

Securing Public Pension Promises through Funding

Robert Palacios

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The Wharton School, University of Pennsylvania
3641 Locust Walk, 304 CPC
Philadelphia, PA 19104-6218
Tel: (215) 898-7620 • Fax: (215) 898-0310
Email: prc@wharton.upenn.edu
<http://prc.wharton.upenn.edu/prc/prc.html>

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Abstract

Many pension schemes mandated by governments have accumulated large reserves. The management of these funds has a direct effect on financial sustainability and potential benefit levels. It also has important indirect effects on the overall economy, especially when the funds are large relative to the contractual savings sector and the domestic capital markets. The paper reviews strategies designed to limit potential problems arising from conflicts of interest that governments or quasi-governmental monopolies face when managing public pension reserves. An attempt is made to draw lessons from recent reforms in several OECD countries.

Securing Public Pension Promises through Funding

There are several reasons to be interested in the way public pension reserves around the world are managed. To begin with, many countries have adopted a strategy of partial funding of public defined benefit (DB) schemes. For millions of current and future members of these schemes, in dozens of countries as diverse as Sweden and China, investment performance may affect the likelihood that their pensions will be paid as promised. Another motivation is related to the continuing debate over how to reform public pension systems increasingly perceived to be unsustainable. The focus is often not whether to increase the level of funding, but rather, the best way to do so. The trend towards funding is partly due to growing awareness of the implications of large unfunded pension liabilities. So, the ‘implicit pension debt’ does pose an intertemporal fiscal constraint and financial markets will punish sovereigns that let it get out of control, despite the fact that this is nowhere reported on government balance sheets. The increased attention is also partly due to the fact that those who will bear the brunt of the intergenerational transfer that this liability represents are starting to protest.

Generating a higher funding ratio – defined as the size of pension reserves relative to pension liabilities – is one way to mitigate these negative effects. It can be achieved by reducing the liability (i.e., cutting benefits), increasing earmarked revenues (usually, raising payroll taxes), or improving the investment returns of an existing fund. In many cases, reform packages include two or even all three elements, increasing investment returns is clearly the least difficult, politically.

Nevertheless, the record of public pension fund managers suggests this is a strategy that often fails.¹ Around the world, reserves in partly-funded, public schemes have been used to subsidize housing, state enterprises, and various types of economically targeted investments

(ETIs). They have also been used to prop up stock markets.² And frequently, they have probably led to larger public deficits than would have otherwise been the case, as money is simply channeled back to the central government, often at below-market rates of interest. The conflicting objectives of government or parastatal officials determining asset allocation have resulted in poor performance, measured by most reasonable standards. These decisions typically occur in a regulatory vacuum and there is often little public accountability or transparency.³

While proponents of centralized management may recognize the failings of the past, they argue that performance can be improved by changes to governance and investment policy, and they suggest that insulation from political interference is feasible. The attempt to do this in some countries involves adopting the standards and practices of well-developed private pension sectors, to the extent possible. Most reforms also envision an increased reliance on private asset managers. Nevertheless, decisions are ultimately made by trustees appointed by government and exempted from the regulatory oversight that would apply in the private sector.

Are there ways to shield public pension funds from the kind of political interference that has plagued them in the past? Is there a way to ensure appropriate incentives for trustees to make prudent investment decisions without the discipline of competition and independent supervision? This chapter reviews some of the key design issues and policy alternatives that would have to be addressed in order to answer these questions in the affirmative. It also reviews recent initiatives in five developed countries – Canada, Ireland, Japan, New Zealand and Sweden – where new models of public pension fund management have been introduced. From these experiences, certain positive features of the schemes are summarized in a preliminary attempt to arrive at practical recommendations based on good practice in this area. The limitations of such an exercise must be kept in mind however, especially in light of the unrepresentative set of

countries that has undertaken this type of reform. With this in mind, the last section addresses the role of country-specific conditions.

Policy Choices and Design Issues

Many of the issues raised in public pension fund management are similar or even identical to those that apply to private pension funds. In fact, several of the reforms described in the next section borrow directly or rely heavily on the rules developed for the private pension sector. But the analogy is far from perfect. None of the public funds examined here is governed by the statutes that apply to their private sector analogues, nor are they under the jurisdiction of the same supervisor.⁴ This is due to the fact that there are considerations specific to public funds, ranging from their funding objectives to potential conflicts of interest. This section seeks to identify some of the key policy choices by highlighting limitations that apply in the case of public pension funds.

Pension Governance. In the broadest sense, pension governance refers to the: “...processes and structures used to direct and manage the affairs of the pension plan, in accordance with the best interests of the plan participants. The processes and structures define the division of power and establish mechanisms for ensuring accountability.”⁵

General governance parameters are usually set out in legislation, while detailed rules may be internal to the scheme in question. Public pension plans are usually subject to specific laws that are distinct from those that apply to the private sector. Responsibility is normally vested in a board of directors or trustees. Many public funds use representative rather than professional boards. Representative boards are often ‘tripartite’, namely consisting of labor, employer and government representatives. This usually means that there are few if any board members with expertise in finance or investment. Professional boards, by contrast, would normally include this

expertise.

In addition to determining the composition of the board and its manner of selection (and dismissal), their specific duties might be clearly specified, especially as distinguished from management. In order to ensure that incentives to perform these duties are robust, it is normally recommended that those making decisions also bear a risk related to key outcomes. This is one of the more difficult policies to apply to public funds, partly because potential board members are unable to insure against the risk of political interference that might significantly affect their ability to perform their duties.⁶ In fact, government representatives may themselves be a source of risk, due to inherent conflicts of interest.

There is significant scope for defining the role of management within a pension scheme. In some cases, internal managers are limited to selecting and overseeing external service providers. Outsourcing has become increasingly popular in private sector DB plans, but most public plans perform most or all functions internally. Whether internal or external, the responsibilities of managers should be clearly defined and the criteria for hiring and compensating them should result in the appropriate skill mix. A practical problem for many public funds is that human resource policies and salary scales used in the public sector may reduce the potential pool of qualified candidates for positions that are often highly remunerated in the private sector.

Perhaps the most important problem to resolve in designing public pension fund governance is the potential for conflicts of interest. Rules involving personal gain at the expense of members can be made explicit through codes of conduct. It is more difficult however, to avoid problems arising from inherent institutional conflicts that often arise when public officials are in a position to make decisions that may have collateral public policy impact. A typical

example is that the Minister of Finance may be involved in decisions over asset allocation that can affect capital markets and government borrowing constraints.

Well-defined information flows between board, management and members are essential to ensure that duties can be performed effectively and for the sake of accountability. The required frequency and type of information required should be clearly documented. In the case of information to members, it could be argued that standards should be higher for pension plans that receive mandatory contributions, including public pension plans.

Funding Objectives. Perhaps the most obvious difference between public and private plans is the extent to which they match assets and liabilities. Minimum funding requirements are applied to private DB schemes, recognizing the dangers of relying exclusively on the solvency of the sponsor. While definitions vary, countries with minimum funding standards typically aim to have sufficient funds on hand to meet accrued obligations at any given point in time.

By contrast, most public DB schemes do not follow these principles. Most were set up with significant unfunded liabilities, partly due to transfers made to early cohorts, as well as to the choice to begin with contribution rates much lower than what would have been required to accumulate reserves that matched accruing liabilities. When a government is a sponsor, the perception may be that tax revenues could always be increased as necessary to meet these obligations. Most public schemes did, nevertheless, build reserves during their initial phase, and many have made it explicit policy to partially fund future benefits in order to avoid a drastic increase in future payroll taxes.⁷

The level of funding needed in public plans must therefore be defined according to public policy objectives. These objectives will differ across countries (as seen below). The important point however, is that the target levels should be explicit and well-defined if they are to guide

investment policy. In addition to fixing these long-term objectives, related tasks include determining actuarial and accounting assumptions, approving the appointment of the pension plan actuary, and evaluating investment performance.

Investment Policy. The board of a pension plan is responsible for setting the plan's overall investment policy. Best practice dictates that this should be explicit and in written form, reviewed periodically, and typically differentiates between the strategic, long term plan and the annual plan. The board may also receive advice through external consultants or from a permanent advisory council.

A plan's investment policy is where targets are set for long run investment performance, risk tolerance, and the overall asset allocation strategy with a clear approach to portfolio diversification. Often, exposure to specific firms, markets, issuers or sectors will be explicitly limited. Exposure to specific firms may also be limited for other purposes, related to the corporate governance. In this regard, investment policy can also make explicit a board's position on shareholder activism, social investment, and economically targeted investments.

Some public pension plans accumulate a large asset base relative to domestic capital markets and public budgets. Consequently, the potential for a conflict between the long-term goals of the pension fund and other public policy objectives may recommend extra safeguards that would not be found in private sector regulations in addition to the need to diversify. For example, limitations on the amount of domestic government debt that can be held by the public plan might be considered a prudent way to avoid the temptation to relax fiscal constraints through coerced borrowing from the pension.

While these are best practice approaches, many public pension plans around the world lack this kind of investment policy. Most importantly, public plans rarely state as their

fundamental objective (whether enshrined in the investment policy or not) that plan assets will be invested in the sole interests of plan participants. Indeed many public plans allow or even mandate that investments be made with other public policy objectives in mind.⁸

Investment Process. Within the broader investment framework, pension managers develop a plan to purchase and sell assets, implement this plan, and monitor the results. These results are then reported to the board and through them, to the members of the scheme. Other things constant, there are no obvious differences between public and private funds with regard to the implementation of a given investment policy. If anything, however, the standards of transparency for the process might well be expected to be highest in a public fund that receives mandatory contributions from members.

A plan's investment policy also lays out general approaches with regard to passive versus active investment, external versus internal asset management, hedging strategy, and other related topics. Implementing the strategy tends to be left to professional managers who in turn, may use external managers, brokers, custodians and brokers. The method for selecting these external parties and evaluating their performance is an important part of defining the investment process and should be based on well-defined and objective criteria. These may include, for example, level of fees, experience, and expertise within certain sector, or with certain types of financial instruments. It is imperative to keep systematic and accessible records as to the considerations and arguments for selection. Likewise, investment decisions within the scope of the overall asset allocation plan laid out in the investment policy are ideally based on objective criteria in line with the risk and return targets associated with individual asset classes.

