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# Sequencing Social Security, Pension, and Insurance Reform

*Dimitri Vittas*

The full benefits of social security reform will not be realized until social pension systems are restructured and downsized, contribution rates lowered, and the scope for private pension funds (voluntary or mandatory) increased. Reform of the insurance sector is also essential because of the close links between pensions and life, disability, and annuity insurance.



## Summary findings

For both economic and regulatory reasons, most developing countries have underdeveloped pension funds and insurance sectors, and their social security systems face many financial and organizational problems. Wide-ranging reform would produce considerable economic and social benefits.

A restructured social security system would avoid financial insolvency and be better able to meet its objectives of redistribution. The development of pension funds and insurance business would generate long-term financial resources that could stimulate the growth of capital markets and might help provide adequate, affordable long-term benefits to members and policyholders.

The main objectives of an ambitious reform program should be to:

- Prevent the insolvency of the social security system (a longer run problem for developing countries with young populations) and thus ensure adequate but affordable, sustainable pension benefits.
- Remove incentives that encourage the strategic

manipulation, and hamper the efficient functioning, of labor markets.

- Control the occurrence of perverse, capricious redistribution by removing the many design faults that afflict security systems in most developing countries.
- Generate long-term financial savings that can help stimulate the modernization and growth of capital markets, finance long-term investments, and facilitate privatization.

Although there is no single optimal way to sequence and pace a reform program, the full benefits of reform will not be realized until social pension systems are restructured and downsized, contribution rates lowered, and the scope for private pension funds (whether voluntary or mandatory) increased.

One often-ignored imperative is to defer indexing the pension system until its many design flaws are corrected.

Finally, reform of the insurance sector is essential for the whole program to succeed, because of the close links between pension reform and the provision of life, disability, and annuity insurance services.

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This paper — a product of the Financial Sector Development Department — is part of a larger effort in the department to study pension systems and contractual savings. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Priscilla Infante, room G8-115, telephone 202-473-7642, fax 202-522-3199, Internet address [pinfante@worldbank.org](mailto:pinfante@worldbank.org). December 1995. (28 pages)

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**Financial Sector Development Department  
The World Bank**

**SEQUENCING SOCIAL SECURITY,  
PENSION AND INSURANCE REFORM**

**Dimitri Vittas**

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## **I. INTRODUCTION**

This paper discusses briefly the sequencing of social security, pension and insurance reform in developing countries. For both economic and regulatory reasons, most developing countries have underdeveloped pension funds and insurance sectors, while their social security systems face many financial and organizational problems. A wide-ranging social security, pension and insurance reform would have considerable economic and social benefits.

A restructured social security system would avoid financial insolvency and would be better able to meet its redistributive objectives. The development of pension funds and insurance business would generate large amounts of long-term financial resources that could stimulate the growth of capital markets and could also be better able to provide adequate and affordable long-term benefits to their members and policyholders.

The paper is divided into six sections. Following this brief introduction, the next section discusses the reasons for the underdevelopment of contractual savings and insurance in developing countries. Section III reviews briefly the state of social security in different countries, while section IV discusses the benefits of reform. Section V focuses on the sequencing of reforms. It is itself divided into four subsections that deal respectively with the restructuring and downsizing of social pensions, the creation of a multi-pillar structure, the streamlining of the regulatory framework, and the formulation of a transition plan. The paper ends with a short concluding section.

## **II. DETERMINANTS OF UNDERDEVELOPMENT**

Except for a few countries such as Chile, Fiji, Malaysia, Singapore and South Africa and, to a lesser degree, Cyprus, Egypt, Korea and Zimbabwe, most developing countries have very small contractual savings sectors. In the vast majority of developing countries, the assets of pension funds and

insurance companies correspond to well below 10% of GDP, whereas in the countries listed above and in several developed countries they exceed 30%, and in some cases well over 70% of GDP.

**Low Income and Wealth.** Perhaps the most important reason for the underdevelopment of contractual savings and insurance business in developing countries is the low level of income and wealth. Poor households cannot afford to put aside large sums of money for their future needs. Also households with few possessions have less need for property and casualty insurance. Although high growth countries experience a high rate of saving, such saving is usually first placed in bank deposits and other liquid instruments.

It is only after income and savings reach a reasonably high level that putting money aside for retirement and old age benefits becomes feasible. Similarly, the insurance habit to cover property and casualty losses starts to spread only after people acquire substantial possessions and become concerned about the effects of accidental losses.

