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The World Bank Approach to Pension Reform

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The World Bank Approach to Pension Reform

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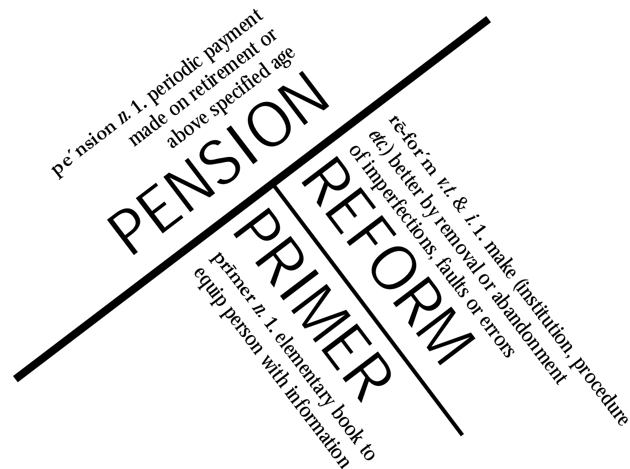

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Abstract

The paper highlights the World Bank's thinking and worldwide involvement in pension reform. Both are driven by the Bank's mandate to help countries develop economically and to reduce poverty. The Bank has four key concerns in working with clients on pension policy: (1) short-term financing and long-term financial viability; (2) effects on economic growth; (3) adequacy and other distributive issues; and (4) political risk and sustainability. In response to these concerns and after review of the three main reform options for unfunded systems – mere PAYG reform, a rapid and complete shift to a mandatory funded system, and a gradual shift to a multi-pillar scheme – the Bank clearly favors the multi-pillar approach but in a pragmatic and country-specific manner. When helping to implement a pension reform the Bank fully takes account of country preferences and circumstances, bases its support on sound reform criteria, links the client assistance with knowledge management, provides training and other measures to enhance the reform capacity of a country, and seeks cooperation with other international institutions. In addition, the Bank has a comprehensive research agenda to improve the working of multi-pillar schemes, and the investigations include issues of coverage, administrative costs and annuities.

I. Introduction[*]

The Bank's mandate is to help countries develop economically and, in so doing, reduce poverty. Pension policy looms large in any country's economy and its citizens' expectations. Inevitably, the Bank began to examine how pension policy affects both a country's economic development and its social adequacy. For several reasons, the Bank's interest in the subject heightened in the 1980s. First, there was the Bank's work with countries in Latin America that had begun to question their social policies that often promised a great deal, but delivered little. Then came the regime change in Central and Eastern Europe and the former Soviet Union. This increased the Bank's involvement with countries burdened with dysfunctional pension systems that economic transition typically made worse. With the unfolding financial and social crisis in East Asia, the Bank started to assist these countries to move toward financially sustainable schemes for large segments of the society. In general, the Bank's involvement comes in two contexts: (i) structural adjustment lending, where the large influence of pensions on a country's fiscal, financial and economic life cannot be ignored, and (ii) investment lending directed to helping countries modernize government operations in revenue collection, payment services and regulatory supervision. Understandably, the Bank prefers to do its lending to governments pursuing economic and social policies that are not self-defeating.

In addition to the major 1994 staff study by the Bank's Research Department (World Bank, 1994), the Bank has benefited from the experience that comes from hands-on work with clients in very different, and often very constraining, starting positions. As is well known, the staff study recommended a multi-pillar pension system – optimally consisting of a mandatory, publicly-managed, unfunded pillar and a mandatory, but privately-managed funded pillar, as well as supplemental voluntary private funded schemes. In dealing with real-world starting conditions and client preferences, the Bank knows it must be flexible in its advice to clients, balancing both economic growth and social protection objectives. In this respect, the Bank emphasizes that these objectives can be best harmonized within a pension structure that diversifies risks, both economic and political. Accordingly, we still conclude that the multi-pillar approach to pension reform is the correct one.

To outline the Bank's thinking and involvement in pension reform, the structure of the paper is as follows: Section II highlights the Bank's principal concerns in pension policy, which are fiscal, economic, social and political. Given the multiplicity of reform needs, Section III briefly reviews the main reform options and presents the central arguments as to why a multi-tier approach, in general, is considered best. Section IV outlines the reform support by the Bank for its client countries, (the main criteria and instruments applied), while Section V concludes.

II. The Bank's Principal Concerns in Pension Policy

[*] This paper is a revised and extended version of a World Bank Social Protection Discussion Paper (No. 9807), which has been presented at various conferences world-wide, sponsored by organizations including the OECD, ILO, Asian Development Bank and the Harvard Pension Reform workshop. During the course of the revisions, the title of the paper has changed from "A World Bank Perspective on Pension Reform" to the current one, indicating the broad consensus within the Bank to support a pragmatic multi-pillar reform objective. The paper has profited from many constructive comments and suggestions at these conferences, and special thanks go to David Lindeman, Robert Palacios, Anita Schwarz, Louise Fox and Steen Jorgensen at World Bank for their comments and support.

The Bank has four key concerns in working with clients on pension policy: (1) short-term financing and long-term viability; (2) effects on economic growth; (3) adequacy and other distributional issues; and (4) political risk.

