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### **Personal Pensions and Markets**

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# **Personal Pensions and Markets**

for

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by

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# 1. Introduction

Many countries have reformed their pension systems, or are on their way to doing so, to be better prepared financially to meet upcoming demographic challenges. During these reforms many countries have moved farther toward systems based on funding and private arrangements, such as individual retirement accounts, both mandatory and voluntary. It is a well-known fact that people are retiring earlier than before, even before they are entitled to public pensions. This withdrawal of workers from the workforce at a younger age suggests that retirement income is gradually increasing, or that people are being forced out of the labour market. Moreover, life expectancy is constantly increasing. This combination of earlier retirement and longer life expectancy results in a much longer span of inactivity than before, which has to be financed. This has prompted people to make private pensions arrangements.

Moreover, the inability of social security to provide enough retirement income for all, especially for people high in the income distribution, has contributed to an observed increase in personal pension schemes. As pointed out by Munnell (1982), potential expansion of social security to meet the needs of all raises the philosophical issue of the government's right to infringe on individual freedom beyond assuring a basic retirement benefit. The plethora of pension system goals led the World Bank (1994) to advocate a three-tier pension model in which public pensions would focus on a minimal poverty reduction, the second tier on a fully-funded, mandatory defined-contribution pension system and a third tier of voluntary savings. This paper is mostly concerned with the last pillar – personal pension arrangements – but also addresses parts of the second pillar where pension policies are administered by insurance companies or other financial institutions. The main focus is on problems associated with the marketing and distribution of private pension products, namely high costs and regulation.

The complexity of pension systems and the consequent high acquisition costs of consumers can lead to considerable costs. The UK historical level of costs (including annuitisation costs) for a typical personal pension account holder is assessed to be over 40 per cent by Murthi *et al.* (1999). Economies of scale are also considered by James and Vittas (1999) to be of crucial importance. Mitchell (1999) finds costs low

in Mexico where economies of scale are enforced. On the other hand, an extreme example of a lack of economies of scale is in Iceland, with its population of a little less than 300 thousand, where Benediktsson *et al.* (1999) find that charges are considerably lower than in the UK, or between 2.5 and 12 per cent depending on the provider. The Icelandic system is simple and decentralized, and the sales process is unregulated, but the results might simply also be explained by an immature market in Iceland. Also, the bidding contest in Bolivia has led to the lowest commissions in Latin America. The remainder of the chapter is organized as follows: Section 2 reviews personal pension products, especially insurance products, and their technical characteristics. Section 3 is concerned with marketing and distribution of pension products, Section 4 with regulatory issues, while Section 5 concludes the chapter.

## **2. Personal Pension Products**

The main function of personal pensions is to smooth consumption over the lifecycle. Personal pensions can take on a variety of legal structures. They can be provided by an insurance company, designed either to deliver a stream of benefits at retirement or a lump sum that can be used to purchase an annuity. They might be offered through a mutual entity or through various forms of collective investments, such as unit trusts, investment trusts, open-ended investment companies or by other financial institutions, cf. Daykin (2002). The government's main function in personal pension arrangements is to identify incentives and promote pensions savings, often by tax-preferred instruments. In this overview we are mainly concerned with with-profit policies offered by the insurance industry and other financial institutions. However, we begin by a brief discussion of individual retirement accounts to set the stage for Sections 3 and 4.

### **2.1 Individual Retirement Accounts**

A naive perspective on pensions is the view that they are simply one form of savings. In the absence of tax advantages, the illiquidity of accumulated pension assets before retirement and the inflexibility of payments during retirement would make such pension investments unattractive relative to other savings mechanisms. In this view of

the world, tax advantages or compulsory contributions are hence essential for the growth of pensions. This perspective naturally lends itself to pension systems that mimic other savings instruments – ultimate benefits depend primarily or perhaps even exclusively, on contributions and financial performance. Individual retirement accounts are often used in countries that have opted for pension systems of this type, cf. Herbertsson, Orszag, and Orszag (2002).

During the last 25 years, individual retirement accounts have grown in importance as a retirement saving vehicle in the world. Such accounts became widespread during the pension reforms in Latin America in the eighties and the nineties, in the nineties in Northern Europe, in the late nineties in Eastern Europe, and so on. This form of pension became known as IRAs or 401(k)s in the United States, APFs in Chile, RSAs in Australia, etc.