**Extended Family Support.** In most developing countries, poor households live in rural areas where people depend in old age on the support of their extended families. There is therefore less need for saving through formal institutions, such as insurance companies and pension funds. But as the extended families break up with economic growth and urbanization, the need for alternative arrangements clearly increases.

**High Inflation.** However, not all developing countries suffer from such low income and wealth. Many developing countries have incomes and wealth that would justify a strong demand for contractual savings outlets and for insurance services. What holds back the development of contractual savings and insurance in these countries is often the prevailing macroeconomic environment and regulatory framework. High inflation has a particularly adverse effect. Pension funds and life insurance companies cannot function properly in a highly inflationary environment, unless they are based on fully indexed contracts. But full indexation is problematic in countries with very high inflation rates. Nonlife

insurance also suffers heavily from high inflation as houses and other assets become easily underinsured (unless contracts are indexed), while the cost of claims that insurance companies have to pay becomes difficult to predict and is affected by long delays in settlement.

**Repressive Regulation.** The generally repressive regulatory framework also has a negative impact because it impedes competition, innovation and efficiency. The insurance sector is often dominated by one or two state-owned companies, while entry by privately owned companies as well as foreign companies is discouraged. Both premiums and new products are subject to vetting and control by regulatory agencies that are staffed with bureaucrats rather than experienced professionals. A major problem is often the imposition of investment rules that force pension funds and insurance companies to invest their assets in government bonds with highly negative real rates of return.

The insurance sector of most developing countries is characterized by inadequate capital, low investment returns, high operating costs, lax control over brokers, high levels of receivables, fraud and unduly high claims by some insured but otherwise low claims and settlements for the majority of customers, and protracted disputes and long delays in settlement.

**Mutual Mistrust.** In most developing countries, there is widespread mutual mistrust between insurance companies and their customers. This is aggravated by the information problems that afflict the insurance industry. Thus, insurance companies impose various restrictions and conditions on their policies to protect themselves from "adverse selection" (e.g., when ill people seek to obtain life insurance), "moral hazard" (e.g, when insured people do not take measures to prevent accidents from happening) and outright fraud (e.g., arson in the case of fire policies). But such restrictions give rise to disputes and delays in settlement that undermine the confidence of the public in the honesty and integrity of insurers, causing a decline in the demand for insurance services. This widespread mistrust affects not only relations with households but also business with both large and small firms. Without proper

insurance, industry and commerce suffer from undue exposure to fire and other hazards, which when they occur can debilitate a company.

### III. STATE OF SOCIAL SECURITY

**Design Faults.** The development of pensions funds and life insurance companies is also often adversely affected by the existence of social security systems paying or promising to pay generous pension benefits. This is more a problem for middle and high income countries, since in low income countries social security systems are less well developed and where they exist they usually have a very small coverage.

Apart from discouraging the development of long-term contractual savings, the social security systems of most developing countries also suffer from their own internal financial and structural problems. These cause considerable distortions in incentives and the allocation of resources and cast doubt on their long-term viability.

**Demographic Aging.** Much has been written recently about the pressing problems of social security systems in Latin American and Eastern European countries<sup>1</sup>. Considerable attention has also been focused on the problems caused by the progressive aging of the populations of developing countries, although demographic aging in most developing countries is by no means a current problem but rather a potential future problem of the second half of the next century. In fact, the current problems facing the social security systems of developing countries stem from major faults in design and implementation and have little to do with the heavy burden imposed by an aged population and labor force.

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<sup>1</sup> For a comprehensive worldwide review of social security issues, see World Bank (1994). For more specific discussions of the experience of individual countries or regions, see Arrau and Schmidt-Hebbel (1994), Arrau et al (1993), Davis (1993), Diamond and Valdes-Prieto (1994), Demirguc-Kunt and Schwarz (1995), Fox (1994), Kane (1995a and 1995b), Mesa-Lago (1989), McGreevey (1990), Queisser (1991 and 1995), Schmidt-Hebbel (1994), Vittas (1993c), Vittas and Iglesias (1992), and Vittas and Michelitsch (1995).

**Strategic Manipulation and Evasion.** Most developing countries have young populations, in some cases very young, where children represent more than half the total population. These countries should be able to operate their social security systems with low contribution rates. But they have design features that encourage evasion, income understatement when young and overstatement near retirement, early retirement and "disability". These design faults cause total revenues from contributions to be lower and total payments for benefits higher than what they should be and often result in quite high required contribution rates for break even.

Extensive evasion as well as early retirement and disability cause the system dependency ratio to exceed by a big margin the demographic old age dependency ratio (for instance, in Argentina and Hungary, the system dependency ratio is nearly double the demographic dependency ratio, whereas in advanced OECD countries, e.g., Switzerland and Sweden, there is usually a small difference between the two ratios).