Well-run pension plans benefit from an objective and quantifiable methodology for assessing performance over reasonable periods of time. Measuring performance is a two-step

process that begins with an accurate measurement of results. This in turn requires the application of accepted accounting and valuation standards that allow for reasonable comparison with prescribed benchmarks. The second step is to compare these results to an objective predetermined benchmark(s). This assessment may focus, for example, on the net value-added by internal or external managers, taking into account risk. Independent and external performance valuation can be very useful, especially where the resources available internally are scarce. The consequences of the assessment in terms of retention of managers and performance-related compensation can be explicitly described in the documentation of the investment process.

Reporting and disclosure. A well-run pension plan must provide information to those who control and participate in the fund. For example, key elements of fund management, such as the investment policy, can easily be made available to the public. Performance, in terms of cost of administration, compliance with the law governing the fund, and investment returns, can be through annual and perhaps quarterly public reports. The veracity of the information can be ensured by regular independent audits. If anything, the standards for transparency for a public fund, where the liability of the board is usually circumscribed, can be expected to be higher than those that apply in the private sector.

Interdependence of policy choices. Effective policies in the five areas described above require coherent attention. The clearest example of the interdependence of these choices is the relationship between governance structure and investment policy. Legislation governing many public pension schemes often precludes the formulation of a sound investment policy, even by the most qualified and motivated trustees. Conversely, when a board is given more latitude, a weak governance structure can influence investment policy.⁹ Studies find that the key determinant of public plan investment is overall asset allocation, an otherwise sound investment

policy can still be undermined by weak investment processes (Brinson, et al., 1991).

Reporting and disclosure provide an important source of discipline for private pension funds, but they are arguably of greater importance for public plans. This assertion is based on at least two limitations regarding accountability exclusive to public schemes. The first is personal liability of trustees. Even in countries with a strong tradition in trust law, it has proven difficult to hold trustees of public pension plans to the same standards as their private sector counterparts. This violates one of the basic tenets of good governance, namely matching consequences with decisions. The second limitation is more fundamental. Almost without exception, public plans are not monitored by a supervisor with the objective of ensuring that the interests of members are served. Unlike members of private schemes, those forced to pay into public schemes do not receive protection from an agent with sufficient expertise and access to information. Public pension funds are therefore, to a large extent, self-policing monopolies.

This leaves only two avenues for accountability: representation of members on the board, and at the ballot box (if that option is available). It would seem difficult to devise an effective mechanism for selecting a well-versed representative for members of a national pension scheme (as opposed for example, to a scheme for civil servants or some other clearly differentiated group). Some options could result in populist policies that undermine the original funding objective; in practice, experience with representative pension boards in many countries has not been positive. The second avenue for accountability, the electoral process itself, raises much broader questions of governance given wide variance across countries.

In view of these limitations, the best and perhaps only source of discipline for public pension fund managers is a public that is well-informed on the subject, which can assess whether the funds are invested prudently. Achieving this level of public consciousness can be facilitated

by civil society, academia, and the media, but only if accurate reporting and disclosure is in place.

Recent Initiatives in Developed Countries

Next, we review recent efforts to improve public pension fund governance, that attempt to address each of the issues described above. Where possible, the evolution of the proposal and the rationale for the ultimate design of the schemes is discussed. Some key features are then compared across the five countries.

Five developed countries have substantially altered their strategy for funding public pension obligations since 1997.¹⁰ Three of these countries, Canada (1998), Japan (2001), and Sweden (2001), reformed existing funding arrangements that had not performed well over the past several decades. Two other countries, New Zealand (2000) and Ireland (2000), launched initiatives for building pension reserves designed to offset the projected rising costs in their flat pension schemes due to population aging.

Table 1 provides some background on these five countries. Sweden and Japan have older populations, while Ireland has the youngest population of the set. Japan and Sweden also have more generous public pension promises than do the other three. These two factors explain observed differences in public pension spending relative to GDP, in the second column. Meanwhile, at the time of the reform initiatives, Japan and Sweden had already amassed large public pension reserves, Canada had accumulated a significant amount, and Ireland and New Zealand had none. Ireland and Canada had the most developed private pension fund industry and commensurately large assets.

Table 1 here

Canada's CPP Investment Board. After an actuarial assessment revealed growing

long-term imbalances in the Canada Pension Plan (CPP), a debate ensued over how to ensure the finances of the scheme set up three decades earlier. The idea of moving to fully-funded individual accounts was rejected, in favor of improving long-term finances of the existing public scheme. A package of reforms sought to smooth increases in contribution rates forecasted by government actuaries in two ways. First, the current contribution rate was increased from 6 to 9.9 percent; and second, the CPP reserves were invested in the stock market beginning in 1999 to obtain higher expected rates of return. This required a shift away from the previous policy of automatically purchasing provincial government bonds. Yields on those bonds were below market rates, leading to relative low long-run returns for the CPP. There was also some evidence that the captive source of credit available to the provinces increased government consumption (von Furstenberg, 1979).

The Act proposed to phase out these purchases. According to the “Briefing Book” for the final CPP Legislation, (CPPIB, 2000):

“The option of governments intervening in CPP investment policy to meet regional or economic goals was widely rejected during public consultations as being incompatible with the interests of plan members. Accordingly the Board and its responsibility to invest in the sole interests of plan members are foundations of the new investment policy.”

In keeping with this approach, the new investment regime explicitly excluded social or economically targeted investments. The focus was to increase equity holdings: initially, it was decided that investment in domestic equities would have to “substantially replicate” broad market indexes of publicly traded Canadian securities. This method was preferred because it reduced discretion of the fund managers and because passive indexation was considered less costly than the alternative. Foreign equity exposure was initially limited to 20 percent, to be raised later to 30 percent, in line with restrictions on Canadian private pension funds.

A key element insulating the funds from politicians hinged on the newly created and independent Investment Board. In consultation with provincial governments, the Finance Minister appoints the twelve members of the board. The briefing book describes the process as follows (Government of Canada, 1998: 37):

“A nominating committee will recommend qualified candidates for the board of directors to federal and provincial governments. Government employees are not eligible to be directors. The Board will be subjected to close public scrutiny. It will make investment policies public, release quarterly financial statements and an annual report and hold public meetings every two years in each participating province... This agency would be subject to “fiduciary duty to invest CPP funds in the sole interests of contributors and beneficiaries - that is, to maximize returns without undue risk of loss.”¹¹

The board’s members would be appointed for staggered three-year terms and would fulfill a set of criteria including:¹²

“...sound judgment; analytical, problem-solving and decision-making skills; a genuine interest in, and dedication to, the CPP; the capacity to quickly become familiar with specific concepts relevant to pension fund management; adaptability, including the ability to work co-operatively with others (possibly witnessed in prior service on a board, association or committee); high motivation, with the time and dedication required to prepare for and attend Board meetings; ethical character and a commitment to serving the public, preferably with a sensitivity to the public environment in which the CPP operates; and strong communications skills.”

Regarding the qualifications of the financial experts, these would include:

"...experience in a senior capacity in the financial industry; broad investment knowledge (e.g., securities and financial markets); experience as a chief financial officer or treasurer of a large corporation or government entity; consulting experience in the pension area; and generally recognized accreditation as an investment professional (e.g., CFA, MBA, training in economics or finance).”

Since the objective was to increase returns, the method of achieving this was to impose private sector portfolio criteria on the public fund, and to place the professional Board at arms’ length from the government. Regarding investment rules, the government noted that most of these were taken from the Pension Benefits Standards Act. In other words, the existing

regulatory framework for a well-developed private pension sector was the basis for the rules of the Investment Board.

Perhaps the most controversial of the private pension rules adopted for the CPP was the foreign investment limit which initially allowed up to 20 percent (rising to 30 percent by 2001) of the portfolio to be invested in foreign assets. Labor party politicians argued that the entire pool of CPP investments should remain in Canada to stimulate economic development. But reformers eventually succeeded in obtaining the same portfolio limits on foreign investment as applied to the private sector.

Investing in the market index investing was another way of avoiding political discussions over investment choices or potential conflicts of interest. If stock picking was disallowed, there would be little scope for political considerations to influence investment policy. At the same time, it was recognized that the size of the fund, combined with a lack of flexibility, might distort the market if other players were able to anticipate CPP investments. Also, it was pointed out that tracking the index could involve higher turnover than a buy and hold strategy, as the index weightings changed over short periods of time. Ultimately, the wording in the regulations allowed room for some active management.

These measures were intended to produce CPP investment policies that approximated what was found in the private sector. This comparison was possible because there was a significant private pension sector with a long track record to use as a benchmark. The existence of a large contractual savings sector, including close to 40 percent of GDP in pension assets alone, was an important consideration for the reform. At its peak, CPP reserves were still expected to be smaller than those held in private pension funds. Another consideration was the absorption capacity of capital markets, which were deemed well developed and able to absorb

CPP investments. Analysts found that the projected flows of new CPP funds into equities would not overwhelm the supply of new issues, especially given that foreign investment option was available.

Another focus during the design phase was the issue of corporate governance. The CPP Investment Board potentially would be in a position to exercise its shareholder voting power over Canada's leading corporations. One option was to agree to abstain from using this power. Instead, the government chose to retain voting privileges in order to be able to take advantage of its "voice" as an investor, in the same way as other institutional investors in Canada. This was the background for the ultimate passage of the Canada Pension Plan Investment Board Act that came into force in 1998, which appointed a Board of Directors and launched a new Corporation. The Act clearly stated that the Board's objectives were:

(a) "to manage any amounts that are transferred to it under section 111 of the Canada Pension Plan in the best interests of the contributors and beneficiaries under that Act; and (b) to invest its assets with a view to achieving a maximum rate of return, without undue risk of loss, having regard to the factors that may affect the funding of the Canada Pension Plan and the ability of the Canada Pension Plan to meet its financial obligations."

