

Nº 2006/5

Oslo
November 8, 2006

Staff Memo

Financial Stability

The pension reform in Norway -
A useful step, but more funding could be beneficial

by

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ISSN 1504-2596 (online only)

ISBN 82-7553-371-6 (online only)

The pension reform in Norway

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A useful step, but more funding could be beneficial[#]

by Gunnvald Grønvik, Financial Stability, Norges Bank*

A reform of the fairly generous Norwegian public pension system was agreed upon by a broadly based coalition in the Norwegian Parliament in May 2005. The reform promises to reduce future costs and to improve labour incentives to work. The publicly provided pensions in Norway are of a PAYGO nature, with an exception for the supplementary pensions of the employees of the municipal sector.

Norway is in an enviable economic situation. Even before the oil incomes started to accrue the financial position of the Norwegian public sector was good. Presently the oil-wealth is being converted to financial wealth on the public hands at a high pace. Current projections are that the fund accumulated from petroleum revenues shall exceed one year's gross domestic product in 2007. As an element of the pension reform this fund has been renamed to "The Government Pension Fund – Global". There also exists a "Government Pension Fund – Norway". These two funds are government property, and they have no specific task or obligation in providing the pensions.

This paper outlines the main elements of the pension system in Norway and the reform, and illustrates a possible route for further reform. The extraordinary fiscal position of Norway can be used to create the initial fund in a (at least partially) funded pension system. Such a reform will reduce tax wedges and increase economic efficiency. Some implications for the Norwegian capital market and government budget are discussed.

[#]Paper presented at the 26th SUERF colloquium in Lisbon, October 2006 (www.suerf.org) with minor updates later. The views expressed here are those of the author, and should not be interpreted to represent the institution he works with (Norges Bank, The central bank of Norway).

*Thanks to Arild J. Lund, Bent Vale, Birger Vikøren, Ingrid Andresen, Per Atle Aronsen, and Per Simonsen (Kredittilsynet) for useful comments to this and earlier versions of this paper, and to Professor M. Balling of SUERF for encouragements and comments through the work. The responsibility for remaining errors lies with the author.

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1. *Introduction*

This paper bridges the issue of the pension reform with the extraordinary fiscal position of Norway due to oil incomes. It is argued that if the two issues are seen together through legal funding of the pension system, efficiency gains can be obtained in the labour market through reduced tax wedges and in the use of capital.

Pension reform

Pension reform is on the agenda of governments of developed countries as they all face a common demographic development. The main elements are a large increase in the elder population and at least a relative decline in the younger population. Most of the countries have pay as you go pension systems (PAYGO systems), and the demographic development implies that a slowly growing working population shall provide for a rapidly growing elderly population. The burden on the working generation grows more quickly in many countries than what is necessary merely due to demographic developments as a more generous pension is expected than what has been given previously.

Norway is no exception to this, and its PAYGO system – called the National Insurance Scheme – was initiated in the late sixties. The system has a fairly generous minimum pension. In addition there is an income based supplementary pension. This supplementary pension is based both on the number of earning years and on the income level in the twenty best earnings years. The payment for this supplementary pension is labelled a premium, but is collected with the tax by the tax authority. Presently, the pension system reaches its full mature life as the new pensioners at present has lived through the system and earned their pension rights through their full working life. It is clear that the promised pensions are very generous. Therefore, work to reform the system has been underway for some years. The Norwegian parliament agreed on the broad outlines of a pension reform in May 2005. The reform reduces the growth of expenditures through three measures:

- Pensions will in the future no longer be indexed with wages, but with the average of wages and prices.
- Pension will be automatically adjusted to take into account longer life expectancy.
- The supplementary (income based) pension shall become more actuarially fair.

The first bullet implies a lower indexation for pensions than for pension rights up to the time when pension pay-out commences. An implication of the third bullet is also that the pension shall be larger the later the retirement is taken.

In addition some reforms of the pension systems outside the public pension system have been agreed upon or are being considered. Agreement is reached to secure 100 percent coverage of occupational retirement schemes of a certain minimum standard. A reform of the early retirement schemes and the beneficial tax treatment of them are discussed. There is also political agreement that the occupational pension schemes for public sector employees' shall be reformed in order not to counteract the reform measures.

The political agreement on the reform elements is broadly based and the centre-left majority government that took over in October 2005 is committed to base the detailed reform proposals on the agreement.

Petroleum income management

Around 1970 oil was found in the North Sea off Norway. Investments were heavy in the early phase of the oil development and that gave time to set up a prudent management system for the expected future petroleum incomes. At present, the oil-wealth is being converted to a considerable financial wealth on the government hands at a rapid pace. Even before the oil incomes started to accrue the financial position of the Norwegian public sector was good compared to many European countries.

A large part of the income from the petroleum sector is tax income. It gives rise to very large surpluses in government budgets that have been converted to a fund. In 2005 the surplus transferred to the fund was 10.8 percent of GDP. For 2006, the central government net cash flow from the petroleum activities is estimated at 45 billion euro^{1,2}. The consolidated surplus in the Fiscal Budget and the fund based on petroleum revenues, including interest and dividends, is estimated at 44.9 billion euro. The capital at the start of 2007 can be estimated to be around 220 billion euro or more than 80 percent of estimated GDP of 2006. With the present oil and gas prices the fund grows with well over 10 percent of GDP every year.

Real, but not legal funding

As part of the pension reform a re-branding of public financial wealth has taken place. The Government Pension Fund was established 1st January 2006. The Government Pension Fund is comprised of the former Government Petroleum Fund and the National Insurance Scheme Fund. The activities in these two funds will continue unchanged. The Government Pension Fund will not have its own board or administration, but continue to be managed according to guidelines set up by the Ministry of Finance. This renaming is part meant to show a real funding of the pension obligations, but no-one has direct legal claims on these funds. Thus, there is no direct link between them and the financing of the pensions – neither at present, nor is there planned to be any link in the future.

The two branches of the Government Pension Fund – seen together – represent a substantial basis for legal funding of pensions, if this is deemed desirable. In addition, the Norwegian government holds considerable shares of the equity of several large corporations.

Outline of paper

Section two outlines the main elements of the pension system in Norway, and section three explains the reform process and its content. The main contribution of this paper is in section four where a numeric example shows that large parts of the public pension obligations could be transferred to a legally independent pension fund if one is willing to use the possibilities the extraordinary Norwegian fiscal position gives to finance the transformation. Some of the fiscal policy questions such a reform will create are also mentioned. In section five the consequences of the further reform possibilities are discussed. The main point is that tax wedges can be reduced and economic efficiency increased through more legally binding funding. The political uncertainty will cease to be a factor with a legally independent fund. In section six the implications for the Norwegian capital markets are elaborated. The final section sums up the findings.

¹ Estimate from National Budget 2007 (St.meld nr 1 (2006-2007)).

² A standard exchange rate of eight Norwegian crowns to one euro is used throughout this paper with the exception from Table 1 where the exchange rate used is clearly explained. The exchange rate Aug. 15, 2006 was 8.0290. A billion is 1000 millions.

2. The pension system of Norway – an outline³

The National Insurance Scheme in Norway covers old age pension and survivors' benefits, as well as medical coverage and cash benefits related to sickness, maternity, disability and rehabilitation. This paper concentrates on rules related to the system of the old age pension. It is, however, impossible to disentangle the elements of the system completely, and some rules relevant to other parts of the system have to be mentioned. The discussion of a change in the system only covers reform in the system for old age pensions.

The current mandatory public old age pension system in Norway was enacted in the late 60-ies. The system is compulsory for all who are working or resident in Norway. In addition there are rules regulating membership for employees in shipping, off-shore petroleum industry and on the arctic archipelago of Svalbard (which is not a part of Norway).⁴

The scheme is financed by contributions from employees, self-employed persons and employers as well as from the state. Contribution rates and state grants are decided by the parliament on a yearly basis as part of the state budget. The largest income for the National Insurance Scheme is the contribution from employers. The largest part of employers in Norway pay with the rate of 14.1 percent, but there is a geographic differentiation of this rate so that lower rates apply to employees residing in certain parts of the country employed in certain branches. There is also a reduction in the rate that applies to employees above 62 years of age. Employees contributed 7.8 percent of their wages in 2005 in addition to the contribution paid through their employers. Self-employed persons paid 10.7 percent of their "pensionable income" up to a certain limit. The "pensionable income" is meant to be the income from labour as there are no contributions based on capital income. The contribution rate for other personal income (pensions etc.) was 3.0 percent.

In 2004 the total cost of all elements of the scheme was 28.6 billion euro or 13.5 percent of GDP. The contributions explained above covered a large share of these costs, but the additional state grants to the scheme were 9.2 billion euro or 32.2 percent of the schemes total costs.

2.1 Old age pension from National Insurance Scheme

In principle the retirement age in Norway is 67, but various arrangements imply that the retirement age in practice is lower. The old age pension consists of a basic pension and a supplementary pension. The supplementary pension is based on income through the working life, but there is a lower limit. Persons who have been without own income or who have had a small income over large parts of their working life will receive a minimum pension larger than the basic pension. A lot of the political discussion prior to the pension reform has been connected to the size of this minimum pension and to the rules concerning the pension for married couples (should it be individually based or based on one income per family etc). This

³ This presentation draws on the presentation on the home-page of the Ministry of Labour and Social Inclusion (http://www.odin.dep.no/filarkiv/237469/Brosjyre_engelsk_-_2005.pdf).