Short-term fiscal concern. Many countries with pay-as-you-go (PAYG), or unfunded schemes are facing current-period deficits that are covered by some combination of general taxes or public debt. But even balanced pension schemes create fiscal problems when high contribution requirements crowd out general government revenue, such as income taxes, or soak up debt capacity that would be better used for long-term investment. Either effect – high contributions and taxes or increased debt for current consumption – can harm a country's growth and employment prospects.

Short-term imbalances are not restricted to countries with relatively aged populations or those confronting the consequences of economic transition. Countries with favorable demographics often have formal state pension schemes whose actual coverage levels are low, but their immediate problems are not much different than those faced by more aged societies – persistent deficits, delayed payments, and large infusions from the government budget.

There are no good choices in dealing with short-term imbalances in a pension scheme. All the remedies are well-known, painful, and resisted by the Bank's client countries as much as anywhere else. The Bank's main objective in working with the client in the short-term is to ensure that the choices made do not eliminate the possibilities of reaching long-term objectives.

Long-term fiscal viability. Most of Bank's client countries have unfunded pension schemes that have to grapple with projections of lower fertility rates and rising life expectancies. These trends are world-wide. In industrialized countries, these trends will lead to further and marked increases in already high old-age dependency ratios. But other countries – in Latin America, Eastern Europe, Central Asia – are also projected to experience a steep rise in the ratio of population aged 65 and above to the population aged 15 to 64, roughly doubling between now and 2050 in many instances.

To cope with this demographic trend, the same well-known and politically unpleasant choices exist: a reduction in the replacement rate; an increase in the retirement age; a further increase in the contribution rate; or a further increase in budgetary transfers financed by higher taxes or lower non-pension expenditure. While a solution to the aging problem in industrialized countries along these lines appears feasible to some fiscal economists (Chand and Jaeger, 1996), proposing parametric reforms linked with a partially-capitalized central system which allows for a constant contribution rate ignores the political economy of pension reform and other concerns. Though the current old-age dependency ratio in many developing countries may not necessitate an immediate reaction, it provides a window of opportunity for an early revision in pension policy.

Economic concerns. As empirical evidence from developed and developing countries suggests, poorly-designed public pension systems can distort life-cycle savings and work

decisions, leading to dead-weight losses, lower output level, and a lower growth path of output. More importantly, the financing of publicly-mandated pension schemes can affect aggregate savings and capital market development, both of which can affect economic growth.

Labor Tax Effects. If the pension scheme has a weak correspondence between contributions and benefits, younger workers will treat contributions as a labor tax, leading to both evasion and, in some instances, less work. In addition, pension design often and inappropriately encourages early retirement (Gruber and Wise, 1999). In countries with weak control and collection power, these labor market effects exacerbate shifts towards informal labor market activities that limit a country's growth rate through higher transaction costs (including corruption) and the use of inferior production technology. In countries where enforcement is stronger, globalization has increased the options for labor tax avoidance. Highly-skilled labor can change residence and employers can shift the locus of production.

These labor market effects are not limited to PAYG schemes. Mandated funded schemes can suffer from high administrative costs and bad asset management deriving from either inadequate regulation or explicit government interventions. These can impose an implicit labor tax. Even modest return differences of 2 percentage points over the life cycle, for example, imply an important implicit tax component which can reach 50 percent and above of lifetime earnings.

Savings Effects. In the area of savings, uncompensated transfers from the state budget to ailing pension schemes may lower aggregate savings and crowd out a country's ability to borrow for investment. Although the evidence about the long-term effects on saving rates is mixed, unanticipated increases in PAYG schemes, including the start-up, are likely to have a permanent effect on the level of the capital stock and hence output. By the same token, a shift from PAYG toward funded schemes may raise the capital stock and future output.

Even without any effect on saving volume, comprehensive coverage with high replacement rates under an unfunded scheme reduces the need for additional old-age saving devices and may impede the emergence of pension funds and similar financial market institutions, retarding the development of a sophisticated financial market. There is empirical evidence that financial market development and economic growth are closely related, and evidence from Chile suggests that the most positive resul of the shift to funded pensions was the increase in the efficient use of existing capital (Holzmann, 1997a, Schmidt-Hebbel, 1998).

Distributive concerns. Ideally, the total population should have access to some old-age income, at least at the poverty level, and all workers should have a portion of their earnings replaced, consistent with their work record and contribution effort. Four typical departures from this principle often occur.

First, in many low and middle-income countries, the earnings-related scheme is restricted to the relatively well-off – civil servants and selective parts of the formal economy. Directly through budget subsidies and indirectly through public pricing, these systems can impose unfair

burdens on the less well-off outside the formal economy, while providing them no systematic support in old age.

Second, privileges for special sectors – in particular, early retirement – pose similar problems. For some occupations, a lower retirement age for strenuous work may have some distributive justification. Pure cross-financing by means of a common contribution rate, however, provides no incentives to employers to change the production technology, nor do the employers' prices reflect social costs. Furthermore, privileges usually are extended to all employees in the sector, including administrative staff.

Third, poorly-designed pension schemes can actually lead to regressive results, including higher payoffs to the relatively well-off with their higher life expectancies, steep age-earnings profiles and uncompensated credit for higher education in pension calculations.