The first comprehensive individual retirement account system was introduced in Chile in 1981 – the *Administradores de Fondos de Pensiones* (AFPs) – to manage and administer workers' retirement, survivors' and disability benefits. Chile had the oldest social insurance program in the Americas, and the system was running deficits amounting to 25 per cent of Chile's GDP, although 93% of retired people received only minimum benefits. The country therefore urgently needed to reform its retirement system.

The accounts are administered by insurance companies, and in the 1990s it became apparent that administration and acquisition costs were very high and portability losses huge. Gill *et al.* (2004) point out that management fees have remained stubbornly high in almost all the Latin American countries, even when administrative costs have fallen. This raises questions about the ability of governments to effectively regulate providers of pension products. We will address the issue of regulation in Section 4. It is also important to consider intergenerational fairness when discussing costs related to individual accounts. There is some evidence that the high costs observed in the past simply reflected the costs of starting up a new industry. The initial pension scheme members paid a larger share of their contributions in costs than current contributors, indicating that the old members were subsidizing newer members.

As with any system based on DC principles there are both financial and policy risks associated with individual accounts. The financial risk is due to the fact that the value of assets in the accounts is often highly volatile, and consequently the benefits depend very much on the exit date from work to retirement. For example, a person retiring in, say, 2000 would have received much different pensions than a person retiring in 2001 after the fall of stock markets. Also, there is a danger in any funded system that a dictatorial government or a government facing a serious crisis can abuse the schemes. Prominent examples are from Tanzania where pension funds were used to build a new palace for the president, from Argentina where the government instructed pension funds to invest in increasingly risky government bonds during the 2001 crisis, and from Bolivia where funds were forced to swap dollar-dominated assets to less attractive assets denominated in the local currency, see Gill *et al.* (2004). Consequently, it is important to allow pension fund administrators to invest funds abroad. We will further discuss investment regulation in Section 4.3.

## **2.2 Life Insurance**

Life insurance is one of the oldest forms of insurance and comes in a variety of forms. In its simplest form it is a contract between an insurance company and an individual, where the insurer pays out, in return for premiums paid, if the policy holder dies before the end of the contract. Generally life insurance savings products that are interesting from the perspective of pensions can be categorized into: *with-profits policies*, which allow policyholders to participate in the profits of the life fund of which their premiums form a part and, *unit-linked policies*, which are linked to the investment funds of the life insurance company.

### **2.2.1 With-profits Policies**

This kind of policy allows policyholders to participate in the profits of the life insurance company. Usually this is achieved through the distribution of annual bonuses that are accumulated in the policyholders' funds. Annual bonuses are calculated by the insurance company based on its own profit experience. Policyholders may also receive an additional bonus which is payable on the termination of the policy, often called terminal bonuses.

With-profits products have certain features, usually including (see FSA, 2001):

- The use of premiums to invest in a pooled fund made up of a range of assets, a significant proportion of which are usually in the form of equities and property.
- The *smoothing* of the amount of claim payments to cushion the policyholder from the extremes of fluctuations in the property and equity markets.
- A share in certain of the profits or losses of the insurer, often including those arising from mortality risks and expense risks, and any distributions from the inherited estate.
- Certain guarantees, which usually increase over the lifetime of the policy. For example the payment of a guaranteed amount at maturity or retirement, or on death.

Payment of premiums usually takes place in one of three ways: *single premium*, which is simply a lump sum payment, recurrent single premiums, where the policyholder can pay a non-contractual series of lump sums, and regular premiums where the policyholder pays a premium regularly according to a contract. The benefits are either paid out as a lump sum at the end of contract or converted into annuities. The majority of new with-profits policies is now written in unitised form, so more space will be devoted here to unit-link policies.