⁴ The main rule is that all those who work on installations on the Norwegian Continental Shelf (all foreigners working in this part of the petroleum industry) and those who work for Norwegian companies in Svalbard (Spitsbergen) are covered. Furthermore, citizens from EEA countries working on Norwegian ships (excluding cruise ships) are covered. There are also some minor exclusions and rules opening for voluntary coverage under the insurance relating to Norwegian citizens working for the Norwegian government abroad and for foreign citizens working for their government in Norway.

discussion is not presented here. For an unmarried pensioner the minimum pension was 13 176 euro a year in 2005.

All who have a minimum membership period of the insurance scheme are entitled to a basic pension. However they are only entitled to their share of the basic pension proportional to the number of membership years. The full basic pension is based on the 40 years membership of the scheme. The basic pension is independent of the level of the income in the membership years.

The supplementary pension scheme was introduced in 1967, and its purpose is to prevent a large drop in standard of living between working life and the life as pensioner. The size of the supplementary pension is decided by an average point score calculated based on the actual income seen in relation to the basic amount (basic pension) each year. The point score increases degressively with income. In the final calculation of the supplementary pension, the average of the 20 best point scores count. To earn the full supplementary pension one needs to earn points for a total of 40 years. The maximum supplementary pension that could be granted in 2005 was 27 541 euro. This comes on top of the basic pension of 7 347 euro so that the pension under the scheme for a person with 40 earning years in Norway would be between the minimum pension of 13 176 euro and the basic pension plus the maximum supplementary pension which sums up to 34 888 euro.

This implies that the ratio between the maximum and minimum pension is 2.65. Therefore the pension premium paid through the working life entails a considerable forced saving up to the income as retiree. In practice few Norwegians privately think of their annual premium payments as part of their retirement saving even if they receive notice of each year's point score together with the income tax settlement every year. This lack of interest is partly due to the fact that large groups have additional pensions through their employment. For many this pension is constructed so that the effect from the supplementary pension of the National Insurance Scheme is nullified. Another important point is that the calculation from point score to pension is very complicated and has been changed several times. Furthermore, future pensioners have no legal guarantee to prevent changes at some future point in time. Reforms in the system have reduced the role of present income and points earned in determining the income as retiree relative to what was the case when the scheme was initiated.

Based on the income and points earned in the working life a point score for each individual is calculated at the start of the pension life. This gives a right to an initial pension, and this pension is given an annual increase in line with the increase of the basic pension. In the last decade the parliament has made it a rule to increase the basic pension in line with the general wage index. Prior to this there was a reappearing discussion on the "under indexation" of pensions. Thus, the indexation of the last years has been an annual discretionary decision taken by the parliament. The parliament has issued a guideline on the pension adjustments, but there is no legal guarantee attached to it.

The lack of interest in the earning of supplementary pensions Norwegians show personally, does not mean there is little political interest in the question. The trade unions and other organisations follows the issue, but the interest in maintaining the system has mainly concerned the pensions for low income groups. The rules regarding the indexation of the basic amount in the pension system has been a very central question.

2.2 Other supplementary pension schemes

Most Norwegian employees are members of additional supplementary schemes supplied through their employer. The legal status of these schemes differs between the public and the private sector.

The public sector pension schemes cover all those who are employed directly in the public sector as well as those employed in firms (utilities etc.) owned by municipalities, counties and the state. Employees of sub-contractors (bus companies engaged in school transport etc.) are not covered. The pension of the public sector schemes is by law coordinated with the pension from the National Insurance Scheme. These schemes guarantee employees with at least 30 years public service a pension of $\frac{2}{3}$ of the final (i.e. highest) salary they have had in their career plus a quarter of the basic pension of the National Insurance Scheme. The pension is indexed yearly with the same rate as the basic pension. The legal coordination of the pensions implies that any change in the National Insurance pension (positive or negative) is fully compensated with an equivalent change in the pension from the pension provider. Law requires that pension providers in the public sector other than the state pension provider are fully funded. An implication of the legal coordination of pensions is that the public sector employees have little own interest in the developments of the old age pensions from the National Insurance Scheme.

Until July 1, 2006 firms in the private sector were free to decide whether they wanted to have a pension scheme for their employees. Firms could organise their pension scheme through an insurance company, or by organising their own (fully funded) pension provider. The pension schemes may be of a DB or a DC nature. Until recently all such pensions were of the DB type.⁵ Most Norwegian companies had their pension plan. The main exceptions were in the retail trade, hotel and restaurant and in small enterprises. It is estimated that just over 500 000 employees had no supplement to the pension provided through the National Insurance Scheme. More than $\frac{2}{3}$ of them work in enterprises with less than 50 employees. Many of them were women, and many work in low payment jobs.

The occupational pension schemes of the private sector are not legally coordinated with the pension from the National Insurance Scheme. The DB-schemes of the private sector aims at a certain coverage rate (which may be as high as in the public sector). This is converted to a nominal sum, and there is an annual actuarial calculation of the implied necessary fund for each employee. The total annual premium is approximately equal to the difference between the combined necessary fund for all employees and the actual fund adjusted for the guaranteed interest income. The contribution from the employees is a fixed percent of their salary, and the difference has to be made up by the employer. After the start of the pay-out period of the pension, the pensions will be increased if the financial return of the fund exceeds the guaranteed interest. The regulation of the basic pension is an upper limit to this regulation.

There are also some DC schemes in the private sector. Here the total annual premium is a percent of wages both for employers and employees and the accumulated contribution plus the return on the fund forms the basis for the pension. The pension is determined as an annuity, normally with a fixed duration at the time of retirement. The pension from the supplementary scheme is a fixed sum.

⁵ The law setting up the legal framework surrounding DC schemes was passed by parliament in 2000.

Since the private sector pensions are not coordinated with the public pensions, a change in the pension from the National Insurance Scheme will be fully effective for each pensioner under private sector schemes.

In addition to supplementary pensions through employment there of course exists individual private pension plans. These plans are by nature funded, and the providers are life insurance companies. Private pension plans are given preferential tax treatment as explained below.

2.3 Taxation of pension funds and pension incomes

Broadly speaking, the taxation of pension funds and pension incomes are in line with the system in most European countries and in line with the recommendation set out by the European Commission (2001). This means that the contributions to the pension fund paid by the employer and employee are exempted from taxation, the financial return on the fund is exempted from taxation, but the pension when paid out is taxed.

This general rule applies to contributions to the supplementary occupational pensions. For contributions to private pension plans there was an increase in taxation passed by parliament in 2006. It has proved to be highly controversial, and it would not be a surprise if it is revoked.⁶ The contributions to the National Insurance Scheme are levied with the tax, and are viewed as another form of tax even if it through the system for the supplementary pension could be viewed as a saving towards retirement. The legal coordination of pensions for public sector retirees implies that the premium to the National Insurance Scheme is a tax for these groups.

The rules for taxation of personal income from labour incomes and pensions are very similar, but as explained earlier the contribution rates to the National Insurance Scheme is around five percent lower for pension income. Some of the special rules for taxation apply also to survivors and low income disability pensioners.

For the old age pensioners there is also a tax reduction due to age of 2 421 euro for a full year. This reduction start for taxpayers from the month they take out old age pension. Normally this would be at the age of 67, but even those who continue to work will get this tax relief when they turn 70. This tax relief also go to the disabled and may be given (fully or in half) to persons with certain diseases.

⁶ In the national budget for 2007 the government proposes to increase taxation also for similar pension plans paid for by the employers. Such pension plans are only given to high income employees. To maintain the broad backing of the pension reform, it is not unlikely that this tax increase proposal shall be withdrawn.

3. The reform as agreed by parliament in May 2005

The Norwegian parliament agreed on a pension reform in May 2005. The agreement consists of a general support to a reform outline from a government white-paper, and main elements of the reform are broadly based within parliament and amongst stakeholders. This agreement will form the basis for the detailed changes of laws etc. The proposals were not publicly available when this paper was written. They were presented in late October 2006, cf. St.meld. nr. 5 (2006-2007).

For the purposes of this paper the pension reform can be considered as final and binding. The process prior to the compromise will be presented, before the reform elements are explained.

3.1 The process leading to the pension compromise

The changing demographic situation has for a long time been known, and the implications for the pension system have been recognised by experts over a number of years. Consequently, there have in Norway been a number of experts or expert groups – both academic, in the private sector and appointed by the government – who has studied various aspects of population aging and its consequences.

A government appointed committee with members from academia and the social partners finalised their report on the general macro issue of the sustainability of the pension system in July 1998. Their green-papers was published as NOU (1998:10) and titled “*Funding of the National Insurance Scheme*”. The political parties were not directly represented in this committee. The group that prepared this green-paper agreed on the need to reform the pension system to make it sustainable and to improve incentives to stay longer in the work force. However, they had different conclusions as to how useful funding of parts of the National Insurance Scheme would be.