Fourth, public pension schemes often distinguish on the basis of gender – for example, earlier retirement ages for women or differences in survivor benefits – or, on the basis of age, marital or other differences in status. Even if these categorical rules reflect real underlying differences or even just deeply-held preferences, the question arises as to whether those differences or preferences can be honored in ways that are less distortionary and in which the price to society is more transparent.

In addition, there are issues of inter-generational equity. Some inter-generational, redistributive effort may have a justification after wars and during economic transition, but repeated increases in the level of generosity can only reduce capital formation and, hence, the output level for current and future generations. This is particularly pressing when demographic "shocks," such as the baby-boom generations, either create an important burden for the future working generation when the baby-boomers retire, or leave the baby-boomers worse off because pension promises are adjusted downward.

Political risks. Public pensions are subject to many sources of political risk. First, and most obvious, has been the granting of relatively high benefits to existing retirees when the system is not mature and contribution revenue easily covers expenditures, combined with comparable promises to future retirees that cannot be met at reasonable contribution rates. Second is the excessive responsiveness of benefits to short-term conditions of the government budget. This occurs in both highly-developed and less-developed countries alike as recently experienced in member countries of the European Union when struggling with the Maastricht fiscal criteria. Third is the excessive responsiveness of benefits to the long-run condition of the government budget, making it unlikely that the current promises toward the baby-boomers can be kept.

Fourth, many schemes that have been funded to some degree have been depleted of accumulated assets through outright diversion or a low rate of return, making the originally-promised benefits impossible. This happened widely in Latin America, Africa and to some extent in Europe and Asia (Iglesias and Palacios, 1999). In contrast, some countries, such as the Netherlands, have successfully run a funded pension scheme for decades. As we face the

prospects of funded schemes, mandatory or even voluntary, in many transition and developing economies, we have to ask some hard questions about a country's financial institutions and regulatory capacity, and the governance structure's ability to shield pension funds from private and public misuse.

III. Multi-pillar Reform: A Welfare-enhancing Approach to Reform

The major options for reform are essentially three-fold: The first is to reform the PAYG system. The second is a rapid and nearly complete shift to a mandatory funded system. The third is a gradual shift to a multi-pillar scheme, in which there is some mix between PAYG and funded pensions. The exact mix will depend on a country's starting conditions and constraints in financing the transition.

PAYG-Only Reform With notable exceptions, many of needed reforms can, in principle, be addressed by reforming the PAYG system, i.e., by changing the parameters of the pension system (such a retirement age, accrual factors, length of assessment period, indexation, etc.). The need to undertake an early and long-lasting PAYG reform in view of population aging, and the instruments to be applied have been known for many years (Holzmann, 1988). The political unattractiveness, however, to engage in a comprehensive PAYG reform – the fiscal and economic gains would be harvested at the time when the responsible politician is already out of office – while undertaking continuous marginal changes creates a time consistency problem. Politicians cannot make a convincing commitment that the proposed "parametric" reform is a lasting one (i.e., it puts the scheme on a sound, long-term financial basis) and that they have no incentive to change the benefit/contribution structure for political reasons in the future. Given this credibility problem, individuals have an incentive to oppose a "parametric" reform from the very beginning.

Examples of marginal parametric reform attempts, many of which failed or came about only after intensive political fighting, are abundant. A small selection of current examples includes the fight over retirement ages in Japan, France and the Czech Republic, the halted reform by the new Germany government, and the very recent pension reform in Austria which provides some fiscal breathing space due to changes in accrual factor and assessment period, but no long-term solution. Most incremental PAYG reforms also fail to deal with most of a traditional system's labor market distortions and cross-subsidies among competing groups.

Possibly, a more promising strategy for PAYG reform employs a "paradigm shift" – that is, putting forth a conceptual structure that changes the usual terms of debate. A paradigm shift is inherent in proposals to move to a Chilean-style funded scheme. The close analogue in the PAYG context is the construct of Notional Defined Contribution accounts (NDC), which has been enacted or is being discussed in Mongolia, Latvia (Fox and Palmer, 1999), Sweden, Italy, Poland (Plenipotentiary, 1997), China and possibly Russia. The NDC approach appropriates the vocabulary of funded individual accounts and uses it to define PAYG promises. In doing so, it makes explicit the implicit actuarial mathematics of any PAYG system. This extra transparency

helps both policy-makers and the public to understand better the trade-offs inherent in any PAYG arrangement.[1]

Even when the NDC approach is employed, however, some basic defects of the PAYG-only approach may remain, in particular, those relating to savings and capital formation. Furthermore, it is unclear whether or not the NDC approach can fully deal with labor market distortions, so long as the notional rate of return continues to fall below the rate of return in funded schemes. In the face of changing demographics, the NDC approach demands the creation of a "buffer fund" – a partial reserve that forces baby-boom cohorts to pay something close to the present value of the equilibrium price for their benefits. Can such funds be better immunized against political manipulation and low rates of return than the earlier and analogous attempts in Canada, Japan, Sweden and elsewhere? The recent change in Canada creates some hope.

Shift to a Fully-funded System A complete shift towards a funded scheme addresses, in principle, all the incentive and most distributional issues, as well as the issues of savings, intergenerational equity and capital market formation that PAYG-only reform, including the NDC approach, fails to achieve. However, it presents three major problems.

