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Regulatory Controversies of Private Pension Funds

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I. INTRODUCTION

This paper discusses some important regulatory issues facing private pension funds. No attempt is made to be comprehensive and exhaustive or to develop a theory of pension fund regulation. As implied by its title, the paper is selective and focuses on issues that are often the subject of controversial debate. These issues can be classified into three groups: those determining the conceptual framework within which private pension funds operate; those that affect the structure and contestability of the sector; and those dealing with investment, valuation and minimum profitability rules and state guarantees.

The noncontroversial, or at least less controversial, regulatory issues tend to be of a prudential and protective nature. They aim to ensure the financial soundness of private pension funds and safeguard the interests of workers and resemble in many respects those that would be emphasized for sound banks and insurance companies. They include rules regarding authorization criteria, capital adequacy, asset segregation, professional asset management, use of custodial services, actuarial reviews, external audits, information disclosure, and effective supervision.

Although less controversial, prudential and protective regulations are more important because they are arguably indispensable for the good functioning of private pension funds. External custody, for instance, is crucial for protecting pension fund members from outright theft by asset managers or pension plan sponsors. Effective external custody eliminates the risk of asset managers absconding with the money to difficult to reach exotic places or the risk of plan sponsors using pension fund assets as collateral for their own financial operations. Similar considerations apply to the other prudential and protective regulations listed above.

The controversial regulations attract more attention and debate, but they are less important because the use of one or other approach may depend on the conditions prevailing in particular countries. This paper draws a basic distinction between what may be called a "relaxed" regulatory regime that would appear more appropriate for countries with well developed capital markets and a long tradition of private pension funds and a "draconian" regulatory regime that would appear more suitable for countries that have underdeveloped capital markets and no or little tradition in operating private pension funds. Both types of regimes would need to be supported by a whole panoply of prudential and protective regulations that mimic to a large extent similar rules applied on banks and insurance companies.

II. CONCEPTUAL FRAMEWORK

The conceptual framework governing the operations of private pension funds is determined by five main issues: the philosophy of regulation; the nature of the mandate; the nature of the benefit; the degree of individual choice; and the tax treatment. Three of these aspects-- the philosophy of regulation, the nature of the mandate, and the degree of individual choice-- interact extensively in shaping the conceptual framework. The nature of the benefit, i.e. whether pension

funds are based on defined contribution (DC) or defined benefit (DB) plans, has important operational and regulatory implications, but less extensive interaction with the other three issues. Similarly, the tax treatment of pension funds has incentive effects and fiscal cost implications as well as redistributive repercussions, but limited interaction with other regulatory issues.

2.1 PHILOSOPHY OF REGULATION

The basic philosophy of regulation is clearly a major determinant of the regulatory framework governing the operations of private pension funds in different countries. Four approaches may be distinguished, although in reality most countries follow a mixture of two or more of them.

At one end, there may be centralized management by a public agency, such as a social security institution or a national provident fund. Depending on how they are organized and structured, these institutions may centralize all aspects of administration and investment and may leave little scope for the emergence of private pension funds. The social security institutions of former socialist countries in Eastern Europe and Central Asia as well as the national provident funds in Singapore and Malaysia probably came closest to this extreme in the sense that they almost precluded the creation of private pension funds.[1]

At the other extreme, private pension funds may operate in a regulatory vacuum. This is usually the case at the early stages of their development. It characterized, for instance, the situation in Europe and North America in the late 19th and early 20th centuries[2] and is now found in some developing and transitional countries (e.g. Russia where several hundred pension funds have been established on the basis of rudimentary legislation and with no effective supervision).

In between these two extremes, there are two types of regulatory philosophies: "draconian" regulation covering most aspects of their operation, as is the case in Chile and other Latin American countries,[3] or reliance on the so-called "prudent man" or (in more modern and

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[1] The situation has changed significantly in both regions in recent years. In Singapore and Malaysia, individual workers have been allowed to direct the investment of balances in excess of a specified minimum level, while in Eastern Europe and Central Asia the monopoly of social security institutions has been broken, either by legislation or by their failure to collect contributions and disburse benefits and subsequent emergence of private pension funds.

[2] For a review of the historical evolution of private pension funds in the United Kingdom and the United States, see respectively Hannah (1986) and Williamson (1997).

[3] The aptness of the term "draconian" depends on one's perspective. Seen from the perspective of London or New York, the Chilean regulatory regime for private pension funds looks quite heavy and "draconian". But seen from the perspective of developing countries that have long suffered from financial repression, the Chilean regulatory regime appears less "draconian". For instance, no minimum requirements have been imposed on the

politically correct parlance) "prudent person" approach but with extensive investor protection rules, as has long been the case in Anglo-American countries and is now increasingly spreading in other OECD countries.

The exact meaning and practical implications of the concept of the "prudent person" are difficult to pin down. The concept is vague and subject to changes in fashion and fiduciary norms, but it is also flexible and evolving in practice in response to changes in technology, information availability, and market opportunities.[4]

Draconian regulations are more appropriate for mandatory systems that are newly created in countries with shallow and dysfunctional financial systems and little tradition of private pension funds. In contrast, the "prudent person" approach may reflect the voluntary and gradual expansion of private pension funds in countries with more sophisticated and better developed financial systems.

In Chile, the draconian regulations, especially those on investment policies, could be justified on several grounds: first and foremost, by the compulsory nature of the pension system; second, the absence of strong and transparent capital markets; third, the lack of a long tradition of private pension funds; fourth, the lack of familiarity of large numbers of workers with capital market instruments; fifth, the need to provide safeguards to covered workers; sixth, the concomitant need to control moral hazard, i.e. a situation where asset managers take excessive risks in the knowledge that retiring workers will be covered by state guarantees; seventh the need to reassure workers and overcome opposition to the program of systemic pension reform; and eighth, the paramount importance of avoiding failures and nasty surprises and thus undermining support for the reform program. Many of these justifications are likely to become less relevant over time as the reform takes roots and gains public acceptance, as capital markets become deeper and more robust, and as workers become financially more sophisticated. The need for draconian regulations would then weaken and a more relaxed approach could be gradually adopted.

Developing countries with underdeveloped and nontransparent financial systems would do well to imitate Chile and adopt a draconian regulatory regime when they first introduce a system of mandatory private pension funds. But they should also follow Chile's example in relaxing the severity of regulations when market conditions improve (Bustamante 1996). For countries with well developed capital markets and a long tradition of voluntary private pension funds, the application of draconian regulations would appear unnecessary, excessively bureaucratic, and inefficient.

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investment allocations of pension funds. This was a major departure from the use of directed credits and prescribed investments that characterized most developing and several developed countries in the 1960s and 1970s.

[4] The evolution of the concept and recent criticism are discussed below in section 4.1.

2.2 NATURE OF MANDATE

Another important determinant of the regulatory framework of private pension funds regards the existence and nature of the mandate. Are private pension funds voluntary or mandatory? And if the latter, is the mandate imposed on employers, as has been the case in Switzerland and more recently Australia and Hong Kong, requiring them to establish a pension scheme for their employees? Or is it imposed on individual workers as is increasingly the case in Latin America, where new reforming countries appear to follow the precedent set by Chile?

A mandatory system may be premised on two grounds. First, to protect society from the "weak moral hazard" of those who do not provide for their old age because they anticipate that society will take care of them. And, second, to protect workers, or at least a substantial minority of them, from their own "myopic" behavior and failure to save for their old age.[5]

If a mandatory system is deemed appropriate, the question arises on who should be the subject of the mandate. An employer mandate seems to be a natural evolution from voluntary company-based occupational pension schemes, which probably explains the choice made by Switzerland[6], Australia[7] and Hong Kong.[8] With an employer mandate, large companies create

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[5] Although there is growing international support for compulsory private pillars, either as an alternative to payroll-tax-financed social security systems or as an important component of a multi-pillar system, a recent referendum in New Zealand voted 13-to-1 against the introduction of a compulsory retirement savings scheme. The existence of a generous tax-financed universal pension, the absence of any tax incentives, and concerns about high operating costs probably lie behind this unfavorable verdict. The New Zealand experience underscores the importance of initial conditions in generating broad political and public support for a compulsory savings scheme (for details of the proposed scheme see New Zealand Government 1997).

[6] In Switzerland, the compulsory private pillar was approved in a 1972 referendum essentially as a defense against the expansion of the highly redistributive public pillar (Helbling 1991). It took the Swiss experts and authorities 13 years to approve the structure and conditions of the second pillar. The new system was introduced in 1985 and allowed the continuation of pre-existing voluntary occupational pension plans provided they met the minimum conditions established under the new law.

[7] In Australia, the compulsory system that was introduced in 1992 originated in the use during the late 1980s of productivity awards for boosting retirement savings (Harris 1997, Bateman and Piggott 1996). Trade unions play an important part in industry-wide funds but corporate plans continue to have a significant share of the market. The new law encourages the creation of open funds and allows the conversion of existing industry or corporate funds into open ones.