Evasion is encouraged because pensions are not proportional to a worker's years of service (and contributions) and lifetime income, but involve high accrual rates (2%, 4% or even 15%) for the first few years of service and a reference income that is based on earnings in the most recent few years before retirement. In Brazil, for instance, the accrual rate is 15% for the first five years and then drops to 1% for the ensuing 25 years. When the principle of proportionality is violated, strong incentives are created for strategic manipulation of the system by workers who try to minimize their contributions and maximize their benefits.

Strategic manipulation is further encouraged by early retirement provisions and lax conditions for disability pensions. In several countries (including Costa Rica, Hungary and Uruguay), disability pensions account for over 25% of all pensioners, while in most countries the average retirement age is well below the normal retirement age.

**Perverse and Capricious Redistribution.** The social security systems of many countries also suffer from perverse and capricious redistribution. Perverse redistribution occurs when low income workers subsidize the pensions of high income workers. Perverse redistribution may also occur from the fact that low income workers in hazardous industries may have shorter life expectancies on retirement than high income workers in white collar jobs.

An even more widespread problem is the capricious redistribution caused by the impact of inflation. Absent a properly indexed system, large fluctuations in the rate of inflation may cause large variations in the size of initial pensions and in the real value of pensions in payment. Indexing initial pensions (by indexing the definition of reference or base earnings) and pensions in payment may eliminate the capricious redistribution but will expose the system to strong financial pressures, especially if the incentives and opportunities for strategic manipulation are not removed. Care is therefore needed to avoid full indexation of the pension system before other defaults in the design of the system are not first corrected.

**Lack of Funding.** Most social security systems in developing countries operate on a "pay-as-you-go", unfunded basis. Although many were originally created as funded schemes, they were over time converted de facto or de jure into unfunded schemes, because of highly negative real returns on accumulated balances and an increase in benefits without a commensurate increase in contributions.

Unfunded schemes increase the financial burden on current generations of workers and, given the progressive demographic aging, cause large intergenerational transfers. But funded public schemes may not be a sustainable answer because the utilization of accumulated resources has more often than not been highly inefficient and wasteful.

Highly negative real returns have been observed in many developing countries with funded public schemes (Egypt and several Anglophone African countries, including Ghana, Nigeria and Zambia, are bad examples of this with reported real returns at well below minus ten per cent over long periods of

time). Use of social security or provident fund balances as a captive source of funds for financing the government deficit and other public spending with low nominal returns in the face of high inflation rates erodes the real value of these balances and fails to secure the long-term financial protection that funding is supposed to provide. The exceptions to this general rule have been the provident funds of Malaysia and (to a lesser degree) Singapore and public pension funds in some OECD countries. However, in almost all cases, the returns of private pension funds have been higher than those of public pension funds.

#### **IV. BENEFITS OF REFORM**

**Securing benefits.** Advocates of social security, pension and insurance reform underscore many potential economic and social benefits. However, the most important benefit is probably the ability to avert a financial insolvency of the social security system and to continue the provision of pension and other long-term benefits. A reformed social security and pension system will be better able to provide *adequate but affordable and therefore sustainable benefits*. The connection with insurance reform stems from the fact that pension reform often involves an increased demand for term life and disability insurance as well as for various forms of life annuities and this implies a need for restructuring and modernizing the life insurance industry. And the link with nonlife insurance stems from the similarities and close structural links that exist between the two main branches of the insurance industry.

**Funding and Aging.** One of the claimed benefits of social security and pension reform is the promotion of well managed funded schemes that will be able to cope with the problems of progressive demographic aging. Although there is considerable validity in such claims, funding by itself cannot provide a full answer to the problems caused by aging (Barr 1992, Vittas 1993b). This is because no one can guarantee that real rates of return will remain higher

than growth rates of real earnings with progressive demographic aging. The rate of saving and funding that might be required could become too large and in some sense self-defeating as higher and higher levels of savings may cause further declines in real returns. The answer to the problem of aging must involve a combination of extending the normal retirement age, increasing the mandated contribution (forced saving) rate and lowering the targeted replacement rate as well as a greater reliance on funded schemes.

**Impact on Saving.** Another potential benefit from social security and pension reform is an increase in the rate of saving that may accompany a move from an unfunded to a largely funded system (or to a system with a large funded second pillar). In principle, pension funding should lead to a higher saving rate. But in practice there seems to be little correlation between funding levels and saving rates. Anglo-American (US, UK, Canada, Australia, New Zealand and South Africa) and Scandinavian countries have high levels of pension funding but very low saving rates, while Switzerland, Singapore and Malaysia have both high levels of funding and high saving rates. In contrast, and to complicate matters further, many countries with unfunded schemes in Western Europe and East Asia have long exhibited high saving rates.