The process of nomination and appointment of this Board deserves special attention. Ministers of Finance from each of the nine participating provinces and the federal government select individuals (public and private sector) responsible for the nomination process. Next, this nominating committee recommends individuals that meet the criteria for Board members as laid out in the Act. The Minister of Finance of Canada then appoints the Board, consisting of 12 members, from those on this list. This unique arrangement has the advantage of adding distance from the Minister of Finance and the Board. Terms are staggered with half of the directors serving two-year terms and the remainder serving three-year terms. Each can be reappointed for another three-year term with a maximum of three terms or nine years. The Chair can serve a

fourth term. Members must agree to uphold a code of conduct and must disclose any potential conflicts of interest.

Reporting requirements include, (i) an annual independent audit,¹³ (ii) annual report, (iii) quarterly financial statements, (iv) and public meetings in each province at least once every two years. In addition, the Finance Minister is required to initiate a special examination of management practices at least once every six years.

The CPPIB's investment policy flows from its stated objective to increase the funding ratio for the CPP from eight to 20 percent by 2017. It also has made clear the target long term rate of return is four percent in real terms. In order to achieve these targets, and in light of the CPP's historical investment in provincial bonds, the Board decided to invest new funds exclusively in equities. All asset management is done through external managers.¹⁴ Initially, domestic equity holdings were concentrated in index funds replicating the Toronto Stock Exchange index; foreign equity holdings similarly focused on S&P 500 and MSCI EAFE index funds. By 2002 however, the Board had shifted its asset mix in favor of private equity funds. On a commitment basis, these represented about 17 percent of total assets of the fund, but only three percent on the basis of actual investment. The Investment Statement from April 2002 shown in Table 2, includes minimum and maximum investment shares.

Table 2 here

Between year end 1998 and the first quarter of 2002, the fund had accumulated around 14 billion Canadian dollars, or about 1.3 percent of GDP. First-year returns were tremendous, driven by passive equity investments during a period of rapid international equity appreciation. Regulations allowed for some active equity investment in 2000. The Board decided to reduce its exposure to one particular firm, having what was perceived to be an excessively high weight in

the overall Canadian equity portfolio. This policy allowed the CPPIB to outperform the index, as this particular stock had declined precipitously by March 2001.¹⁵ After 40 percent returns in 2000, the decline in global equity markets in 2001 led to a negative return of about nine percent for a cumulative annualized return of 14.8 percent. Administrative costs fell from 31 to 11 basis points between 2000 and 2001.

Ireland's National Pension Reserve. The Irish Pensions Board (IPB) issued a major pension policy report in May 1998, that recommended expanding voluntary private pension coverage through increased incentives, and an increase in the flat benefit which constituted Ireland's first pillar that had fallen over time relative to average income (IPB, 1998). To control future contribution rates as the country ages, and to reduce intergenerational transfers, the report recommended partial funding of the flat benefit. The projections suggested that the contribution rate with partial funding would have to increase from 4.84 to 6.24 per cent, while the no-funding scenario would require an increase to 9.25 per cent. The option of mandating private pension coverage towards the same objective was debated but ultimately rejected.

This new fund was to be set up with an independent managing body with statutory responsibility for investing solely for the purpose of maximizing returns; social investments were explicitly disallowed. In addition, the governing board was prohibited from investing in domestic government bonds, to avoid the temptation of increasing government consumption using a captive source of credit. In 1999, Minister of Finance Charlie McCreevy announced that the Government had extended the new funding strategy to public employees pensions as well. The combined package created a Social Welfare Pension Reserve Fund and a Public Service Pension Fund, into which budget surpluses totaling one percent of GDP were to be deposited annually through 2055. This contribution would not be discretionary and funding levels would

be assessed periodically in actuarial reviews.

By 2001, the fund held approximately 7.5 billion Euros, or about 5.3 percent of Ireland's GDP.¹⁶ The fund is controlled by a seven-member Commission independent from the national government, which works to maximize returns subject to a prudent level of risk. The initial investment policy adopted by the Commission was developed with the assistance of international consultants and is described in Table 3. The National Treasury Management Agency (NTMA) was designated as manager for the first 10 years, which in turn contracts out to private asset managers. Within this framework, the NTMA was seen as a manager of managers, on behalf of the Commission. The Commission did delegate the NTMA as the manager of the passive bond portfolio of the fund. So external managers manage about 85 percent of the total fund assets. The selection criteria for external managers were embedded in a tender process subject to certain EU directives. In a two-step process, 600 applications were initially received from 200 investment managers, with 93 percent coming from outside of Ireland. Subsequently, three candidates were selected from a short list where criteria were scored quantitatively with regard to specific asset classes. The NTMA is responsible for monitoring the asset managers against a predefined set of benchmark indices. They report to the Commission regularly on the results, and the Commission in turn provides an annual report to the Irish Houses of Parliament, the Committee of Public Accounts, and the public.

Table 3 here

Japan's National Pension Fund. Japan's flat national pension (NP) and its earnings-related employee pension (EP) insurance programs were originally intended to be fully funded from their inception in 1942. Benefits were subsequently raised and the funding ratio gradually declined, despite increased contribution rates. Even after a major reform in 1995 that reduced

future benefit levels, Japan's rapid demographic aging and reliance on public pensions has produced one of the largest unfunded pension liabilities in the world. Japan also has one of the largest public pension reserves in the world. Therefore, the reform legislation that became effective in 2001 sought to reduce liabilities by reducing the accrual rate, raising the normal retirement age, and shifting from wage to price indexation (Sakamoto, 2001). Another feature of the reform was to change the way public pension reserves are managed. In the past, a substantial portion of public pension assets was borrowed by the central government in the form of non-marketable government bonds, and used to finance government projects. The rest of the money was invested in a combination of social projects (e.g., medical infrastructure, loans to members) and capital markets, some of which was managed by the 'Pension Welfare Service Public Corporation' (PWSPC). A large portion of the funds (along with Post Office savings) could be categorized as economically targeted investments. There is also a mandatory transfer from the pension plans to the Fiscal Investment and Loan Program (FILP), which in turn makes loans to public agencies, municipal groups and the central government. This allocation is determined during the formulation of the annual government budget.

The magnitudes involved are large. In March of 2000, assets of the NP and EP totaled about 34 percent of GDP. On the other hand, the liability to current workers and pensioners was estimated to be 160 percent of GDP, yielding a funding ratio of about 22 percent (Sakamoto, 2001).

Figure 1 shows the evolution of FILP investments since 1955. The accumulated loan portfolio was more than 80 percent of GDP in 2000, of which around one-quarter came from the pension system. Over time, and as the funds grew relative to the economy, the proportion allocated to supporting industry and providing infrastructure was reduced, in favor of housing

and social welfare spending including loans for education. Subsidies to small- and medium-sized enterprises also increased over the period, representing almost one-fifth of FILP investments by 2000. Clearly, public pension assets in Japan were used as a way to achieve a variety of public policy objectives.

Figure 1 here

Pension reserves were invested differently after 1986. The first change allowed the PWSPC to use trust banks and insurance companies to manage assets, and by 1995, the proportion of total pension reserves invested in something other than government loans has risen from one to 20 percent. Figure 2 shows how this 20 percent was allocated in 1998: about half was loaned back to the government through the purchase of bonds, about 40 percent was held in equities, and almost a quarter was held in foreign securities. The corresponding figures expressed as a share of the total assets of the public pension scheme are about eight percent in equities and four percent in foreign securities. In total, around 90 percent of Japanese pension assets are borrowed back by the government and used to finance public works projects and other programs.

Figure 2 here

Not surprisingly, historical rates of return on these government projects proved to be quite low. Between 1970 and 1995, the return was slightly higher than the yield on one-year Treasury bills and almost two percentage points below the growth of income per capita (Iglesias and Palacios, 2002). Since pension liabilities tend to grow with wages, this differential alone accounts for significant erosion in the funding ratio. Demographic changes and increased benefits without corresponding increases in contribution rates explain most of the unfunded liability.

The purpose of investing in private securities was to raise returns. At first glance, the strategy appears to have been successful. As shown in Figure 3, returns relative to Treasury bill rates have risen since 1995. Nevertheless, returns on Japanese investments from 1986 to 1997 yielded the same compound return as the government loan portion of the portfolio, but with a much higher level of volatility. This was due to the stagnation in the domestic equity market during the 1990s, coupled with limited international diversification. The apparent improvement by the end of the period was due to the recent collapse in short term interest rates, a temporary effect due to a policy of holding bonds to redemption.¹⁷

Figure 3 here

Besides poor historical performance as a motivation for moving away from the old investment regime, Japanese economists have also complained that many public projects financed by pension savings have been wasteful and unproductive. The erosion of the bureaucratic dominance of the Ministry of Finance in the wake of the East Asian financial crisis in the late 1990s may have also created space for a shift in control of the massive fund. So, while improving investment performance was a stated objective, the nature of the final reform suggest that there were other factors at work especially in light of the difficult choices facing the government on the liability side.

Since its inception, the Ministry of Finance effectively controlled public pension reserves in Japan. This changed in 2001, when the Minister of Health, Labor, and Welfare (MOHLW) became responsible for the funds. At the same time, a new governance arrangement was created whereby the MOHLW determined asset allocation in consultation with experts from a Subcommittee for Fund Management, themselves appointed by the same Minister. The management of the fund is now delegated to a three-person board known as the Government

Pension Investment Fund (GIPF).¹⁸ The Chairperson is appointed by the MOHLW who selects the two other Board members, subject to the approval of the MOHLW. The Minister sets the overall asset allocation. As part of the process of formulating investment policy, several restrictions and transition arrangements have been adopted. First, holdings of domestic bonds must be greater than foreign bonds. Second, foreign equities must represent less than two-thirds of domestic equity investments. Third, holdings in foreign stocks must be greater than foreign bonds. During a transition period of seven years, the old loans made through the FILP will be repaid to the pension reserves.¹⁹

The investment process is implemented by the GPIF, whose Board may consult with a special committee of investment experts in setting its detailed investment plans. The Board is responsible for selecting custodians and asset managers and monitoring the performance of external firms based on stated and objective criteria. Contracts with external agents are reviewed every five years. All investments other than domestic bonds are managed externally. The GPIF also sets the explicit guidelines for internal management of the domestic bond portfolio. All shareholder voting rights are transferred to the external managers. The GPIF Board must present independently audited investment results to the MOHLW who in turn must disclose this to the Social Security Council, the Diet, and the general public, as part of its supervisory function. Independently audited financial statements and the auditor's report must be published annually.