The report contributed to the general understanding of the need for reform, but the government did not produce a white-paper outlining a reformed National Insurance Scheme based on it. In stead, a politically based pension commission with members from all political parties, and a few members from the academia was appointed to work out a green-paper with more detailed proposals. This commission worked in two steps. A preliminary report that outlined the need for reform and some possible reform measures, cf. Pensjonskommisjonen (2002). This report was quite heavily discussed between political parties, the social partners and other interest groups and paved the way for a more intense discussion of the final green-paper, NOU (2004:1).

Based on proposals from the commission and the public debate after the presentation of the report, the Norwegian Government presented a white-paper to the parliament in December 2004, cf. St.meld nr 12 (2004-2005).

The parliament report on the white paper from May 2005 concluded with a broadly based political agreement between the Labour, Conservative, Christian People, Liberal and Centre parties maintaining the proposals from the government. The right wing Progress party and the Socialist Left party did not sign in on the agreement.

3.2 Main elements of the pension compromise

Through the process, the pension compromise is based on the understanding from work of the pension commission, the government and the parliament. The main elements of the compromise are that there will be⁷:

- Basic security in the form of a guaranteed pension. Everyone is guaranteed a pension from the National Insurance Scheme at least equal to the present minimum pension, irrespective of former employment income and own contributions in the form of pension premiums.
- Closer correlation between individual income and pension where proportional pension entitlements shall accrue for all labour incomes up to an upper limit higher than the present. A designated pension premium will provide a clearer correlation between what one pays in and what one receives back, and the more years one works, the higher becomes the compensation ratio.
- Lifelong pension earning with all working years giving rise to pension entitlements. This implies the removal of the present "best earnings years rule" and 40 years rule.
- A more robust pension scheme through a life expectancy adjustment ratio. For a given retirement age, the life expectancy adjustment ratio implies that the annual pension becomes somewhat lower if new cohorts of retirees are expected to live longer. Individuals may compensate for this by working longer. The life expectancy adjustment ratio shall be the same for women and men.
- Indexing according to separate rules prior to and after retirement. During the contribution period, pension entitlements shall be adjusted in line with wage growth. Old age pension payments after retirement shall be adjusted annually by a factor corresponding to the average of wage and price growth.
- More favourable pension entitlements based on unpaid care for own children below school age, and for sick, disabled or elderly people. It is also planned to give retroactive pension entitlements for unpaid care work under the present National Insurance Scheme.
- Flexible retirement age under the National Insurance Scheme from the age of 62. The rules will secure that the sum of pension payments received as a retiree will be about the same irrespective of when one retires. Thus, individuals have to cover the main part of the costs if they opt for early retirement themselves.
- Every year, pension entitlements under the National Insurance Scheme will be credited in a pension account in accordance with the person's employment income and certain types of unpaid care work. The annual pension entitlements will accumulate as a computed pension asset. The account will show how individual pension entitlements develop over time as the result of new entitlements and wage growth. The pension asset will upon retirement be converted into a lifelong benefit by dividing the computed pension asset by the person's life expectancy at that time.
- Everybody will be ensured a guaranteed pension irrespective of previous employment income. The level shall be equal to the present minimum state pension.
- Occupational activity should always pay, and the governmental financial support for supplementary early retirement pension schemes will be reviewed.
- There is now introduced a mandatory supplementary occupational pension scheme with a minimum standard by law.

⁷ The government web-site presentation, <http://www.pensjonsreform.no/english.asp?id=22#m>, has been used in this and the following section.

- It has been stated that the public sector pension schemes should be adapted to a modernised National Insurance Scheme, in order that these occupational pension schemes do not counteract the effects of the pension reform.

The pension compromise also contains some points on the start of the system and overall macroeconomic management of the Norwegian economy. It is said that

- A modernised National Insurance Scheme will be phased in gradually, and it is indicated that 1950 and 1965 shall be the threshold birth years for old / average / new system. The proposals for a life expectancy adjustment ratio, flexible retirement and amended indexing are proposed to enter into effect both for the present and for the new from 2010.
- A government Pension Fund, based on the Government Petroleum Fund and the National Insurance Fund, will be established. The annual budget documents submitted to the Storting will show how the Fund has developed relative to the amount of state pension obligations under the National Insurance Scheme. The parliament asks the Government to continue the work with assessing whether the pension system should have a more independent role in regard to the rest of the state finances, and on how this can be achieved.
- The fiscal rule for the use of petroleum revenues shall continue to be the operative guideline for fiscal policy. The rule is that over the cycle the expected real return shall be used so that the real value of the petroleum reserves is maintained for future generations. It is believed that this rule governing the use of the petroleum revenues secures a long-term, steady and sound phasing of the incomes into the Norwegian economy.

Regarding the second bullet it is made clear that the pensions under the National Insurance Scheme shall continue to be financed over the Fiscal Budget as they fall due for payment (the pay-as-you-go principle). The government argues that a funded solution, which would establish a more direct link between fund capital and pension obligations, could result in very wide annual fluctuations in government expenditure due to changes in terms of oil prices, return on capital and pension obligations.

It is assumed that the long run reduction of expenditures towards the old age pensions under the National Insurance Scheme will be about 20 percent of Mainland Norway GDP in 2050.

Box 1: On the origins of the Government Pension Fund

The National Insurance Scheme Fund was established in 1966 when the National Insurance Act was adopted. The intention was that funds not used to meet current social security expenditure would be set aside in the National Insurance Scheme Fund as a reserve. Since then, far more money has been paid out in social security payments than expected and there have been no transfers to the Fund since the end of the 1970s. Today, the Fund is separate from the National Insurance Scheme, and the capital managed by the Fund has grown from 2.4 billion euro in 1980 to more than 23.8 billion at the end of 2005. This is a result of returns on the capital in the Fund. This capital is not earmarked for any specific purpose.

Most of the capital in the Fund, 58.4 per cent at year end 2005, is invested in government securities.⁸ Capital from the Fund can also be invested in private Norwegian bonds and certificates or as bank deposits. These investments were 15.1 percent. Up to 20 per cent of the total assets can be invested in equity instruments (shares and the like) in enterprises listed on the Norwegian, Swedish, Danish or Finnish stock exchanges. Out of this, one fifth can be invested in Sweden, Denmark and Finland. More than 21.9 per cent of the Fund's capital was invested in shares and primary capital certificates in around 40 enterprises listed on Oslo Stock Exchange. Investments in around 30 enterprises listed on the stock exchanges in Sweden, Denmark and Finland was at the same time 4.5 percent.

The Petroleum Fund was established in 1990, but the first transfer of funds did not take place until 1996. The fund is currently growing rapidly and the value was 126.9 billion euro at year-end 2005. The Ministry of Finance is responsible for the management of the Fund, and has delegated responsibility for the operational management of the Fund's international assets to Norges Bank. The investment universe of the fund has increased over time. At the outset the fund invested in government bonds. In 1998 equity was added to the investment universe, and in 2002 bonds without government guaranties were added. Currently it is discussed whether real estate property shall be proposed as a separate investment class in the fund's investment universe. At present the capital is invested in non-Norwegian financial instruments (bonds, equities, money market instruments and derivatives). Investments are made in 42 developed and emerging equity markets and 31 currencies for fixed income investments. The Fund is managed partly internally and partly by engaged external managers. Ethical guidelines for the fund were established in 2004, and at the same time the advisory council on ethics was appointed.

3.3 The conclusion of the reform

The pension reform in Norway at the present mainly exists as a commitment to a program of reform, with an agreed upon main agenda. It is often said that the devil lies in the details, and most details are not worked out. However, there have been some developments after the parliamentary compromise, and it seems that developments are on track. As explained in the introduction, the political backing of the reform may have increased, and some elements have been finalised.

The new law on compulsory supplementary occupational pension is in effect. All employers were obliged to have occupational pension contracts at work from July 1st, 2006. A vast number of new contracts have been signed and an intense marketing campaign from some new entrants as well as the established large life insurance companies is ongoing. The Government Pension Fund has been established and it has two sections. The Petroleum Fund is now called the Government Pension Fund – Global and the National Insurance Scheme Fund is called the Government Pension Fund – Norway. The management of these funds are unchanged, but in May 2006 the size of the Government Pension Fund – Norway was reduced through a write down of the government debt held by the fund.⁹

⁸ These investments are not in the regular securities markets, but through a special arrangement between the Fund and the Ministry of Finance and imply that the return on the placements are as if the investment was in the real markets.

⁹ The tables in the next section give numbers prior to this change. However, this is a paper exercise and the development has no bearing on the reasoning in this paper. It is therefore not discussed further.

As part of the income settlement between the social partners in the spring of 2006 the new government prolonged the state contribution to the early retirement schemes by a couple of years. There is some disagreement as to whether this prolongation was in line with the pension compromise. In the public sector wage settlement, nothing was said on changes in the public sector employees' pension schemes.

The detailed proposals on the earning of pension rights and rules on the pay-out of pensions were presented in St.meld. nr. 5 (2006-2007) in October 2006. The government has proposed a change the profile of the supplementary pension so that it will be more "fair". The proposal is that all earnings below a threshold shall contribute to increased pensions. There is a guaranteed minimum pension and the initial increase will be at a low rate. For median incomes the rate is higher, and after a lower threshold than today there is no additional pension right earning. Nothing new was reported on funding or on the plan for the introduction of the new system with the birth years 1950 and 1965 as borders between getting pensions according to the old, an average or the new system.