The rate of saving is determined by a host of factors, the most important of which are perhaps economic growth, fertility and household access to credit. In addition, the income effect may dominate the substitution effect in pension funding, implying that high real returns on pension fund balances may result in lower annual contributions and thus lower saving rates, given the targeted levels of benefits. In practice, it would appear that funding can lead to an increased rate of saving if it involves a high rate of forced saving (high contribution rate), low real returns (as the income effect dominates the substitution effect), universal coverage, and

limited access to household credit. Although this increase would most likely be transitory, it could still have a beneficial long-term effect if it contributes to higher economic growth, which could then sustain the higher level of saving.

**Impact on Capital Markets.** While the quantitative impact of funded schemes on the rate of saving is debatable, there can be little doubt about its qualitative effects. Pension reform and the promotion of funded schemes causes a large shift in favor of long-term financial savings. It also forces people to start saving at a younger age. The availability of substantial amounts of long-term resources has considerable potential benefits for the modernization of capital markets, stimulating financial innovation (Bodie 1990a, Davis 1993) and improving information disclosure.

It is sometimes argued that pension reform promoting funded schemes should not be undertaken if capital markets are underdeveloped. This is a rather short-sighted approach because it disregards the *dynamic interaction* between capital markets and contractual savings institutions, the one reinforcing the growth, efficiency and modernization of the other.

However, promoting funded pension schemes raises some difficult policy questions regarding investment rules and the investment of pension fund assets in overseas securities and in small firms and new ventures. Also, when pension funds and other institutional investors become large, the question of their role in corporate governance becomes very important. The practical approach here is to start with restrictive rules that ensure conservative investment policies and to expand the range of opportunities for investing in more risky instruments, including overseas securities, as the pension funds increase in size and develop their fund management skills.

**Impact on Labor Markets and Redistribution.** Pension and social security reform may also have important and beneficial implications for the functioning of labor markets if the incentives for strategic manipulation are removed and any restrictions on labor mobility are substantially weakened. Overall economic efficiency will be enhanced if migration to the informal labor markets is reduced, although in many countries strategic manipulation involves understatement of earnings and extensive use of untaxed fringe benefits rather than a migration to the informal economy. Pension reform may also eliminate or at least substantially reduce the occurrence of perverse and capricious redistribution and it may establish better foundations for achieving modest but desirable redistribution. Under a reformed pension system, contributions will likely be perceived as deferred income rather than a payroll tax.

**Tax Issues, Operating Costs and the Problem of Annuities.** Pension and social security reform will also have to grapple with some other important issues with substantial operational implications. For instance, funded schemes are usually supported with fiscal incentives involving tax deferral on any amount of contractual saving. In this respect, tax credits could involve lower tax expenditures and weaker regressive effects than income deductions. Promoting systems that minimize operating costs, while maximizing real returns, or at least achieving sufficiently high real returns, seems essential but rather difficult to attain.

An equally difficult issue relates to the functioning of annuities markets, which suffer in almost all countries from the problems of adverse selection, information deficiencies, uncertainty, and high selling costs. Making compulsory the purchase of some efficient type of annuity (e.g., indexed or variable, term certain, joint and last survivor annuity) may be a necessary component of a mandated funded pension system.

**Implications for Insurance Markets.** As already noted, one of the implications of pension and social security reform is the creation of a strong (compulsory) demand for term life and disability insurance by active workers and of annuity products by retiring workers. Reforming the insurance sector may thus be as important for the success of pension reform as the resolution of funding, tax and investment issues.

## **V. SEQUENCING THE REFORM**

One of the most difficult issues facing any type of reform is how to sequence particular reform measures. Clearly, the answer must differ from country to country and must take account of local circumstances, not least of which is the political feasibility of particular measures.

Economists and specialist advisers often pay lip service to such country specific factors and then proceed to propose an optimal path of reform that disregards the constraints of local factors. The alternative, and more practical, approach is to effect reform wherever it is feasible and to work to complete the reform program as conditions become ripe. Since local conditions are almost never there to support an optimal path of reform, most countries follow the second more practical approach.

Nevertheless, it is important to emphasize that the potential benefits of a reform program will not be fully realized until the program is completed, while doing things in a suboptimal order may increase the costs of transition and may delay considerably the attainment of the full

benefits of reform. On the other hand, if political and social conditions are not ripe for some reform measures, waiting until they become ripe may also be quite costly.