New Zealand's Superannuation Fund. New Zealand is the only OECD country that does not force workers to contribute to a publicly-mandated pension scheme. Instead, there is a general revenue- financed, universal flat benefit provided to every citizen with 10 years of residency since age 20, upon reaching age 65.²⁰ The Government has projected that spending on this program will rise from the current four percent of GDP to nine percent in the next 50 years

due to population aging.

In 2001, the government instituted a new funding effort by setting aside funds over a 40-year period. The Ministry of Finance stated the issue clearly (Government of New Zealand, 2000):

“New Zealand’s population is ageing. We need to start preparing now for the impending bulge in the cost of New Zealand Superannuation (NZS) that will accompany this trend. By setting aside some Crown resources toward retirement income now, while we can afford it, we will be able to smooth out the cost over time.”²¹

Initially, the plan was resisted by the two main opposition parties, the Greens and the New Zealand First or National party. The Nationals favored tax cuts in the short run and insisted on keeping open the long-term option of moving to a system of individual funded accounts. The Government opposed individual accounts, arguing that lower-income workers and those with partial careers would not benefit equally, and that costs of administration could be high. The Green party held that the scheme was affordable on a pay-as-you-go basis because expenditures on children would be lower in light of population trends. It was also concerned about investment policy and argued that criteria include social or ethical investment. Some Parliamentarians argued that it made less sense to fund than to reduce the size of the national debt (Cullen, 2001).

After a heated debate, the Superannuation Act passed in 2001 with some compromises, including the inclusion of an investment criterion to deal with ethical investment and a provision allowing for future consideration of the conversion of the Superannuation fund into individual accounts. The New Zealand Superannuation Fund has several unique and innovative features. The first relates to the partial funding target, which is specified indirectly through a formula that determines the annual contribution from the budget. The formula is designed to generate a flow of annual contributions sufficient to meet the cost of the program over the subsequent 40 years,

subject to revised annual estimates. Withdrawals from the Fund are expressly forbidden until 2020.²² According to one study, the baseline scenario is for the Superannuation Fund to grow to around six percent of GDP by the year 2020 (McCulloch and Frances, 2001).

Governance of the NZSF is entrusted to a public corporation known as the ‘Guardians of New Zealand Superannuation Fund’. It is run by a Board responsible for investing the Fund “on a prudent, commercial basis...”. Moreover, the Board is held to three standards:

- (a) “best practice portfolio management
- (b) maximizing return without undue risk to the Fund as a whole; and
- (c) avoiding prejudice to New Zealand’s reputation as a responsible member of the world community.”

The 5-7 members of the Board are first nominated by a committee. Established by the Minister of Finance, it must include at least four persons with “proven skills or relevant work experience that will enable them to identify candidates for appointment to the Board who are suitably qualified.” The nominations are then considered by the Minister who must then consult with political parties in Parliament before he finally recommends to the Governor-General that the appointments be made.²³

Once the appointments are made, the term of each Board member is limited to five years, unless he or she is reappointed. The Minister may remove any member from office for any reason that the Minister finds appropriate. Members must adhere to codes of conduct as laid down by the Minister and must generally behave in an honest and ethical manner”, they must report any conflicts of interest as soon as possible. Liability of members as regards civil lawsuits and successfully defended criminal actions is indemnified and such costs fall on the Budget. For the purposes of the indemnification, members are never personally held liable provided the

member acted in “good faith”. The Minister is further empowered to ‘give directions’ to the Guardians in writing, in a document that must be presented to the House of Representatives and published in the official gazette. The Guardians are obliged to take it into advisement and tell the Minister how they propose to respond, to be documented in the Annual Report.

The Board lays out an investment policy and reviews it annually. The Act does not set maxima or minima or impose any other limits or mandates. The Board may appoint one or more external agents to manage the investments, as well as a custodian. Performance reviews are required as soon as possible after July 2003 and then again at a maximum of five-year intervals. These reviews are performed by an independent firm or person appointed by the Minister. Following the review, the Minister presents a report to the House of Representatives.

Sweden’s National Pension Fund. A key aspect of the Swedish pension reform of 1999 was the introduction of ‘notional accounts’, which are unfunded individual accounts where contributions equivalent to 16 percent of wage are credited to members and accumulated with interest until retirement (Disney, 1999). The notional interest rate is set equal to the average growth of incomes and the notional balance is finally converted into an indexed annuity, although during low or negative growth periods, real benefits may be reduced. The concept has since been adopted in several other countries including Latvia, Poland, and Italy. There is also a new funded component in the Swedish pension system. The contribution to this ‘second pillar’ or Premium Savings Fund is 2.5 percent of payroll, with assets privately managed by asset managers selected by members from among dozens of mutual fund options. In order to control costs, recordkeeping and information flows are centralized and transactions are executed in blocks rather than at the retail level. There are also complicated caps on fees charged by the mutual funds.

Sweden also instituted another pension change that has received less attention, namely, the reform of management of public pension reserves. This reform entailed the conversion of five existing funds into four new entities with different governance rules and investment policies.²⁴ After a transfer from the old reserves back to the central government, the remaining stock of reserves to be distributed between the four funds was equivalent to around 23 percent of GDP.

Prior to the reform, different statutory restrictions on investments applied to the separate funds. These limits prohibited investment in equities in the first three funds and limited foreign securities to less than 10 percent of assets in all five funds. Actual domestic and foreign equity holdings represented 23 and nine percent of total assets, respectively. Fixed income instruments, including government bonds, mortgage and other bonds represented 60 percent of the portfolio. The rest was in real estate, direct loans, and cash. The average annual compounded return between 1961 and 1995 was 2.1 percent, compared to 0.9 and 2.5 percent on short-term bank deposits and income growth respectively (Iglesias and Palacios, 2000). The reform created four funds of equal size. Each fund now has a board consisting of nine members, two of which are nominated by employers and two by employee organizations. Criteria for appointment exist but are vague and would appear to allow for much flexibility; members are chosen based on "competence to promote the management of the fund".

Investment restrictions on these new funds are significantly less onerous than those in the old regime. The objective was stated in terms of maximizing return subject to stated risk tolerances in the best interest of members. Two important constraints on investment policy are a 30 percent minimum required allocation to fixed income instruments with high ratings (low credit risk), and a 40 percent foreign currency exposure rule for investments outside Sweden.

This limit does not apply to investments where currency risk is hedged. Finally, up to five percent of the fund can be invested in unlisted securities.

The law further states that “there shall be no industrial or economic policy goals in the management of the funds”; nevertheless, it also stipulates that investment policy should state how environmental and ethical considerations were taken into account albeit “...without relinquishing the overall goal of high return on capital” (Government of Sweden, 2001). In order to prevent these funds from becoming too important in the Swedish stock market, a maximum of two percent of the market value of a Swedish firm can be held by any of the four funds. In addition, voting rights are limited to 10 percent in listed companies and 30 percent in unlisted venture capital firms. Table 4 provides data on the “reference portfolios”. While there is some variation, the tendency is to invest about 40 percent in fixed income instruments and 50-60 percent in equities. Of the latter, between 60 and 80 percent are foreign securities.

Table 4 here

With regard to the investment process, the new Swedish systems sets measurable targets with clear time limits for the purpose of monitoring performance. It also requires that a minimum of 10 percent of assets be managed externally. One fund, AP 2, contracted out management of 75 percent of the portfolio, but intends to reduce this significantly. Another, AP 3, contracted out about 25 percent of its asset management activities. The funds produce reports that are audited and available to the public. As public agencies, they are subject to Sweden’s ‘open government policy act’ which demands a high level of transparency. The Ministry of Finance sends an annual letter to the parliament reporting fund performance, drawing on international investment consultants.

Finally, it is interesting to note that explicit attention was given to the impact on the

Swedish economy anticipated from these changes, and provisions were made to mitigate them. In particular, the Government recognized public finance concerns over the shift out of government bonds, as well as the potential impact on capital markets through the potential increase in demand for Swedish shares. Phasing in higher limits on foreign securities – starting at five percent and increasing steadily to 40 percent for unhedged investments – was justified by concerns about pressure on the exchange rate.

Comparing the Initiatives.²⁵ Across the five country experiences documented here, three have long experiences with funding their public pension systems, so their reforms sought to improve on past performance. Two of the three – Japan and Sweden – had very high levels of unfunded pension liabilities relative to national income. Both also had very large reserves before the reform, while Canada had a moderate level. Ireland and New Zealand did not have public pension reserves before these initiatives.

Table 5 summarizes the key indicators and reveals large variation in the magnitudes involved, in both absolute and relative terms. Combined assets of the Swedish funds are by far the largest of the five countries relative to the size of the economy. The smallest fund by this measure is the incipient Superannuation fund in New Zealand. In absolute terms (in US \$), the massive reserves in Japan subject to the new management system are by far the largest, at over \$200 billion, projected to reach \$1.2 trillion by 2008. The Swedish funds hold almost \$50 billion, followed by Canada and Ireland at \$9 and \$7 billion respectively. New Zealand's initial contribution to the fund in 2001 comes only to about \$250 million. The costs of administering the funds range from about 12 to 20 basis points in the four countries where data are available.

Table 5 here

Tables 6 and 7 summarize key features of the country experiences regarding governance

and investment policy. Some important similarities and differences can be observed. With the exception of Japan, there was an attempt to create some distance between government bureaucrats or line ministries and the pension fund. In Canada, this was done by appointing a nominating committee that is not under the direct supervision of the Minister of Finance who ultimately appoints the board of directors. The situation is similar in New Zealand, where a nominating committee made up of private sector and professionals with relevant background submits candidates to the Governor-general. No such buffer exists in the case of Ireland, although board members must have the requisite professional background for the position. In Sweden, the Government must choose four of the nine board members from among the individuals nominated by employer and employee organizations. Again, there is a requirement that members should have relevant experience and background. Not included in the table is the fact that the Swedish system incorporates a unique feature of limited competition by distributing reserves among four separate funds.

