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The Icelandic pension system: Design and lessons for others[2]

Speech at the International Pension Conference Moscow, December 9-10, 2003

Chairman, Ladies and Gentlemen,

The subject of my talk here today is the Icelandic pension system. But first I want to put the Icelandic system in a more general perspective.

What attributes do we want a good pension system to have? Of course it is obvious that it must be a mechanism for saving for retirement. But in order to be efficient it must also take due account of the lifetime risks facing individuals and society as a whole. These are, for instance, risks related to life expectancy, ability to work, demographics, the productivity of labour and the rate of return on financial assets. Furthermore, we can make the demand that a certain degree of income equalisation should be built into the system and, at minimum, that it is not regressive. Then we would also want the pension system to have at least some degree of flexibility and scope for choice for the individuals. Finally, we want the pension system to be designed in such a way as to promote economic performance, that is, saving, growth and financial sector development.

This is a tall order. In practice there are bound to be trade-offs between these goals. There is by now a significant consensus that in order to meet these demands at least in part, a good pension system should be based on three pillars. Firstly, a tax-financed public plan that provides a flat-rate or means-tested basic pension. Secondly, a mandatory occupational or private, but publicly regulated, funded pension scheme. Thirdly, a voluntary pension saving scheme, often with tax incentives. We need three pillars in order to accommodate the trade-offs between goals, make the system more resilient to different types of shocks and provide for flexibility and choice. This is all familiar and the best known presentation is to be found in the 1994 World Bank publication: *Averting the Old Age Crisis.*

The reason that I mention this is that the Icelandic system is increasingly meeting the criteria of the prototype three-pillar system. This is only partly by conscious design, however. Historical accidents and starting points have as much to do with it. There might be a lesson there regarding pension reform that I will come back to later in my talk.

Description of the Icelandic pension system

As I said before, the Icelandic old age pension system is composed of a tax-financed public pension scheme, mandatory funded occupational pension schemes and voluntary pension saving with tax incentives.

Public pension

The public pension scheme provides an old age pension, disability pension and survivor's pension.

1. Chief Economist, Central Bank of Iceland. The views expressed are those of the author and do not necessarily reflect the views of the Central Bank of Iceland.
2. A speech delivered on December 9, at the International Pension Conference, Marriot Grand Hotel, Moscow.

The old age pension is in most cases paid from the age of 67. This figure has to be put in the perspective that the average life-expectancy at birth is over 78 years for males and almost 83 years for females. The public pension is divided into a basic pension and supplementary pension. Both are means-tested. Pensions received from other sources are treated differently from other income. These do not affect the basic pension and the level at which they begin to reduce the supplementary pension is much higher than for other income. The basic pension amounts to around 15% of the average earnings of unskilled workers but with the supplementary pension the total pension can go up to 70% of the same earnings.

Occupational pension funds

It is mandatory by law to pay at least 10% of all wages and salaries into fully funded pension schemes that provide lifelong retirement and disability pensions. These are mostly provided by occupational pension funds. Many of these funds were set up through collective agreements between the partners on the labour market in 1969 but others had existed earlier, such as the fund for public sector employees or the Pension Fund of Commerce.

Membership of occupational pension funds was made compulsory for wage earners in 1974 and for the self-employed in 1980. The base for contributions was extended from basic daytime earnings to all earnings during the period 1987 to 1990. This accelerated the growth of contributions very significantly. Comprehensive legislation covering the operation of pension funds only came into force in 1998. The law defines which entities are allowed to call themselves pension funds and receive mandatory contributions for pension rights. It lays down the general requirements for pension funds regarding size, risk, internal auditing and funding. Finally, it gives guidelines and limits for the funds' investment policies based on the risk diversification principle.

Most of the funds are governed jointly by the partners on the labour market. They are regulated by the Ministry of Finance but supervised by the Financial Supervisory Authority.

The contribution rate to pension funds is in the majority of cases 10% of wages. Formally this 10% is split between a 4% contribution from the employee and a 6% contribution from the employer. The employee part is fully deductible from taxable income if it does not exceed 4%. The employer can charge his part as a cost in his accounts, making it fully deductible for tax purposes, even when it exceeds 6%. The investment returns of pension funds are tax-free. Pension benefits are taxed in the same way as income from employment.