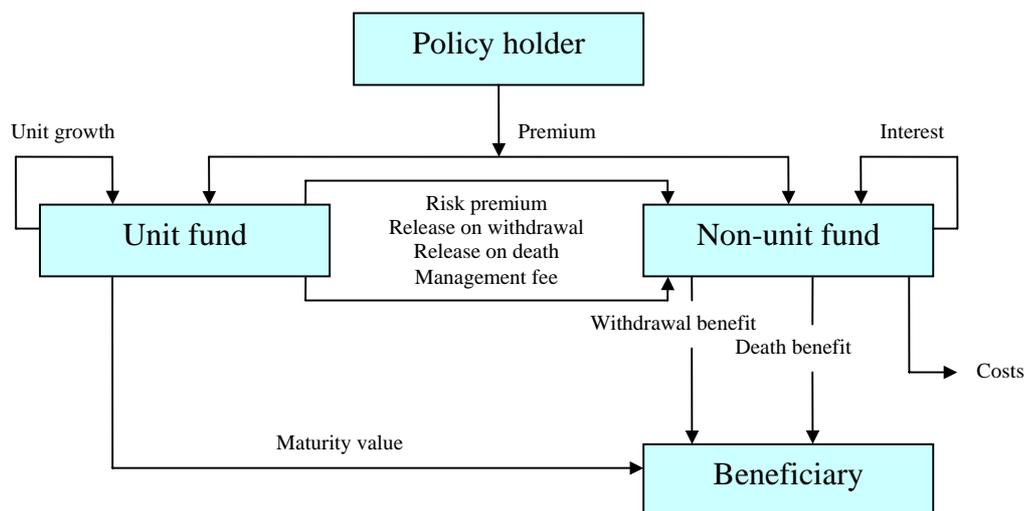
### **2.2.2 Unit-linked Policies**

The appeal of this type of insurance is that the individual can benefit in a transparent way from asset markets while, at the same time, retaining the advantages of life insurance products, such as death benefits and tax advantages. Unit-linked life insurance policies have been growing in importance as a retirement savings vehicle. For example between 1997 and 2001, the share of unit-linked business as a proportion of life insurers' total business in Western Europe rose from 21% to 36%. At the end of 2001, investments in unit-linked policies amounted to EUR 1,020 billion, equivalent to about 20% of the assets under management of European life insurers. This

corresponded to about 11% of Europe’s GDP, see Swiss Reinsurance Company (2003).

Unit-linked products can be divided into three categories according to the underlying investment: unit-linked (underlying investment is then equities, bonds, real estate, and money market), index-linked (investment is equities, bonds, and money market), and equity-linked (investment is only equities). Unlike guaranteed return policies, unit-linked policies leave most of the investment risk with the policy holder. As life premiums are used to purchase units in funds, and the value of each unit depends on the underlying value of the fund, units can increase as well as decrease in value, all according to the state of the relevant asset markets.

Usually acquisition commissions on this kind of policies are front-loaded, and the premiums are paid over the course of the following years. Administrative costs and mortality risk premiums are either – depending on the country – deducted from the premiums or paid for by selling fund units. In order to illustrate the working of a unit-linked policy, a simple policy with annual premiums and death benefits is analysed.<sup>1</sup> Figure 1. illustrates a simple cash-flow structure of a unit-linked policy.<sup>2</sup>



Source: Swiss Reinsurance Company

<sup>1</sup> The example is taken from Swiss Reinsurance Company.

<sup>2</sup> The cash-flow structure can vary from the one illustrated here, depending on the charging structure, design of funds, etc.

Figure 1. Cash flow for a unit-linked life insurance policy

The insurer pays a premium which is split into two components, one to buy units and the other is paid into the non-unit fund to the insurer. The mortality risk premium is financed by selling units from the unit-fund. At the end of each period a return is paid on the units, and a management fee is charged on the unit fund before being passed on to the insurance company to cover expenses. Interest is credited to the non-linked fund from which administration costs are paid. In the event of death or withdrawal units are released from the unit-fund and used to pay death claims and surrender benefits. Otherwise, the beneficiary will receive the maturity value of the units and can use it in her retirement. It is likely that pension system reforms will further drive growth of unit-linked products in the future.

### **2.2.3 Endowments**

Endowments are savings products that include life insurance. They are often taken out to run alongside a mortgage as a long-term investment. At the end of the contract, accumulated returns are paid out to the policyholder and can be used for pensions. If the insured person dies before the end of the term, the sum assured and, depending on the type of policy, any accumulated returns are paid out to individuals.

