

Reforming pensions:
Principles, analytical errors and policy directions

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September 2009

Paper to be presented at a Conference on Pension Reform in Serbia

Belgrade, 24-25 September 2009

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1 Strategic messages

1. The opening part of the talk sets out five strategic messages.
2. **IT'S NOT THE BABY BOOM.** The main cause of the pensions 'crisis' is a failure to adapt to three long-term trends: rising life expectancy, declining fertility, and earlier retirement. These trends are more important than two more recent phenomena, the baby boom and the increase in the scale of pension systems since World War II. There would be a problem of paying for pensions even if there had not been a baby boom.
3. **IT'S NOT A CRISIS.** There is no 'ageing problem', nor a 'pensions crisis'. People are living longer – the great untold good news story. This is not a problem but a triumph. The problem is not that people are living too long, but that they are retiring too soon.
4. **PRIVATE PENSIONS ARE NOT A PANACEA.** Funded pensions are paid from an accumulated fund built up over a period of years out of contributions of its members. Pay-As-You-Go pensions are paid (usually by the state) out of current tax revenues, rather than from an accumulated fund. The World Bank and others have advocated private funded individual accounts, arguing that they promote growth, increase coverage, and improve old age security. These arguments can be true, but are not always and necessarily true. Some of the World Bank's arguments have significant analytical flaws, discussed in section 2, below, and more fully by Barr and Diamond 2008, Box 10.1; 2009, pp. 13-17.
5. **POLICY SHOULD ADDRESS THE MULTIPLE OBJECTIVES OF PENSIONS.** The major objectives of pension systems are poverty relief, consumption smoothing (i.e. redistribution from ones young to ones older self), insurance, and redistribution.

¹ This paper draws heavily on Barr and Diamond (2008).

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6. THERE IS NO SINGLE BEST PENSION SYSTEM. Pensions have the multiple objectives just noted. The pursuit of these objectives faces a series of constraints:

- Fiscal capacity: stronger fiscal capacity makes it easier for the system to find additional revenues for a pension system;
- Institutional capacity: stronger institutional capacity makes feasible a wider range of options for pension design;
- The empirical value of behavioural parameters, such as the responsiveness of labour supply to the design of the pension system, and the effect of pensions on private saving;
- The shape of the pre-transfer income distribution: a heavier lower tail of the income distribution increases the need for poverty relief.

7. There is no single best system for several reasons:

- Policy makers at different times and in different countries will attach different relative weights to the different objectives;
- The pattern of economic constraints, including the value of key parameters, will differ across countries;
- Political processes, which vary across countries, affect what is politically feasible; these, in turn, may be influenced by a country's history.

In sum, if the objectives differ and the constraints differ the optimum will generally differ.

2 Analytical errors

8. The errors discussed in the presentation are not based on differences over value judgments or different views about empirical magnitudes – they are examples of flawed analysis.

9. TUNNEL VISION. The problem arises, for example, when analysis considers one objective in isolation. The system in Chile after 1981 focussed heavily on individual funded accounts. These offer consumption smoothing but do not address poverty relief and are thus

not a pension system but only part of a pension system. This problem has now been recognised in Chile, which introduced a tax-financed non-contributory pension in 2008. The system now gives explicit weight both to poverty relief and consumption smoothing.

10. IMPROPER USE OF FIRST-BEST ANALYSIS. The problem arises where analysis ignores market imperfections. Examples of this error include:

- Uncritical advocacy of competition, notwithstanding major information problems;
- An uncritical assumption that people will respond rationally to incentives, for example, the argument that defined-contribution pensions lead to higher compliance. Such analysis ignores imperfect information about rates of return, lessons from behavioural economics (e.g. procrastination, immobilisation), and problems such as imperfect capital markets.
- Ignoring frictions, in particular administrative costs.