[8] Hong Kong passed legislation creating mandatory provident funds in August 1995. However, the new system has not been established yet because of delays in passing the necessary implementing regulations. The new system places a central role on corporate plans, although open funds, especially for employees of smaller firms, are also envisaged. The mandatory decentralized provident fund approach was adopted despite considerable skepticism and opposition, but it was chosen over an alternative proposal to set up a defined benefit social security system (Hong Kong Government 1994, Wong 1994).

and run in-house pension schemes, but small firms tend to rely on financial institutions (mostly insurance companies) to run their pension schemes.

A worker mandate is closer in concept to the use of long-term mutual funds. Its adoption in Latin American countries mainly reflects the underdevelopment of company-based schemes rather than any predilection in favor of mutual funds. A desire to emphasize personal responsibility was probably an additional factor in explaining the choice made in Chile in the early 1980s (Pinera 1991).

Employer and worker mandates have their advantages and disadvantages which are probably not independent of the way in which they are regulated. Employer mandates generally tend to involve fewer marketing and selling costs and should have lower operating costs than worker mandates. But employer mandates tend also to be less transparent and may be associated with lower investment returns, though empirical evidence on this as well as on operating costs is not yet very clear.

Using hybrid mandates may overcome some of these problems and may combine high returns with low costs. Although there is a possibility, at least in theory, that hybrid mandates might result in low returns and high costs, it is difficult to see the process that would bring about such a result.

Hybrid mandates may come in three forms. Under one approach, an employer mandate may be imposed but with individual workers having the right to opt out of the employer-sponsored scheme and join one of the independent funds, set up by financial institutions or other groups. If this hybrid approach is adopted, employers should not be allowed to discriminate in any way against "opting out" workers, but the workers themselves would have to base their decision on whether the uncertain prospect of possibly higher investment returns under a non-employer scheme would outweigh the near certainty of higher operating costs (since large employer schemes are likely to benefit from economies of scale and group discounts). A hybrid regime of this kind is currently contemplated in Australia and is even under early consideration in Switzerland. The right to opt-out is already conferred on employees in the United Kingdom, even though the private pillar is not compulsory.

The second hybrid approach, which has been proposed for Chile, would involve a worker mandate but with a provision for group contracts that would allow for group discounts and lower operating costs. Group contracts are likely to be arranged by employers but groups organized on some other basis could also be envisaged. An affiliate who is not happy with the performance of a group contract would be free to leave the group and join the same or another fund on an individual basis. The higher operating costs of individual contracts would imply that few workers would opt out of group contracts, but having such a right would exert pressure on group funds to perform well and achieve satisfactory net investment returns.

The three countries of Eastern Europe and Central Asia (Hungary, Kazakstan and Poland) that have enacted legislation for systemic pension reform during 1997 seem to have adopted a third hybrid approach: imposing the mandate on workers but allowing companies to establish closed corporate pension plans for their workers. These would operate alongside open funds operated by financial institutions.

The three hybrid approaches would have different starting points but would otherwise represent a convergence toward a structure that allows for scale economies and group discounts while protecting the rights of individual workers. However, hybrid mandates have yet to be widely tested in practice. In the case of workers of small firms, the right to opt out of the company scheme or group contract might not be exercisable if it were to lead to a loss of job.

2.3 NATURE OF THE BENEFIT

The regulatory regime of private pension funds also depends on the nature of the benefit that pension funds provide. Pension funds are traditionally classified between defined contribution (DC) and defined benefit (DB) plans. Their regulatory implications are quite distinct and derive from the operating characteristics of each type of plan.

In DC plans, regular contributions are made by or on behalf of participating workers and final benefits depend on the total contributions made and the accumulated investment earnings. In contrast, in DB plans, participating workers are promised a certain level of benefits, based on years of service, an annual rate of benefit (accrual rate), and a reference salary. Participating workers usually make regular contributions on a pre-determined basis, while sponsoring employers adjust their contributions in the light of investment performance and other factors.

DC plans usually offer fully funded, fully vested and fully portable benefits based on individual capitalization accounts, although Sweden and other countries have recently introduced pension systems based on unfunded DC plans involving notional accounts and notional rates of return. For their part, DB plans may be operated on a funded or unfunded basis, but because the present value of their benefits depends on complicated actuarial assumptions, it is difficult for DB plans to offer fully funded, fully vested and especially fully portable benefits.

It is usually argued that DC plans involve a stronger link between contributions and benefits than DB plans. This is generally true when they are compared with DB plans based on final salaries, minimum benefits, and early retirement with no actuarial adjustments, but not necessarily so when they are compared with properly designed DB plans that are based on lifetime earnings and actuarially adjusted early or late retirement. This is because in DC plans the largest component of the accumulated capital at retirement may well be the investment income earned over the active life of a worker. Variations in investment returns over time as well as among different groups of workers may substantially weaken the link between contributions and benefits.

In both types of plans, benefits may take the form of lump sum payments and/or regular monthly income. Historically, lump sum payments were offered by provident funds and regular monthly income by pension funds, but increasingly this historical distinction has disappeared and both provident and pension funds now offer a varying mix of both types of benefits. In DB plans, the monthly pension is paid by the sponsoring employer through the foundation or trust established to operate the pension fund. In mandatory DC plans, retiring workers are required to purchase a life annuity of one form or another from an insurance company or to use scheduled withdrawals that are set annually by taking into account the life expectancy of retiring workers and their dependents.

In mandatory DC plans, workers are often also required to purchase term life and disability insurance in order to cover them and their dependents from accident or death prior to reaching retirement age. These insured benefits do not depend on the contributions (premiums) paid by covered workers but are related to the salary earned prior to the occurrence of the incident that led to their activation. They are therefore of a defined benefit nature and highlight the hybrid nature of pension arrangements involving elements of both DC and DB plans.

At this juncture, it is worth pointing out that, though widely used, the distinction between DC and DB plans is not very useful. In the first place, most DB plans suffer from more or less frequent changes in their benefit formulas, involving changes in normal retirement ages, in early retirement provisions, and in annual accrual factors (Luzadis and Mitchell 1991). If account is also taken of the frequent failure to index pension payments to inflation on a consistent basis, it could easily be argued that there is little that is defined or predetermined in a DB plan.[9]

In a similar vain, contributions need not be fixed or predetermined in a DC plan. Since investment income is the major component of the accumulated capital at retirement, workers may be allowed or even encouraged to adjust from time to time their contribution rates in the light of the investment performance of their plans. If variable contribution rates are periodically set with a view to attaining desirable target replacement rates and if real or variable rather than nominal annuities are purchased, DC plans may in fact be more successful in achieving predetermined levels of pension benefits than DB plans.

A better basis for classification is perhaps a distinction between individual and collective capitalization plans. The first type of plan involves less risk pooling (some risk pooling takes place through investment in mutual funds), but is based on more clearly defined and more transparent contracts. The second type involves extensive risk pooling but its contractual basis is more complicated and less transparent.

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[9] This critique also applies (and perhaps with even greater force) to social security systems (World Bank 1994).

In individual capitalization plans, workers assume the performance risk of the fund, which may be subdivided into an investment risk, replacement or shortfall risk, and inflation risk depending on how the contract is specified. They also assume the solvency risk of the management company, unless there is a guarantee fund operated by the government or the association of management companies. Many of the regulations imposed on individual capitalization plans have to do with mitigating the risk exposure of individual workers.

In collective capitalization plans, the performance risk is in principle assumed by the sponsoring employer (and by insurance companies in the case of life policies or fixed annuities), but workers assume the integrity and solvency risk of the sponsors of the collective capitalization plans. The provision of some kind of retirement income insurance is a basic rationale for the existence of occupational pension plans (Bodie 1990), but the value of pension benefits depends on whether workers continue to work for the same employer, their earnings keep pace with inflation, and the sponsoring employer maintains the same plan (Bodie and Mitchell 1996). Many of the regulations imposed on collective capitalization plans have to do with clarifying the underlying contractual arrangements and safeguarding the interests of workers.

2.4 DEGREE OF INDIVIDUAL CHOICE

The degree of individual choice has an important bearing on the scope and severity of pension fund regulations. Voluntary saving for retirement and voluntary participation in pension funds, with or without tax incentives, imposes less of a regulatory burden on government than a compulsory scheme. With mandatory schemes, governments have an obligation to ensure that pension plans are safe, simple and easy to understand, and work well. This obligation is clearly stronger in countries where the system affects millions of workers lacking familiarity with modern financial markets.

Centralized management avoids many of the regulatory issues facing competitive decentralized systems but it eliminates any individual choice and competitive pressure and thus tends to suffer from inefficiency and high explicit or implicit taxes. Company pension schemes based on employer mandates also allow very little, if any, individual choice of pension fund or pension scheme unless they are set up as hybrid mandates with the right of workers to opt out of company plans and join independent funds. However, company pension schemes are increasingly allowing limited choice of investment fund.