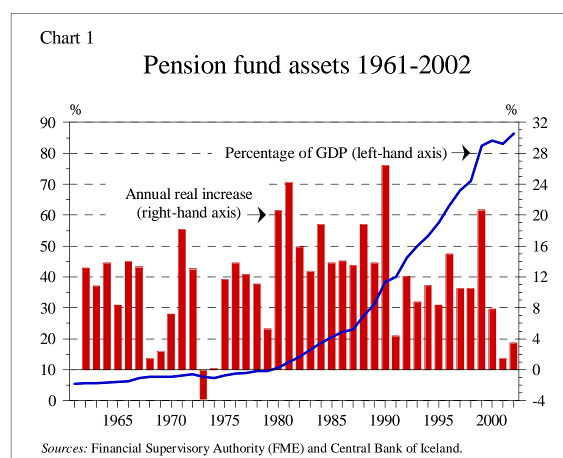
There were 52 pension funds in Iceland at the beginning of 2003. Of these, 11 were no longer receiving contributions and 14 had employer guarantees from the government, municipalities or banks. There were 28 fully operational occupational pension funds that do not have an employer guarantee. The number of pension funds has been reduced very significantly in recent years through mergers and closures. At the beginning of the 1980s there were 90 funds.

The pension fund scene is dominated by a few big funds with a very high share of total assets and several small funds. The ten largest pension funds had around 70% of the net assets of all funds in 2002, and the two biggest ones accounted for 32%. The average fund had net assets of around 143 m. USD but the largest had assets of 1.3 b. USD.

The operational cost of the pension funds is probably smaller than is to be expected given the number of funds and the relatively small size of the average fund. In 2002 operational costs for the funds as a whole amounted to 0.1% of assets and 1% of contributions.

Chart 1

Pension fund assets 1961-2002



Sources: Financial Supervisory Authority (FME) and Central Bank of Iceland.

The pension funds grew fairly slowly in the 1960s and 1970s as the contribution base was still limited and returns on assets were very low and probably negative in many years. During this period real

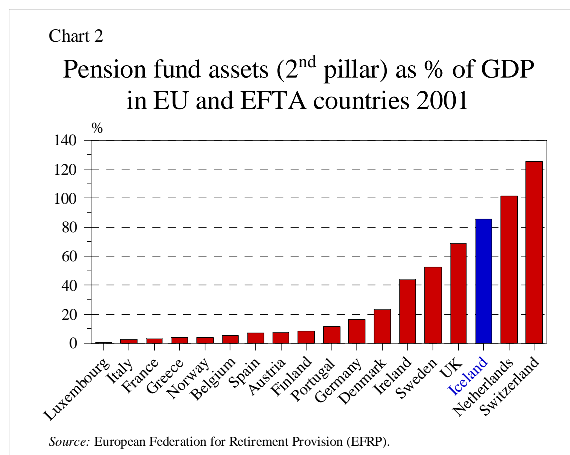


Chart 2

Pension fund assets (2nd pillar) as % of GDP in EU and EFTA countries 2001

Source: European Federation for Retirement Provision (EFRP).

interest rates on domestic bonds were often negative due to high inflation and regulated interest rates. At the end of the 1970s pension fund assets still accounted for less than 10% of GDP. With the introduction of financial indexation in the beginning of the 1980s real interest rates in the domestic bond market became positive. When the deregulation of domestic interest rates in the latter half of the 1980s was coupled with the extension of the base for contributions, which I mentioned before, pension fund assets began to increase by leaps and bounds. During the 1980s and 1990s pension fund assets grew by 14% per annum in real terms and passed 80% of GDP. This placed Iceland fourth among EU and EFTA countries in terms of the size of 2nd pillar pension fund assets as a percentage of GDP, after the Netherlands, Switzerland and the UK.

So far this decade the real growth of assets has been much slower as the Icelandic pension funds were hit by negative returns on international capital markets, like most others in developed countries. During the second half of the 1990s the funds had shifted some of their assets from domestic bonds to domestic and foreign equities, which was inevitable given their size relative to the domestic economy.

But the pension funds still have a lot of growth ahead of them. They are far from maturity, as can be seen from the fact that the pension burden, i.e. the ratio of pension payments and contributions, is still below 50%. It will probably only be this year that pension payments by the occupational pension funds will overtake those from the public system. After that payments from pension funds will increase year by year, at the same time as public pension payments will shrink due to means-testing of the supplementary public pension. Remember that it was only at the beginning of the 1990s that premiums were paid on all income from employment. Since the main rule is that pension starts to be drawn at the age of 67, it will not be until around three decades from now that people who have paid premiums on all their employment income become eligible for pension. The pension funds will therefore continue to accumulate until that time, when they are estimated to grow to at least around 1½ times GDP.[3]