The first is the repayment of the public debt implicit in the commitment to not only current retirees, but to workers who have acquired rights under the PAYG regime as well. The second is whether a country's financial infrastructure, regulatory capacity, and political economy are equal to the task. The third is whether the risks in financial market fluctuation are adequately and explicitly addressed. All three issues are also present under a multi-pillar reform, but are diminished and more manageable in a gradual and partial privatization approach.

The first issue – the need to pay for old pension obligations while setting aside assets for future pensions – can be addressed in four ways (Holzmann, 1997b). Briefly stated, they are:

- partial default on promises to existing workers, particularly younger ones, in a manner consistent with inevitable changes in the PAYG scheme;
- use of proceeds from privatization of collectively-held assets to fill the fiscal gap in the early years of the transition;
- a controlled amount of debt financing during the early years to spread the costs of transition into the future when the country's growth rate will have been enhanced by other aspects of the reform – better labor market incentives, less tax evasion, and more efficient use of existing capital; and

[1] In a NDC system, a long-term contribution rate is established. Each year, contributions are recorded in each contributing worker's account, just as if these were contributions to a funded account. In addition, each year, the account grows according to a "notional rate of return." That rate of return could be growth in GDP, growth in average wages, or growth in aggregate wages, each having different fiscal implications under demographic, employment and wage shocks. At retirement, the accumulation in a person's account is translated into an annuity or payment stream, calculated on an implicit interest rate and cohort-specific mortality tables in a manner similar to a funded account. Because the mortality tables are recalibrated to recognize increased longevity, the effects of longevity gains will be automatically incorporated into the pension system.

- fiscal measures outside the pension system – by raising other taxes, such as the VAT, or by cutting other government spending

The second major issue concerns the country's institutional capacity and political will to regulate funded pensions so that these both provide real economic security for the contributing workers and truly help build competitive capital markets. It takes strong governmental institutions to enforce basic ground rules. It also takes a political willingness to let old-established enterprises fail. Pension reform should not be used to prop inefficient firms or concentrate control of capital in the hands of a select few.

The third issue is market fluctuation and risk. By their nature, market-driven returns will vary from period to period, and some companies will go bankrupt. These failures are the analogues to the demographic and political risks facing PAYG systems. Governments can and should dampen these risks in mandatory-funded pensions by imposing a regulatory framework and supervisory institutions which, at least initially, may have to be strict (Vittas, 1996), and may have to specify diversification rules and possibly require that workers, as they get older, move from equity to bond portfolios. Governments may have to take on the responsibility of providing indexed bonds to make fully-funded systems viable. Of course, the larger the funded system, the more the government will feel compelled to constrain what the pension funds are allowed to do.

A shift towards a fully-funded system may still be feasible under certain limited conditions: the implicit debt in the inherited pay-as-you-go scheme is relatively small and credibility in reform of the unfunded scheme is low; and potential proceeds from privatization are sufficiently high to substantially co-finance the transition. Such conditions may apply to Bolivia, Mexico, and Kazakhstan where a Chilean-type reform has been attempted. But under such circumstances, the Bank watches very closely to ensure that distributive, fiscal, administrative and regulatory concerns are met.

Multi-pillar System. The observed difficulties of both PAYG-only reform and the fully-funded approach leads naturally to a discussion of the third major approach to reform – a multi-pillar system, in which part of the mandatory system is PAYG and in which a distinct and separate component is funded. Multi-pillar systems on a mandatory or contractual basis already exist in advanced countries such as Australia, Denmark, the Netherlands, Switzerland, and the UK, and most of the recent reforms in Latin America and Eastern Europe are based in this approach (Queisser, 1998, Rutkowski, 1998). The central issues are the welfare economic implications of such a reform approach.

While it can be argued that no actual pension reform can be Pareto-efficient – someone's consumption at some moment in time will be made worse-off, even if future generations, on the whole, will be better-off – a reform along the lines of a multi-pillar system can be welfare-enhancing. I would argue that the multi-pillar approach has several distinct advantages: it allows a distinction to be made between poverty reduction and income replacement goals; it builds risk diversification into a country's provisions for retirement income support; it minimizes the burden of fiscal transition while preserving many of the economic gains of the fully-funded approach;

and it brings to the reform discussion some clear gains for younger workers and those who are facing labor income losses from globalization.

The multi-pillar approach allows the reforming country to delineate between poverty reduction and income replacement goals. The former could be achieved through relatively small PAYG schemes or general revenue financed citizens' pensions. The latter could be assigned to mandatory funded pensions with contribution rates of 10 to 13 percent. Unfortunately, most of the reforming countries so far have chosen to target relatively high replacement rates, which has given the PAYG pillar the dual duty of poverty reduction and contributing to income replacement.

The principal advantage of a multi-pillar pension scheme lies in risk diversification. Not all of the population's retirement portfolio will be held hostage to political and demographic risk, if only because the PAYG system no longer looms so large in the country's public finances. As emphasized above, most or all of the same issues of regulation, capital market development and market fluctuation also exist in a multi-pillar approach and require solutions. Because it is only part of a larger system, however, the funded component can operate with fewer governmental constraints on the long-run investment options offered to contributors.

More importantly, the multi-pillar approach recognizes that countries face a variety of risks over the long term and no one instrument can fully anticipate all those risks. In fact, some non-systemic risks, such as catastrophes may not be diversified at all. The following table summarizes how a multi-pillar approach balances long-run risks.