Some participants in the original broad political coalition view the proposed change in taxation of private pension plans and to some supplementary occupational pension plans to be in breach with the original pension compromise. This may weaken the political base for the compromise. The government has maintained that the broad coalition is important, and it has said it is open to negotiations. The final word on the details of the earnings plan and on the taxation of pensions is therefore not said. It seems clear that an understanding will be reached.

4. The reform: Achievements and problems

The agreement on reform promises to deliver a lot of what is necessary to give security for future public pensions in Norway. The pension system will still be generous, and the immediate threats to the viability of the system are dealt with. The main stabilisers of expenditures lie in the double indexation system. It is a considerable political achievement to reach agreement on these measures.

- The first index implies that pensioners only get a part of the general increase of wage incomes after the pension period has started.
- The second implies that the longer life expectancy in itself is no longer a threat neither to the receivers (pensioners) nor the payees (the productive part of the population). However, a reduction of the working population relative to the older population will remain a challenge.

For labour incentives, a stronger and more visible link between premiums paid in and pensions to be paid out have been agreed upon. In addition, a better indexation rule for people still at work than for pensioners improves the incentives to stay in the workforce at old age. These are important achievements. An additional achievement may be at hand if agreement can be reached on an actuarially fair early retirement system. Here, the forces to stop a sensible solution are stronger, and it is not clear if the political compromise shall deliver. A similar concern can be voiced regarding changes in the public employees' occupational pension system.

In some areas more could have been achieved. A concern is whether the politicians will stay loyal to the compromise from 2005 without the disciplining device a funded solution would provide. Here it will be shown that funding of large parts of the pension obligations is possible immediately using the extraordinary fiscal position of the Norwegian government.

4.1 Is immediate funding possible?

The possibility to establish a fully funded pension scheme – which by nature is sustainable – has not been studied fully in the process leading up to the reform. Here it will be shown that it is feasible to establish a fund that takes over a defined part of the obligations of the National Pension Scheme. To serve the purpose fully, it must be organised as a separate legal entity fully outside the general government accounting system. This new entity shall have to account for the notional pension claims that at present are not entered into the government balance sheet. The entity would have to be established with a full balance, and the government balance sheet would have to be fully rewritten. A large claim on the government – at present not entered into the accounts – the pension claims of individuals towards the government, would be reduced to the extent the pension obligations are transferred to the new unit. In the balance sheet of the new pension fund the pension rights of individuals would be the dominant claim, and would have to be given assets adequate to take on the liabilities.

The reduction in pension claims shall depend on the portion of pension claims it is decided to fund. In line with the limited discussion there have been in Norway, my example is to fund the income based supplementary pension and the special obligation towards state employees. This leaves a state responsibility for the basic old age pension and disability pensions etc.¹⁰

¹⁰ The full discussion of sustainable public sector balances also covers responsibilities for hospital and nursing services for a part of the oldest generation. These responsibilities are not discussed.

It is important to realize the size and probable growth of the Government Pension Fund – Global as a start to the discussion of the feasibility of establishing a legally independent pension fund. Historic numbers and projections up to 2011 are given in table 1. The table also includes the government net cash stream (i.e. taxes + returns – investments) in oil activity and the government use of oil incomes in the state budget.

Table 1: Size of Government Pension Fund – Global and GDP. Billion euro⁶.

Year	Fund size ¹	Nominal GDP ²	Fund as per cent of GDP	Net cash stream from oil ^{3,7}	Use of oil incomes ^{3,8}
1996	0,0	123,6		8,4	3,1
1997	5,8	133,7	4,3	10,4	2,7
1998	13,6	136,2	10,0	5,4	2,0
1999	20,7	148,4	13,9	5,4	2,2
2000	27,4	181,1	15,1	19,9	1,2
2001	48,0	189,6	25,3	30,4	0,0
2002	81,7	202,4	40,4	27,4	7,1
2003	76,1	197,0	38,6	21,7	7,8
2004	101,0	205,1	49,2	24,3	9,6
2005	126,4	237,8	53,2	34,4	8,8
2006	173,8	272,0	63,9	45,1	7,4
2007	219,5	267,7 ⁵	82,0	45,6	7,1
2008	272,8	278,4 ⁵	98,0	43,6	10,9
2009	321,9 ⁴	289,5 ⁵	111,2	41,7	12,9
2010	370,0 ⁴	301,1 ⁵	122,9	39,7	14,8
2011	417,1 ⁴	313,1 ⁵	133,2		

Source: ¹ Norges Bank, ² Statistics Norway, ³ Annual National Budgets and ⁴⁻⁷ own calculations.

Own calculations:

⁴ Fund assumed to grow through nominal return of 6 percent plus transfer of the government cash stream as assumed in National Budget 2007 (St.meld nr 1 (2006-2007)).

⁵ Nominal GDP assumed to grow by 4 percent annually.

⁶ The average annual euro-rate of 1999 used for 1996 – 1998. The observed average annual euro-rate used for years 1999 – 2005. Euro-rate 8.00 used for 2006 – 2011.

⁷ 2008 – 2009 linear interpolations.

⁸ 2007 according to proposal. 2008 – 2010 according to fiscal policy guideline.

The Norwegian government regularly presents an estimate of the value of the pension claims towards the National Insurance Scheme. The latest estimate is found in the revised budget for 2006 (St.meld. nr. 2 (2005-2006)). The present value of the total claim is said to be somewhat more than 465 billion euro at year end 2005. Of this sum, the earned supplementary pensions amount to 232 billion out of which the pension above the minimum is 114 billion.¹¹ The government obligation in the pension scheme for state employees is 38 billion euro.¹²

¹¹ In NOU 1998:10 the total pension claims are estimated at year end 1997. The total claims are said to be 281 billion euro, the earned supplementary pension 141 billion and the pensions above the minimum pension 69 billion. I have assumed the same growth rate for all elements in the period 1997 – 2005.

¹² Source: Annual report of Statens Pensjonskasse 2005.

Here a possible avenue for establishing funds of earned supplementary pensions as well as pensions to state employees shall be illustrated. After the initial establishment of the funds, new obligations will be based on premiums paid in, and on the financial return. Through this exercise one would have “privatised” large parts of existing savings for pensions as it will be the responsibility of the new entities.

When claims that in the political debate are considered as real and untouchable claims are eliminated from the government balance sheet, it will be reasonable to review the entire government balance sheet, i.e. to use existing government assets to establish the new legal entities. This raises the question of whether some part of the government obligations should be given another priority than other claims towards the government.

Here, the entire government balance sheet will be taken into consideration in the discussion of further funding of pensions. In addition to the Government Pension Fund – Global and Norway, this implies that the fund can be established through transfer of securities held by the government, one can privatise businesses held by the government, securitise government financial claims towards the private sector and increase government debt.

Table 2 gives an illustration based on the government balance sheet as of Dec. 31, 2005 (St.meld. nr. 3 (2005-2006)) and the estimated market value of pension claims towards the government as explained above. Values from the government balance sheet are in the first column. In the second column market values of the same claims are given (if available), and in the third column the values transferred to the new funds are given. Shares in joint stock companies listed on Oslo Børs are transferred at a market price, but a remaining strategic share of government ownership of 35 percent is assumed.¹³ No new privatisations are assumed, even if some possibilities are indicated.¹⁴ It is assumed that the lending by the state housing bank is refinanced through securitisation, but the financing of lending by the educational bank and the rural development bank is assumed to continue to be from the government. To fund the full opening balance it is assumed that the government issues new loans. With the assumptions used a full funding would require an increase in government debt of 39 billion euro. Adding a conversion from special to normal loans from the National Insurance Scheme Fund of 16.9 billion euro, the total outstanding government debt would be 75.0 billion euro or 31.5 percent of GDP.

The public budget with a fund like this would be entirely different from the situation without the fund. The questions of sustainability would also be different. The government obligation to pay out pensions is reduced, but it has taken on a duty to service new state loans. There are also changes on the income side. The changes will also have consequences for the long-run guideline for use of petroleum incomes.

¹³ Securities are assumed as a basis for the funding. This is not to say that the new pension fund gets a right to or an obligation to take over these securities. The government can sell the securities, and the new fund – which has an asset management entity – can be one of the bidders in open auctions. The fund can draw on its initial account with the government on the day the securities are sold. This way the net liquidity management for the government shall not be large and the new fund has the full responsibility for its opening balance.

¹⁴ SDØE is the government direct involvement in the petroleum activity. Statsbygg build and operate buildings and serve as a building management company for the state. Statnett (network services) and Statkraft (energy supply) are major players in the electricity market of Norway. Avinor runs the airports of Norway, and both the costal and the fisheries administration have considerable business like activities. For most of these activities estimates of market value of the entity does not exist.

It should be mentioned that the choice of pensions to be funded is not the only possibility. It would be feasible to fund all of the minimum pensions whilst the basic pensions remain a governmental responsibility. To establish a larger fund one could use the petroleum revenue of the coming years in combination with further privatisations or securitisations and sale of the blocking minority in the large quoted companies. The forecasted growth of the Government Pension Fund – Global was shown in table 1, and some candidates for privatisation are mentioned in table 2.