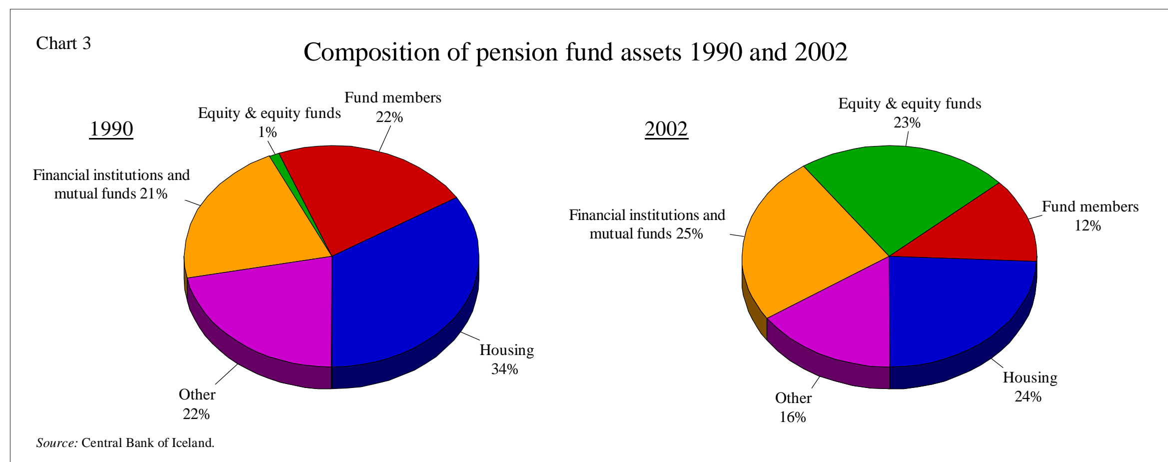
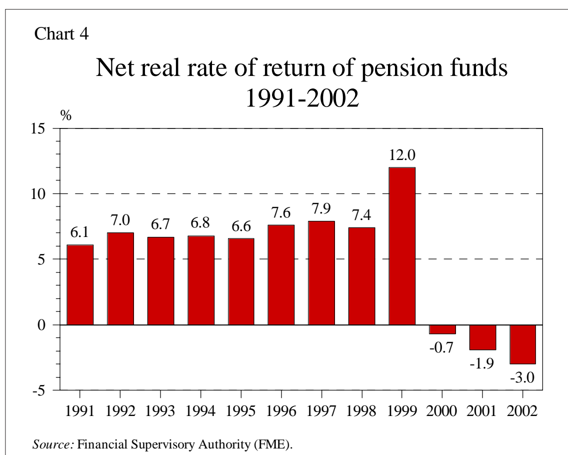


Chart 3

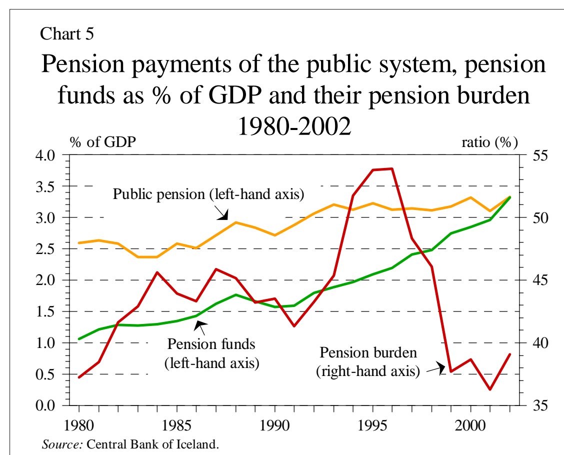
Composition of pension fund assets 1990 and 2002

Source: Central Bank of Iceland.

3. Gudmundsson, Gudmundur (2000): Prospects of Icelandic Pension Funds, *Central Bank of Iceland Working Papers No. 6*, Central Bank of Iceland, Economics Department.



Source: Financial Supervisory Authority (FME).



Source: Central Bank of Iceland.

The main rule in the private sector is that members can begin to draw old age pensions at the age of 67, while in the old public sector scheme the limit is 65. It is possible, however, to start drawing pensions in the private sector as early as 65, but then with a reduced benefit, or as late as 70 with additional benefits. The benefit rule in the new public sector scheme and in the private sector is in general neutral towards the choice of early or late retirement.

There are significant differences between funds with employer guarantees and ordinary private funds regarding the level of contributions and benefits and also regarding risk-bearing. Guaranteed funds are exempted from the requirement of full funding. However, only the government, municipalities and banks can guarantee pension funds and full funding will become the general rule for everyone in the future. But since the benefit level of the public sector fund is fully defined, it is the employer who bears the investment risk and his contribution to the fund will in practice be variable.