Table 1: Responsiveness to Main Risks

	Unfunded Schemes	**Fully Funded Schemes**
Macroeconomic Risks		
Negative output shocks	lower revenue, but effects on individuals can be mitigated	possible effects on financing which can not be mitigated
Unemployment	lower revenue, but effects on individual can be mitigated	no effect on financing, but concerned individual receives future lower benefits
Low wage growth	lower revenue, but effects on individual can be mitigated	no effect on financing and current benefit level
Financial crisis (depression, war, hyper inflation, natural disaster)	possible lower revenue, but effects on individual can be mitigated	accumulated stock reduced or even eliminated
Low rates of return	no direct effects on financing and benefits	no effects on financing but lower benefits
Demographic Risks		
Higher dependency ratio	deteriorating financing	no direct effects on financing and benefit level
Lower labor force	higher wages and future benefit levels	lower returns and future benefit levels
Political Risks		
Contract change	easy	difficult
Responsiveness to short and long term budget constraints	high	Low

In mere economic terms, a portfolio of (unfunded) social security wealth and (funded) financial wealth can be welfare enhancing by reducing the income risk. While financial assets are internationally highly correlated, national wages and national as well as international financial markets are not. As a result, a multi-pillar scheme provides a better risk/return trade-off than single pillars, including an international financial portfolio (even if abstracting from the exchange rate risk). The Annex provides illustrative calculations which support the view not to put all eggs into one basket, even if it is an international one.[2]

Another major advantage to the multi-pillar approach is that the transition problems are markedly lessened. Modeling suggests that, for most countries examined so far (Latvia, Hungary, Poland, Croatia, and Mongolia), some sensible PAYG reforms, such as increased retirement ages are enough to free up space for a funded component of significant size by the end of a decade of gradual transition. Some combination of proceeds from privatization and modest debt financing can fill the fiscal gap in the first 10 years. In some of these countries, the transition is helped by temporarily favorable demographics, a window of opportunity which will close soon.

The multi-pillar approach brings with it most of the economic gains typically associated with the fully-funded approach. Though some of the implicit pension debt is made explicit in ways that must be repaid, the gains from reduced labor market distortions, especially improved compliance, improved financial markets and, perhaps, higher aggregate savings compensate. The pension reforms also engender parallel reforms in broader economic areas, such as macroeconomic stabilization, comprehensive liberalization and public sector reform and institution-building.

A multi-pillar approach also offers something to younger generations – the prospect of a relatively high return on some of their contributions. In Hungary, this was the decisive factor that broke the political logjam in favor of fundamental reforms in the PAYG system. Things that were not possible by themselves became possible in a larger package that included a funded component. The same pattern is repeating itself in Poland.

Implicit in the multi-pillar approach is a means to mitigate fears of globalization. Most individuals receive their income from work, focusing their interest on high wages and job security. Any negative feedback from pursuing such goals or from high taxation on capital is generally ignored. Shifting to funded pensions broadens the citizenry's perspective, encouraging them to understand the role of, and returns to, capital. This is particularly critical in a world in which workers think they are experiencing the disciplines of globalization on wage levels, but may not fully appreciate the efficiency gains (Holzmann, 1997b).

IV. Implementing Reform in Client Countries

[2] For theoretical underpinnings of the argument, see Merton et al. (1987) and Dutta et al. (1999). For additional empirical support similar to the data in the Annex, see Boldrin et al. (1999).

Identifying a dominant reform approach falls short of implementing it in a client country. Implementation requires flexibility through taking account of a country's preferences and circumstances. It also requires a comprehensive and complex tool-kit which ranges from assistance with design issues, getting the projections correct, institution-building, to communicating and improving the perception of the reform effects, most importantly by financial markets. This chapter reviews very briefly main support criteria and instruments developed and applied by the Bank.

Country preferences, circumstances and ownership Even the best technically prepared pension reform is bound to fail if does not reflect the preferences of a country and is not credible to the population at large. The preparation of a pension reform has to be done by the country itself, by its politicians and technicians, and has to have the support of population. Outsiders, such as the Bank, can assist with advice based on world-wide experience, but ownership and public support must come from the client country. Equally important, the reform environment differs starkly among countries, both with regard to starting conditions (such as the inherited system and the stage of financial market developments) and the implementation capacity. This implies that each reform will differ from country to country. This requires flexibility and innovation and disallows the application of blue-prints. While all recent pension reforms in Latin America and Eastern Europe share common characteristics, none of them is identical.

Accordingly, the Bank has supported different reform approaches. For example, in Lithuania, the Bank has helped the government fashion and implement a relatively modest PAYG scheme with a redistributional formula, and continues to work with the government in developing the regulatory framework for voluntary supplementary schemes; a mandatory second pillar is left to future decision. A similar route is suggested for the old Bulgarian, the young Korean, and the nascent Thai unfunded scheme. In Latvia, the reform has taken the route of PAYG notional accounts, with a very modest funded add-on under preparation. In Hungary and Poland, the mandatory funded component will be about one-third of the total package. In Kazakhstan the reform replaced the PAYG with a funded scheme (Andrews 1999). A similar approach is supported in Bolivia, Peru and Mexico while the reform plans in Argentina and Costa Rica are directed toward a two-pillar approach.