A low-cost endowment is a combination of a decreasing term policy and an endowment. The minimum sum assured continually decreases throughout the term to cover the outstanding mortgage debt. The growth in the endowment is expected to make up the difference. The overall intention is to add bonuses to the sum assured so that it grows to match the actual mortgage. Low-start endowments offer the option to pay lower premiums at the start of a policy, which might be attractive to young, low-income workers who may be able to afford a higher premium in a few years' time.

## **3. Marketing and Distribution**

Because of asymmetric information consumers in investment product markets are at a particular disadvantage. Pension products are often a complex financial phenomenon, and most people do not have a good financial education. Among other things, this has

resulted in mis-selling where unscrupulous salesmen, often on front-loaded commissions, have advised and sold wrong pensions products to people. This mismatch has called for increased regulation to protect the consumer, which again makes distribution complex and can drive up acquisition costs for providers.

### **3.1 Transaction costs**

Costs related to any funded pension scheme reduce future benefits and consequently the future consumption possibilities of beneficiaries.<sup>3</sup> For example, a cost amounting to, say, 100 basis points per annum can reduce one's pension wealth by almost 21 per cent, assuming 40 years of contributions.<sup>4</sup> It is apparent that it is very important to keep these costs down.

A considerable amount of research has emerged on administrative costs in different countries.<sup>5</sup> Private insurance arrangements induce transaction costs, such as search and negotiation costs, which can lead to substantial consumer detriment. In general, the conclusions from recent experience with supplementary pension accounts are that institutional differences in regulation and market structure are very important. Recent experiences with individual supplementary pension accounts in countries, such as Bolivia, Sweden, and Iceland, indicate radically different levels of charges to consumers than in countries with other approaches, such as the UK, Argentina, and Chile, cf. James, Smalhout, and Vittas (1999). Group or employer arrangements for supplementary pension arrangements also avoid many transaction costs and hence have considerably lower administrative costs than individual accounts.

#### **3.1.1 Administrative Costs**

In order to understand supplementary pension costs, Murthi *et al.* (1999) identified three different sources of administrative costs for individuals:

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<sup>3</sup> This section and the next are based on Herbertsson and Orszag (2001).

<sup>4</sup> Additional assumptions in the calculations are a 2 per cent annual wage increase and a 5 per cent rate of return.

<sup>5</sup> Relevant comparative work includes Olivia Mitchell, Annika Sunden, and Ping-Lung Hsin (1994), Salvador Valdes (1994), and Olivia Mitchell and Annika Sunden (1994).

- *Accumulation costs*, which capture fund management and administrative costs for a worker contributing funds to a single financial provider or pension plan throughout her career.
- *Alteration costs*, which measure the additional costs of failing to contribute consistently to a single financial provider or pension plan over an entire career. It includes any costs from switching from one financial provider, or pension plan, to another or from stopping contributions altogether.
- *Annuitisation costs* reflect the costs of converting an account to a lifetime annuity upon retirement (if required).

Murthi *et al.* (1999) decompose total costs for an individual over a lifetime into the three types above. The *alteration costs* are particularly significant where there are significant up-front costs which providers recover partially or wholly by *front-loading* charges. These up-front costs are common where either complex advice is required or there are inefficient or costly sales forces. High front-loading of costs coupled with high lapse rates can lead to considerable consumer loss. Front-loaded charges are particularly worrisome for lower-income consumers who tend to have higher lapse rates. In many countries, supplementary pensions will not have front-loaded charges because of their simple structure or because they are sold directly or in a particularly simple manner. However, in other countries, there is a high degree of front-loading, which leads to high deadweight loss from consumer turnover. The issue of front-loading is also closely related to that of *portability* of benefits.

### **3.1.2 Provider Costs**

To understand provider costs, Murthi *et al.* (1999) suggest three types of provider costs:

- *Acquisition costs* include the costs of new business, which include commissions to advisers, compensation to sales forces, and any advertising costs.
- *Administration costs* involve administering ongoing business, including IT infrastructure costs and back and front office management.
- *Asset management costs* are the costs of managing assets.

Of these three types of costs, asset management costs are the smallest component. In a recent study Fletcher and Orszag (2002) report that acquisition costs run at about 50 per cent of total costs for providers in the UK, while administration costs amount to a little more than 35 per cent, and asset management costs are under 15 per cent of the total cost.