Tables 6 and 7 here

The investment policy options available to each Board (and in Japan, to the MOHLW), are subject to quantitative restrictions in each country, except for New Zealand. The Irish reserve fund cannot be invested in domestic government bonds, while 30 percent of the portfolio in Sweden's AP funds must be in government bonds. Canada's main restriction is on foreign securities that cannot be more than 30 percent of the portfolio; this rule applies to private pension funds as well. The limits in Japan focus on the ratio of domestic to foreign securities and are more restrictive than the other countries in this regard. They are not statutory but rather have been determined by the Minister in the process of determining the long-term investment policy. Sweden also restricts foreign, unhedged investments to 40 percent.

Transition arrangements were necessary in the three countries that already had funds invested. Canada allowed a gradual weaning of the provinces off the automatic demand that the CPP reserves had provided, while Japan gave the FILP seven years to unwind the old loan program that had financed public works for many years. The GPIF is required however, to continue to underwrite FILP bonds. Sweden included measures that would make the shift out of mortgage bonds more gradual and limited foreign securities in the initial years after the reform in order to avoid pressure on their currency.

The Feasibility of Successful Centralized Funding

In each of the cases reviewed here, the decision to establish or reform a public pension system was preceded by a national debate. In that context, mandated individual account pensions were rejected in favor of centralized funding; operating on a strictly pay-as-you-go basis was also rejected. The underlying premise of the policy choice in each case was that, in each case that with the right safeguards in place, public pension plans could avoid the pitfalls of political pressure and perform at least as well as private plans. Whether public plans will be managed effectively in the future is a crucial question. There are at least 60 countries with public pension reserves equivalent to more than one percent of national income (see the Appendix). Globally, pension assets under public management are estimated at more than one-quarter of world GDP, although this impressive figure is driven primarily by US and Japanese reserves. Nevertheless, a reasonable estimate for public pension fund assets excluding these two countries is probably around US\$400 billion. The figure is likely to grow in the coming decades. In addition to the five initiatives already discussed, several European countries have recently introduced new reserve funds or are planning to do so. The Netherlands AOW Spaarfonds (savings fund) was introduced in 1998, financed by general tax revenues. Spain established a

reserve fund in 1997, although the first contribution was made only in 2000. A small reserve fund was created in France in 1999 using privatization revenues and a Central Planning Commission report recommended a much larger fund be created (Leinert and Esche, 2000).

In several developing countries, public pension funds are already among the largest institutional investors. There is increasing recognition that this source of long term savings has not been well utilized and that pension system sustainability has been compromised. This has led to heightened interest in reforming governance structures at existing funds. At the same time, many countries facing imminent demographic transitions are considering whether they should create or expand reserves, in order to cope with mounting pension obligations. China is an important example, given its size and projected rapid process, having recently established a national social security fund with the intention of partially funding its growing pension liability.

Risks and mitigation strategies. Next we look at the risks of a funding strategy and the mechanisms available to mitigate them; then we highlight the limitations imposed by country-specific factors; and finally, we revisit the debate over the two approaches to pension funding.

One obvious risk of funding public pensions is that state monopolies may not have the type of incentives that lead to good performance. Government pay scales may not attract good professionals. A lack of competition not only reduces pressure for higher productivity, but it also eliminates a set of benchmarks with which performance can be measured. These problems are not unique to public pension funds, and policies designed to align incentives for those running state monopolies have been tested with varying degrees of success in different countries (World Bank, 1995).

Another risk is that government access to pension funds may allow it to spend more than it would otherwise. Although difficult to prove empirically, the view is based on the plausible

idea that the availability of these funds will lead to higher outlays. This is especially true when there is direct or even automatic access to borrowing from the fund, combined with a budgetary process that takes these resources into account when determining deficit targets.²⁶ In the case of Japan, for example, the FILP program is sometimes referred to as the ‘second budget’ and it has clearly been a way to channel funds to housing and education. This situation is often reinforced by fiscal accounting standards that produce a lower net government debt figure when public pension funds purchase government bonds. To the extent that it occurs, the objective of funding may then be completely undermined.

A third and related risk involves pressures to invest pension funds in socially desirable or economically targeted projects. Mandates to invest in certain favored areas are observed in many countries, with a predictable negative impact on investment performance. In addition, there is the danger that certain investments would be excluded for reasons unrelated to maximizing risk-adjusted returns. Examples include investments in companies that produce tobacco or companies operating abroad that have labor standards that are unacceptable to unions (Mitchell and Hsin, 1997).

A fourth risk is that investment policy will lead to distortions where funds represent a large share of the potential investment pool. This is especially true where volumes traded are low and the market is illiquid. Small changes in the allocation of funds could move markets creating the potential for intervention for example, for the purpose of boosting stock markets or for supporting particular firms.

A fifth risk from having public funds investing in private securities arises from having governments become shareholders. Corporate governance could be compromised where a manager, influenced by other public policy priorities, exercised his power in a way that did not

promote the interests of the firm or its shareholders. When the government is both owner and regulator of these firms, the best interest of the members of the fund and other public policy priorities may not be aligned.

The initiatives described in the last section included a number of safeguards designed to mitigate some of the specific risks associated with pension funds and political pressures. The most basic ones – the investment mandate and the governance arrangement – should also help to address the question of competence and performance incentives. All five of the schemes have a fairly clear commercial investment mandate that make them exceptional relative to the vast majority of public funds around the world. In addition, three countries – Canada, Ireland and New Zealand – have what can be termed professional arms' length boards, while Sweden has a hybrid arrangement with a somewhat weaker professional criteria for membership. In Japan, decisions continue to be made by a government official, albeit under the tutelage of an expert advisory council. All five countries require high standards of reporting and disclosure, and except perhaps for Japan, all appear to be proactive in their efforts to increase public awareness. On the other hand, no country has been able to make those individuals responsible for key decisions personally liable or subject to the same supervisory regime as found in the private sector.

With respect to government consumption, the Irish fund prohibits investment in domestic government bonds.²⁷ In the case of Canada, its inherited portfolio was heavily weighted towards provincial bonds. As a result, the CPPIB was allowed to concentrate exclusively on equities. Commercial investments, combined with the arms' length governance structure, should provide some protection against pressures to finance deficits, although the Swedish 30 percent minimum rule runs counter to this objective. The Japanese fund seems the most susceptible to this problem

because of its governance arrangement combined with its investment restrictions. According to its reference portfolio, it must hold a portfolio of around 70 percent in government bonds, compared to the current 90 percent for the overall reserve.

It is interesting that all five funds examined here avoid mandates for targeted investments and adhere to a commercial investment policy in principle. However, as noted, there was some opposition to this in New Zealand and, along with Sweden, there are some conditions related to ethical investment included in the legislation. The situation is less clear in Japan, where there appears to be some discretion in this area left to the responsible Minister.

The danger that the funds might be used in a way that distorts capital markets is mitigated in Ireland and New Zealand through large foreign investment shares. In Sweden, limits on shares in individual firms, along with relatively high ceilings on foreign investment, would seem to provide good protection, especially if the four funds truly operate independently of one another. In all of the countries except Japan, the arms'-length Board arrangement, combined with the commercial investment mandate, is an important safeguard against a government that wants to prop up its market or direct investments to favored firms or instruments. Once again, the Japanese case is the most troubling in this regard. The size of the fund and its direct control by a government official have already led analysts to suspect that the government may intervene in financial markets.

In each of the five countries, the funds are instructed to employ passive investment techniques for a substantial proportion of the equity portfolio, applying a pure index fund strategy has not been adopted in any of the five countries. The CPPIB began with a pure index fund approach, but it moved to active management, partly to avoid overexposure to a specific firm, but also due to its decision to move into private equities.

One way around some of the potential problems involved in domestic investing, be it in private or public securities, is to invest abroad. Despite sound financial arguments for diversification, even low levels of foreign investment can be especially difficult for public pension funds if political pressures arise to “keep the capital at home”. This has been the true in Canada, where union pressure against foreign investment by the CPPIB was strong. It does not seem to have been an issue in Ireland or New Zealand, where investing abroad is an accepted practice. In Ireland, for example, more than two-thirds of Irish private pension fund assets are invested abroad. The relatively high proportion of Swedish investments allowed to go abroad was a sharp deviation from the past policy that had led to a foreign share of only nine percent. Japan’s foreign exposure remains quite limited: 15 percent, according to the reference portfolio. Given the size of the fund, this target will make it difficult to avoid distortionary influence over fiscal policy or capital markets (or both). More importantly perhaps, it increases the exposure of the pension fund to Japanese country risk and reduces potential diversification gains.

To summarize this discussion, Table 8 provides a qualitative assessment of how well each of the five countries addresses the specific challenges for political insulation. The last column also lists some of the factors that can mitigate these risks. Based on previous studies, it seems safe to say that most other countries with public pension funds have not implemented these safeguards and would generally receive a “low” rating in all categories.

Table 8 here

The Influence of Country-Specific Conditions. Time will tell whether the five reform plans discussed here will succeed. In addition to the governance arrangement, investment policy and process, disclosure and reporting rules, and other elements of design codified in the laws, success will also be influenced by conditions in which the public pension scheme operates. Such

country-specific conditions include the relative size of the capital market and its liquidity, the state of the asset management industry and related services available in the country, restrictions on foreign exchange conversion, and most importantly, the overall governance situation in terms of accountability of government, corruption and the rule of law. The countries covered in this paper are also an unusual set: they are rich, relatively well-governed countries, with certain favorable conditions for implementing key elements of a successful policy. Table 9 below quantifies some of these factors.