Sound reform criteria While the Bank reacts flexibly to country preferences and circumstances, it does not support all reforms proposed by a country. Too much is at stake for the current and future retirees, and the country as a whole, to engage in a pension reform which is likely to fail in social and economic terms. The central criteria used by the Bank to jucdge the soundness of a proposal are fourfold:

(i) Does the reform meet **distributive concerns**? This includes an assessment of the pension level for beneficiaries remaining under the old scheme and the prospective pension level under the new scheme; the level of the proposed minimum pension; indexation procedures; the availability of periodic payments (annuities and phased withdrawal); and the provision of disability and survivors pensions.

(ii) Is the **macro and fiscal policy** accommodating the reform sound? This includes detailed projections of the long-term fiscal sustainability; an assessment of the proposed measures

to finance the transition toward funded pension (the level of transitory debt financing and budgetary financing); and the proposed reforms of revenue and expenditure programs.

(iii) Can the **administrative structure** operate the new multi-tier pension scheme? This includes an assessment of the capacity to levy contributions, to channel them to the different tiers, and to pay benefits in a timely fashion; the level of computerization; the availability of personal identification numbers (important for individualized accounts both on notional and funded basis); and the level of competence and training needs for administrative staff.

(iv) Are the **regulatory and supervisory arrangements** and institutions in place to operate the funded pillar with acceptable risks? This includes an assessment of the regulatory agencies, and their strength of supervision and intervention powers for pension funds and insurance companies; the criteria for entry and exit of funded pension institutions; the availability of sound custodian banks; and an assessment of the proposed internal versus external asset management, fee structure, and more.

Linking client assistance with knowledge management The Bank is increasingly involved in pension reforms in all regions of the World. On the one hand, this exposure requires that cutting-edge knowledge be available within the Bank to provide the best advice, to address the specific needs of a country, and to come forward with innovative proposals for solutions. On the other hand, the lessons learned in each country provide a unique set of information which can be productively applied in other reforms. In order to do so, this requires the analysis and sharing of information within the Bank and with the outside world. This very concept of "Knowledge Management," however, is part of the new World Bank, and, to this end, various projects are currently under elaboration, inter alia:

A "primer on pension reform" provides comprehensive information on design and implementation issues, including case studies of country experiences for the benefit of Bank task managers as well as politicians and technicians in client countries. The first version of the Pension Primer in the form of an open binder is available on the web since mid-1999, with continuous revisions and updates of the individual papers.[3]

For the dissemination and sharing of reform-related information, besides the traditional means of Working Papers and publication of Conference and Workshop Proceedings, a major emphasis is being placed on the development of a World Wide Web/Internet site. Regional hubs on reform lessons, starting with Latin America (Mexico) in the coming months will be linked with the Bank Web Site and the web pages under completion in the Human Development Department (HDD) and the Poverty and Economic Management (PREM) networks.

Raising awareness and providing training A major challenge for any comprehensive pension reform is the creation of an awareness of the issues among the politicians and the population at large. And once the seeds for a pension reform process are sewn, to train the technicians in the future public and private pension-related institutions for the new skill requirements in administration, regulation, and supervision. The activities by the Bank, headed by the World Bank Institute (WBI), and using in-house and outside expertise, include:

[3] For the pension primer papers, information about pension reform activities, and cross-links to other public and private web sites dealing with pension issues, visit the World Bank web site (http://www.worldbank.org/sp/).

- An annual workshop together with the Harvard Institute for International Development. This workshop, which provides the opportunity to brainstorm with leading world experts on frontier issues in pension reform, is targeted at the staff of multi-national institutions and client countries but also has many participants from OECD economies. The first three WBI-HIID workshops of July 1997 and 1998, and June 1999 were over-subscribed; got a very high rating by the participants; and will be repeated in June 2000.[4]
- A Core Course on Pensions, targeting technical staff from our client countries and Bank staff will be launched in December 1999. The multi-week course will provide a comprehensive overview of pension systems and pension reform issues to enhance the understanding and capacity of the Banks operational staff and the client country's implementer.
- Regional workshops and conferences, partly in cooperation with new partners, serve to discuss broad policy issues in the pension area; have a narrower technical agenda (than the pension modeling or pension funds investment workshops); focus on implementation issues of pension reform (as a conference series in Mexico); or draw lessons from regional reform experiences (such as a conference on the transition economies in Eastern Europe and Central Asia in Vienna).
- Other training activities include the joint Bank-Vienna Institute program, the specific World Bank Module on pension reform, and the SPRITE program.

Enhancing the reform capacity Much of the knowledge transfer occurs through technical assistance (TA) in the field, project implementation and other loan activities. Missions staffed by experts with strong backgrounds in pension economics, fiscal administration, and regulatory and financial markets provide guidance to the client country and help to identify institution-building needs. These missions also provide follow-up by resident consultants, increasingly from prior reform countries (and often in collaboration with multinational or bilateral institutions and donors). The objective is not only to provide advice, – Aide Memoires for the shelf – but to strengthen the local reform capacity and ownership in the reform. Examples include economic and policy analysis, legislation, and technical skills, (e.g., the use of projection models).