In contrast, in worker mandates, the right to choose and to change pension fund management company is an integral element of the system. In principle, it increases the personal responsibility of workers and stimulates competition, innovation and efficiency. In practice,

however, account switching seems to have reached unexpectedly high levels and to be motivated and manipulated by the interests of selling agents rather than the interests of workers.[10]

But even with individual choice of pension fund, some workers may object to investing in heavily regulated pension funds and miss the opportunity to take greater risks and achieve higher returns. One way to accommodate such concerns would be to allow individual workers to invest in pension funds that are less heavily regulated (especially subject to fewer and less draconian investment rules), provided they would not be covered by government safeguards and guarantees, other than broadly available investor protection rules. Thus, workers who value the government safeguards and guarantees would stay with the heavily regulated funds, while those who do not desire such protections could opt for less regulated funds.

Offering this option may expose the authorities to adverse selection, moral hazard and fiscal costs if the withdrawal of government safeguards from workers choosing the less regulated funds is not credible. This implies that countries where such a separation may not be credible should not offer this option. In line with the approach followed in this paper, this option should not be offered in countries that need to start with a draconian regulatory regime. However, offering such an option could be part of the process of relaxation of pension fund regulations.

A more controversial option would be to exempt workers with strong philosophical objections against compulsory saving for retirement from participating in such schemes, provided they sign a declaration to that effect. At the very least, opting not to participate in a compulsory scheme would be the result of a conscious decision. It would eliminate the "weak moral hazard" whereby those who fail to save expect society to cater for them when they reach old age. Young workers could still be influenced by "saving myopia", but if they have to sign such a declaration every three or five years, they could realize the need for saving for their retirement at an earlier stage than would otherwise be the case. This option would also be faced with adverse selection, moral hazard, and potential fiscal costs in the long run, but it could take care of workers who have strong objections to being mandated to save for retirement and thus reduce opposition to systemic pension reform. To protect the government from potential fiscal costs, exercise of the option could be made dependent on the availability of adequate resources.[11]

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[10] Account switching has become a major issue in Chile where in 1996 nearly 1 in 3 of all affiliates, and 1 in 2 of active contributors switched their account. In Argentina, in fiscal 1997, ending in June 1997, and after only three years of operation, account switching reached 33% of active contributors and 17% of all affiliates. The reasons for this excessive level of switching are hotly debated (see below).

[11] The case of a relatively large number of workers opting out of the mandated scheme would imply a greater role for tax-financed pensions, either through an explicit public pillar or through means-tested social assistance pensions. If the number of opt-outs was very large, then the whole rationale of a mandatory savings scheme would need to be re-examined since in the face of strong opposition it would be unlikely to be effective.

The degree of individual choice is also linked to the coverage issue. In most countries, self-employed workers are required to participate in social security systems with redistributive objectives but not in supplementary capitalization schemes. However, self employed workers are offered tax incentives to establish voluntary pension plans. This is the case in Switzerland and Australia (although Australia does not operate a social security system but offers a tax-financed but means-tested declining old age pension). Among countries with mandatory supplementary pillars, Argentina obliges self-employed workers to participate fully (though compliance and verification of earnings are major problems), while Hong Kong will require contributions at half the rate imposed on workers on employees.[12]

Other groups of workers that could be exempted from compulsory participation are young workers (say those below 25), workers with very low incomes, and older workers above the normal retirement age. Switzerland (it its compulsory second pillar) and the Netherlands (in plans imposed by collective agreements) exempt young workers, while several countries exempt earnings below 20% to 40% of the average. As most young workers have low earnings, they would tend to be exempt under these provisions. Switzerland imposes contributions for the private second pillar on the so-called "coordinated earnings" which are usually defined between 40% and 120% of the average wage. Thus, earnings below 40% of the average wage are not subject to second pillar contributions.[13] In Australia, the threshold was raised in 1997 from 15% to 30% of average earnings, while in the proposed scheme for New Zealand noninvestment income up to about 20% of the average net wage would have been exempt. No such exemptions apply in Chile, Argentina and other Latin American countries. Singapore seems to be the only country that allows for lower contribution rates for older workers who continue to work after reaching the normal retirement age. This may be motivated by the high level of contribution rates, the high cost of labor, and the low retirement income of many aged workers.

2.5 TAX TREATMENT

In analyzing the tax treatment of retirement saving, a distinction is usually drawn between regimes that exempt contributions and investment income but tax pensions (the EET regime) and

[12] Under the proposal to introduce a compulsory retirement savings scheme in New Zealand that was turned down in the referendum of September 1997, not only self-employed workers would have been required to participate but contributions would have been assessed on investment income as well as on all types of noninvestment income, such as unemployment benefits or other social transfers (New Zealand Government 1997).

[13] In Switzerland, contributions to the public pillar are assessed on all employment income without ceilings.

those that tax contributions but exempt investment income and pensions (the TEE regime).[14] These two regimes have different cashflow effects because of differences in the timing of tax payments, but their long-term impact is the same.

Many countries use the TEE concept for compulsory social pension systems and the EET approach for voluntary company or personal pension schemes, though some countries (e.g. Switzerland) apply consistently the EET approach to both social and occupational pension schemes.[15] It is also worth noting that there are countries with a TTE regime (New Zealand), others with an EEE regime (e.g. Singapore) and still others with a TTT regime (e.g. Russia for some pension schemes).

Most countries that operate an EET regime impose limits on the two Es. First, upper limits are placed on the rate of tax-exempt contributions that can be made to pension schemes. Second, there is a ceiling on eligible earnings, although South Africa is notable for the absence of any such ceiling.

With regard to the second E, most countries exempt investment income from income tax. Because the assets commanded by pension funds have increased dramatically in recent years, some countries have imposed limits on the exemption of investment income. In Denmark, this takes the form of upper limits on real rates of return (i.e. any investment income in excess of a specified limit of real returns is liable to tax, though returns from investments in equities are exempt from this tax), while the Netherlands subjects to tax any investment income arising from surplus assets in overfunded schemes. The Dutch approach makes more sense than the Danish approach, although it faces the difficulty of identifying the level of overfunding, which can be quite controversial in defined benefit schemes.[16] Several countries, including Australia, South Africa and Sweden, impose tax on investment income at a reduced rate.

Many countries also allow partial commutation of pension benefits into a tax-free lump-sum so that pension benefits are only partially taxed. Thus, one can realistically argue that the tax regime is "eet" (i.e. lowercase rather than uppercase) in most countries.

An EET regime that provides tax exemption of contributions at the marginal tax rate avoids the double taxation of retirement savings. But it offers a tax deferral benefit that has

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14 This follows the terminology developed by the London-based Institute of Fiscal Studies in the 1970s. In American terminology, the EET regime is often described as the "IRA-type" of taxation and the TEE regime as the "municipal bond finance" type of taxation.

15 Under its new pension system, Hungary proposes to apply the same tax treatment, consisting of a 25% tax credit on contributions, exemption of investment income, and taxation of benefits, to all 3 pillars. A 25% tax credit is equivalent to a constrained first "E".

16 Davis (1995) offers a more detailed discussion of the tax regime in different OECD countries.

greater value for high income workers, the more progressive the scale of income taxation and the greater the income disparity between active working and passive retirement life. In this sense, the EET approach can have a pronounced degressive impact and benefit high income workers much more than low and middle income ones. To mitigate this problem, the tax exemption of pension contributions could be limited to the basic rate of tax, thus eliminating the more favorable treatment of high income workers. This is similar to the approach proposed for Hungary.

But a more equitable solution that would also benefit nontaxpayers would be to supplement tax exemption with a credit transfer system that would involve a direct government contribution to the retirement saving accounts of low income workers. It would represent a government subsidy or a form of negative income tax linked to saving for retirement.[17] A government co-contribution is offered in the Czech Republic and Mexico and was also envisaged in Australia.[18]

The case for a government co-contribution can become stronger if account is taken of the need to protect low income workers from the high operating costs of individual capitalization accounts. Moreover, in countries such as Australia, New Zealand, South Africa, Singapore, Malaysia, etc. where workers show a strong preference for the receipt of lump sums on retirement, a government co-contribution could be used as an incentive to encourage moving away from the lump sum mentality toward proper annuitization. Thus, three arguments can be used in favor of a modest and well targeted government co-contribution: to encourage compliance, especially among low income workers; to subsidize the high operating costs of low balance accounts; and to induce a move away from the lump sum mentality (Vittas 1997). The argument against is the budgetary cost.

Tax incentives have opportunity costs for the government and their use may be ineffective if they lead people to shift their savings to tax-favored forms without any overall increase in long-term savings. Moreover, visible tax incentives, such as the credit transfer involved in a co-contribution scheme, would raise more objections than indirect, less visible ones, like tax exemptions. But despite these objections, there should be little doubt that properly targeted tax incentives can be very powerful tools in encouraging compliance.

III. REGULATIONS AFFECTING STRUCTURE AND CONTESTABILITY

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[17] This discussion abstracts from the merits and demerits of a consumption-based tax system that would avoid the double taxation of all types of savings. A government co-contribution to the retirement savings accounts of low income workers could be combined with a consumption-based tax system.

[18] In the Czech Republic the government co-contribution has not been linked to a minimum saving for retirement and has encouraged small amounts of savings that can be withdrawn penalty-free after only 15 years. In Mexico, the government intends to deposit one peso a day to each retirement savings account, even to high income workers. In Australia, payment of the co-contribution was scheduled to be gradually phased out as incomes reached average earnings but the co-contribution concept is unlikely to be implemented.