As minimum pensions by definition are not fully income based, the annual premium must be a government responsibility and depend on the number of persons living in the country and earning minimum pension rights. The size of the pensions would either have to vary with the financial results of the fund or have the government as a final guarantor. A political advantage of funding the minimum pensions (and not only the income based pensions), would be that all citizens would have a stake in the fund. In addition, an increase in the minimum pensions would have to be funded and politicians wanting to increase it would have to face the entire future bill immediately.

Some of the changes funding would imply for the fiscal policy will be elaborated in section 4.3. There also some longer run implications for monetary policy shall be mentioned.

Table 2: Income based pensions and possible initial fund (Bill. euro)

	Account 2005	Market value	Starting balance
Income based pensions:			
Supplementary pensions			232,4
State employees pension			37,5
Necessary for initial funding			269,9
Government pension Fund			
Global	173,8	174,9	174,9
Norway	1,5	23,9	23,9
Equity			
Statoil	0,5	29,8	15,1
Telenor	1,2	7,6	2,7
Hydro	0,6	9,8	2,0
Cermaq	0,1	0,3	0,1
Yara	0,1	1,7	0,3
DnB NOR	1,4	4,4	0,2
Privatisations			
SDØE	16,1	109,4	
Statsbygg	2,4		
Statnett	0,6		
Statkraft	5,0	14,0 – 19,6	
Avinor	0,9		
Coastal Authority	?		
Fisheries Authority	?		
Securitisations			
State house building bank	11,8	11,8	11,8
State educational bank	10,8	10,9	
State rural development bank	1,5	1,7	
Debt			
Domestic	19,1		
Foreign	0,0		0,0
Necessary new			39,0
Debt in percent of GDP			
	Present: 8,0	New: 16,4	
		Converted: 7,1	New total: 31,5

Source top section:	Revised National Budget (St.meld. nr. 2 (2005-2006)) and own calculations.
Source column I:	The Government Accounts for 2005 (St.meld. nr. 3 (2005-2006))
Source column II:	Column I supplemented with stock exchange prices and annual reports. Statkraft: Lehman Brothers estimate 12.05.2006. SDØE: Wood Mackenzie estimate 29.06.2006.
Source column III:	Own calculations.

4.2 Funding and consequences for monetary policy

A funding of the size considered here raises questions in the short and long run about monetary and fiscal policies. In this section the short run questions of the immediate impact of establishing a fund with its own agenda (i.e. to pay out pensions and to maximize the value of the fund) shall be discussed.

In the Norwegian discussion of funding of the pensions provided by the Norwegian Insurance Scheme it is commonly assumed that the Norwegian regulation and practice regarding private pension funds are most relevant and will be maintained. The pension funds are regulated with fixed maximum portfolio shares and the allowed currency exposure is limited.

If the fund as created above were to be regulated like this it would have too much equity and too much foreign currency exposure in its portfolio. To adhere to such a regulation the fund would have to rebalance its portfolio with a large transfer of funds into the markets denominated in Norwegian crowns immediately after the establishment of the fund. This would be clearly at odds with the Norwegian system for management of the petroleum incomes. The construction of a fund is meant to shelter the Norwegian economy from a large increase in domestic demand which would heat up the economy further and lead to a loss of competitive power for domestic industries competing internationally (the Dutch disease). The consequences of funding would be clearly harmful with behaviour adapted to such a regulation.

An additional point is that that the present regulation of occupational pension schemes is changing. An EU-directive on occupational pensions makes the change necessary. This regulation may apply to a fund for pensions to state employees. However, it does not apply to the regulation of the larger part of the funding considered here. Norwegian authorities may freely choose rules for the portfolio allocation of a supplementary pension fund. Behaviour according to the prudent person principle will be more suitable. When deciding the prudent person behaviour it is relevant to take into consideration that the basic pension shall be provided through a tax based on Norwegian labour incomes, and that a substantial share of the Norwegian consumption bundle consists of imports. Therefore, it will be appropriate to have large investments in equity and in foreign currencies. The discussion therefore will proceed based on an assumption of some kind of prudent person behaviour.

However, a special problem may arise at the time of the establishment of the fund. If a fund is established and there is a substantial need to reallocate between asset classes, problems may arise in capital markets of a size as limited as the Norwegian. In table 3 the asset allocation of the fund as constructed in table 2 is compared with the actual allocation in countries with large national pension funds.

At the bottom of table 3 the portfolio shares of the five EU-countries with the largest funded pensions sectors are given. Three of these countries – U.K., Ireland and the Netherlands – regulate the funds according to the “prudent person” principle, whilst two – Denmark and Sweden – use upper limits to portfolio shares of the asset classes. In comments below the constructed Norwegian fund is compared with the practice from the Netherlands as that is considered most relevant. Both of the countries are small open economies, the demographics are similar, and the national securities markets are not very large and liquid either. The other countries are dissimilar with Norway in different ways. The young Irish population imply smaller funds and a larger share of equity. The U.K. has very large and liquid securities

markets that open for larger domestic investments. Denmark and Sweden regulate with fixed maximum portfolio shares, a technique that in fact prioritise the home market and bond investments.

Table 3: Initial portfolio-allocation for possible fund

	Domestic bonds	Foreign bonds	Domestic equity	Foreign equity	Other	Total
Government pension fund						
Global		100,3		72,1	2,5	174,9
Norway	16,9		5,2	1,1	0,7	23,9
Equity in large enterprises			20,3			20,3
Securitisations	11,8					11,8
Government bonds	39,0					39,0
Total portfolio	67,7	100,3	25,5	73,2	3,2	269,9
Portfolio shares compared with similar foreign funds						Fund as share of GDP
Norway	25,1	37,2	9,5	27,1	1,2	113
The Netherlands	30,4	17,8	14,6	29,3	7,9	162
Ireland	7,9	12,6	18,6	51,9	9,0	43
United Kingdom	8,1	7,9	52,8	23,1	8,1	91
Denmark	50,5	2,9	17,0	20,5	9,1	100
Sweden	41,0	13,0	24,0	16,0	6,0	112

Source:

First group of numbers are based on own calculations and annual report, cf. table 2. In the second group the Norway line is based on the first group of numbers. The other numbers are from the European Commission (2002).

The upper part of table 3 shows the actual allocation of the initial fund from table 2 divided in broad asset classes. The two sections of the Government pension fund give the division of assets in their annual report, but there may be some minor questions regarding the correct classification.

Comparing with the portfolio shares of the Dutch funds, the constructed Norwegian opening balance differs significantly on two points:

- There is too much value placed in foreign bonds and too little in Norwegian equity. To replicate the Dutch portfolio shares the Norwegian funds would have to sell foreign bonds corresponding to around 20 percent of the opening balance and invest in all other investment classes with the largest investments in Norwegian equity and Norwegian bonds. The arguments against such a reallocation are that (i) the Norwegian equity markets are much smaller than the Dutch¹⁵, and (ii) as the Netherlands are part of the euro-zone, the distinction between foreign and domestic bonds has a very different interpretation for Norway and the Netherlands.

¹⁵ According to the EU Integration Monitor the Market Capitalisation of the Dutch equity market stood at 70.5 percent of GDP at year-end 1995. For Norway, it was 29.7 at the time. It has increased to 40.5 percent in 2003.

- The “other” investments in Norway are at present mainly earned, not paid out interest incomes and the working balance in banks. In the Netherlands “other” investments are 5.3 percent real estate and 2.6 percent deposits with banks. For any investment activity of this size a working balance in a bank is necessary in all currencies in all active markets. Funds that collect premiums and pay out pensions shall probably need larger working balances in the bank than what the present Norwegian Government pension funds have. The return on investments in real estate is probably correlated with the return on bond investments. Whether the fund should have real estate as a class of investments can be left to the fund (within the general limits established through a prudent man regulatory approach).

A full replica of the portfolio shares from the Dutch fund would imply increased investments in Norway, funded through sale of foreign bonds. This could be a challenge to the monetary policy and increase the problems with sheltering the Norwegian mainland economy from the effects from the oil industry. As mentioned above the size of the Norwegian equity and bond markets probably may imply that a full replication is not the best strategy, and probably some of the problem would automatically disappear as the funds investments in Norway would lead to a reduction of foreign investments in Norway.

The difference in portfolio shares relative to the Dutch fund points to an important question on appropriate risk profile. The fund constructed here will have its obligations in Norwegian crowns, but will have a very large exposure in foreign currencies. The large foreign exchange exposure will be highlighted through the development of accounting according to the IFRS and with a movement towards a regulatory environment that highlights stress-testing etc like in the solvency II – regime. Two factors that may be viewed to reduce the problem is that investments in equity may be viewed as real investments without specific currency risk, and that the fund will have all future premium incomes in Norwegian crowns and this increases the exposure to crowns. However, the question on the foreign exchange exposure needs to be discussed more.

4.3 Some fiscal policy issues

The creation of a fund as indicated will change the government budget in several ways. Even if the changes are permanent some of the changes are likely to be viewed as most important in the short run, but others are by nature of a longer term. Here some short term consequences will be pointed out and the more long term fiscal policy guideline will be discussed.