There is one reform measure that should not be undertaken out of order. This is the indexation of pensions in payment before other measures are taken to restructure and downsize the public pillar. *Indexing the pension system prematurely is a recipe for certain financial disaster*, yet many countries from Italy and Greece to Argentina, Poland and Hungary have indexed pensions prematurely and have suffered the adverse consequences.

In this paper, the various reform measures are divided into four sets of actions. The implied optimal order is to first restructure and downsize the existing public pension pillar, then to establish a multi-pillar structure with a mandatory or voluntary fully funded second pillar, then to streamline the regulatory framework for pension funds and insurance companies, and last to formulate and implement a long-term transition plan. It is, however, recognized that in many countries steps two and three (i.e., creating a multi-pillar structure through the promotion of voluntary supplementary pension schemes and streamlining the regulatory framework) may precede step one, i.e. the restructuring and downsizing of the existing public pillar.

Several transitional economies in Eastern Europe, most notably Hungary and the Czech Republic, appear to be following this latter approach (Vittas and Michelitsch 1995). The main reason seems to be the lack of political support for a wide-ranging reform of social security and the need to maintain broad political support for the more urgent task of enterprise restructuring. It should, however, be emphasized that the scope for supplementary pension funds and especially for a large increase in their role and in their assets will remain limited as long as social security contributions continue to be as high as 60% of wages (as they are in Hungary). No amount of

tax incentives can overcome this problem, except for that part of the income of high salary workers that is not subject to social security contributions.

### **Restructuring and Downsizing Social Pensions**

To reduce the size of unfunded future pension liabilities and limit the opportunities for strategic manipulation, a series of reforms of the existing public pillar are often necessary.

These include the following:

- \* **Link normal retirement age to life expectancy at retirement.** The basic idea is to aim for anywhere between 15 or 20 years of average life in retirement. Extending the retirement age is often faced with strong opposition from both older and younger workers. This is because of the widespread perception that delaying the retirement of older workers will deprive young workers of employment opportunities. However, there is little evidence that a low normal retirement age, and early retirement more generally, contribute to higher employment of young workers.
- \* **Eliminate preferential treatment of some types of workers.** This should, for instance, cover female civil servants with children who are entitled in many countries to retire with a full pension after 15 or 20 years of service.
- \* **Tighten conditions of eligibility for disability pensions and for early retirement.** Streamlining disability pensions is one of the most difficult challenges. What are needed are independent medical committees to approve disability pensions on objective and clearly specified criteria. With regard to early retirement, appropriate actuarial adjustments (decrements for early retirement and increments for late retirement) could

be introduced. These could help overcome political hostility to the idea of extending the normal retirement age.

- \* **Use longer averaging periods for determining initial pensions.** If past records exist and are in good order, add two or three years every year to the definition of the base until full career earnings are taken into account. If past records are deficient, add one year each year. To maintain the real value of past earnings, adjust yearly nominal earnings by an appropriate earnings index or use a points system (which credits points for every year of service and amounts to the same thing as indexing nominal earnings).
- \* **Use proportionality principle and linear accrual rates for the calculation of initial pensions, including minimum pensions.** Consider having a system that is based both on years of contributions and level of average indexed lifetime earnings.
- \* **Lower targeted replacement rate to a more affordable level.** 30%, or at most 40%, of the average economy wage for a worker with average wages and full careers would be adequate and affordable in most countries. The targeted replacement rate could be linked to the system dependency ratio to ensure that the required contribution rate for the public pillar is less than 10% or 12% of wages. For instance, if the system dependency ratio is 30%, a replacement rate of 40% will require a contribution rate of 12% for break even. If the system dependency ratio rises to 40% with demographic aging, then the targeted replacement rate could be lowered to 30% in order to leave the required contribution rate at 12%.
- \* **Reduce the dispersion of pensions.** If there is a wide dispersion between minimum and maximum pensions, take measures such as differential ad hoc adjustments for inflation

to reduce such dispersion. This will contain the total cost of pensions and also promote redistribution in favor of low income workers. Measures to reduce the dispersion of pensions would be essential where high pensions are not related to a person's history of contributions and are associated with strategic manipulation and other faults in the design of pension system.