Private pension funds can be subject to many controls that affect the structure and contestability of the sector. These controls include rules on authorized institutions, operational controls such as the non-discrimination rule, and the regulation of fees and commissions.

3.1 TYPES OF AUTHORIZED INSTITUTIONS

The question of which type of institution is authorized to offer pension services is related to the nature of the mandate and the nature of benefit involved. It is different from the question of the authorization criteria that an institution must meet to obtain a license once the structure of the system is determined. There are clear links between the two questions since authorization criteria vary depending on the types of institutions involved. Authorization criteria have prudential objectives and set out minimum capital, "fit and proper", and business plan requirements, whereas the types of authorized institutions affect the structure of the market. There are three types of institutions that may be authorized: corporate pension funds; specially authorized independent pension funds; and ordinary financial institutions (such as banks, insurance companies or mutual funds).

In countries where there is neither an employer nor a worker mandate for a "second" pillar, employers are authorized to set up pension schemes on a voluntary basis provided they meet some basic scheme rules. Corporate pension funds are operated as trusts, foundations or mutual associations. They are legally separate entities and have to observe detailed rules regarding governance and employee representation. In the United States, employers offering so-called 401(k) plans must also set up a trust with fiduciaries and trustees, even if participating workers are allowed to select from a number of authorized investment funds. Even though there is growing outsourcing of the administration and investment functions of retirement plans to independent specialized service providers, sponsoring employers continue to be responsible for complying with regulations imposed by the Department of Labor and the Internal Revenue Service.[19]

In countries with employer mandates, any employer can be authorized to establish a pension fund, often in the form of a trust or foundation. The trusts or foundations are managed by boards of trustees that usually consist of employer and employee representatives. The trustees are responsible for selecting the asset managers and for running the pension fund, although increasingly workers are given a limited choice of investment funds. There are minimum benefit conditions that need to be observed, but otherwise employers may offer more generous benefits, including defined benefit pensions. There are also multi-employer pension funds, sometimes run

[19] 401(k) refers to the section of the Internal Revenue Code that regulates the requirements that must be followed to allow workers to defer tax by electing to contribute to qualified regular savings plans. Section 403(b) covers regular savings plans established by tax-exempt or nonprofit entities. The basic requirements that company retirement plans must follow to qualify for special treatment under the Internal Revenue Code are set out in section 401(a).

by trade unions, in industries that are characterized by high mobility and are extensively unionized. Small employers in sectors without multi-employer funds usually employ insurance companies or other financial institutions to run their pension schemes. Thus, countries with employer mandates such as Switzerland, Australia and Hong Kong (under the planned new compulsory pension system), tend to authorize both corporate and independent pension funds. Kazakstan, Hungary and Poland also provide for the co-existence of corporate and independent pension funds. With the likely emergence of hybrid mandates, this may become the norm in future pension reform programs.

In Latin America, where the mandate is on individual workers, only specially authorized institutions are allowed to operate pension funds. Except for Brazil, corporate pension funds do not play a central part in the pension system. Banks and other financial institutions are usually authorized to establish such specialized subsidiaries, often through a holding company in the group, but other entities, such as trade unions and employer associations, may also do so.

In many countries, all workers, but especially those who do not participate in company schemes, are encouraged by tax benefits to save for their retirement with existing financial institutions. These facilities are basically aimed at self-employed workers, who as already noted are not usually covered by mandatory schemes. But voluntary schemes also encourage retirement saving by all workers over and above the minimum compulsory level.

No special authorizations are required for voluntary saving of this kind. Financial institutions offering retirement accounts are not compelled to maintain segregated assets for these accounts. Individual workers can place their retirement savings with banks, insurance companies, or mutual funds and can have multiple accounts. They are responsible for making investment decisions and for maintaining tax records. However, financial institutions offering tax-advantaged retirement savings accounts must report contributions and withdrawals to the tax authorities. The Individual Retirement Arrangements (IRAs) in the United States, the Registered Retirement Savings Plans (RRSPs) in Canada, and the more recently authorized Personal Pension Plans in the United Kingdom follow this pattern.

Special authorizations create a segmentation in the market for financial services as only some institutions are allowed to operate pension funds (Shah 1997). Although such segmentation is undesirable in the long run, it may be necessary in countries with mandatory pension pillars, especially where capital markets are less developed and most financial institutions are subject to weak prudential regulation and supervision. But, as in the case of other types of regulations, in the long run the types of authorized institutions should be expanded to allow for greater integration of pension funds with other financial markets.

3.2 OPERATIONAL CONTROLS

Operational controls cover vesting, portability and funding requirements, single or multiple accounts or funds, and the non-discrimination rule. They vary considerably between

worker and employer mandates and especially between defined contribution (DC) and defined benefit (DB) plans.

The main controls on DB plans concern minimum vesting, portability and funding requirements and the non-discrimination rule. DB plans involve one pension fund for all covered employees and the issue of fund choice and multiple accounts does not arise. The non-discrimination rule is also relevant for DC plans, but vesting, portability and funding raise fewer regulatory issues. For DC plans with genuine individual capitalization accounts, full vesting, funding, and portability is the norm, although for each feature some limitations of secondary importance may apply. The ability to have multiple accounts and to operate multiple funds has emerged as a more controversial issue for DC plans with individual accounts.

In countries with voluntary company pension schemes, employers are required to meet design rules that specify non-discrimination among workers. These can be very complicated and burdensome. They imply similar contribution rates on employees and similar benefit formulas. Because of abuses in the past, regulations also impose minimum vesting, portability and funding requirements for DB plans. These vary from country to country.[20] Increasingly, the minimum vesting period is 5 years or less. Portability of vested benefits when workers change employment is also increasingly required, although calculating the present value of such benefits is affected by actuarial assumptions that tend to discriminate against departing workers. Employers assume the investment risk of pension fund assets, but adequate funding of actuarially assessed pension obligations is required in order to protect the interests of workers from the solvency risk of sponsoring employers. Required funding levels have implications for the investment and asset allocation policies of the pension fund, but they are also affected by the subjectivity of actuarial assumptions.

Although far from perfect and watertight, these regulations on DB plans increase the protection of worker rights and by implication raise the cost to employers of offering DB plans. Coupled with the perceived declining stability of employment patterns, these tighter regulations may explain the decline in the number and relative importance of DB pension plans in many advanced countries.

In company-sponsored DC plans, employers used also to operate one fund for all covered workers, but with the growing popularity of 401(k) plans, US companies now offer a limited choice of funds and even individual instruments. The investment risk is assumed by the workers, but companies provide education and guidance to familiarize workers with market opportunities and promote better informed investment decisions. Employers are, however, reluctant to offer investment advice, because they may find themselves liable for losses.

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[20] For a more detailed discussion of these regulatory issues for advanced OECD and EU countries, see Davis (1995) and de Ryck (1996).

In countries with employer mandates, which specify minimum benefits in the form of DC plans, companies may operate one fund for all covered workers or they may offer limited choice of investment fund. Account switching may occur only when workers change employment, although workers have the right to leave accumulated balances in the fund of their previous employer. As a result of this provision, many Australian workers have several pension accounts, although only one active account. Vesting of employee contributions is immediate but vesting of employer contributions may be deferred by a few years. Funding and portability are virtually full, as long as the plan is DC, while a non-discrimination rule is also imposed.

In individually arranged facilities, where individuals set up their own accounts, such as IRAs in the United States and RRSPs in Canada, they may place their retirement savings in several accounts and decide the allocation of their balances between accounts and funds on an individual basis. Holders of IRAs and RRSPs have traditionally invested heavily in bank deposits and guaranteed return contracts offered by insurance companies (known as guaranteed investment contracts in the US and guaranteed interest annuities in Canada), but in recent years there has been a significant shift in favor of equities, including equity mutual funds (Poterba and Wise 1996). Yet despite these positive developments, there is continuing concern about the financial sophistication of most workers.[21]

In Chile and most other Latin American countries with worker mandates, pension regulations have imposed the "one account per worker" and "one fund per company" restrictions. The rationale for these restrictions is to keep the system simple, to verify compliance, and to encourage transparency. They also reflect the perceived lack of financial sophistication of most workers. The restrictions are supported with a uniform pricing rule that requires pension fund management companies to treat all workers equally. These rules have come under criticism from observers of the Latin American pension reforms, although they seem to have followed prior established practice in more advanced countries and to have been motivated by the need to keep the system simple and safe.

The "one account per worker" rule forces workers to place all their pension savings with one pension fund management company. Multiple accounts per worker would allow a diversification of pension fund management company risk, although an unlimited number of accounts would tend to complicate the verification of compliance (a major issue in most mandated

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[21] In the United States, market surveys of workers participating in 401(k) plans report a significant gap between what the participants actually know about investments and what they think they know. 55% of participants who professed knowledge about plan investments misidentified which types of investments are typically found in a balanced plan. Almost 50% of participants who said they were specifically knowledgeable about money market funds thought that money market funds contained stocks and bonds. More than 75% of participants were wrong about the best time to transfer into a bond fund. Finally, they made serious errors about classifying investment risk and identifying current and historical levels of inflation (Franz et al 1997:2.56).

schemes).[22] Allowing two or three accounts per worker may be a feasible compromise solution, once the mandatory pillar and supervisory capacity are well established.

