase without reintroducing liabilities for pension asset managers.

The Structure of This Book

The rest of this book has the following structure. Chapter 2 begins with an analysis of the key characteristics of the demand and supply of mandatory DC pensions. It provides factual and empirical evidence on the outcome of the interaction between a demand for pension services that is highly inelastic to prices and a supply that is characterized by important fixed costs and economies of scale. The key characteristics are market concentration, market power, low volume of transfers across pension firms, high administrative fees, high levels of marketing expenditure, and supernormal profits. It also provides a simple theoretical framework to explain the interaction among market power, concentration, and elasticity in a Cournot oligopoly setup. Finally, it provides an in-depth discussion of the literature on switching costs to justify the inertia of individuals and explain why pension firms have incentives to invest excessively in marketing.
Chapter 3 discusses the trade-offs that policy makers face in introducing ad hoc policies and regulations aimed at offsetting the price distortions created by market power. These policies include various experiments with narrowly focused regulations aimed at increasing demand elasticity, redistributing rents in favor of consumers with low income or net worth, exploiting economies of scale in select pension services, lowering barriers to entry, rendering markets more contestable, reducing the incentives to spend on marketing, and capping prices charged by pension firms.

Two key messages stem from the analysis conducted in chapter 3. First, the policy interventions aimed at reducing administrative fees have been narrowly devised; hence, while they may partially address a problem, they often create new challenges. This problem arises because they typically attempt to address the consequences rather than the causes of price distortions. Second, more fundamental and market-based policies should be pursued. In general, specific policies with negligible trade-offs that could be pursued include (a) flat fees, (b) flat subsidies, (c) unbundling of pension services, and (d) hybrid industrial organization models that combine public procurement techniques for inert participants and choice for participants with a higher elasticity of demand. Thus far, only a few countries have started experimenting with such policies.

Chapter 4 discusses investment choice in mandatory DC plans, describes in detail the design characteristics of life-cycle default funds adopted in selected Latin American countries, and analyzes the strengths and weaknesses of those funds. It then considers the impact of the sub-prime financial crisis that started in 2007 on DC pension markets and makes a preliminary evaluation of how life-cycle funds have fared under the crisis. It finally discusses policies aimed at increasing risk-adjusted expected returns. Thus, the chapter supports the progressive liberalization of the regulatory framework for investments and the adoption of life-cycle funds. Such an approach has been observed in Latin American and Eastern European countries in recent years to promote financial innovation and offset participants’ inertia.

The analysis conducted in chapter 4 conveys two key messages. First, the chapter suggests that, even within a rule-based framework, welfare gains can be achieved by (a) reviewing investment rules spanning the universe of investment products, (b) mandating the use of deferred annuities and long-term duration bonds toward retirement as a way to better hedge annuitization risk, and (c) increasing the number of default investment options. Second, additional welfare gains for participants can be achieved only within a risk-based framework by reconnecting the accumulation phase with the retirement phase through the use of target retirement date annuitization funds without introducing liabilities for private providers.

Chapter 5 concludes by summarizing the lessons that can be drawn from the discussion of the previous chapters and by indicating important areas for future research.
The Audience of This Book

This book is relevant to a wide audience, which includes the following:

- **Policy makers in countries with an important or rapidly growing DC component.** Policy makers in countries with a high or rapidly growing value of assets under management will find the book particularly useful. Information on some of these countries is given in figures 1.1 and 1.2.

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**Figure 1.1 Assets in DB and DC Private Plans, Various Years**

![Figure 1.1](image)

*Source: Organisation for Economic Co-operation and Development and International Organization of Latin American Pension Supervisors.*
Policy makers in countries with a smaller DC component or unsophisticated capital markets. Size should not be interpreted in absolute terms. Thus, the book is also relevant to countries where pension systems have a small DC component and a limited amount of assets under management but the industrial organization of local financial services or the lack of sophistication of local capital markets makes competition policy issues and long-term asset allocation and investment risk
management issues important for reasons of financial stability. Information on some of these countries is given in figures 1.1 and 1.2.

- **Policy advisers working in the areas of pension regulation and supervision, competition policy for financial services, capital market development, and financial stability**. The book is relevant to policy advisers who want to develop a detailed understanding of the strengths and limitations of the policies adopted by many jurisdictions to lower administrative fees and to improve expected long-term performance in mandatory DC pensions.

- **Academics who are interested in identifying underresearched pension policy issues**. The book is relevant to academics because it identifies numerous policy issues that so far have not received adequate theoretical or empirical attention and that represent promising areas of future research. In addition, although essential policy material is provided in the main text of the book, more academically inclined readers will find relevant supporting technical discussions in the annexes that accompany each chapter.

Notes

1. For a review of country-specific reforms and general trends, see Feldstein and Siebert (2002); Fultz (2003); Holzmann, Orenstein, and Rutkowski (2003); Holzmann and Palmer (2006); Lindbeck and Persson (2003); and OECD (2000).

2. The literature here distinguishes between actuarial balance and actuarial fairness. The former feature, more macroeconomic, relates to the long-run financial stability (viability) of the pension systems (Diamond 2002). The latter feature, more microeconomic, relates to the link between benefits and contributions (Fenge 1995; Kotlikoff 1996, 1998).

3. Many countries with very mature systems (Italy, Latvia, Poland, and Sweden) have improved actuarial fairness and balance by introducing notional defined contribution systems that combine partial funding with individual accounts.

4. The International Organization of Latin American Pension Supervisors (Asociación Internacional de Organismos de Supervisión de Fondos de Pensiones) reports around 73 million participants for Latin America only. There are also around 40 million participants from Australia; Bulgaria; Denmark; Hong Kong, China; Hungary; the Netherlands; New Zealand; the Slovak Republic; Sweden; and Switzerland.

5. The effective years of implementation of initial reform in Latin America are Chile (1981), Peru (1993), Argentina and Colombia (1994), Uruguay (1996), Bolivia and Mexico (1997), El Salvador (1998), Costa Rica (2001), Nicaragua (2002), and the Dominican Republic (2003). Two more countries have passed a reform but either have not yet implemented it or are in the early stages of implementation: Ecuador (2001) and Panama (1999 and 2006). Finally, in late 2008, the Argentine parliament enacted a law nationalizing the second pillar and reverting to the system in place before the 1994 reform.

6. The effective years of implementation of the initial reforms in Eastern Europe are Hungary and Poland (1998); Latvia (2001); Bulgaria, Croatia, Estonia, Kosovo, and the Slovak Republic (2005); and the former Yugoslav Republic of Macedonia.
In addition, Lithuania implemented a reform in 2002 that is voluntary for new entrants.

7. In reference to this concept, this book often mentions that the demand for pension services is highly inelastic to prices.

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