11. IMPROPER USE OF STEADY-STATE ANALYSIS. It is mistaken to focus on a reformed pension system in a steady state while ignoring the steps that are necessary to get to that steady state. This issue is particularly important when considering a move from PAYG towards funded pensions. A related error is to claim that funding is superior because stock market returns exceed the rate of wage growth; that claim is mistaken for several reasons, not least because it takes no account of how the move to funding is to be financed.

12. INCOMPLETE ANALYSIS OF IMPLICIT PENSION DEBT. Analysis that looks only at future liabilities (that is, future pension payments), while ignoring explicit assets and the implicit asset from the government's ability to levy taxes, is misleading. Too narrow a focus on costs also ignores the considerable improvement in people's well-being from increased old-age security. Just as public debt never needs to be fully paid off so long as the debt-to-GDP ratio does not get too large, so publicly provided pensions need not be fully funded, so long as the unfunded obligations do not grow excessively relative to the contributions base.

13. INCOMPLETE ANALYSIS OF THE EFFECTS OF FUNDING. A common example of this error is to argue that funding necessarily assists adjustment to demographic change. The reality is that a pensioner's living standard in old age depends on his or her ability to consume goods and services produced by younger workers. PAYG and funding are both ways of organizing

claims on that output. Thus what matters is future output, and the effects of funding on future output will depend on the answers to a series of questions, many of which are often addressed incompletely or ignored:

- Will a move to funding increase saving?
- Is increased saving a good objective?
- Will funded pensions strengthen the performance of capital markets?
- If so, is it necessary for this purpose that pensions are mandatory rather than voluntary?
- Are redistributive effects across generations—which are inevitable—desirable policy?

14. **IGNORING DISTRIBUTIONAL EFFECTS.** The point is most obvious if policymakers establish a pension system in a brand new country. If they introduce a PAYG system, the first generation of retirees receives a pension, but returns to subsequent generations are lower. If policymakers introduce full funding, later generations benefit from higher returns, but the first generation does not receive a pension. The same argument applies in a country that already has a PAYG system: a decision to move toward funding redistributes from the current generation to future generations. Thus *any choice between PAYG and funding is inescapably also a choice about the intergenerational distribution of income*. Different choices are, of course, possible, but it is a fundamental error to ignore distributional effects or to present the gain to pensioners in later generations from a move to funding as a Pareto improvement,³ since it comes at the expense of the first generation.

15. These analytical errors matter because analytical errors lead to policy errors.

3 Policy problems

16. **PAYING FOR PENSIONS.** Many countries face problems in paying for pensions. In considering options, it is important to be clear that there are four, and only four, ways forward.

- Lower pensions, either through

³ A situation is described as Pareto efficient if resources are allocated in such a way that no reallocation can make any individual better off without making at least one other individual worse off. A policy that makes someone better off and nobody worse off is referred to as Pareto improving.

- Lower monthly pensions, or through
- Later retirement at the same monthly pension;
- Higher contributions;
- Policies to increase national output.

Any proposal to improve pension finance that does not involve one or more of these elements is illusory.

17. **MAKING PENSIONS PORTABLE.** National systems differ, for example in terms of whether they are contributory (UK, USA) or not (Netherlands, Chile); the number of years of contributions necessary for a full pension; the pensions formula; and the role of private pensions. As a result, workers who move across countries may end up with little pension. This phenomenon creates impediments to labour mobility, a problem both because labour mobility matters for efficiency in a modern labour market, and because it is an element in human rights.

4 What pension arrangements?

18. Though there is no single best pension system, the presentation discusses some recent policy developments that should be considered seriously: avoiding elderly non-contributory basic pension; redefining retirement; the US Thrift Savings Plan; and notional defined contribution (NDC) pensions.

4.1 Avoiding elderly poverty: Non-contributory basic pensions

19. This policy pays a tax-financed pension at a flat rate, on the basis of age and residence rather than contributions.

20. The contributory principle assumed workers with long, stable employment, so that coverage would grow. History has not sustained this argument. To explain why, consider the way the world has changed over the past 60 years. Social policy in 1950 was based on a series of assumptions:

- The world was made up of independent nation states;
- Employment was generally full time and long term;

- International mobility was limited;
- The stable nuclear family with male breadwinner and female caregiver was the norm; and
- Skills once acquired were lifelong.