The main argument against multiple accounts is the likely increase in fees incurred by workers, which would be high if flat fees to cover the fixed costs of setting up and maintaining an account were applied. The potential high cost of multiple account holding would induce most workers with low balances to hold one or at most two accounts. But high income and high balance workers could maintain more than one account and thus reduce the intense marketing efforts that are made by selling agents to persuade them to switch their accounts.[23] This is because workers would be able to switch part of their contributions and/or balances and would represent less of a prize for selling agents.

The "one fund per company" rule does not allow companies to offer funds that are tailored to the different investment needs of young and old workers. In response to these criticisms, Chile is currently considering the introduction of a second fund per company that would be wholly invested in fixed income securities and in which all workers within five years of retirement would be required to invest in order to protect the value of their balances from the greater fluctuation of equity prices. In Mexico, multiple funds may be offered in the future.

Allowing multiple funds may, however, create some problems. Companies may encourage some workers (say senior executives) to join the better performing funds and they may attempt to manipulate the allocation of securities among different funds. Ideally, the allocation of securities must be effected at the time the transaction (purchase or sale) is undertaken, but fund managers may fail to observe this rule and may discriminate in favor of one or other of the funds under their management. Another argument in favor of the "one fund" rule is that each management company has to stand behind one product. Its reputation and its business are on the line and its performance is not obscured by the offer of a wide range of funds with differing styles and objectives.

The "one price" rule prevents pension fund management companies from offering different types of discounts: loyalty discounts to affiliates who stay with the same fund for long periods; group discounts to workers who participate in a group contract (perhaps arranged by their employer); volume discounts to affiliates with high incomes and/or high balances; and “direct selling” discounts to workers who by-pass selling agents and open accounts direct. Although

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[22] The continuing advance of electronic technology suggests that verification of compliance in the presence of multiple accounts should be less of an issue, once electronic reporting is implemented.

[23] The prohibition of levying management fees based on account balances in Chile and Argentina has meant that high income rather than high balance workers are the most attractive targets for management companies and their selling agents. However, the intense marketing effort and the high level of account switching may also be motivated by other factors (see below).

motivated by the desire to protect low income as well as less sophisticated workers from paying charges that are disproportionate to their incomes, the "one price" rule may have created serious distortions in the competitive environment facing management companies.

By breaking the link between revenues and costs, the "one price" rule may have contributed to the high marketing intensity of the sector, the employment of large numbers of aggressive selling agents, the high level of account switching, and the high level of total operating costs (Arrau et al 1993, Valdes-Prieto 1995).[24] Account switching may have emerged as a substitute mechanism developed by the market in order to rebate the excessive fees charged on high income workers. Allowing loyalty, group and especially high volume and “direct selling” discounts could remove these distortions but it would also imply abandoning the "one price" rule. Given the legitimate concern to protect low income workers from relatively high charges, such a regulatory change would probably require the payment of some kind of subsidy (government co-contribution) to low income or perhaps to low balance accounts.

Faced with an unexpectedly very high level of account switching (one in every two active accounts in Chile and one in every three active accounts in Argentina after only three years of existence), regulators have sought to impose structural restrictions on account switching. In fact, in Argentina the law allows only 2 account transfers per year (6 months of contributions are required before an account can be transferred), while in Chile practical considerations effectively limit account transfers to 3 per year.

Account switching grew very fast in Chile after 1988 when the process of switching became less cumbersome and time consuming for workers. This allowed selling agents to initiate and complete the whole cycle of processing account transfers once they obtained the signed consent of affiliated workers. Personal visits by workers to their AFP were no longer required. A similar approach is followed in Argentina where selling agents have been criticized for misleading workers, obtaining their signatures on false grounds, and even counterfeiting signatures.

To contain the level of account switching and thus discourage the high level of spending on marketing and commissions to selling agents, several Latin American countries are contemplating the imposition of more severe limits on account switching (one per year or even per longer periods). They are also thinking of requiring personal visits to pension fund management companies in order to limit account transfers to only those workers who have strong

[24] The growth of marketing intensity of the Chilean scheme is highlighted by the increase in the share of marketing costs in total operating costs. This grew from 32% in 1982 to 37% in 1994 and to 48% in 1996 . Valdes-Prieto (1994) reports data for 1990 and 1991 that show that marketing costs amounted to about 25% of total operating costs. The subsequent rise may have been caused by the entry of several new AFPs in the early 1990s, which may, in turn, have been induced by the high operating margins enjoyed by AFPs in 1990 and 1991. According to the data reported by Valdes-Prieto, the average operating margin of pension fund management companies amounted to 42% in 1991.

reasons for switching. These additional restrictions would, however, effectively lower the operating efficiency of the system and could penalize workers who are unable to pay personal visits to their pension fund management companies (older or disabled workers).

3.3 REGULATION OF FEES AND COMMISSIONS

The apparent high level of operating costs in countries with worker mandates has implied high levels of charges. As a large proportion of these costs originates in marketing and selling costs, concern has been expressed that granting individual choice to workers to select fund managers may lead inevitably to higher costs compared to a situation of delegated choice that is found in countries with employer mandates (Arrau and Schmidt-Hebbel 1994, Diamond 1994). The verdict on this must, however, await better data on operating costs in countries with employer mandates.

Company-based pension schemes, whether mandated or voluntary, do not entail high selling and marketing costs and do not involve direct charges on workers.[25] This is one of their main advantages compared to independent funds based on worker mandates. The main selling and marketing costs that are incurred in company schemes are the promotional costs of insurance companies and other financial institutions who seek to obtain the pension business of different companies, especially in the case of multi-employer funds. There are also promotional costs incurred by asset managers, custodians, actuaries, auditors and other financial institutions serving company pension schemes, while in the case of voluntary company DC schemes, there are promotional costs incurred in seeking to increase worker participation and in offering investment educational programs. But all these costs pale into insignificance compared to the selling and marketing costs incurred by pension fund management companies in worker mandates.

In employer mandates as well as in voluntary company-based schemes, there is little need to regulate selling commissions and marketing costs, because the underlying market is one between professionals with equal access to information and financial sophistication--the trustees of pension funds deal directly with the managers of companies supplying different types of services. The situation is vastly different in the case of worker mandates. There, individual workers, many of them financially unsophisticated and unfamiliar with the workings of financial

[25] To the extent that employers incur costs in operating pension plans for their workers, the latter will pay in the longer run through lower wages than they would otherwise receive. The problem with employer mandates is that many of the costs are hidden (failure to charge rent for the use of premises, making available senior staff for administration and investment management duties, producing leaflets and other information without an explicit cost charge on the pension fund, etc.). Hidden costs of this kind may be particularly important at the launching of the new scheme and may have implications for the sequencing of the regulatory structure of mandatory private pillars. For instance, they may minimize start-up costs and favor starting with an employer mandate based on corporate plans and limited individual choice of investment fund and then gradually moving to independent funds and greater individual choice.

markets, deal with the managers of pension fund companies or, more likely, with the selling agents retained by such companies. The need for regulating fees and commissions is thus much greater.

In Chile, the authorities have not imposed any controls on the level of fees and commissions, relying on competition (and presumably also on the threat of future regulation) for putting a lid on them. They did, however, regulate the structure of commissions, though only by disallowing some types of fees. No controls have been placed on the level and structure of commissions paid to selling agents. Authorized fees include a fixed (flat) fee and a pro rata fee per collection (and per scheduled withdrawal when workers retire), fees for opening new accounts (entry fees), and fees for voluntary savings accounts. No exit, asset-based (account management) or performance-based fees are allowed. Regular management fees based on the accumulated account balance were initially permitted but they had an adverse impact on unemployed workers with inactive accounts and were subsequently prohibited. Exit fees are not allowed because of concern that they might be set at high levels to discourage the transfer of accounts.

The use of a flat fee per collection has a regressive impact on low income workers. The differences in rates of return caused by this fee may be significant, especially when compounded over 40 years. Some pension fund management companies in Chile and other countries have used a high flat fee as a means of discouraging low income workers, while by charging a lower volume fee they have sought to attract high income workers. Other companies have eliminated their flat fees or have allowed their real value to erode by not adjusting them fully to inflation. Despite claims regarding the insulation from political risks of the new pension system (Diamond 1994), it is alleged that there has been considerable political pressure to lower or eliminate flat fees because of their adverse impact on low income workers (Valdes-Prieto 1995).

The structure of fees has also been shaped by the "non-discrimination" rule and the requirement to charge the same prices to all affiliated workers. This approach has so far prevented pension fund management companies from offering loyalty, group, high volume, or “direct selling” discounts. Loyalty discounts have been allowed in Argentina, but their impact on discouraging switching has been insignificant. As argued by Rofman and Bertin (1996), loyalty fees tend to be small and may be ineffective in discouraging departing transfers. What could be more effective would be rewards paid to leaving workers to induce them to stay.