The benefit level of ordinary private sector funds will ultimately depend on their investment returns, which will in turn be variable between individual funds. The investment risk is thus borne collectively by the members of the funds. Furthermore, the benefit rules imply a significant degree of risk-sharing and co-insurance among the members, with some redistribution. The funds are therefore not actuarially fair. What tends to happen is that the contribution rate remains relatively stable but the benefit level is changed from time to time with the consent of the members. The funds are therefore neither pure DB nor DC plans, but rather some kind of hybrids. In some respects these funds will provide a better risk environment for the individual members than pure DC plans, at the same time as they reduce the level of risk for employers compared to DB plans.

But what can the average member expect to receive? It has been estimated on reasonable assumptions that persons retiring at 69 can expect to receive a pension amounting to 50-60% of the full-time earnings of current employees.[4] With the basic pension added the total replacement ratio is likely to be around 60-70%.

Voluntary private pension saving

Many people will top up their pension from 2nd pillar pension funds with voluntary private pension saving. Legislation on tax incentives for voluntary private pension saving was adopted only in 1998 as a part of the general pension reform but the tax incentives have been increased since. Employees are currently allowed to deduct from their taxable income a contribution to authorised individual pension schemes of up to 4% of wages. Employers will always contribute 1%, matching a further 1% from the employee and 0.1% for each 1% contributed by the employee. The total contribution can therefore become 6.4% for those who have decided to pay 4% to voluntary pension schemes. These schemes are in most cases defined contribution individual accounts and have to be authorised by the Ministry of Finance.

4. Ibid.

The pension saving is not redeemable until the age of 60 and has to be paid in equal instalments over a period of at least seven years.

The tax incentives have proven to be very effective. It is estimated that in 2001, 43% of those active in the labour market were paying into these schemes. Third-pillar pension assets have increased tremendously, reaching 7½% of GDP at the end of 2002. The bulk are managed by pension funds, or 85%, but the share of banks, insurance companies and others has increased significantly in recent years, since it was non-existent at the end of 1997. Total pension assets, both second and third pillar, were almost 90% of GDP at the end of 2002.

Economic and financial effects

The economic effects of pension systems are important. It is always those who are economically active today who support today's pensioners, irrespective of the system. But if the system makes today's workers more productive than they would otherwise have been and if it is partly foreign workers who provide the upkeep through foreign assets, the lighter the pension burden will be. So what have the economic and financial effects of the system been?

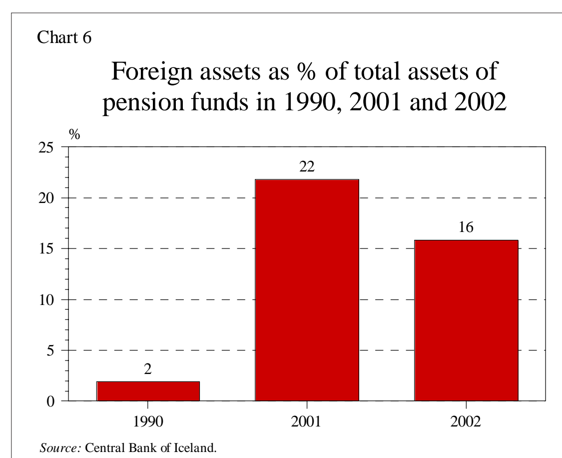
It is clear that the system has not created unduly negative incentives for labour participation by the elderly. The official retirement age is 67 and 37% of 65- to 74-year-olds worked at least one hour a week in 2002. This is of course partly based on tradition and the fact that unemployment has usually been low, but it helps that the pension system does not give incentives for early retirement, although it is possible to draw a pension before 67.

The build-up of a funded pension system could under certain conditions increase the national savings rate and thus increase the capital stock and the growth rate. It is of course difficult to know what would have happened without the accumulation of pension funds, and so far it has proved difficult to identify these effects. The relatively low private savings rate has in fact been a problem in recent years. It also food for thought that Icelandic households are among the most indebted in OECD countries. Denmark and the Netherlands have higher household debt in relation to disposable income. Both these countries have very large 2nd and 3rd pillar pension assets. It is possible that people trust such systems better than public pay-as-you-go systems and are thus more willing to take on debt in the belief that their pensions are secure.