Though not true even then, these assumptions held well enough to be a realistic basis for social policy.

21. The world today is very different.

- There is increasing international competition;
- The nature of work is changing, with more fluid labour markets;
- International mobility is increasing, and likely to continue to do so;
- The nature of the family is changing, with more fluid family structures, and with rising labour-market activity by women; and
- The half life of skills has declined.

22. Thus key drivers of change are

- More diverse patterns of work: thus there are problems for coverage of contributory benefits tied to employment;
- Increasingly fluid family structures: thus there are problems basing women's benefits on husbands' contributions.

23. The case for a non-contributory basic pension are that it strengthens poverty relief in terms of coverage, adequacy and gender balance; improves incentives relative to income-tested poverty relief; provides good targeting (age is a useful indicator of poverty); and can assist international labour mobility.

24. The obvious question is how to pay for this benefit. There are three instruments which match expenditure to budgetary constraints: the size of the pension, the age at which it is first paid, and the option of an affluence test, which keeps benefits from the best-off. As an example of the latter, the aim in Chile is to restrict the non-contributory benefit to elderly people in the bottom 60 per cent of income recipients; in Canada 95 per cent of older people get the full flat-rate benefit, and only 2 per cent are entirely screened out.

4.2 Redefining retirement: Later and more flexible retirement

25. Longer healthy life combined with a constant or declining retirement age creates problems of pension finance. An important part of the solution is that pensionable age should rise in a rational way as life expectancy increases. This is all the more the case since work is generally less physically demanding than in the past.

26. Retirement should not only be later on average, but should also give individuals greater choice over how and how fast they move from full-time work to complete retirement. Mandatory full retirement was introduced in the nineteenth century to move out of the labour force older workers who were reducing the productivity of younger workers. That argument made sense historically, but no longer. Thus mandatory retirement is no longer necessary. In addition, increased choice about when to retire, and whether fully or partially is desirable, both to promote output growth (by encouraging older workers to continue to be active), and as a response to individual preferences. Thus greater flexibility is desirable for its own sake, irrespective of problems of pension finance.

4.3 Consumption smoothing: The US Thrift Savings Plan

27. Simple economics argues that policy should allow people to choose their own pension provider in a competitive market, such choice, it is argued, benefiting the individual in the same way as choice and competition for clothes, cars, restaurants and iPods. In the case of pensions, the analytical error is mistaken use of first-best analysis.

28. The economics of information explains why the model of the well-informed consumer does not hold in many areas of social policy. In the context of pensions, there is ample evidence that consumers are badly informed. A survey revealed that 50% of Americans did not know the difference between a stock and a bond. Most people with an individual account do not understand the need to shift from equities to bonds as they age. And virtually nobody realises the significance of administrative charges for pensions.

29. Recent lessons from behavioural economics also yield powerful lessons, explaining such phenomena as procrastination (people delay saving, do not save, or do not save enough), inertia (people stay where they are), and immobilisation (where conflicts and confusion lead people to behave passively, like a rabbit in a car headlight).

30. These bodies of theory suggest guidelines for the design of individual accounts:

- Use automatic enrolment;
- Keep choices simple: for most people, highly constrained choice is a deliberate and welfare-enhancing feature of good pension design (though one of the options could be to allow individual choice);
- Design a good default option for people who make no choice;
- Decouple fund administration from fund management, with centralised administration and fund management organised on a wholesale, competitive basis.