The fees paid to selling agents are based on commissions per new account. Because of the marketing intensity of worker mandated pension systems, the level of commissions is high and the number of selling agents is also very large.[26] Attempts to reduce commission levels and to link

[26] The number of selling agents increased in Chile from less than 3,000 during the 1980s to over 15,000 in the 1990s. This rise was caused by the entry of 8 new companies in the early 1990s. Although the number of companies has fallen back to 13, mostly as a result of mergers, the number of selling agents continues to be high and, as already noted, marketing costs absorbed 48% of all operating costs in 1996. Argentina and Mexico have also suffered from very high numbers of selling agents.

agent commissions to the length of an account have not been successful so far because of the market power and strong resistance of selling agents.

One way to cope with the high level of costs, the marketing intensity of the system and the high frequency of account switching is to impose more restrictions on switching (see above), to limit advertising or marketing efforts, or to control the level of fees and commissions. However, before such interventionist initiatives are contemplated, consideration should be given to liberalizing the structure of fees and commissions and use government subsidies of one form or another to protect low income workers from the effect of unregulated prices that might have a regressive impact.

Reintroducing asset management fees and reducing collection fees would be one option. To protect workers who have already paid high collection fees, the example of US mutual funds could be followed whereby workers are subject to different tariffs depending on when they entered the system.[27] Analysis of the impact of different fee structures on workers and management companies shows that a management fee based on assets implies a lower cost for workers upfront but a higher cost in the long run. For management companies, a fee on assets implies a longer break-even and payback period, but greater profits in the long run, provided the level of fees is not reduced by market competition. But for newly created mandatory systems, asset management fees may have to be very high to ensure that management companies do not suffer huge losses at the start of the system.

Thus, starting with collection fees may be the only practical way of introducing a compulsory system based on a worker mandate and independent, non-employer pension funds. As the system matures and total balances increase in relation to monthly collections, the investment management and account maintenance costs are likely to become more important than the collection and account opening costs. The structure of fees is also likely to change, while the regulatory regime itself may need to adapt. Of course, an alternative way to organize a compulsory private pension pillar could be to start with an employer mandate and delegated choice of pension fund and move gradually to a hybrid mandate that allows for individual choice.

IV. INVESTMENT LIMITS, MINIMUM PROFITABILITY RULES AND STATE GUARANTEES

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[27] US mutual funds have different classes of shares with varying pricing structures for the same funds: class A shares involve a front-end load (collection fee); class B shares involve a regular load (12b-1 fee) plus a contingent deferred sales load (contingent exit fee). The CDSL is usually declining and reduces to zero. Class C shares are offered to employees of brokerage fees and involve no loads; class D shares involve a level load, comprising a small initial load and a continuing 12b-1 fee (Bogle 1994). It should be noted that these loads usually aim to cover distribution costs (i.e. commissions to stockbrokers). They are levied on top of fund expenses for operating and investment management costs, which are deducted from investment returns. Companies that do not charge any loads tend to make higher expense deductions than load funds.

Investment limits, minimum profitability rules and state guarantees raise many controversial issues in pension fund regulation. On the one hand, there is a need to protect workers from imprudent behavior by asset managers. But on the other hand, such rules tend to give rise to moral hazard, to stifle financial innovation and competition, and to constrain investment efficiency.

4.1 INVESTMENT LIMITS

One of the most controversial aspects of pension fund regulation is the use of strict investment rules, not only in the newly created compulsory personal pension plans in Chile and other Latin American countries but also in many OECD countries, especially in continental Europe and Japan. The main criticism is directed at the prohibition of, or low limits on, investments in overseas assets. But the low limits on equities and the tendency to use pension funds as captive sources for financing government budgets or social investments, such as low cost housing and low interest mortgages, have also caused concern.

In some OECD countries, mainly Anglo-American ones, the "prudent person" rule has traditionally been used. This approach is now also spreading in other developed countries. This rule requires managers to follow high fiduciary standards in investing the funds. It allows fund managers to set their own investment guidelines and avoids the pitfalls of government direction of funds and government interference with market processes and especially with financial innovation. There is mounting evidence that the investment performance of pension funds operating under the "prudent person" rule has been superior to that of funds operating under quantitative limits, even though such limits are often not binding (Davis 1997).

Despite its superior investment performance and its greater flexibility, the "prudent person" approach has come under criticism in recent years, both because of its vagueness and because of its tendency to cause uniform investment policies among pension funds and thus contribute to the herding behavior that characterizes most institutional investors (International Monetary Fund 1995). However, the vagueness of the "prudent person" concept may also be one of its strengths and lies behind its flexibility.

In recent years, the meaning of the concept has been modified to require pension fund trustees and asset managers to be more concerned with corporate governance in the companies in which they invest. In earlier periods, the concept implied that pension funds should exert pressure on corporate management by selling the shares of poorly performing companies. But it has increasingly been recognized that, with the growing dominance of institutional investors, the "exit" option was no longer as liquid and easily used as before and pension funds needed to exercise some "voice" in corporate affairs. The new concept effectively requires pension funds to cast their votes and also to support the creation of more efficient and responsive corporate governance structures.

Another sense in which the "prudent person" concept has evolved is with regard to investments in unlisted instruments. Whereas in the past, investments in listed securities were encouraged, now pension fund trustees seek investments in private equity that are more profitable. Although investments in private equity have been subject to a relatively low limit, the level has been rising in recent years and pension fund trustees haven been able to do so by following average practice among most trustees.

The "prudent person" approach seems appropriate when employers operate DB schemes and assume the investment risk of the funds. As long as the pension plans are adequately funded, with top-up contributions from sponsoring employers if necessary, allowing investment policy freedom to company-based pension funds would seem to cause few safety concerns.

In DC plans, however, relying on the "prudent person" rule may be less effective, as workers assume the investment risk and may not have the information and expertise to monitor the investment performance of different funds. Investment rules need to be stricter under a mandatory pillar in order to protect the large numbers of unsophisticated and inexperienced investors who are forced to participate.

Investment rules, if applied, should emphasize profitability and safety. This means allowing pension funds to seek the highest returns in the market, but requiring them to diversify their asset holdings in order to avoid excessive concentration of risk. It also means setting maximum limits for permissible assets and avoiding setting minimum limits, since the latter would imply a direction of funds.

Strict investment rules and even prescribed investments have long characterized the investment policies of public pension funds. For instance, in Singapore and Malaysia, the national provident funds, which mobilize large long-term financial resources equivalent to between 40% and 70% of GDP, have until recently been required to invest most of their funds in non-marketable government bonds. In Sweden, the ATP public pension fund has been required to invest in government bonds as well as the bonds of mortgage credit institutions at interest rates that were usually below market levels by a couple of percentage points. In most countries with partially funded social security systems, there has been a clear tendency to require investments in government bonds, in constructing low cost housing units, and in providing low-interest housing and other loans to participating workers. Investment returns in many of these cases have been well below market levels. As the various instruments carried fixed rates of interest, the funds suffered from highly negative real rates of return when inflation rates got out of control.

The social security institution of Egypt suffered heavily from negative real rates of return during the 1980s as did the national provident funds of most African countries and the partially funded social security institutions of Latin American countries (World Bank 1994). In fact, the negative returns earned on their reserves and subsequent erosion of their value has been one of

the main reasons for the historical transformation of social security systems from a partially funded to an unfunded "pay-as-you-go" basis. But strict investment rules and prescribed investments have also been imposed on private pension funds. A good example is provided by South Africa, where both pension funds and insurance companies were subject to such requirements before the late 1980s with adverse effects on their total returns.

Maximum limits on investment allocations have traditionally been imposed in Continental Europe and East Asia and have also been extensively used by the reforming countries of Latin America, Eastern Europe and Central Asia.[28] The quantitative limits on investments have rarely been binding as pension fund trustees have tended to adopt more conservative investment policies than those permitted by the rules. This has long been true of pension funds in continental European countries (e.g. Switzerland, the Netherlands and Germany) but it has also been observed in Chile and Argentina. This conservative approach may be explained by a low level of risk tolerance by pension fund trustees and a major pre-occupation with the so-called "shortfall" risk, by the incentive structure facing pension fund managers, and by lack of familiarity with equity and overseas markets (International Monetary Fund 1995). This implies that calls for more liberal investment rules could be toned down, although the presence of tight investment limits may delay the progressive adaptation of investment policies by pension fund trustees.

Another problem with investment limits is that they may fail to achieve the desired amount of investment diversification. While they avoid excessive concentration of risks, they cannot ensure appropriate diversification. For instance, a regulated pension fund could invest in bonds and bank deposits within the prescribed limits but fail to invest in equities. Imposing the principle of adequate diversification without specified upper limits may in fact be more effective in achieving the objective of prudent diversification.

Investment rules are set at three different levels, the first two of which are not as controversial as the third. The first level refers to the type of instruments that are eligible. Ideally, investments should be effected through organized exchanges and in listed, highly rated, and actively traded securities. Any exceptions should be subject to clearly stipulated limits. Loans to members should be avoided, even if they are subject to low limits compared to accumulated balances. This is because pension funds may have difficulty in charging market rates of interest on such loans and in ensuring their timely repayment.