- \* **Streamline the tax treatment of pensions and contributions.** Ideally contributions should benefit from some advantageous tax treatment, while pensions should be subject to income tax as any other source of income. As already noted above, the most equitable and least expensive form of tax advantage is to offer a tax credit to all workers who contribute a given percentage of their income to the pension system. A version of this approach is used in the Czech Republic and has recently been proposed for Australia (Vittas and Michelitsch 1995, Vittas 1995). In funded pension schemes, investment income should also be exempt from income tax.
- \* **Lower contribution rate to create room for supplementary private pension funds, whether mandatory or voluntary.** Clearly, in countries with very high contribution rates, failure to lower them to more reasonable levels would severely limit the scope for large supplementary schemes.
- \* **After implementing the above reforms, index pensions in payment.** Preferably, indexation should be to the arithmetic mean of the price and wage index. An alternative approach is to index pensions in payment to the nominal wage index less 1.5% or 2% or some other number reflecting a targeted planned reduction in the relative position of pensions vis-a-vis wages. Such indexation would allow pensioners to partake in the fruits

of continued high economic growth, but without exposing the pension system to financial pressures if real wages fall.

- \* **Consider financing public pillar from general revenue.** This option should only be considered if participation in the public pillar is near universal and especially if low income workers in rural areas are covered. Otherwise, uncovered workers and consumers in the rural areas could end up subsidizing wealthier covered workers in urban areas.
- \* **To improve the financing position of the public pillar, take measures to fight evasion and improve collections.** Such measures should not, however, be seen as a long-term substitute for other reform measures as an unfunded scheme with high targeted replacement rates would not be viable in the long run.
- \* **Take measures to improve the administrative capability of social security institutions responsible for the public pillar and to enhance their investment performance.** Such measures should aim to lower administrative costs, which are very high in many countries, and to raise investment returns, which tend to be very low. But administrative reforms should be linked to the overall reform program and should not be seen as a substitute for it.

### **Establishing a Multi-Pillar Structure**

The formulation of a long-term plan for the creation of a multi-pillar structure may precede the restructuring and downsizing of the public pillar, while as already noted even the establishment of supplementary pension funds may also do so. The economic argument in favor

of a multi-pillar structure is a better alignment of different pillars with the basic objectives of pension systems, i.e. the first pillar for redistribution, the second pillar for saving, and both pillars for insurance. The practical argument is that there is considerable uncertainty regarding the robustness of different pillars over the long run. We know that unfunded public pillars cannot alone provide the answer but we do not know yet whether fully funded private pillars can do so. This suggests that a policy of diversifying across providers would make good practical sense, at least until we accumulate enough evidence that the funded private pillar can be stable, robust and efficient in the long run. The following issues would need to be covered in establishing a multi-pillar structure<sup>2</sup>:

- \* **Consider structure of public pillar.** This relates to whether the public pillar should take the form of state guarantees for a minimum pension as in Chile, or a two-part structure as in Switzerland, or a flat benefit for all workers as in the Netherlands and more recently Argentina, or a means-tested universal benefit for all residents as in South Africa. Each has its advantages and disadvantages, which would require careful consideration. The role of state guarantees, not only for minimum pensions but also for the solvency of pension fund managers and insurance companies, would also need to be addressed in the context of the objectives of general social policy.
- \* **Create mandatory or voluntary second pillar.** This will require deciding on the voluntary or mandatory nature of the second pillar and defining its coverage, minimum level of contribution, tax treatment, and extent of choice by workers.

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<sup>2</sup> A fuller discussion of the issues raised by multi-pillar structures is contained in World Bank (1994). See also Vittas (1993a) for a discussion of the benefits of combining the strong points of different pillars.

- \* **Choose between employer-based and nonemployer-based schemes.** The latter are generally fully funded, fully vested and fully portable and based on individual capitalization schemes. Employer-based schemes may also be based on so-called defined benefit or final salary schemes. The main advantage of such schemes is the offer of retirement income insurance by employers, though this is conditional on continued employment with the same employer as well as on the integrity and solvency of the sponsoring employer (Bodie 1990b). They usually involve collective capitalization and may suffer from inadequate funding and unreasonable limitations on vesting and portability that may restrict unduly labor mobility and cause inequitable treatment among workers.
- \* **Consider use of variable contribution rates to overcome concern about passing the investment and replacement risk to workers.** Variable contribution rates could be reset periodically and on a voluntary basis to achieve a certain targeted replacement rate once account is taken of past and projected salary growth and investment income.
- \* **Choose between centralized and decentralized management.** The former achieves lower operating costs but may suffer from low investment returns. The latter, if based on nonemployer schemes, may suffer from high selling and other operating costs. Of course, what matters most is the net investment return and this tends to be higher among decentralized schemes. A compromise is either to authorize employer-based schemes based on individual capitalization accounts or to combine centralized management of administrative functions (collection of contributions, payment of pensions, maintenance of records, despatch of statement, etc.) with decentralized management of investment

funds. Opting for centralized management would clearly require administrative reform of existing institutions, or establishment of new ones, to undertake the centralized functions.