Table 9 here

The conditions in other countries with significant public pension reserves are less conducive to success, especially poor and middle income countries. For example, among the more than 60 countries listed in the Appendix, we estimate that 36 have public fund reserves that exceed the value traded on their stock markets. An even larger proportion does not have a functioning bond market or does not issue government debt. The supply of debt and equities can be increased through parallel policy measures such as privatization, but the need to invest abroad in order to avoid the problems of capital market distortion and shareholder conflict of interest is often inescapable. For many developing countries with serious foreign exchange restrictions, this option may be limited.

Table 9 does not reveal the availability of domestic or foreign asset managers and other professionals. In the five countries of special focus here, where actuarial and investment experts are relatively abundant due to a well developed private industry; these are scarce in most developing countries. Most public pension funds manage all of their investments in-house and with local personnel. It is important to adjust pay scales in order to attract these individuals and/or to hire foreign managers, but many poor countries are too small to attract much interest

from providers. About one-third of the public funds have less than US\$100 million while about half are probably below US\$500 million.

There may be creative ways to deal with some of these issues and perhaps lower costs. Some experts have suggested asset swaps to deal with foreign exchange constraints in some countries (Bodie and Merton, 2002). The risk premium that would be involved in such a transaction could make the idea unattractive in some countries, and it remains to be attempted by any public pension fund. Regional initiatives such as among the Francophone countries may achieve economies of scale in several areas, including asset management and custodianship.

Finally, there is the overarching question of governance. Here we refer not to the Boards of public pension funds, along with their policies and processes, but rather to the broader question of accountability and transparency of government itself. In practice, even a well-designed system can be compromised by extralegal action. Moreover, the only discipline for public pension fund boards not subject to any regulatory authority with limited personal liability, is the public accounting that must be demanded at the broad political level.

Some international evidence on the relationship between good national governance and public pension fund performance is available. Figure 4 plots long term compounded rates of return for 20 public pension funds relative to bank deposit rates, against a measure of “voice and accountability” from the World Bank’s database on governance indicators. With only one exception (Malaysia), countries with a negative ranking reported long-run returns below those they could have achieved if the money had been held in a bank deposit in the same country during the same period.²⁸

Implications for the Debate over Publicly versus Privately-Managed Pension Assets.

The main alternative to centralized funding of defined benefit plans is to introduce privately-

managed individual account defined contribution plans. Critics of the centralized approach, skeptical about the potential for shielding large public funds from government interventions, include Barro (1998), who argued that:

“...it is politically infeasible to have a public program that is funded to a substantial degree. Large-scale funding seems to be sustainable only in the context of privatized (though possibly publicly-mandated) social security”.

Yet many of the challenges for public funds also apply to privately managed funds, including the general quality of governance. Only a public entity can supervise private funds and the task requires a certain level of competence and transparency. Also, in its role as supervisor and regulator, a government can impose investment restrictions that may lead to the same distortionary consequences as might have prevailed under direct public management. Finally, decentralization and competition implies additional costs that can reduce the net investment returns perceived by the members.

The option to manage funds in a decentralized manner does appear to require a lower threshold of governance to operate, and it also introduces a number of disciplining features that absent from even the best centralized model. One advantage is that moving from defined benefit to defined contribution creates a powerful incentive for members of the scheme to actively search out good management and reward or punish those making the investment decisions. In an open fund arrangement (where individuals have a choice of provider), this is achieved mostly through competition as individuals “vote with their feet”. Malfeasance can be sanctioned by a supervisor entrusted with appropriate powers and/or the courts through the assessment of liability. This applies not only to the investment function, but also to recordkeeping and other services.

A second advantage of individual accounts is the creation of well-defined property rights.

In a partially-funded defined benefit scheme, the claims of members are to a large extent on future taxpayers, some of whom are not yet born. This muddles the meaning of the funding ratio, since returns may be less important than political lobbying to ensure that future fiscal priorities respect pension promises made earlier.

In addition, problems associated with the government's conflict of interest when it acts as shareholder and institutional investor are largely avoided through decentralization. There is still potential for a government to use its regulatory powers to channel funds to certain areas (e.g., minimum investment in socially-responsible projects or depressed regions), but it seems clear that this is more difficult to do if control of the funds is out of the hands of someone appointed by the government itself.

Cost pressures are likely to be higher in private DC schemes, although in many countries, public monopolies are massively overstaffed and inefficient. Marketing expenses can represent as much as half of the charges levied on members in decentralized schemes and much of this is unproductive for the economy as a whole. On the other hand, more efficient allocation of capital in the economy is a potentially large externality, difficult to replicate with a centralized model. There may even be a positive role for the private funds in corporate governance under certain conditions. Finally, what matters to the member of the scheme is the net investment return which is only partly determined by commissions.

While both approaches involve major design and implementation challenges, it is probably more feasible in most countries to succeed in funding through a private, competitive model than through centralized public management. One possible compromise solution would involve a centralized, low-cost, default scheme with an opt-out provision that allowed for the use of privately managed funds. This would impose some market discipline on the public fund while

putting pressure on private managers not to pass along large marketing bills to participants. In countries with small memberships and/or assets, the private options could be limited and the firms selected through a tendering process. A key feature of this approach obviously, is the shift away from defined benefits and partial funding.

Conclusions

Our survey shows that many countries have adopted a financing strategy that involves funding public pension promises. In addition to the normal challenges of pension governance, public plans face additional obstacles arising from the tendency of governments to interfere in the investment process. In the last few years, five countries passed legislation designed to mitigate these risks. Reviewing these cases, a number of ‘good practices’ not commonly observed in most public funds were highlighted. These include (i) explicit funding targets and mechanisms to trigger action in the case of deviation from this objective; (ii) commercial investment policies flowing from these targets and aimed at maximizing risk-adjusted returns for members; (iii) professional boards selected through a process that maintains reasonable distance from government officials; (iv) prohibition on social investment criteria or ETIs; (v) significant share of investment done through external managers selected by explicit and objective criteria; (vi) avoidance of strict portfolio limits, especially on foreign investments and (vii) high standards of reporting and disclosure including annual, independent audits, performance reviews, and codes of conduct for Board members, all made available to the public.

By adopting these practices, public plans can improve their performance, thus increasing the sustainability of their retirement promises and removing distortions. Country-specific conditions will always pose formidable challenges and may require difficult solutions, such as investing a very high proportion of assets abroad. The most important constraint, however, is

likely to be the broader condition of national governance. Ultimately, even the most resilient and well-considered design for a national pension plan can be compromised if there is no way to hold the sponsor accountable.

Table 1. Background Statistics for Five Countries with Public Pension Plan Initiatives

| Country (year implemented) | Population over 60(%) ^a | Public pension spending GDP (%) ^b | Public pension fund assets GDP (%) ^c | Private pension fund assets GDP (%) ^d |
|-------------------------------|--|---|---|---|
| Canada (1998) | 16.5 | 5.4 | 10 | 48 |
| Japan (2001) | 23.1 | 6.9 | 34 | 19 |
| Ireland (2000) | 15.5 | 4.6 | None | 45 |
| New Zealand (2001) | 15.5 | 6.5 | None | n.a. |
| Sweden (2001) | 22.1 | 11.1 | 23 | 3 |

Sources: OECD (1996); OECD (2000); World Bank population database; author's computations.

Notes:

a. World Bank estimates for 2000.

b. OECD Social Expenditure database figures for 1997.

c. Figures for Canada for 1998, while figures for Japan and Sweden are for 2000.

d. OECD Institutional Investors Yearbook, 2000. Figures are for 1998.

Table 2. Permitted Investments by the Canada Pension Plan Investment Board

| Investment Activity | Minimum (%) | Maximum (%) |
|---------------------------|-------------|-------------|
| Public equities of which | | |
| - Canada | 45 | 75 |
| - US | 5 | 25 |
| - Other | 5 | 25 |
| - Total | 75 | 100 |
| Private equities | 0 | 10 |
| Total equities | 85 | 100 |
| Real Assets* | 0 | 5 |
| Nominal fixed income/cash | 0 | 10 |
| Foreign currency | 10 | 35 |

Source: Adapted from CPPIB Investment Statement, April, 2002.

Notes: * Includes (i) real estate, (ii) natural resources and (iii) real return bonds.

Table 3. Irish National Pension Reserve Fund Asset Allocation Strategy 2001

| Major asset classes | Overall allocation (%) | Share passively managed (%) | Share actively managed (%) |
|----------------------|------------------------|-----------------------------|----------------------------|
| Equities of which | 80.0 | | |
| - Eurozone | - 40.0 | 27.9 | 12.1 |
| - Global ex Eurozone | - 40.0 | 14.2 | 25.8 |
| Bonds | 20.0 | 14.8 | 5.2 |
| Total | 100 | 56.9 | 43.1 |

Source: Maher (2001).

Table 4. Reference Portfolios, Returns and Costs for Swedish AP Funds 1-4 (2001)

| | AP1 | AP2 | AP3 | AP4 |
|----------------|-----------------------------------|------|------|------|
| | <i>Percentage of total assets</i> | | | |
| Swedish shares | 12 | 20 | 16.3 | 22.5 |
| Foreign shares | 45 | 40 | 32.6 | 40 |
| o/w hedged | 30 | 10 | | |
| Fixed income | 40 | 40 | 44 | 32.5 |
| Real Estate | 3 | n.a. | 7 | 0 |
| Return 2001(%) | -4.1 | -3.7 | -4.2 | -5.0 |
| Costs (bp) | 8 | 20 | 8 | 13 |

Source: Author's computations from Funds Annual Reports.

Table 5. Indicators of the Five New Public Pension Funds (2001)

| | Canada | Ireland | Japan | New Zealand | Sweden |
|---------------------------|--------|---------|-------|-------------|--------|
| Assets in US\$ (billions) | 9.0 | 6.8 | 207.5 | 0.25 | 48.4 |
| Assets/GDP (%) | 1.3 | 5.3 | 5.4 | 0.5 | 22.9 |
| Funding ratio (%) | 8 | n.a. | 22 | n.a. | n.a. |
| Costs/assets (%) | 0.12 | n.a. | 0.16 | n.a. | 8-20 |

Source: Author's computations based on country Funds Reports.