31. The US Thrift Savings Plan for federal civil servants (www.tsp.gov) complies with these criteria. The plan offers participants a very limited choice of portfolios. Initially there were three: a stock market index fund, a fund holding bonds issued by private firms, and a fund holding government bonds. In 2007 workers could choose from six funds, including a life-cycle option (i.e. an option in which a person's portfolio shifts automatically from mainly equities to mainly bonds as he or she ages). A government agency keeps centralised records of individual portfolios. Fund management is on a wholesale basis. Investment in private sector assets is handled by private financial firms, which bid for the opportunity, and which manage the same portfolios in the voluntary private market.

32. The plan (a) simplifies choice for workers, respecting information constraints, (b) includes automatic enrolment and (c) a default option, and (d) keeps administrative costs astonishingly low: as little as 6 basis points annually, or 60 cents per \$1,000 of account balance. By 2007 the programme had grown to include 3.8 million participants and held assets of \$225 billion. The United Kingdom is introducing a similar arrangement.

4.4 Consumption smoothing: Notional defined contribution (NDC) pensions

33. A recent innovation internationally, pure NDC systems mimic individual funded accounts, but on a Pay-As-You-Go basis, i.e. actuarial Pay-As-You-Go. In the simplest such scheme:

- Each worker pays a contribution of $x\%$ of his earnings, which is credited to a notional individual account;
- Workers' contributions this year pay this year's pensions;
- The government keeps a record of individual contributions, each year attributing a notional interest rate to each worker's accumulation;
- When the worker retires, his/her notional accumulation is converted into an annuity;
- In a pure NDC system benefits are actuarial; the system can also incorporate redistribution, e.g. minimum benefits or pension credits for caring activities; and the scheme can incorporate partial funding.

34. NDC schemes have a range of potential advantages: the system

- Is simple from the point of view of the worker;
- Is centrally administered, keeping administrative costs low;
- Avoids much of the risk of funded individual accounts, since it avoids the volatility of capital markets;
- Does not require the institutional capacity to manage funded schemes; in addition:
- Saving may be the wrong policy (China), or people may not want to save;
- NDC can be partially funded and can be the basis for a future move to full funding; thus may have advantages as a starting point if financial market turbulence continues.

NDC or funded accounts? There are solid economic principles for informing the choice (Barr and Diamond 2008).

5 Concluding thoughts

35. There is no single best pension system. Thus what is optimal will differ across countries and over time. Pension systems look different across countries; this is as it should be. That said, the policies just discussed are potentially relevant to a wide range of countries.

36. A developed economy has a range of options:

1st tier: countries should consider either

- a noncontributory, tax-financed pension (the Netherlands), perhaps with an affluence test (Canada), or
- a contributory pension aimed at poverty relief (many countries, including the UK and USA), with any of an array of different designs.

Second tier: the menu includes (separately or in combination)

- a publicly organised, defined-benefit pension (USA);
- an NDC system (as in Sweden);
- an administratively cheap savings plan with access to annuities (like the Thrift Savings Plan in the USA);
- mandatory, funded, defined-benefit pensions sponsored by industry (the de facto system in the Netherlands); or
- funded, defined-contribution pensions (as in Chile and Sweden).

Third tier: voluntary, defined-contribution pensions can be organized at the level of the individual, the firm or the industry; any tax favouring should seek to avoid excessive regressivity.

37. Why, in conclusion, does this matter?

- Pensions matter for the welfare of hundreds of millions of older people, and of hundreds of millions of workers, who anticipate their own retirement, and who have parents and grandparents who are currently retired.

- They matter for national economic performance: a well-designed pension system assists labour mobility, avoids unnecessary impediments to work effort and saving, and avoids excessive public spending. It might also be possible for voluntary pensions to help financial markets through improved corporate governance.
- Finally, pensions have a potential global role. One of the roots of the current economic turbulence is trade imbalances, fuelled in part by the high level of precautionary savings in China, saving connected with limited old-age security and inadequate access to medical services. A stronger pension system, especially if accompanied by policies to facilitate access to health care, would reduce pressures to precautionary saving in China and hence contribute to correcting such macroeconomic imbalances.

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