Similarly, direct investments in nonlisted and/or low rated assets should be discouraged, although indirect investments in such assets through the use of securitized instruments, such as mortgage-backed securities for housing loans and venture capital funds for investments in new firms and infrastructure projects, could be encouraged. The rules regarding highly rated and

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[28] However, Bolivia and Uruguay among Latin American countries require the private pension funds to invest in government bonds in order to finance the fiscal cost of the transition.

actively traded securities should prohibit placing funds with insolvent banks and should require any transactions with related parties within financial conglomerate groups to be effected at market terms and conditions.

The second level relates to imposing clear limits on exposure to individual issuers of securities. For example, holding of equities or bonds of any one issuer are usually limited to 5% or 10% of the total assets of the fund or 5% or 10% of the total value of securities of a given issuer. This limit avoids excessive concentration of risks and close involvement with any one company. A higher limit might require a pension fund to become involved in board representation and managerial control. In general, it is better for pension funds to exert voice and control in corporate affairs through collective bodies. The 5% or at most 10% limit is usually applied with particular force to securities issued by the sponsoring employer of a fund.

There is also usually a limit on borrowing and pension fund leverage. Borrowing is permitted for short-term liquidity purposes and for enabling the execution of transactions and may be subject to a low limit of not more than 10% of the value of assets. Long-term borrowing and leveraging through the use of derivatives is prohibited.

These two types of investment rules are found in most countries and as already indicated are not particularly controversial. Even if not imposed by regulations, they are likely to be set by the internal guidelines set by pension fund trustees. The limit on investments in the securities of sponsoring employers and on borrowing are also found in the Australian mandatory pension system, which otherwise follows a relaxed regulatory approach, emphasizing protection from fraud, theft and negligence but no other state guarantees.

The third level of investment rules has to do with limits on risk classes of assets. One fundamental problem of these rules is that assets belonging to a particular class may exhibit different risk characteristics. For instance, a five-year government bond is a very different risk instrument from a zero-coupon thirty-year government bond. Similarly, an equity stake in a newly-created high technology company has different risk/reward characteristics than the equity of a mature utility company. These differences in risk characteristics imply a more refined application of rules. After all, investment guidelines issued voluntarily by pension fund trustees to asset managers would need to draw a distinction between large cap and small cap equities as well as between high and low grade debt instruments.

Objections to the use of limits on risk classes of assets should be softened if account is taken of the need of pension funds to invest in balanced portfolios and of the growing trend toward passive indexation among pension funds in Anglo-American countries. Critics of limits should not confuse the investment policies pursued by diversified and balanced pension funds with those that are more appropriate for specialized mutual funds.

Investment rules setting maximum limits on different classes of assets appear to have worked reasonably well in countries like Chile. To be effective, such rules must be flexible and

revised in line with the growing maturity of pension funds (Vittas and Iglesias 1992). Thus, any limit on equity investments should be revised upwards as the pension funds grow in size and become more mature and the capital markets are modernized and become more efficient.

A perennial question facing regulators of pension funds is whether to allow investments in overseas securities. The argument in favor of overseas investments is to permit a diversification of country risk and also to seek suitable investments for the placement of available funds. The argument against is that allowing investments overseas would deprive the domestic markets from valuable long-term financial resources and would thus weaken the modernizing influence that pension funds may have on the domestic markets.

The issue of limits on overseas investments has attracted exaggerated attention, at least insofar as the mandatory private pension funds of developing countries are concerned. Pension funds in developed countries have shown a clear "home bias" in their investment allocations and have usually stayed well within officially imposed limits. Even pension funds operating in countries that have adopted the "prudent person" approach have also exhibited a strong "home bias" (International Monetary Fund 1995, Reisen 1997).

A workable compromise would be to allow overseas investments once accumulated pension fund assets reach a given percentage, say 10% or 20% of GDP. This limit is clearly arbitrary but it allows a certain maturing of pension funds and provides an outlet if domestic investment opportunities do not respond to the greater availability of institutional funds.

Investment in overseas assets is often handicapped by the lack of familiarity of foreign securities by local managers. This, plus the high transaction costs in establishing managerial relationships with foreign asset managers, probably explain why most pension funds stay well within their permitted limits. Authorizing domestic mutual funds that specialize in foreign securities may facilitate pension fund investments in overseas assets as it would overcome the need for specialist managers and the lack of locally available information on the prospects of foreign securities. Allowing the use of hedging instruments to guard against currency risk would also be essential.

Overseas investments are clearly more important for smaller countries, especially those that depend on a few industries that may in turn be dominated by a few family firms. The lack of suitable domestic instruments is usually a very strong argument for permitting investments in overseas securities. It should, however, be emphasized that the potential contribution of pension reform might not be realized if pension funds are allowed to invest freely in overseas securities.

Faced with the need to develop acceptable domestic instruments, the authorities may undertake other economic reforms. A "holistic" approach to economic reform is often emphasized. This should cover not only capital market and fiscal reforms but also a break-up of existing family cartels and an opening to foreign direct investment and strategic foreign entry. If

foreign multinationals are encouraged to list their local subsidiaries and joint ventures, they could engender a substantial increase in the domestic supply of suitable securities.

4.2 VALUATION RULES

Valuation rules vary considerably from country to country, depending on whether pension funds are voluntary or compulsory and whether they are based on worker or employer mandates.

In countries with worker mandates where pension funds operate on mutual fund principles, valuation rules require assets to be "marked-to-market" on a daily basis. Using listed securities through organized exchanges facilitates market valuation. For assets that do not trade on organized exchanges (such as real estate), pension funds could be required to use a valuation model developed by the supervision agency. Such models could be based on the traditional "moving average" valuations used by accountants for nontraded assets.

Although market values are subject to continuous, and sometimes large, fluctuations, using them is better than book values which may result in large deviations from the true value of various assets and the creation of hidden reserves. If reserves are to be used for smoothing out large fluctuations in market values, they should be set up in an open and transparent manner, as in the case of the profitability fluctuation reserves that are used in the pension fund systems of Chile and other Latin American countries.

To minimize the valuation problems caused by assets that are not actively traded on organized exchanges, investment rules could prohibit direct holdings of such assets or could subject them to very low limits. Investment rules could encourage instead use of traded specialized investment funds (such as real estate investment trusts, venture capital funds, or infrastructure funds) to facilitate indirect investments in such assets. Use of specialized mutual funds could also be advocated as a means of offsetting the natural bias of pension funds to invest in the securities of the state or large corporations. The financing of small firms, new ventures and large infrastructure projects could be greatly encouraged through such vehicles.

Valuation rules are less clear-cut in countries with company-based DB plans. Pension funds in the US and the UK are allowed to use values derived from actuarial models that discount future income streams instead of market values. Perhaps no major harm is caused by this approach since these valuations are used for calculating the adequacy of funding levels, an exercise that also takes into account the actuarially calculated present value of future liabilities. When workers transfer to other companies and join other pension funds, the value of their vested benefits is also actuarially calculated. However, the situation is different in DC plans where there is a greater tendency to use market values.

In Hungary and other Eastern European countries, what might be referred to as the "savings account" principle is used (Vittas 1996). This requires the use of book values and the

crediting to individual accounts of income received and realized capital gains. Income accrued but not received and unrealized capital gains are not allowed to be taken into account. This approach would tend to generate hidden reserves and to complicate account transfers.

Market practitioners as well as regulators are concerned that use of market values in undeveloped capital markets that suffer from low trading volumes and lack of depth and liquidity may cause excessive volatility in reported returns. A temporary solution to this problem would be to use written up or written down values, especially for government bonds which may be held to maturity. This approach, plus recognition of accrued but not yet received income, would go a long way toward correcting reported returns. However, the longer-term objective should be to use market-value accounting.

4.3 MINIMUM PROFITABILITY RULES AND STATE GUARANTEES

A mandatory "second" pillar implies a stronger obligation on the authorities to ensure that the system is simple, fair and safe. Minimum profitability rules and state guarantees aim to protect small and unsophisticated investors, not only from fraud and manipulative exploitation by pension fund managers, but also from large disparities and fluctuations in returns.

Minimum profitability rules can take many different forms. They can be set in absolute terms and be expressed in nominal or real terms. Or they can be set in relative, nominal or real, terms by reference to the average for all pension funds. And they can be set on annual, calendar or rolling, basis, or they can cover a longer period. The less onerous for the pension funds, and by implication less beneficial for workers, are minimum levels set in nominal terms for the whole active life of a worker. The most onerous is the offer of a guaranteed minimum real rate of return on an annual basis.

Minimum profitability rules vary considerably among countries. In most OECD countries, where funded pension schemes are still voluntary, there are no rules on minimum rates of return, even when the pension funds operate as DC plans and workers assume the investment risk. However, insurance companies and commercial banks offer what are known as "guaranteed investment contracts" and "guaranteed deposit contracts" that promise a minimum nominal rate of return, usually set at half or less the prevailing nominal rate on safe one-year government securities.