The effects on financial market development are much clearer. It is obvious that the pension funds have contributed very significantly to financial market growth. If anything the problem is that they are in some cases too predominant. A few figures will indicate the relative importance of the pension funds for domestic financial markets. For instance, their share of the total stock of marketable bonds is estimated to have been 39% at the end of 2002. At the same time they are estimated to have held 46% of the stock of housing bonds.

Chart 6

Foreign assets as % of total assets of pension funds in 1990, 2001 and 2002



Source: Central Bank of Iceland.

Finally, through their build-up of foreign assets, the pension funds have affected Iceland's net asset position. The foreign assets of the pension funds were less than 2% of total assets in 1995 but had reached 22% in 2001, then shrank in fact to around 16% in 2002 due to negative returns on international equity markets. The bulk of their foreign assets are in the form of equity and shares in open-end and closed-end mutual funds. Pension funds' foreign assets accounted for 61% of all foreign portfolio assets of Icelandic residents at the end of 2002 and over 25% of total foreign assets as recorded in the international investment position. It is clear that assets of this magnitude have a significant effect on the risk profile of the nation's foreign balance sheet. Furthermore, foreign transactions of pension funds can be

significant enough to affect the exchange rate, at least in the short run.

Strengths and weaknesses?

The strengths of the Icelandic pension system have, I suppose, emerged more clearly from what I have said so far than the weaknesses. The most important strengths are almost complete coverage, full funding of the second pillar, neutrality vis-à-vis the retirement decision and the hybrid nature of the occupational pension funds. From these flow the beneficial effects on the labour market and the financial system compared to other types of pension systems.

But there are also weaknesses. Firstly, the benefit level can be significantly different in different funds if investment returns diverge over extended periods. If mobility between funds is limited, as is the case in Iceland, this will create tensions. With fewer and more professional funds that are subject to close scrutiny by members and the Financial Supervisory Authority, this weakness will be reduced but never completely eliminated. Secondly, but related to this, it is in most cases not possible to choose a pension fund in the second pillar. One of the problems of introducing such a choice is that the funds are in general not actuarially fair as far as benefit accumulation is concerned. Most notably, the contributions of the young generate the same benefits as those of the older members. This is not a problem for those who are members of this system for all their working life, because what people lose when they are young, they gain when they are old. But if a free choice of funds were allowed and funds with the predominant linear benefit rules existed side by side funds with age-related rules, as some have by now adopted, the system would become unstable and could eventually collapse. The young would choose funds with age-related benefit formula but switch to funds with linear rules when older. To switch between systems, which is not considered pressing at the moment, it would probably be necessary to close the existing one for new contributions and start a new one. But as in the case of the switch between pay-as-you-go and full funding, this always leaves the question of how to compensate the generation that has already lost when young but has still to benefit when old. Finally, disability pensions are also provided by the pension funds but have proved to be problematic for them. They are quite difficult to predict and tend to show a trend increase and vary with the economic cycle. This has raised the issue of whether old age and disability pensions fit together well in the same system.

Lessons for others?

Finally, I want to ask – without completely answering the question – if there are important lessons for others in Iceland's pension experience? But before doing so I would like to strike a note of caution. General principles will always have to be applied with a great degree of attention to the specific situation in each country. Furthermore, we know that it is always difficult to switch from one system to another, if the existing system has not obviously broken down. In the pension sphere there are, furthermore, special difficulties with switching from PAYG to funding. When Iceland decided in collective agreements in the late 1960s to set up fully funded pension funds, public pensions had become very low as they had been eroded by inflation and economic recession. The problem with the transition to funding was therefore smaller than otherwise and the will for reform greater.

I think the following are the main lessons to be considered for others from the Icelandic experience:

1. The prototype three-pillar system can be implemented and actually produces many of the promised beneficial effects.
2. Significant funding of the pension system is beneficial, especially for small open economies.
3. It is possible to design pension systems in such a way as not to give undue incentives for early retirement.
4. Hybrid pension plans between DC and DB are possible and should be considered along with other options.

But what about Russia? I do not know enough about the concrete situation in order to be able to state what part of the Icelandic experience is relevant for you. That is the task of local experts. But I just want you leave you with two thoughts. Firstly, if life-expectancy is, as we hope, going to increase in the

coming decades, this seems a good time to consider some significant funding of the future pension burden, as you are actually planning as a part of your pension reform. Secondly, it seems to me that the experience of Norway should also be considered. Norway has significant oil resources, as you have. The resource rent from the oil through royalties and taxation is used to build up a very large fund, which will among other things help to meet the costs of the ageing of the population.

Thank you very much.