Risk Sharing and the Welfare State[1]

Peter Diamond

I shall discuss public provision of retirement pensions and mandates for private provision. These programs reflect two concerns. One is to use pensions as part of relieving poverty among the elderly, resulting in less use of means-tested programs. The second is to ensure a replacement rate that isn't too low over a much wider swath of the workforce than just those in danger of poverty. Both goals are important. The public policy contribution to these goals must be considered in a framework that reflects the issues in public economics that were central to the analyses of Jean-Jacques Laffont – asymmetry of information, aggregate uncertainties, incomplete markets, bounded rationality and limits on plausible political outcomes.

Currently, projected population aging is central in concerns about public pension systems. Three separate factors contribute to this projected aging – the anticipated continuing improvement in mortality rates among older people, the large drop in fertility rates since the baby-boomer cohort, and the expected continuation of fertility rates below replacement in many European countries. In keeping with the title of this session, it is worth noting that there is great uncertainty about future mortality and fertility rates (and levels of immigration as well).

In the limited time available, I want to discuss some alternative mechanisms for addressing the issues raised by aging. To set the stage for discussing the typical public system, let us consider how mandated fully funded defined contribution pensions would respond to these issues under the plausible hypothesis that the politics of defined contribution pensions is likely to have little or no adjustment in either the savings rate or the age at which benefits can be claimed.

In response to longer life expectancies, fully funded defined contribution pensions automatically do all of the needed financial response by cutting benefits. Workers have the option of working longer in order to receive larger monthly pensions, and some of them will. But I expect that much of the response will come in the form of lower monthly benefits, and for many workers, little through additional work or additional savings beyond the mandate. It seems to me that this is not an optimal response since I would not expect the ability to obtain suitable jobs and the interest in holding them to increase in proportion to life expectancy. In this case, part of an optimal response would naturally come through increased savings, which in this setting is an increase in the mandate to save. Of course, that response only makes sense if the original mandate were not too high to begin with.

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If, as some analysts expect, aging is accompanied by a fall in interest rates, that too will lower replacement rates in a defined contribution system that does not change. In addition, all of the risk associated with realized rates of return is borne by the workers holding the assets when the returns are realized. Similarly, all of the risk of projected cohort life expectancy when annuity prices are set is also borne by the individual workers (along with the risks from the interest rates that affect annuity prices). Lack of annuitization does not make the risk of cohort life expectancy go away – it merely adds the further risk of realized length of life, which could be pooled and shifted by annuitization.

A defined benefit system can react to longer expected lives in pretty much the same way, by simply reducing benefits automatically based on actuarial calculations. This can be done whether the defined benefit system is fully funded (as are mandated industry pensions in the Netherlands), partially funded (as in Sweden and the US) or without reserve funds. Indeed, the Swedish notional defined contribution system works precisely in this way – leaving tax rates unchanged while lowering benefits to respond to longer expected lives. The reaction is somewhat different than with full funding since the adjustments needed for financial balance will be somewhat different.

The ability to adjust benefits for many cohorts allows a defined benefit system with some funding to spread rate-of-return risks over many cohorts, resulting in a lower cost of risk bearing. The political process can allow changing contribution rates as well as changing benefit levels (as has been proposed in a plan I put forth for the US together with Peter Orszag). This makes sense on a cohort-by-cohort basis since increased savings is plausibly part of an optimal response. And a defined benefit system with a sensible adjustment of benefits for the age at which they start permits and encourages additional work in a way very similar to that of a defined contribution system. A payroll tax rate change also involves a change in the redistribution across cohorts insofar as payroll tax rates are kept uniform across cohorts during each year. How distribution should be altered as different generations end up with different life expectancies is a subject that has not received much attention as far as I know. The value of a well-designed defined benefit system in spreading rate-of-return risk has been analyzed in a paper being presented here by Christian Gollier.

Let me also note that the presence of good incentives for continued work beyond the earliest age at which a retirement pension can be claimed is an important part of allowing workers a better response to changing circumstances. One can separate out the incentive to delay the start of benefits from the incentive to continue working as well. Both need to be well designed. A moderate lack of fairness for continued work can be part of a good system as long as the implicit tax on work is not too large, as has unfortunately been the case in too many countries. And a key part of the design is to have good incentives for work that is part-time or part-year or simply easier and lower paid. Use of these so-called bridge jobs, also referred to as downshifting, have now spread to roughly one-third of men retiring in the US, and appropriate incentives for this type of route from a career job into full retirement seems to me important for social welfare. Economists should work harder at getting the public to understand that strongly encouraging early retirement is not a useful policy for addressing youth unemployment.