In Switzerland, which has a mandatory "second" pillar, a minimum annual nominal rate of return of 4% is imposed on the funds. Expressing a minimum return in nominal terms is not very satisfactory. It can be very costly if inflation is very low, and especially when prices are falling, and it is meaningless when inflation is out of control. Singapore also has a guaranteed nominal rate of return of 2.5%. There is also a risk that the minimum rate of return may become a "norm" and induce fund trustees to adopt conservative investment policies.

Expressing the minimum rate of return in real terms would provide more meaningful protection to individual workers, but it would not be advisable as it could expose a guarantee fund to large payments in years when stockmarkets register negative real returns. The fiscal cost of a guaranteed real rate of return could be prohibitive.

Chile and other Latin American countries (though not Mexico) have opted for guaranteeing relative rates of return. Pension fund management companies are required to make up any shortfall in returns if these fall below the average return for the sector by a specified percentage. In Chile, the minimum rate of return, which is expressed in real terms, is equal to 50% of the average return, while in Argentina, where it is expressed in nominal terms, it is equal to 70% of the average. (For symmetric purposes, any returns in excess of 150% of the real average in Chile or 130% of the nominal average in Argentina are placed in a profitability fluctuation reserve.) In both countries, the rule is applied on a 12-month rolling basis.

Pension fund management companies are expected to make up any shortfalls in returns by using first the profitability fluctuation reserve, if one has been created, and then their investment reserves (encaje). If these are exhausted, the companies are required to provide new equity to make up any remaining shortfall and reconstitute their investment reserves. If any company fails to make up the shortfall and refuses to provide additional equity from external funds, it is liquidated, the government makes up any remaining shortfall, and the workers transfer their accounts to another company of their choice.

Minimum relative profitability rules tend to cause pension funds to follow uniform investment policies, as small funds cannot afford to deviate too much from the investment profiles adopted by the large companies. To respond to this criticism and allow more flexibility in investment policies, the Chilean authorities are considering changing the application of the rule to a 36-month rolling basis. Given that pension contracts are long-term contracts that can span up to sixty years, moving from an annual to a three-year, or even a five-year, guarantee would still provide adequate effective protection to affiliates.

The criticism that investment policies become uniform under a minimum relative profitability rule is sometimes exaggerated. Even without such a rule, pension funds tend to bunch their investments in similar instruments. The rationale for such herding behavior by pension funds seems to be twofold: on the one hand, pension fund trustees, following the "prudent person" rule, tend to adopt similar asset allocation policies; and, on the other, asset managers are reluctant to underperform the market since the price for underperformance may well be the loss of business. The growing use of indexing and passive investment management also contributes to more uniform asset portfolios. A minimum relative profitability rule would protect investors from aberrant fund managers, without necessarily causing inefficiencies in investment policies.

This issue remains unresolved. One alternative to minimum relative profitability rules, which could have more appeal in advanced countries, would be to require management companies

to spell out clearly their investment policy at the beginning of each year and to be liable for making up any shortfalls that might result from deviating from this policy. The use of benchmark portfolios and detailed investment guidelines may be a better approach to the current situation in developed countries where the only constraint facing fund management companies is the loss of business and the potentially adverse impact on their reputation. However, these penalties would occur after the event and would offer no consolation to retiring workers who may have suffered large losses from the failure of fund managers to comply with their own investment guidelines.

Statements of Investment Policy Objectives (or SIPOs) will be required from pension fund trustees under the mandatory pension system that is being introduced in Hong Kong, while a clearer indication of investment strategy is required under new UK pension legislation. Presumably, fund trustees and asset managers who deviate from these objectives will be subject to sanctions. But no country has yet imposed a liability on pension fund trustees or asset managers to make up any shortfall in returns that may result from their failure to comply with their declared objectives. This may be explained by the practical difficulty of defining benchmark portfolios, ascertaining their implied rates of return and determining the deviation from the stated policy objectives and the shortfall in returns. However, fund trustees and asset managers could be held liable for gross violations of their stated objectives, while standardized forms for SIPOs could be developed by regulatory authorities if the use of benchmark portfolios was considered beneficial.

Minimum profitability rules raise the question of state guarantees. In Chile and other Latin American countries, the government is responsible for making up any remaining shortfall in guaranteed returns after the liquidation of a failed pension fund management company. Offering this guarantee implies the creation of a strong and effective supervision agency to ensure that pension fund management companies comply with the rules, do not take excessive risks, and maintain the equity reserves needed to support their operations. In Switzerland, and also in some Eastern European countries, a guarantee fund set up by the association of pension funds and supported by a compulsory assessment on all pension funds provides a first line of defense before calling on the government to bail out the members of failed pension funds.

But apart from guaranteeing the minimum relative profitability of pension funds, the authorities may also need to guarantee annuity payments for old age pensions as well as for term life (survivors) and disability pensions of failed insurance companies (if these insurances are offered by private companies). Upper limits may be imposed on the amounts of these guarantees, but especially in mandatory systems where benefits are required to take the form of monthly pensions (rather than lump sum payments), such guarantees are essential. Annuity payments subject to specified limits are guaranteed in both Chile and Argentina. The government stands behind these guarantees but insurance companies are tightly regulated and supervised to ensure that they have adequate reserves and to minimize the likelihood of insolvency.

V. CONCLUDING REMARKS

One way to conclude this paper is by contrasting the relaxed regulatory approach that would be entailed in a system based on the "prudent person" rule with the alternative more draconian approach.

The basic elements of a relaxed regulatory regime would entail:

* Voluntary participation or at most a hybrid mandate.
* A high degree of individual choice.
* No special authorizations for participating institutions.
* Ability to hold multiple accounts.
* Ability to operate multiple funds, with individual choice of investment fund.
* Ability to differentiate in pricing policies and to offer loyalty, group or high volume discounts.
* Ability to levy any type of fee (entry, exit, account maintenance, asset based, etc.) and to offer loyalty and group discounts.
* Application of "prudent person" rule on investments with no detailed investment limits.
* Freedom to invest in overseas securities.
* No minimum profitability requirements and no state guarantees other than against fraud.

In contrast, the draconian approach might entail:

* Worker mandate.
* Some individual choice (e.g. in changing management company).
* Special authorizations.
* One account per worker.
* One fund per company.
* One pricing rule.
* Regulation of types of fees (though not of the level).
* Detailed rules on investments (but with maximum limits to avoid concentrations of risks).
* Prohibition or low limits on investments in overseas assets.
* Minimum relative profitability requirements.
* State guarantees for profitability shortfalls.

Countries with well developed capital markets and with long traditions of voluntary company-based pension plans would aim to adopt the more relaxed regulatory regime. To ensure effectiveness of the "prudent person" rule, such countries would emphasize programs to educate trustees on their fiduciary responsibilities and on developing systems for ensuring proper understanding and control of the risks involved. Even if they impose mandatory participation they could exempt workers with strong philosophical objections. Similarly, if they impose investment limits and minimum profitability requirements, they could allow workers who do not wish to benefit from state safeguards and guarantees to invest in less heavily regulated funds.

In contrast, countries that start with underdeveloped capital markets and with little or no history of private pension funds would do well to adopt the more draconian regulatory approach. But they would also be well advised to relax the regulatory regime as private pension funds and their affiliated workers gain in experience, sophistication and maturity.

All countries, however, should adopt regulations of a prudential and protective nature such as the compulsory use of custodial services, professional asset management, actuarial reviews and external audits. They should also prescribe asset segregation and minimum levels of capital backing as well as extensive information disclosure and, last but by no means least, they should develop a system of effective supervision. One of the weaknesses of employer mandates is the lack of adequate disclosure and the dearth of meaningful data on the investment performance and cost efficiency of funds. This is particularly the case in Switzerland but it is also a problem in most countries where company-based pension schemes proliferate (whether voluntary or compulsory).

The Chilean model has recently come under strong criticism (Shah 1997) because of its high marketing intensity and high operating costs and because of its draconian regulations and the uniformity of asset portfolios. However, much of this criticism is exaggerated. It contrasts the Chilean experience with a counterfactual that is highly unrealistic. Even in countries with well developed capital markets and a long tradition of private pension funds, portfolios tend to be uniform for the reasons discussed above. Although there may be greater uniformity in Chile and other Latin American countries, the cost of such greater uniformity has not been clearly established.

Similarly, integrating the pension system into the pre-existing financial system may not be a feasible option in countries where existing banks and insurance companies may be insolvent and inefficient, where existing regulatory agencies may be ineffective, and where mutual funds and other modern capital market institutions may be conspicuous by their absence. Creating specialized pension funds supervised by a specialized regulatory agency may even have a positive demonstration effect on the rest of the financial system and may contribute to its modernization and growth. Experimentation with more relaxed regulations would be highly desirable in order to mitigate the adverse impact of some of the more draconian regulations. But outright criticism of the Chilean model would not be justified. There are many improvements that can be made at the margin, such as using hybrid mandates and allowing some differential pricing with proper safeguards to protect the position of low income workers, but there is little need for a completely different approach to systemic pension reform in developing countries. A strong regulatory approach is needed for ensuring simplicity and transparency, for gaining public acceptance, for offering adequate safeguards, and for avoiding an early failure of the reform program.

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