- \* **Require term life and disability insurance.** To ensure that the families of active workers are fully protected from financial loss resulting from the death or disability of an active worker, these two types of insurance should be mandated by the system. Administrators of pension schemes should be required to offer the same terms and conditions on all workers through the purchase or establishment of appropriate group policies. Term life and disability insurance represent defined benefits in what would otherwise be defined contribution schemes. Their pricing requires careful actuarial assessments and periodic reviews.
- \* **Require annuitization of benefits or use of scheduled graduated withdrawals.** To ensure that retired workers have sufficient funds for their old age and avoid the risk of outliving their savings, either the purchase of suitable annuities should be mandated or withdrawals from the accounts should be gradual and subject to a well defined schedule that takes account of the life expectancy of the workers and their surviving beneficiaries. The rules for any lump sum benefits on retirement should be clearly specified.

### **Streamlining the Regulatory Framework**

As already noted, one of the traditional arguments against funded schemes in developing countries was the absence of efficient, stable, well regulated and robust financial systems. Even in developed countries the historical instability of financial systems was a basic reason for the

emergence and growth of unfunded or at most partially funded social security systems. But in the postwar period financial systems have become much more stable and robust and financial regulation and supervision much more sophisticated and effective, even though financial crises and setbacks have not been fully eliminated.

To be effective, social security, pension and insurance reform in developing countries requires an extensive streamlining of the regulatory framework. This should cover not only the providers of pension and insurance products, but also the providers of other financial services (such as payment services) and the securities markets. Support services in the legal, accounting and auditing spheres must also be streamlined and modernized. The pace of modernization and regulatory reform in securities markets and support services could of course be reinforced by the creation of large pension fund and insurance sectors, but parallel and gradual progress on several fronts would be essential for the ultimate success of the broader reform program.

With regard to the providers of pension and insurance products, regulatory reform should cover the creation or reorganization of regulatory agencies, the establishment of objective authorization criteria, the application of sound solvency and investment rules, and the introduction of appropriate information disclosure and consumer protection standards. The role of state guarantees would also be a major aspect of the regulatory framework.

\* **Create or re-organize regulatory agencies.** In many developing countries, regulators have traditionally been concerned with verifying compliance with arbitrary price and product controls rather than with promoting efficient, contestable markets. The new or re-organized agencies must emphasize market discipline, solvency monitoring and consumer protection and must employ experienced professionals. Extensive training may

be required, while consultation and cooperation with market practitioners would also be essential.

- \* **Strengthen supervision and intervention powers of regulators.** To ensure the stability of the system and compliance with solvency, investment and consumer protection rules, regulators must exercise effective supervision through both off-site surveillance and on-site inspection. They must also have effective intervention powers to enforce corrective measures.
- \* **Establish objective criteria for entry and exit.** These should set out the authorization criteria for insurance companies and pension fund managers, establish rules for the exit of insolvent entities, open the market to new domestic and foreign competition, and generally aim to create a contestable but stable market. This may imply a sufficiently but not prohibitively high minimum capital requirement.
- \* **Develop solvency rules and rely on solvency monitoring rather than product and price controls.** The rules should specify the required solvency margins and capital reserves in relation to the total income and total assets of individual institutions. They should also emphasize solvency monitoring both by the regulators and by actuaries, auditors and other professionals employed by individual institutions. Encourage reasonable access to international reinsurance markets by eliminating or reducing local retention ratios and applying prudential norms to avoid excessive reinsurance.
- \* **Apply investment rules that underscore profitability and safety and promote diversification strategies.** Such rules should involve maximum limits and avoid the imposition of minimum requirements that often result in the of pension and insurance

reserves as a captive source for funding budget deficits. Investment rules should become more liberal as financial markets become more sophisticated and mature and should aim to adopt the "prudent man" rule prevalent in Anglo-American countries. Diversification of investments into overseas securities should also be contemplated, perhaps in line with the size and structure of the local market. A country with a small, undiversified market would need to authorize a higher limit for overseas assets than a country with a large, diversified market.