Table 6. Comparison of Public Pension Plan Governance and Transparency

| | Canada | Ireland | Japan | New Zealand | Sweden |
|---|--|---------------------------|--|--|--|
| Who acts as the fiduciary? | Professional board | Professional Board | Minister | Professional board | Hybrid board |
| How are these individuals appointed? | Finance Minister selects from short list of nominees | Finance Minister appoints | Minister of Health and Labor designated by law | Governor-general selects based on list of nominees | Government appoints 5 and selects 2 each from employer/ee nominees |
| Are annual external audits required? | Yes | Yes | Yes | Yes | Yes |
| What share of portfolio is managed externally? | All | 85 percent | Roughly one third | All | At least 10 percent |
| Are manager selection and monitoring criteria explicit and objective? | Yes | Yes | Yes | Yes | Yes |

Source: Author's assessment based on country Fund Reports.

Table 7. Comparison of Investment Policy in Five Public Pension Funds

| | Canada | Ireland | Japan | New Zealand | Sweden |
|------------------------------------|---|--|---|--|--|
| Commercial investment mandate | Yes | Yes | Unclear | Yes | Yes |
| Statutory asset class restrictions | Yes, 30 percent limit on foreign securities | Yes, prohibition on holding domestic govt. bonds | Set by Minister, not in law | No | Yes, 40 percent limit on unhedged foreign securities |
| Statutory mandates (social/ETIs) | No | No | No | No | No |
| Minimum for government bonds | No | No | Yes, de facto | No | Yes, 30 percent |
| Shareholder voice policy | allowed | Allowed, but limited by foreign investment | Delegated to manager but Minister can intervene | Allowed, limited by foreign investment | Allowed, but Limits on individual firm shares |

Source: Author's assessment based on country-Fund Reports.

Table 8. Subjective Assessment of Safeguards Against Political Interference

| | Canada | Ireland | Japan | New Zealand | Sweden | Mitigation strategies |
|--------------------------------------|---------------|----------------|--------------|--------------------|---------------|--|
| <i>Safeguards in system against:</i> | | | | | | |
| Increased government borrowing | High | High | Low | High | Moderate | CIM, P-AL-B, Prohibition on public bonds |
| Social mandates and ETIs | High | High | Moderate | High | High | CIM, P-AL-B, Prohibition on ETIs |
| Capital market distortion | Moderate | High | Low | High | Moderate | CIM, P-AL-B, foreign investment |
| Corporate governance conflict | Moderate | High | Moderate | High | Moderate | CIM, P-AL-B, foreign investment |

Source: Author's computation.

Note: CIM = commercial investment mandate.

P-AL-B = Professional, arms-length board.

Table 9. Indicators of Country-Specific Conditions for Public Pension Management

| | Canada | Ireland | Japan | New Zealand | Sweden |
|-------------------------------------|---------------|----------------|--------------|--------------------|---------------|
| Stock market cap. (% GDP, 1995) | 64 | 43 | 72 | 56 | 78 |
| Value traded (% GDP, 1995) | 32 | 22 | 24 | 15 | 41 |
| Foreign exchange restrictions | None | None | None | None | None |
| Accountability ranking (out of 173) | 18 | 9 | 35 | 7 | 4 |
| Rule of Law ranking (out of 166) | 10 | 18 | 15 | 8 | 11 |

Source: See the Appendix.

Figure 1. History of the Fiscal Investment and Loan Program

Source: Japan -Filp Report 2000. Financial Bureau. Ministry of Finance.

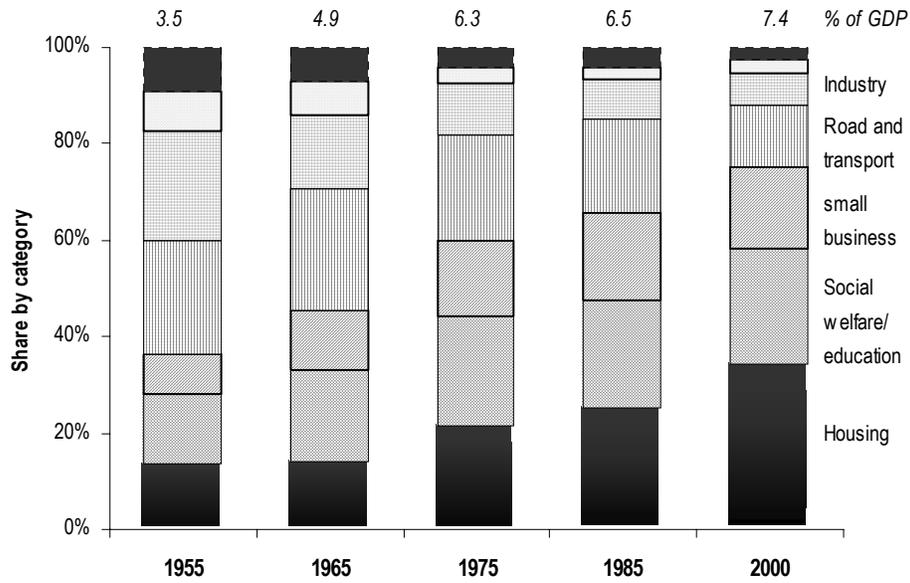


Figure 2. Portfolio of Pension Welfare Service Public Corporation, 1998

Source: Pension Welfare Service Public Corporation (1999).

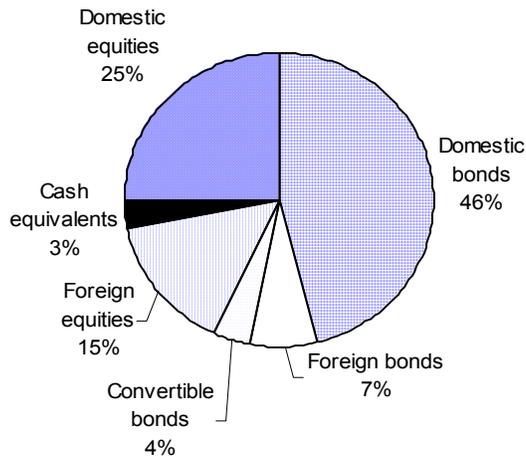


Figure 3. Gross Pension Fund Returns Minus T-bill Rates, Japan, 1970-97
 Source: Pension Welfare Service Public Cooperation (1999): IMF IFS statistics.

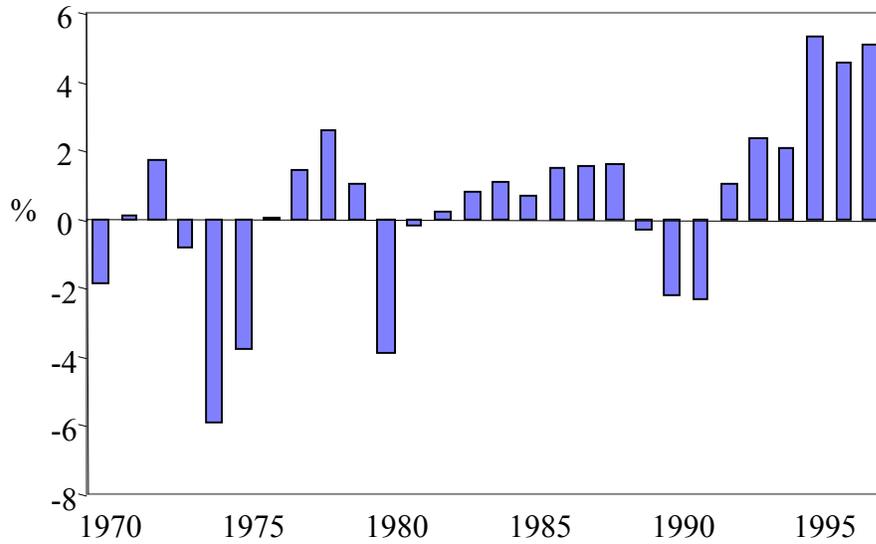
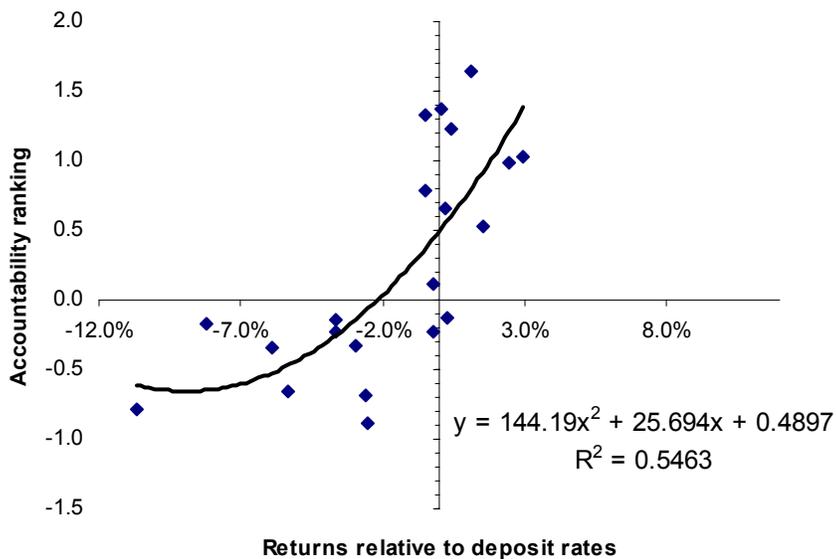


Figure 4. Accountability of Government and Public Pension Fund Returns
 Source: Adapted from Iglesias and Palacios (2000) and Kaufmann et al. (2002).