While the degree of funding does not make a fundamental difference in the range of ways in which a pension system can respond to longer life expectancies, the picture is different for decreases in fertility, whether we consider the temporary phenomenon of the baby-boomers or the anticipated long run of lower fertility than in the past (which indeed would be in keeping with the very long-run trend of declining fertility rates which was interrupted by the baby boomers). A fully-funded defined contribution system does not need to respond to a drop in fertility per se and responds automatically to any induced changes in wages and interest rates.

At any level of funding, a defined benefit system can be set up to respond automatically to a drop in fertility, as is the case now in Sweden. Part of the appeal of a defined benefit system is its ability to spread risk across future cohorts, an ability that is modified by (and can call for changes in rules) if future cohorts will be smaller than had been anticipated. A smaller cohort is less able to take on risk shifted from earlier cohorts.

The projected mortality and fertility changes have led to a focus on increasing funding, on diversifying portfolios for pension funding, and on individual fully-funded defined contribution accounts. While there are circumstances where all three of these are attractive, the case for all of them has been grossly oversold by, among others, both the World Bank and the Bush administration. Let me take these three issues out of order.

If individual accounts are financed by a new source of revenue, then they are likely to result in increased national savings if the macro economy is suitably stabilized in response to the new revenue. If increased national savings are attractive, then this is one route to achieving it. Of course, increasing national savings implies a decreasing current consumption in order to have higher consumption later. In the context of a tax-financed system this implies higher taxes or lower benefits currently in order to have lower taxes or higher benefits later. This may or may not be attractive and the case may be stronger for a temporary buildup of wealth for the bulge in expenses for the baby boomers than for the long-run trend. And of course it can be done by increasing funding through a centralized system as well as through individual accounts.

On the other hand, if individual accounts are financed by diverting existing payroll tax revenues into individual accounts, for example as proposed by President Bush, then the accounts are not likely to add to national savings, although the possibility is present if the rest of the government budget responds by decreasing its deficit. However, political responses, such as counting deposits into mandatory or voluntary accounts as government revenues for deficit measurement (as done in Hungary, Poland and Sweden) makes it unlikely that a mere diversion of revenues will add to national savings. The EMU has ruled that Hungary, Poland and Sweden slowly stop this accounting. However, in the absence of a higher political authority, I would not expect such a measurement to change in the US, where accounting on the basis of expenditures net of eventual repayments has already been called for by a Republican senator. If national savings are not increased by creation of such accounts, then the possibility of their adding to social welfare is very limited and probably nonexistent.

Diversification of a trust fund portfolio can be unreasonably politically attractive if actuarial calculations incorporate the higher expected returns on stocks than on bonds while ignoring implications of the added risk. Diversification is attractive only to the extent that the risk aversion for bearing the additional risk is below the level that is consistent with the market tradeoff between stocks and bonds. This can be the case in a funded defined benefit system since the ability to spread market risk over many cohorts, including those not currently active in the market, implies a decrease in the risk aversion associated with a change. Of course this possibility is only realized if the defined benefit system spreads the risk widely, as is a plausible political response.

Similarly, diversification within a defined contribution individual accounts system can improve risk sharing insofar as moderate risk is provided to workers who do not otherwise have access to a diversified portfolio and the administrative cost is low enough. This can happen because the level of wealth of some workers is inadequate to justify such investment or some workers overestimate the inherent risks of stocks. For those with portfolios outside the publicly mandated system, diversification of their publicly-organized portfolio does not add to expected utility if it is done on the same terms as are available to the workers in the market.

My conclusion is that reform of publicly provided pensions should focus first on getting existing systems into projected financial balance and on getting the labor market incentives well designed – not overly discouraging both continued work and bridge jobs. Once a system has good labor market incentives, an increase in the age at which benefits can first be claimed can be explored, recognizing that with roughly actuarially fair incentives, an increase in this age will not have a significant impact on system finances and will help some workers and hurt others, depending in part on the quality of the retirement decisions that they are making. It needs to be recognized that many calls for increasing what is referred to as “the retirement age” are merely calls for cutting benefits without necessarily improving the efficiency of the system nor necessarily providing the most attractive way to cut benefits.

The importance of the labor market incentives inherent in pensions systems is precisely the sort of topic that Jena-Jacques cared greatly about. I am glad for this opportunity to speak at this event in his memory.