### **3.1.3 Clearinghouse**

In order to deal with high costs often associated with financial institutions administrating individual accounts, the Premium Pension Authority (PPM) in Sweden introduced the concept of a clearing agency for the funded part of the new public pensions system. It is modelled on a unit-linked insurance company. It acts as a clearinghouse for the system as a whole, with individual members choosing up to five different private funds in which to invest. The PPM will collect funds and transfer them to the relevant private fund managers. A key design feature of the PPM is that the fund managers administering investments will not know the identity of the investors. Marketing and acquisition costs have traditionally been a high component of private pension costs and regulatory problems; the PPM's anonymity rules are an attempt to lower costs to consumers. At the same time, the PPM anonymity rules probably lower entry costs to the Swedish market because entrants need only provide investment management services and need not spend as much effort on buying up distribution channels. Indeed, at the onset in the spring of 2000, the PPM offered a choice of 453 different funds provided by 67 different fund managers, most of them based outside Sweden. In addition, for those not choosing funds to invest in, a special low-risk government fund called the Premium Savings Fund (Premieparfonden) will compete with the private sector. The organization along unit-linked lines also makes private pension provision accessible to both fund managers and life insurance companies. The PPM charges individuals 30 basis points for its management services.

## **3.2 Transparency and Disclosure**

Asymmetric information in pensions and insurance markets raises costs and creates mismatch problems. One way to address the problem is to regulate, but another way is to increase consumer knowledge through transparency and advice.

Fee-based advice is one solution to the asymmetric information problem, but in general, individuals have not been willing to pay directly for financial advice in Europe. Fee-based advice is common in the US, so one of the issues may be a substantial tax disadvantage for advice remuneration where commission payments are not subject to value-added tax. One of the important conceptual problems is that it is difficult to determine the proper market price for information goods, such as financial advice, because if individuals knew how to calculate the value of the advice, they would probably not need it.

In many countries product disclosure is often the most detailed regulatory measure as it represents the final opportunity in the sales process to help the consumer to make informed decisions. It is clearly in consumers' interests that sellers of financial products give full, clear, fair information and are not misleading in any way. It is also important to allow consumers to make informed decisions about the products they are buying and make it easier for them too understand the consequences of their purchase.

However, given that individuals do not know the value of advice in imperfect markets, it is an open economic question whether transparency and disclosure of charges would improve consumer welfare. On the one hand, consumers may not buy what is good for them if they know the high commission income that they are providing to a salesperson or an independent adviser. On the other hand, disclosure allows consumers to buy the lowest cost products and compare financial service products on the basis of cost. The UK originally regulated the sales process for direct sales forces so that voluntary disclosure was limited,<sup>6</sup> but in 1995 a new regime of mandatory disclosure was introduced. In general, disclosure has had a greater effect in reducing the dispersion of costs than in reducing costs overall.

However, having insignificant disclosure requirements would result in firms providing products of less value and also less information about them. It is also important to remember that some of the positive effects of transparency do not depend only on consumers' use of the information. Research carried out by the Financial

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<sup>6</sup> Securities and Investments Board (1986), is a publication reviewing the initial considerations on disclosure.

Supervisory Authority (2003) in the UK has shown that in practice, written information rarely forms part of the process of shopping around. The most important point is that consumers' attention should be drawn immediately to the most significant costs and risks, and that they can also find their way to all information about the potential downsides of a product. Consumers are often either unwilling to read the material (largely because they prefer to rely on what they are told by advisers), or they have difficulty understanding and using it. The provider may ultimately choose where and how to explain the downsides.

## 4. Regulation

It is apparent that regulating the sales process is very important. So far we have only talked about informing consumers, but there are other ways to protect them. Furthermore, in order to protect accumulated contributions and lower risks associated with investment decisions of pension funds and insurers, regulation is important.<sup>7</sup>

### 4.1 Consumer protection

In competitive markets with perfect information, economic theory suggests no need for regulation of the sales process. However, as discussed above, where there is imperfect information or information is costly for individuals to obtain, there may be welfare gains from regulation of either disclosure of information to particular consumers or direct regulation of the sales process.