Appendix Table 1 Public pension reserves in selected countries

| | Year | Reserves relative to GDP | Reserves relative to traded shares | Reserves in US dollars | Board composition | Voice and accountability |
|---------------------|------|-----------------------------|---------------------------------------|---------------------------|----------------------|-----------------------------|
| | | (%) | (%) | millions | | |
| SWITZERLAND | 1998 | 5.7 | 5.9 | 15000 | Tripartite | 1.73 |
| FINLAND | 2000 | 7.3 | 48 | 9400 | Tripartite | 1.69 |
| SWEDEN | 2001 | 22.9 | 56.1 | 48000 | Tripartite | 1.65 |
| NETHERLANDS | 2000 | 31 | 49.4 | | Tripartite | 1.61 |
| DENMARK | 2000 | 18.8 | 124 | 30483 | Tripartite | 1.60 |
| NEW ZEALAND | 2001 | 0.5 | 3.5 | 252 | Professional | 1.59 |
| IRELAND | 2001 | 5.3 | 24.4 | 6600 | Professional | 1.57 |
| COSTA RICA | 2001 | 8.2 | | 1326 | Tripartite | 1.37 |
| CANADA | 2001 | 1.3 | 4.1 | 9032 | Professional | 1.33 |
| MAURITIUS | 2000 | 17.5 | 971.4 | 686 | Tripartite | 1.27 |
| UNITED STATES | 2000 | 9.4 | 12.8 | 931000 | Government | 1.24 |
| SOUTH AFRICA | 2000 | 19.2 | 153 | 27573 | Tripartite | 1.17 |
| JAPAN | 2000 | 5.4 | 24 | 1670224 | Government | 1.03 |
| KOREA, SOUTH | 2000 | 12 | 29.5 | 54866 | Tripartite | 0.98 |
| GUYANA | 2000 | 10.7 | | | | 0.94 |
| CAPE VERDE | 2000 | 10 | | 58 | Government | 0.92 |
| BOTSWANA | 2001 | | | | | 0.80 |
| JAMAICA | 1999 | 5.7 | 74 | 392 | Tripartite | 0.78 |
| PANAMA | 2000 | | | | | 0.77 |
| INDIA | 1998 | 4.1 | 97.6 | 17515 | Tripartite | 0.66 |
| TRINIDAD AND TOBAGO | 1999 | 11.1 | 427 | 762 | | 0.61 |
| PHILIPPINES | 1998 | 11.2 | 56.3 | 7324 | Tripartite | 0.53 |
| BENIN | 2000 | | none | | Tripartite | 0.47 |
| THAILAND | 2000 | 2.8 | 8.2 | 3000 | Tripartite | 0.37 |
| NAMIBIA | 2000 | 37.5 | | 1254 | Tripartite | 0.32 |
| MALI | 2000 | | none | | Tripartite | 0.32 |
| MADAGASCAR | 2000 | | none | | Tripartite | 0.28 |
| SENEGAL | 1998 | 1.3 | none | 59 | Tripartite | 0.12 |
| MEXICO | 2000 | n.a. | | | | 0.12 |
| SINGAPORE | 2000 | 55.6 | 77 | 51411 | Government | 0.11 |
| NIGER | 2000 | n.a. | none | | Tripartite | 0.11 |
| JORDAN | 1996 | 16.9 | 164.1 | 1186 | | 0.10 |
| GHANA | 1995 | 9.4 | 3142.2 | 371 | Tripartite | 0.02 |
| PAPUA NEW GUINEA | 2000 | 6.9 | | 263 | | -0.03 |
| HONDURAS | 1994 | 3.4 | 104.2 | 118 | | -0.04 |
| NEPAL | 1997 | 4.7 | 1169.8 | 226 | Government | -0.06 |
| NICARAGUA | 1996 | 3.2 | none | 61 | | -0.06 |
| TANZANIA | 1995 | 0.9 | | 37 | Tripartite | -0.07 |
| MALAYSIA | 2000 | 54.4 | 60.4 | 48591 | Tripartite | -0.13 |
| SRI LANKA | 1998 | 15.8 | 930.3 | 2498 | Tripartite | -0.23 |
| MOROCCO | 1999 | 9.6 | 367.7 | 3347 | Tripartite | -0.23 |
| LEBANON | 2000 | 7.2 | | 1000 | Government | -0.32 |
| GUATEMALA | 1995 | 1.7 | | 249 | | -0.33 |
| INDONESIA | 2000 | 2.8 | 38.4 | 3690 | | -0.40 |
| COLOMBIA | 2000 | 3.6 | 225 | 2932 | Tripartite | -0.41 |
| NIGERIA | 1998 | 1.2 | 1233 | 160 | Tripartite | -0.44 |
| TUNISIA | 2000 | 5.7 | 154.6 | 1114 | Tripartite | -0.61 |
| YEMEN | 1999 | 1 | none | | | -0.63 |
| EGYPT | 1998 | 33.1 | 2364.3 | 27361 | | -0.65 |
| KENYA | 1995 | 12.1 | 1732.8 | 929 | Tripartite | -0.68 |
| GAMBIA | 1995 | 11.1 | | 38 | Tripartite | -0.73 |
| UGANDA | 2000 | 1 | | 27 | Tripartite | -0.79 |
| MALDIVES | 1999 | 1.5 | none | | | -0.81 |
| CAMEROON | 2000 | | | | Tripartite | -0.82 |
| ETHIOPIA | 1997 | 1.4 | | 98 | Government | -0.85 |
| CHAD | 1999 | 0.3 | none | 4 | Tripartite | -0.88 |
| ZIMBABWE | 1999 | 1.8 | none | 85 | Tripartite | -0.90 |
| SWAZILAND | 1995 | 6.6 | none | 70 | Tripartite | -0.93 |
| SAUDI ARABIA | 2000 | 135.2 | none | 234000 | Government | -1.07 |
| CHINA | 2001 | 2 | 27.6 | 21135 | Government | -1.11 |
| COTE D'IVOIRE | 2000 | | | | Tripartite | -1.19 |
| BHUTAN | 1999 | 9 | none | 39 | Government | -1.27 |
| PAKISTAN | 2000 | 1.4 | 26.4 | 776 | Tripartite | -1.43 |
| BELIZE | 2000 | 28.2 | | 65 | Tripartite | n.a. |

Note: For Canada, Japan, and Sweden, reserve figure is only for new scheme.

Sources: World Development Indicators; Kaufmann et. al. (2002); ISSA 1997; country sources.

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Endnotes

¹ For a review of the international evidence from many countries, see Iglesias and Palacios (2000).

² For example, the press reported that Taiwan's government used "massive government intervention with large purchases by government pension and insurance funds" to prop up the stock market in 1999. (Wall Street Journal, 1999).

³ Of course, private management in a decentralized and competitive system need not guarantee good results. Private fund managers must be supervised closely, especially when contributions are mandated, thus raising the implicit (or sometimes explicit) liability of the state vis a vis their performance. In addition, the regulatory climate and in particular, investment rules and restrictions imposed on private managers can ultimately obviate the advantages of better incentives and competition. Finally, the cost of administration may be higher in a decentralized system.

⁴ Although not discussed in this paper, an interesting exception to this rule is found in Costa Rica where the Superintendency of Pensions regulates both fully funded, private pensions and a partially-funded, public scheme. However, its role is still not clearly defined with respect to the latter.

⁵ Association of Canadian Pension Management (ACPM, 1997), p. 4.

⁶ In the United States, the Thrift Savings Plan (TSP), a defined contribution scheme for Federal civil servants, provides an example of this problem in the case of a public scheme. Passage of the legislation creating the TSP was significantly delayed due to reluctance of potential trustees to assume liability. Ultimately, Congress granted exemptions from liability (Schreitmuller 1987).

⁷ In the 1960s and 70s, many developing countries in Latin America and Africa adopted the scaled premium approach where partial funding was aimed at maintaining target long-term contribution rates.

⁸ For a variety of real world examples, see Iglesias and Palacios (2000).

⁹ Useem and Hess (1999) and Mitchell and Hsin (1997) present empirical evidence of the influence of governance structure on asset allocation in US public pension plans at the state level.

¹⁰ Another interesting example is the Norwegian Petroleum Fund. While not a pension fund per se, the assets have been explicitly earmarked to deal with the impact of population aging.

¹¹ Government of Canada (1998) p. 37.

¹² "Gender" representation was included among the criteria.

¹³ The external auditor reviews internal controls every six months, although this is not required.

¹⁴ Other services, such as custody, performance measurement and investment accounting services are also provided externally by State Street Trust.

¹⁵ CPPIB (2001).

¹⁶ Most of this consisted of proceeds from a Telecom privatization earmarked for this purpose.

¹⁷ Usuki (2002) points out that returns between 1995 and 2000 were slightly better than comparable market indices.

¹⁸ This terminology is taken from Usuki (2001). Sakamoto (2001) refers to this as the Investment Fund of Social Security Reserves (IFSSR).

¹⁹ In the future, bonds will be issued by FILP to support public projects.

²⁰ The idea of introducing a mandatory, funded retirement savings scheme was rejected in a recent referendum by what could fairly be termed a consensus of 97 percent of voters.

²¹ Government of New Zealand (2000), (Executive Summary).

²² The Government determined that transfers to the Fund would total 600 million NZ\$ in 2001/02, 1,200 million in 2002/03 and 1,800 million in 2003/04. However, until the Fund is fully established and operating in 2002, it will earn the interest rate on short-term bank deposits.

²³ The nominating committee, appointed by the Minister of Finance in 2001, has members including the Chief Executive of the Investment Savings and Insurance Association, the Chairman of the First State Property Trust, a chartered accountant, a member of the Securities Commission and the Executive Director of New Zealand Businesses for Social Responsibility.

²⁴ The new system also includes two more public funds. The first is a residual scheme from the old system that invests in small and medium sized enterprises in Sweden. It is relatively small. The second is the default fund for individuals who do not express their choice of private fund manager for their fully-funded, "Premium" pensions.

²⁵ Legislation for the three Anglophone countries can be found as follows:

Ireland: http://www.ntma.ie/Publications/Pen_Res_Fund_Act_2000.pdf

New Zealand: <http://www.treasury.govt.nz/release/super/#15October>

Canada: <http://www.cppib.ca/>.

²⁶ See Buchanan (1990) for a discussion in the US context.

²⁷ In its first year of its operation, critics asked to defer its mandated contribution to the fund. New Zealand's finance minister was also approached on this topic, even before the fund began to operate.

²⁸ To place this result in context, the accountability ranking is also included for the 65 countries listed in the Appendix. Roughly half of the countries with public pension reserves, and about three-quarters of developing countries in the table, have negative rankings. In the global sample, the only non-OECD country among the top 20 (out of 173 countries) is Mauritius.