The creation of a pension fund will change government incomes and expenditures in several ways. On the one hand the direct pension bill will be reduced. On the other hand the capital income will be reduced and there will be some new capital expenditures. Some of the more important changes are these:

- The government will no longer have the obligation to pay out income based pensions neither through the National Insurance Scheme nor to former employees.
- The tax-income labelled as pension premium shall be reduced according to how much of it is channelled into the pension fund as a premium.
- The government has taken on a duty to service new state lending. The incomes from house-owners servicing their loans in the state housing bank, no longer goes to the government. The net annual increase of the state expenditure through this channel will

be the nominal interest charge of loans amounting to 50.8 billion euro. This is 21.3 percent of GDP, and the servicing cost would be around one percent of GDP.

- The profit from large listed companies with ownership by the state will fall. The value of this equity is 20.3 billion euro (8.5 percent of GDP). Only the paid-out dividend from the equity, including the dividend from the repurchase schemes¹⁶, is entered into the budget.
- The government shall have to pay premiums to the Government employees' pension scheme.

It is not easy to give precise numbers for the effects, but the construction of the fund is balanced. It has been set up with sufficient means to take care of the expenditure stream taken over. The implication should be that the net effect on the public budget of the changes listed here is small.

The government will still be responsible for the larger part of the expenditures through the National Insurance Scheme. The responsibility for the disability pensions and the larger part of the minimum pension remains. The total costs of these schemes are around 70 percent of the government pension obligations¹⁷ so the government pension obligation will still be large.

Another important and long term change regards the income stream to the public from the petroleum activity. This stream remains untouched and shall no longer in part be used to finance supplementary pensions. Since the Government Pension Fund – Global is no longer on the government hands there shall be a need to establish a new guideline for the use of petroleum income.

At present, the guideline is that the expected real return from the fund can be used in the annual budget. The fund grows nominally because only the real return is taken out, and in real terms as the petroleum activity is high and generates net incomes. Sticking to the guideline the fund will continue to grow in real terms as long as oil is taken profitably out of the North Sea and the speed of growth is likely to decline in the years to come as the revenue from the oil activity probably is at its peak presently.

This guideline will have to be reformulated if the present Government Pension Fund – Global is transferred to a legally independent supplementary pension fund. It can be said that in the longer run the guideline stipulates a path for the use of oil income in the ordinary state budget. From an initial value determined by the history, the path depends on petroleum extraction and prices, cost in the petroleum activity and on the realised financial return on the Government Pension Fund – Global. In practice the amount of money that can be spent under the guideline is recalculated annually as realized values of net return from the petroleum activity and the realised financial return is known. It should not be very difficult to maintain this rule for calculation even if the Government Pension Fund – Global in its present form disappears. This can be done by replacing the initial value by a sum of two components. The one will be the value of the old Government Pension Fund – Global at the time it was transferred to the new pension fund (adjusted nominally). The other will be the value of the new petroleum fund that will start to exist at the moment of the legal transfer of the old fund. Even if this is a clear

¹⁶ The large listed companies have an agreement with the government to repurchase and cancel equity with them in the same proportion as done through market operations to leave government ownership unchanged by repurchase programmes. The proceeds from the repurchase operations are entered into the government budget.

¹⁷ This share is estimated in NOU 1998:10.

rule that will produce the same path for use of oil incomes, it will have the disadvantage that it is less intuitive and therefore probably more difficult to uphold.

4.4 Later management, and building up of pension rights.

Above no distinction has been made between the general pension obligations of the government and the special obligation the government has towards its employees. The obligation towards the state employees should be regarded as a normal occupational pension scheme and placed in a normally regulated state employee pension fund. This would place the state as an employer on equal terms with the municipal and private sector, and improve possibilities for comparison and can secure equal competitive conditions between private and public sector service providers. An additional advantage would be that the creation of two new funds would improve the competition in fund management. As the state employee pension scheme already pays out pensions in an organisation separate from the National Insurance Scheme, the pay-out function would not demand any new bureaucracy to be created.

After the initial establishment of a pension fund for the supplementary pensions, the building up of pension rights would for the larger part be based on individual premiums calculated on an actuarial basis. The state responsibility would have at least three aspects:

- To decide on the level of the compulsory premiums and to establish their legal basis.
- To pay for possible pension rights over what is based on individual premiums.
- To establish a prudential regime to safeguard the pension fund.

It is not clear what the level of premiums would have to be to give a supplementary pension of about the same size as at present. A premium of 6 – 8 percent of labour income would probably be sufficient.¹⁸ The present premiums relate to all responsibilities of the National Insurance Scheme. To this end, wage earners pay 7.8 percent directly and 14.1 percent through the employer contribution. The employer contribution varies according to the location of the permanent dwelling of the employee, and 14.1 percent is the maximum rate which applies to most employees. The self-employed pay 10.7 percent of their income from labour. The pensioners' contribution is meant to contribute only to the medical expenses through the scheme and it is 3.0 percent of pension income.

A solution could be to redirect large parts of the premium paid directly by employees and self-employed – at the size determined – from the National Insurance Scheme to the Supplementary Pension Fund. The remaining part of the present premium would then continue to be collected by the National Insurance Scheme to pay for the basic pension and the other elements of the present National Insurance Scheme. In this part the different payment for different groups can be maintained.

If the state wants to give pension rights over and above what there is basis for through the individually paid in premiums, then rules regarding this would have to be decided and the state would have to pay the necessary premiums. Arguments in favour of giving such additional pension right would be to honour socially beneficial activities such as maternity, taking care of care-needing persons at home, national service etc. In addition an argument

¹⁸ In an unpublished commentary note to the preliminary report of the pension commission, a 6 percent annual premium and 2 percent annual real return gave 25-year annuities of about the same size as the proposed supplementary pensions. The note (in Norwegian) is available from the author.

could be a political wish to provide a minimum pension from the supplementary pension scheme which is larger than the basic pension. With the minimum pension dependent on a funded supplementary pension, an increase of it would have to be funded for all future pensioners. This would give rise to an immediate and large payment to the fund, and will probably be an important political disciplining device.

For a fund of the size here discussed, an issue is also if the prudential regime would have to take into account the macro-economic management of the Norwegian economy. An important point is that the fund outlined here has fairly balanced obligations. It will have to start paying out fully earned pensions immediately, and at the same time new pension rights are being built up. The fund shall serve as a buffer, but some growth can be expected due to population and income growth. The major concern regarding management of petroleum incomes in Norway is to avoid overheating of the economy. This problem shall not exist as the paid in premiums are based on labour income. Investing domestically created incomes in Norway does not pose a problem, but the management regime of the fund should not make it necessary or tempting to rebalance the initial portfolio towards domestic investments.

5 Various issues related to the reform and the possible funding

In this section a number of questions regarding the pension reform agreement as described in section 3 are taken up. They cover incentives for work, the viability of the reform and administrative costs, in addition some comments will be given on benefits of funding that have not been fully explained in the Norwegian reform process.

5.1 Income distribution and trustworthy incentives

In the discussion a decision of a pay-out of the “fair” pension has been one issue and the consequence is a bill to be taken up by the sponsor – i.e. the national government. The general public and many politicians do not have a full understanding of the pension system as a vehicle for income distribution over time. With the “over time perspective” the questions of “fair” or “unfair” looks differently. A public DC system would entail compulsory saving in one period of life, and the savings with the accumulated dividend would finance the pensions in another period of life. The pension fund in such a set-up would at all time reflect the pension rights of its members, and in a compulsory system this would be all members of society. The fund would grow or be reduced in line with demographic developments and earned pension rights. With this as a starting point one could discuss the necessary contribution rate to establish a suitable pension. One could also discuss aspects of transition to such a system.

In the debate the central concepts have been to provide a “fair” pension in a “sustainable pension system”. “Fair” in this context, does not mean “actuarially fair”.¹⁹ The premiums are collected as a fixed and equal percentage of labour income (rates differs between employees and self-employed), but the pensions paid out increases less than the actuarially fair rate. The pension premiums therefore contain an element of progressive taxation. The discussion would have had another perspective if income distribution over time for the individual had been brought up as the main perspective.

The “over time” perspective has not been altogether neglected, and has in fact gained priority through the reform. The green-paper prior to the government proposal discusses a moderate reform of the present system and a system where the public pension is limited to an equal basic pension (depending only on the number of years the person had resided in Norway). The basic pension was supposed to be financed through general taxation. The moderate reform proposal was supposed to strengthen the link between premiums paid in and pensions earned (but it was never considered an option to make it actuarially fair). This moderate reform proposal has been chosen, and in the compromise in the parliament in the spring of 2005 it was supposed that all premiums paid in a single year should have an equal value, and that all years with paid in premiums should count.

Income distribution and labour incentive consequences have been discussed in Norway. Keywords have been fairness, real predictability, changes of family patterns and questions regarding the fairness of treating married couples as individuals or a joint consuming unit. The prevailing view is that it is distribution between the citizens. With the view that a pension

¹⁹ In Norway the vast majority agrees that there should be a connection between the pension premiums paid in and the pensions paid out. At present, only the right wing Progress party wants an equal (and generous) pension for all. At the time of the establishment of the National Insurance Scheme, only the two parties that later established the Socialist Left party held this view. At that time many members of the Conservative party also held this view in internal debates.

system may represent income distribution over time for the individual, the discussion on incentives might have been more enlightened. Then even a compulsory premium to the pension scheme might no longer be considered a tax. With funding and actuarially fair building up of pension rights it is no longer certain one would need special efforts to make the older generation stay in the workforce. The pension gains from staying in the workforce have three sources – additional payments of premiums, additional returns on the accumulated fund and shorter period of paying out pensions. With cautious assumptions on the rate of return, the 60-year old would be able to take out at least a 5-6 percent higher yearly pension for every year retirement is postponed. For the government sector the “loss” from early retirement would be limited to the loss of tax income on income from work.