A commonly cited example of the need for sales process regulation is the UK experience with *mis-selling of* personal pensions. The UK introduced Personal Pensions in 1988, and high-pressure sales tactics were subsequently used to persuade members of good occupational pension schemes (especially older, long-serving members) to switch into unsuitable personal pension schemes. Sales agents had often sought too little information from potential clients to provide proper advice, and their firms did not keep adequate records to defend themselves against subsequent mis-selling claims. The total amount of investor compensation resulting from the mis-selling scandal is estimated to be about £15 billion. There is at present no single

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<sup>7</sup> This section is based on Herbertsson and Orszag (2001).

system of sales authorisation or regulation in Europe although for life insurance there is a single market in which EU companies authorised to provide life insurance products in one country can do so in another under the same solvency regulations.

The UK sales process itself is, and has been, heavily regulated relative to most other European countries. The Financial Services Act of 1986 introduced strict regulation of the sales process, including a principle of *polarisation*, so that independent advisers and salespeople must either sell the product of one company or sell products of all providers.<sup>8</sup> In general, supplementary pension provision in most European countries involves heterogeneous marketing channels: independent advisers, direct sales forces, bank-assurers, appointed representatives, and, increasingly, direct sales by telephone and e-commerce. In such an environment, multiple ties between salespeople and advisers and companies can increase consumer information costs about whether an adviser is independent or not.<sup>9</sup> Therefore, polarisation can increase consumer welfare. On the other hand, polarisation may restrict competition and thereby raise costs of expanding business for entrants because they need to either pay high commissions to independent advisers or build an independent sales network from scratch.

Polarisation in the UK has not been so successful at lowering consumer costs – there is some evidence that sales-weighted average commissions are higher than un-weighted average commissions, indicating that independent advisers tend to suggest high commission plans. In addition, the regulatory regime has independent costs, which raise the un-weighted industry costs. Another problem is that, because of the front-loading of commissions, salespeople and advisers have less of an incentive to make sure individuals hold a policy for a long period of time. Commissions spread over longer periods of time and salary-based remuneration are becoming more common and will help relieve these problems. These solutions are, however, often not advantageous to sales forces and advisers (especially in the short-run) and are difficult to implement in practice without explicit or implicit regulatory pressure.

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<sup>8</sup> An excellent review of the regulatory issues behind the UK Financial Services Act 1986 is: Barry Rider, Charles Abrams, and Michael Ashe (1989).

<sup>9</sup> A related issue emphasized by the Forum of European Securities Commissions (FESCO) is making sure that “ownership” of the provider is transparent (<http://www.fsa.gov.uk/pdf/fesco.pdf>).

Another way of reducing consumer information costs in the sales process is to regulate product design. The UK's new Stakeholder Pensions have a mandatory maximum 1 per cent annual charge, and no other charges can be imposed. Such simple, commoditised products lead providers to compete on price rather than product characteristics. Single-premium retirement annuities are another example of simple commoditised products. The economic issue with such commoditised products is that while margins can be driven down, consumers can also be worse off with product regulation if they gain from the product diversity (for example, non-standard asset allocation to reflect risk preference).

Companies are also very sophisticated at marketing to the most profitable consumers and cost or product regulation very often hurts the least profitable consumers who are also the least well off, see Marsh (1988). Finally, it is important not to over-regulate for the sake of consumer protection. That will make distribution complex and can drive up acquisition costs.

## **4.2 Solvency Regulation**

An important issue for supplementary provision is protection of accumulated contributions held by pension funds or insurers. The Maxwell scandal of the early 1990s in Britain, the Studebaker Company scandal in the US in 1964, and recently the Enron scandal are just the most prominent of a number of key examples where individual pension rights were compromised by corporate performance and reliance on pension funds as a source of capital.

A number of different approaches are used to insure solvency of accumulated pension funds. For funds held with life insurers in Europe, the EU-wide solvency regulations and reserving requirements apply. These regulations provide security of capital for individual investors and insured corporate pensions. These solvency guarantees are particularly important for book reserve pensions.

Solvency regulations for pension funds can be much different than life insurance solvency regulations and differ considerably across countries. In 1997 the Minimum Funding Requirement (MFR) rule, which requires pension funds to be at least at the

level of funding on a discontinuance basis, was introduced in the UK. If funding is below 90 per cent of the discontinuance basis, a more rapid schedule of contributions is required. MFR calculations use a prescribed calculation method. There is also a Pension Compensation Fund to make up shortfalls as well as criminal penalties for employers failing to make contributions to a scheme on time.