- \* **Establish detailed reporting and information disclosure as well as consumer protection standards.** Pension contracts have a very long time span of up to 60 years, 40 years in active employment and 20 years in retirement. Life insurance contracts also have long terms, exceeding 10 years and reaching 40 years in the case of pension-linked contracts. For this reason, adequate and meaningful information disclosure is very important as is protection of workers and policyholders.
- \* **Consider appropriate role for state guarantees.** Because of their very long time span and the economic uncertainties that may affect the returns of different entities and products, governments are often forced to provide state guarantees to workers and policyholders. These may cover the provision of minimum pensions or they may protect workers and policyholders against the insolvency of the institutions concerned. The scope and financing of state guarantees would be very important ingredients of the whole reform program. But care should be taken to avoid undermining the financial disciplines of market-based funded schemes and inadvertently or indirectly transforming the system back to an unfunded "pay-as-you-go" one.

## **Formulate Transition Plan**

Successful implementation of social security, pension and insurance reform requires the formulation of a detailed transition plan. This should identify the most important actions and the preparatory stages that must be completed before and after the launching of the reform program. A successful reform program will probably take three to four years to prepare and many more years to implement.

- \* **Develop an actuarial model to estimate transition costs.** One of the most difficult and often intractable questions is the estimation of the costs of transition from a "pay-as-you-go" to a multi-pillar scheme with a fully funded component. Despite the lack of accurate and detailed records, use of an actuarial model would be essential for estimating these costs.
- \* **Use compensatory pensions or recognition bonds for vested pension rights.** One of the greatest obstacles of pension reform is how to handle the vested pension rights in the old system. Chile has opted for the use of recognition bonds whereby workers transferring to the new funded scheme are issued with bonds recognizing their accumulated pension rights. The recognition bonds earn real interest at 4% per year and mature when the workers retire. Thus, the liability of the state is spread over many years. Argentina which has retained an explicit public pillar offering a minimum pension to all workers has opted for the use of compensatory pensions, whereby workers with accumulated pension rights will receive two pensions from the state - one relating to the minimum pension and the other relating to their accumulated pension rights. The cost of the transition is spread over a longer period in the Argentine system, which may thus

have more appeal for countries (such as those of Eastern Europe) with large levels of current pension spending.

- \* **Draft and enact laws for social security, pension and insurance reform.** Drafting these laws would be more effective if experts with knowledge of foreign experiences are employed along side local specialists. In this way, the lessons from the experience of other countries will be utilized, while the drafted and enacted laws will also comply with local practice and customs. The time required for drafting good laws should not be underestimated, while the difficulty of maintaining the integrity and logic of proposed legislation through democratically elected legislatures should not be overlooked.
- \* **Issue specific regulations for pension funds and insurance companies.** Laws usually cover the basic principles that should govern the operations of pension funds and insurance companies. Detailed regulations are normally required for a host of topics that would be subject to periodic review and re-assessment. The regulatory agencies should be properly staffed and motivated to issue well drafted, sensible and timely regulations. Working with market practitioners and professional experts will help expedite the whole process.
- \* **Train regulators and professional staff, including fund managers, actuaries, accountants and auditors.** In most developing countries, an extensive training program would be needed to raise the professional standard of regulators and to help develop experienced professionals.
- \* **Undertake publicity campaign to explain reform program.** A well mounted and effective publicity campaign could help widen public support for the program by

explaining its benefits and spelling out the nonviability and inefficiency of existing arrangements.

## **VI. CONCLUSION**

This paper has discussed briefly the sequencing of social security, pension and insurance reform. The issues involved are quite complex and this paper has done little more than provide a short, and far from exhaustive, checklist of what needs to be done. The paper has also discussed briefly the benefits of reform.

In conclusion, it is perhaps important to underscore the basic objectives of an ambitious reform program. These can be summarized as follows:

- a. Avoid the insolvency of the social security system (this is a longer run problem for developing countries with young populations) and thus ensure the provision of adequate but affordable and thus sustainable pension benefits.
- b. Remove incentives that encourage strategic manipulation and hamper the efficient functioning of labor markets.
- c. Control the occurrence of perverse and capricious redistribution by removing the many design faults that currently afflict security systems in most developing countries.
- d. Generate long-term financial savings that can help stimulate the modernization and growth of capital markets; finance long-term investments, and facilitate the privatization program.

Although there is no single optimal way of sequencing and pacing the reform program, it is important to emphasize that the full benefits of the reform will not be realized until existing social pension systems are restructured and downsized, contribution rates are lowered, and the scope for private pension funds, whether voluntary or mandatory, is increased. However, one often ignored imperative is to defer an indexation of the pension system until its many design faults are corrected. Finally, insurance sector reform is essential for the success of the whole program because of the close links between pension reform and the provision of life, disability and annuity insurance services.

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