An important element in the incentive schemes is that they have to be trusted. If the active generation do not fully believe in the promises given, the improvement of the work incentives will be reduced. The history of the National Insurance Scheme from 1967 indicates that Norwegian politicians fall for temptations. On several instances there have been improvements of the pensions for the low income groups (to improve the “fairness” of the system). When the need to cut pension expenditures some years later have become clear, it has normally led to a cut in the pensions of the high income groups. The end result is a lower degree of income dependence of pensions relative to income than originally announced. The implication has been that the promised rule which applies to the income based pensions through the National Insurance Scheme cannot be fully trusted. In particular, the high income groups cannot trust the promises given and they shall have to rely on own pension savings to maintain their standard of living as pensioners.

To some extent, this has been accounted for in the reform. The measure is a promise to issue yearly individual pension statements to all members of the National Insurance Scheme. The statements shall explain the pension earned thus far, and projected pensions under some reasonable alternatives for future labour income. The detailed content of these statements is not yet clear. The statement will show the expected future pension so that the savings element of the compulsory pension premium is seen by the individual members more clearly. In addition, it must be expected that the knowledge of what is to be expected makes the political price for making a cut in the pension promise larger. Thus these account statements will have a useful effect. However, the statement will not be a legally binding document. Future pensioners may therefore foresee situations when the promises are not realised and it will be unclear how much they pay in tax and how much they pay as saving for their own pension.

5.2 A viable system

Norway’s enviable economic situation may be a problem in creating a viable pension system. The surplus of official budgets is at present very large, but the incomes from the petroleum activity are probably at its top at present. The volume of oil and gas extraction has peaked. Even with further increases in world market price of petroleum products, the net incomes will fall some time in the not so distant future.

At present, however, it is tempting for the politicians to spend extra on deserved purposes – like more generous minimum pensions to the elderly (who after all built the country – as the political rhetoric would have it). If they increase the minimum pensions, it will immediately reduce the incentives to work to earn a higher pension for the income groups that get a small income based supplementary pension from the National Insurance Scheme. With such a measure, it is also likely that pension cost will be an issue when the economic future does not

look equally bright – be it because of falling oil production, falling oil prices or other negative developments of the terms of trade, or from some other (domestic) economic development. If pension costs are believed to be an issue in such situations, the groups that historically have experienced a cut in their pensions, are the high income groups. This gives a situation where the confidence in the pension promise is at stake, and this will reduce work incentives for the groups with higher incomes.

With the present reform there is not built in any mechanism to curb political temptations. The PAYGO nature of the government budget is constitutional.²⁰ It is hard to imagine another constitutional arrangement, and therefore any completely public pension system has to have a PAYGO nature. Every year is seen as an individual year in the decision on the fiscal budget, and the implication is that the parliament can back down on promises such as pensions. Legal security for the pensions can only be provided by some entity outside the annual government budget. Whether the legal security of some pension scheme outside the government is economically feasible is determined by the nature of the guarantees built into the system, i.e. by the solvency requirements.

Thøgersen et. al. (1998) points out as the outset for their analyses that funding of the public pension gives welfare gains as public sector capital income shall reduce the future tax burden. In addition it is pointed out that additional gains can be achieved by making the funding individual and actuarially fair.

5.3 On the design of funded solutions

In the Norwegian debate little has been said explicitly on the construction of funded solutions apart from stating that in principle a larger part of the government pension obligations ought to be based on funding. As explained this funding is implemented through a renaming of funds that otherwise have no systematic or legal connection to the pensions. With a legally independent pension fund other issues need to be addressed:

- Which regime for fund management gives the best yield, and what additional constraints may there be to the choice of management regime?
- How should fund size and fund yield be linked with pensions (or premiums to be paid in advance)?

Fund management regime

As explained above Norway has traditionally regulated pension funds in the Continental-European style with legal maximum portfolio shares of risky assets and asset classes. There are given maximum shares for equity, bonds with credit risk, and for foreign exchange exposure. There are also limits to individual risks. In the example the regulatory technique used in the Anglo-American area (including the Netherlands) has been assumed. There pension funds are regulated to behave as prudent persons, and it is left to the institution to define precisely what this entails. In this tradition the supervisory authority requires that the

²⁰Under the constitution the parliament cannot commit itself to legally future expenses. This follows straight from article 75: “It devolves upon the Storting: a) to enact and repeal laws; to impose taxes, dues, customs and other public charges, which shall not, however, remain operative beyond 31 December of the succeeding year, unless they are expressly renewed by a new Storting; ...”.

institution can explain what they consider to be prudent person behaviour, and that the rules prescribed are implemented and followed in the daily fund management. This regulatory technique gives the fund manager increased possibility to play on the covariance in returns between various assets. Regulation according to this technique has systematically produced a higher return, without giving reduced safety for the pensions.²¹ Fund management according to the “prudent person principle” typically leads to higher shares of equity in the portfolio, and also to higher foreign exchange exposure than allowed for in the Continental-European technique. The occupational pension directive is currently under implementation in the whole EEA-area²², and in the directive is based on the prudent person principle. When the directive is properly implemented, there will be a transition to this principle. This will change the regulatory technique used for private pension funds in Norway. However, it will probably be possible to use the portfolio share technique for the income based part of a revised publicly organised pension scheme as the directive makes an exemption for national public schemes. As the regulatory system used thus far produces poorer results, this does not seem to be a good idea.

Fund, returns and premiums

If one were to move to a system with more legally based funding, an important issue would be if such a system in reality would have an additional sponsor, i.e. the future taxpayers. If this were to be the case, the government would have to step in if mismanagement or extreme financial volatility and bad luck would render the fund insufficient. If this were to be the case, a future parliament – in a stressed political and economic situation – might decide not to cover the additional bill, and the political risk associated with a reform may be not completely removed – neither for the future pensioners nor for the future tax-payers.

Costs without gains?

In the discussion of funding in Norway, it is frequently argued as if costs of portfolio management are costs without potential gains. In the discussion of funding of the overall pension system, it is argued as if the costs associated with the administration of individual accounts are decisive arguments against funding. The possibility that increased individual responsibility for pension savings may give gains to the individual and efficiency gains for the system at large are rarely mentioned.

Internationally it is frequently argued that capital productivity has to be nourished. Blommestein (2002) maintains that the growth of the funds administered by institutional investors constitute a force in the modernisation of capital markets and in financial innovations. It also leads to increased capital allocated through open markets and more effective pricing and risk allocation. Blommestein maintains that pension funds, due to the duration of their investments, have a particular role to play in the market for risk capital. This will benefit new establishments and new sectors, and is important in restructuring and growth. It is not obvious that these international experiences automatically are valid for Norway, but one may hope that this proves to be a factor as larger parts of the pensions (as the new compulsory occupational pensions) shall become funded.

²¹ This has been documented in Grønvik (2002) where further references are given.

²² The “European Economic Area” consists of EU and the EEA EFTA countries Iceland, Lichtenstein and Norway. A proposal for new secondary legislation meeting the EEA obligations, is currently on a public hearing.

5.4 Rapid or prolonged transition

Above it is shown that a funded pension system – at least for the income based parts of the pension system – can be established immediately in Norway. The fund can be made large enough to take full financial responsibility for all earned supplementary pension rights at present. Future rights will be established through private premiums paid in to the fund. With an immediate introduction of a fully funded pension scheme, there will be no need to have different rules applying to different age groups of the population. A prolonged introduction of a new system – with different systems applying to different age groups – has to imply higher administrative costs than a system where all age groups fall under the same rules. A swift change to a new pension system therefore will be cost effective.

For one large group an immediate transition is legally impossible. This relates to the occupational pensions of the public employees. The pension rights earned cannot be changed. The technique used is to close the old scheme for new employees, and open a new scheme for new employees. To speed up the transition it is possible to link promotions to a requirement to close the old pension scheme membership to be replaced by a membership in the new scheme. As employees staying in their job cannot be forced to close their membership in the old scheme, a long transition period will exist for these groups. As explained previously, the occupational pensions of the public sector employees' are of a DB type and at present they are legally coordinated with the pensions from the National Insurance scheme. In this system the political risk of changes in the National Insurance scheme lies with the employers (the municipalities and the government). The municipal sector pension schemes are funded and a large funding requirement can be induced by changes in the paygo National Insurance Scheme. A similar situation exists for the state employees, but their pension scheme is unfunded. Therefore, the net effect is zero. A change in the paygo National Insurance Scheme induces an exactly opposite change in the obligation of the paygo state employees' pension scheme.

The problems concerning a change of the pension system of the public sector employees is probably an argument in favour of trying to organise a rapid change of the system.

5.5 Does funding represent a higher priority to one generation?

It has been raised as an objection against funding of pensions that it is not legitimate to give some part of the government obligations another priority than other claims towards the government. This deserves both economic and political attention. There are at least two important issues that need clarification in relation to this argument.