Quantitative assessments of the long-run fiscal and distributive implications of the current pension scheme and of alternative schemes under consideration are basic ingredients of any reform process. It is almost an iron rule that only when politicians and the public at large are informed about the medium and long-term financial unsustainability of the current pension scheme can a more-than-marginal reform approach be launched. Because most client countries with an ailing pension scheme do not possess the required model, the World Bank has developed a generic pension model (PROST: Pension Reform Simulation Toolkit), which, once filled with country-specific data and system information, provides long-term projections of the current scheme and main alternatives, including a reformed unfunded scheme and the introduction of a (partially or fully) funded scheme.

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[4] For information and announcement of the upcoming workshops, visit the HIID or WBI web-sites (www.worldbank.org/wbi or www.hiid.harvard.edu).

It goes without saying that the Bank's lending activities are its central instrument to support pension reforms in many countries, ranging from TA loans (financing comprehensive and extended technical advice), project loans (financing for example the computerization of pension administration), diverse reform implementation loans (financing TA, training and technical equipment) to adjustment loans (financing, in part, the transition costs towards the new pension scheme). The latter lending instrument with sizable amounts has been used in countries such as Argentina, Mexico, Uruguay, Hungary, Russia and recently Brazil.

Pushing the research agenda While the multi-pillar reform approach has many advantages, there are main critical design and implementation issues where sound theoretical and robust empirical knowledge is still missing. Main items on the policy research agenda and pilot projects in the Bank include: understanding the (non) participation decision of individuals in the work force in order to design second-generation reforms with the view of increasing coverage; reduction in the administrative costs of funded provisions (the proposals included clearing house solutions for contribution and benefit administration, competitive bidding, and bulk investment solutions); cost-effective provision of annuities and price indexation; effective and cost-efficient provision of non-contributory schemes to combat poverty in old-age; better design and integration of disability benefits in a multi-pillar scheme; enhanced governance, regulations and supervision of pension funds arrangements; civil servant pension reform and integration into the general multi-pillar scheme; understanding the political economy of pension reforms. Only if we succeed in solving these and other challenges will social security be able of live-up to its promises.[5]

Strengthening partnerships The Bank approach is also characterized by an out-reach to old and new international partners in order to strengthen the reform message and impact. In the past, countries were too often confronted with sharply conflicting advice from different international institutions and bilateral donors. The approach by the Bank is to engage in a constructive dialog in order to determine areas of agreement and difference, and to examine the reasons behind them (such as differences in objectives, values, assumptions, view on the functioning of the world, or simply constituency). This approach will not dissipate all disagreements, and, perhaps, should not do so. The outcome of such a dialogue, however, should better allow the client country to assess the differences and to make its own judgment.

To this end, the dialogue has been strengthened with the International Labor Organization (ILO), which traditionally has been much opposed to enhancing funded provisions at the detriment of unfunded provisions (see, e.g. Beattie and McGillivray, 1995). One forum for such an exchange of views has been created by ISSA and it's "Stockholm Initiative" – a worthwhile attempt to create a new consensus on "Social Security." (ISSA, 1998). A conference in December 1997, jointly organized by the OECD and ILO, with Bank participation, carried the dialogue further. Needless to say, intensive contacts with regard to reform design and implementation exist with the Bank's sister institution, the IMF. In the past, the fiscal stance of the IMF and the way general government deficits are defined have hampered the move towards funded pensions. A recent note by the Fiscal Affairs Department to the IMF Board, however, has

[5] Many of these topics have been discussed at a recent research conference of the World Bank on "New Ideas about Old-Age Security," Washington D.C., September, 14 and 15, 1999, and papers presented include Holzmann et al. (on coverage), James et al. (on administrative costs), Walliser (on annuities), Aarts and Dejong (on disability), Castel and Fox (on gender issues in Eastern Europe) and Brooks and James (on the political economy of reform).

recognized that reform-induced deficits do not reflect an expansionary fiscal policy if it is caused by a reduction in the implicit pension debt. To communicate this economic insight to the international financial markets requires a partnership with the IMF, which the Bank has launched. More recently cooperation in the pension area have been established with the regional development Banks, in particular with ADB, IAD, and EBRD.

V. Concluding remarks

At the end of the 20th century, the world of pension reform has changed dramatically. While 10 years ago, a move towards funded pension schemes was considered an adventure taking place in a few countries of the world only, today such an approach is being discussed in many developed and developing countries. And quite a few have started the reform preparation or implementation. This change reflects the reaction to the unsuccessful reforms of unfunded schemes, emerging pitfalls with centralized funded schemes, and the prospect that a move towards decentralized funded schemes contributes to economic growth. The World Bank, with its development mandate, has contributed to the intellectual discussion and assisted the reforms in many client countries. As far as pensions are concerned, it appears that the textbooks on economic development and social protection may have to be rewritten.

While the reforms en route signal the feasibility of a comprehensive pension reform approach which gives funded retirement provisions an important place, the efforts required to make it a success and to keep the risks limited are sometimes underestimated. In view of the risks each country faces, making the move towards partially or fully-funded pension scheme a success is imperative. While the recipe for this success is not fully known, the suggested ingredients are: flexibility, ownership and credibility, sound reform criteria, knowledge transfer, and capacity building. Discarding those ingredients while wanting to keep up with the neighboring countries – a dangerous policy band-wagon effect – may be expensive in social, economic and political terms.