In other countries, pension funds are insured or guaranteed centrally. Smalhout (1996) reviews the economics of pension guarantees and examples from throughout the world. The German Pensions-Sicherungs-Verein (PSVaG) insures book reserve pensions on an essentially pay-as-you-go basis. Other countries with insurance arrangements for pension fund insolvency include Finland, the Netherlands, Sweden, and Switzerland. General lessons about guarantee programs seem to be:

- These arrangements come under pressure primarily when there are large aggregate shocks, which create large numbers of employer insolvencies. In Finland claims against the insurance fund rose by a factor of 40 between 1988 and 1992, see Smalhout (1996). If the guarantee system is privatised, some sort of central government guarantee or external reinsurance program is important to insure against aggregate risks.
- Risk-related insurance premiums are important in reducing disincentive effects of employers to underfund. Without risk-related premiums, there is a subsidy to underfunded schemes (bad risks), and problems may be exacerbated by windups of solvent schemes.
- Solvency regulation and intervention/supervisory powers are also very important.
- Public disclosure of funding status can also be useful. The Netherlands are illustrative in this respect.

Providing guarantees for pension benefits is a complex economic area, not only because any form of insurance introduces incentive problems, but because the risks are not only aggregate but also long-term in nature. Private solutions for guarantees have been tried in many countries but are most successful if backed up by additional regulation and government guarantees.

### 4.3 Investment Regulation

Various restrictions exist on portfolios of pension funds in the world. While these might appear at first glance to be regulatory constraints, which unambiguously lower consumer welfare, the issues of investment freedom and solvency regulation for pension funds can be quite intertwined. For instance, if pension liabilities are in one currency, there may be some justification in mandating these liabilities to be appropriately matched with assets of an appropriate risk class denominated in the same currency. This particularly applies if there are implicit or explicit government guarantees.

At the same time, international investment of pension funds conveys many important benefits, including:

- *Potentially higher returns.* A wider variety of investment opportunities increases the scope for high asset returns
- *Better risk reduction.* By moving investment funds abroad, pension funds can effectively insure against adverse country-specific shocks.

Another example of investment freedom regulation being closely intertwined with solvency regulation is restrictions that prevent pension funds of employers from investing excessively in the sponsoring employers' business. The Maxwell scandal points to the importance of careful regulation of the custody of pension fund assets. Important aspects of this are restrictions that no more than a small percentage of assets can be held with the employer.

Such asset restrictions are good for solvency but can be a problem for small and medium-sized enterprises, which may find pensions a good source of capital for business expansion. The UK has lighter employer investment regulation for very small pension funds, called SSASs, which are self-administered schemes for groups of 12 or fewer individuals. There are similar provisions in other countries for small and medium-sized enterprises to help provide them with low-cost access to capital,

with the extreme example being the book reserve systems of many countries. The trade-off between the costs and the security of capital is hence an important one to consider in the design of supplementary pensions. The capital needs of small businesses, particularly in underdeveloped financial markets, are important to consider in such design. There is still the issue as to whether pension funds of employees are the appropriate vehicle to solve problems of capital market imperfections, or whether other forms of explicit or implicit subsidy might be better. Easy access to capital may deter competitiveness and slow down development of capital markets. It has naturally been claimed that the book reserve system in Germany is partly responsible for the lack of development of German equity capital markets, cf. Taverne (1995).

## **5. Conclusions**

The main message of this chapter is that costs associated with personal pensions have to be understood clearly in order to guarantee future retirement benefits. We show that a cost that lowers net returns by only a small fraction can reduce one's pension wealth substantially in the long run. Consequently, it is very important to keep these costs down. Mis-selling is another problem. Consumer education is one way of avoiding this difficulty, but regulation of sales tactics and consumer protection is probably a more efficient solution. However, over-regulation will make distribution complex and can drive up acquisition costs. Finally, efficient investment and solvency regulation is important in order to minimize the risk inherently associated with volatile financial assets of pension funds.

Future research on personal pension arrangements will have to focus on these issues. The connection between the regulatory framework and costs associated with retirement products is less than well understood. It is for example not obvious why costs in the UK, Chile, and the Balkan countries are so high in comparison with costs observed in Bolivia, Iceland, and Sweden. Also more research on consumer behaviour in financial retail markets and risk associated with private pension products is needed.

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