International institutions dealing with pension reform issues have an important role to play in maximizing opportunities while limiting risk. Partnership between these institutions is very important for at least three reasons:

(i) Countries receiving conflicting advise and information from those institutions may be prone to discard them altogether, increasing the risk for reform failure. This calls for cooperation among the international institutions, defining the areas of consensus, and pin-pointing the areas of disagreement. This allows the countries to make their own informed decisions.

(ii) In general, while our knowledge of pension reform-related issues and population aging has increased over the years, it is far from complete. The Bank is aware that more work and innovation has to be done to make the proposed reform direction a social and economic lasting success. Joining forces to use the comparative advantages in skills and information to address those issues avoids duplicating our efforts.

(iii) International diversification of pension fund assets can importantly reduce the risk while increasing the rate of return, and can, thus, be welfare enhancing. The non-synchronized aging between developed and developing countries may allow us to go a step further. Sending more funds now from the OECD-type baby-boom countries to emerging economies could provide high returns for the one and higher capital formation for the other. Making sure that these

conditions are met and that the funds are repaid at the end could be a new role for international institutions, and their collaborative efforts.

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ANNEX – The Advantage of a Multi-pillar Retirement Asset Structure

The following tables provide straightforward and simple estimates of the performance of alternative retirement assets, and the risk/return trade-off under alternative portfolio structures. The basic data are annual returns on social security assets (proxied by real wage growth), fixed interest assets (proxied by government bonds), and capital assets (proxied by returns of listed shares) in the 4 main industrialized countries. Since the rates of return are measured in national currency, the estimates abstract from the exchange rate risk. On the other hand the (high) wage growth reflects the development of the past with rising labor force participation and moderate aging. The data is taken from Thompson (1998) and covers the years 1953 to 1995.

Several features emerge:

- Real growth exceeds real interest rates (except in the USA) but is much smaller than the capital return. The same order exists for the variance of the retirement assets. Since all three returns are little or even negatively correlated, this suggests gains in a portfolio approach (Table A1).
- Financial market returns in Germany, UK and US are positively and mostly highly correlated (Table A2). As a result, an (equal share) international portfolio reduces the variance, but not very much.
- Portfolios with (fixed share) national portfolios of social security and financial assets reduce return and, even more, the risk. Compared to an international financial portfolio, the variance is reduced between 1/3 to 1/6. Diversifying social security with international financial assets leaves the return largely unchanged, but roughly halves the risk Table A4).
- Selecting the portfolio shares which maximize the return/standard deviation (minimizes the coefficient of variance) implies lower return but much lower risk.
- The high share of social security assets – the unfunded portion – is the result of relatively high wage growth, but most importantly of low variance and low or even negative correlation with financial assets. Even if the real wage growth were to become very low (say 0.5 percent, and other relations remained constant), the estimated unfunded share would stay in the range of 10 to 50 percent.

Table A1: Performance of alternative retirement assets, 1953-95

	Germany	Japan	UK	USA
Rates of return				
Wages (unfunded scheme)	4.8	5.2	3.6	1.0
Interest rates (government bonds)	3.9	3.8	1.9	2.3
Capital return (listed shares)	10.1	10.8	10.8	9.8
Variance				
Wages (unfunded scheme)	11.9	37.7	8.8	6.0
Interest rates (government bonds)	1.3	5.4	9.3	8.2
Capital return (listed shares)	689.5	612.1	638.6	333.2
Correlation				
Wages and interest rate	-0.086	0.238	0.194	-0.197
Wages and capital return	-0.077	0.186	-0.025	0.202
Interest rate and capital return	0.070	0.085	-0.167	0.130

Table A2: Correlation of financial market returns between countries, 1993-95

	Germany	*Japan*	*UK*	*USA*
Germany	1.000	0.240	0.552	0.542
Japan	0.349	1.000	0.041	0.060
UK	0.473	0.153	1.000	0.617
USA	0.309	-0.084	0.225	1.000

(lower half: interest rates; upper half: capital returns)

Table A3: Performance of equal share' international financial market portfolio,1953-95

	Interest rate	Capital return	Interest rate & Capital return
Mean	3.0	10.4	6.7
Variance	6.7	558.6	295.6
Correlation			0.115

Table A4: Performance of a multipillar portfolio, 1953-95

	Germany	Japan	UK	USA
National portfolio with fixed shares*				
Mean	5.9	6.2	5.0	3.5
Variance	99.3	103.6	89.7	51.8
Correlation (W&(I&C))	-0.08	0.21	0.00	0.04
International portfolio with fixed shares**				
Mean	5.7	5.9	5.1	3.8
Variance	42.2	53.5	44.7	44.0
Correlation (W&(I&C))	-0.140	0.167	0.184	0.218
National optimal portfolio***				
Mean	5.1	5.6	3.8	2.5
Variance	10.7	35.8	8.5	11.0
Share of unfunded scheme	89.5%	78.4%	90.9%	70.7%
International optimal portfolio****				
Mean	5.2	5.8	4.1	3.5
Variance	9.2	29.3	9.2	18.6
Share of unfunded scheme	79.2%	60.7%	84.6%	55.2%

* 50 percent national wage, 50 percent national financial portfolio with equal shares
** 50 percent national wage, 50% international financial portfolio with equal shares
*** Maximizes mean to standard deviation of portfolio of wages and national financial market
**** Maximizes mean to standard deviation of portfolio of wages and international financial market