The first is whether the statement that funding would be to prioritize one generation relative to other generations is true. It is a fact that earlier generations have contributed to the building of the capital stock of the society and that they as old people have been given means of survival (i.e. pensions) often in kind, but on a pay as you go basis from the younger generation. It is a philosophic question whether this pension should be regarded as a gift from the young generation to the old, or if it should be viewed as the way the old generation consumes (depletes) the capital stock they themselves have built (and the return from this capital stock). If one holds the latter view, it should come to the same to write monetary claims on this capital stock and live off this capital when one gets old. Likewise, if the young generation is fully committed to paying out pensions according to the pension claims that exists according to the common understanding, then it cannot be more of a burden to pay it out immediately (in the form of a fund) partly financed by selling assets and partly by taking up new loans. By this line of reasoning, the essential point is whether the young generation is fully committed to pay out

the pensions according to the common understanding. If this commitment exists, it should not be a problem to use publicly held assets to pay out to rid the public sector from claims. An argument used against a firm commitment on this point, is the need for flexibility if some major crises should occur. A counterargument here is that pensions – like all other incomes – are taxable, and the necessary flexibility can be exercised through changes in the tax system for pensions as well as for all other kinds of income.

The second and more important point is to clarify the various effects funding would have on the economy. The discussion above implicitly assumes funding to be a zero-sum issue for the government and the society as a whole. It is correct that means used for funding cannot be used again. However, the establishment of a fund may create another basis to meet other ends. If the domestic product increases, the possibility to honour other obligations shall increase even if some public assets have been sold off. The most important argument in this context is probably the tax wedges. The funding proposed here, would imply to reduce the premium to the National Insurance Scheme by 6 – 8 percent, and to introduce a premium of the same size to a compulsory pension fund. This pension fund is assumed to operate on an actuarial basis. The premium is then a compulsory saving in a fund and the individually calculated fair share of this fund is to be paid out as pensions. Thus the premium and the fund is a vehicle for transfer of consumption possibilities from one period of life to another.

For the economics of the matter the crucial question is whether the premium to the new fund is seen as a tax to a lesser extent than the present premium to the National Insurance Scheme.

It is fair to say that at present the premium is seen fully as a tax even if it may contain some element of forced saving towards retirement. For people working in the public sector there is no such element as the legal coordination of the occupational pension with the pension from the National Insurance Scheme implies that the premium is nothing but a tax.

In the reform there are some measures that may strengthen the element of forced savings. It is agreed that all members of the National Insurance Scheme shall receive an annual statement that explains the present status of the pension earning for the individual. In addition the budget documents to parliament shall have a section on the development of the fund relative to the state obligations for all pensions. For public sector employees the important point is whether the coordination of pensions shall continue. The government white-paper stipulates a committee to work on this point, and it is far from clear how much can be achieved.²³ One can hope that the full and legal coordination of these pensions are discontinued.

To remove the common understanding that pension premiums are taxes, there must be a general feeling that the pension claims built up will materialise as pensions paid out. The experience from the present system is that the pensions paid out will differ considerably from what was intended at the time of the payment of the premium. At this point in time, it seems probable that the past experience will dominate over the measures to increase the accountability, and that the premium will be considered as a tax even after the reform.

²³The full text of the presentation of the government white paper is: "The civil service pension schemes should be adapted to a modernised National Insurance Scheme, in order that these occupational pension schemes do not counteract the effects of the pension reform. A government-appointed committee, with participation, inter alia, from the social partners, will be mandated to explore a new occupational pension scheme for the public sector. The model to be proposed by the committee shall fall within the same financial limits as the present scheme" (Official translation).

With a solution based on a legally independent fund such as suggested in this paper, the possibility that pensions shall be reduced through political decisions is eliminated. Hence, the premiums are forced savings and it is the forced membership that can make someone behave as if the premiums were taxes. Most people will then probably not view the premiums as taxes and the tax wedges shall be reduced for the majority that are not publicly employed. For employees in the public sector, the question of the coordination of pensions through the new fund and through the occupational pension schemes remains an issue. However, it will be easier to eliminate this coordination when the pensions are not paid out by a government body such as the National Insurance Scheme, and one can be more optimistic on this point with a funded solution for the supplementary pensions. Therefore, it seems reasonable to assume that the tax wedges will be lowest with the funded solution.

Conclusion

To sum up on this point, it is not clear if the “higher priority to one generation” exists as a purely philosophical point. From an economic point of view it is clear that lower tax wedges will imply increased economic efficiency in the economy as a whole. That will imply an increased possibility to deliver the other ends of the public priorities. Thus funding may lead to an improvement of the chances to deliver better public services, by giving security to the pensions and increasing the efficiency of the economy. This may be seen as the real cost of the freedom of action that the Ministry of Finance emphasises so highly at present.

6. Implications for the capital market

Already the pension reform has led to minor changes in the Norwegian securities market. The establishment of a fund as indicated in this paper would represent a major change in all parts of the markets – the debt market, the equity market, the intermediary function etc. Here some likely effects shall be pointed at, it would clearly be impossible to be precise at this point in time.

First, the change in the markets that already can be witnessed relates to the occupational pensions where a minimum standard is legally introduced. Occupational pensions are now mandatory and the contracts have to cover almost all employees.²⁴ At present one can witness a fierce advertisement campaign to get the new contracts signed. All traditional pension providers participate in the campaign, and so does some new entrants. It is estimated that the new contracts will cover more than half a million employees, and that the annual premiums will reach a minimum of 0.4 billion euro in the first full year (2007). As the market value of the Norwegian part of the funds of the existing pension providers was around 37.5 billion euro at year end 2004, these new contracts will not cause a significant change in the markets. However, the premiums are annual and as the funds grow, the new schemes will represent a considerable growth in the institutional investments in Norway. This will increase professionalism in the market, and improve the possibilities for fixed rate lending in Norwegian crowns.

The establishment of a fund to cover the supplementary pensions from the National Insurance Scheme would lead to dramatic changes in Norwegian securities markets.

Changes in the bond markets

Under the assumptions the changes in the bond market would be most dramatic. There would be a very large increase in the outstanding volume of high quality bonds. The initial increase would consist of securitisation of the lending portfolio of the state housing bank (11.8 billion euro), new government loans (39.0 billion euro), and the relabelling of the loans held by the Government pension fund – Norway to become ordinary government bonds (16.9 billion euro). The total would be an issue of new government bonds of 55.8 billion euro in addition to the bonds to be issued by the state housing bank.

At year end 2005, the bulk of the ordinary government debt was in five fixed rate bullet loans that mature every second year from 2007 to 2015. Thus, there is an observable yield curve for Norwegian crowns up to ten years maturity. Each of the loans had an outstanding volume of somewhat below 4 billion euro. Under the funding outlined here, the necessary new debt would be about three times the total volume of the present outstanding government debt (but the total would not be more than 31.5 percent of GDP). It is efficient for a lender to issue large and liquid loans, and the government loans should be increased substantially. With the volume to be issued it would also be useful to issue with longer maturities than what exists at present.

A possibility would be to have eight fixed rate bullet loans each with outstanding volume of slightly less than 10 billion euro so that there would exist an observable yield curve for

²⁴ It applies in to all employees earning above a fairly low minimum annual wage. Some schoolchildren and students working part time in shops etc. shall fall below this threshold.

Norwegian crowns up to sixteen years maturity. Assuming a separate fund for the state employees' pension scheme, these securities will at the outset be held by these two funds in addition to the existing participants in the Norwegian bond market. This should give increased liquidity in longer term instruments, and the concerns recently raised by the IMF, ought to be dealt with through this.²⁵ The IMF-concern reflect views expressed by the life insurance and pension fund industry who express their worry on the possibility to fulfil the obligations under the solvency II regulation which is under preparation.

Changes in the equity markets

Under the proposal the changes in the equity markets would be clearly smaller. The big change for the Oslo Stock exchange came with the partial privatisation and listing of Telenor (2000) and Statoil (2001). The post banking crises listing of DnB (1992) and the later merger to DnB NOR (2003), and the demerger of Yara (2004) out of Hydro has also been beneficial to the equity market. The partial privatisation and listing of Cermaq (2005) has introduced a medium sized company and has also contributed to the market growth.

In the example with funding, the government share of equities would be reduced to 35 percent in the six companies. The companies are already quoted and the government does not have a majority share in four of them. However, the reduction of the government share would be substantial in Statoil (from 70.9 percent) and Telenor (from 54.0 percent). The government does not in practice interfere with the operations of these companies under the present system, and there is little reason to believe in a change in the operation of any of the six companies.

There would be a larger volume of tradable equity in these companies and an increase of liquidity. As some investors are sceptical to companies where governments hold a large stake, it is likely that new investors will take an interest in Statoil and Telenor. This may increase the market value of the companies. Ranked according to market value five of the six companies in question are amongst the largest Norwegian quoted companies.²⁶ It seems clear that an increase in the freely traded equity in these companies will be beneficial not only to them. It will also lead to a general increase of liquidity of the Oslo Stock Exchange and be of general advantage.

Changes in the intermediary industry

As mentioned, there is an increase in activity in the industry due to the introduction of the mandatory occupational pension schemes. The establishment of two large, new pension funds will be a lot more important to the development of the fund management industry in Norway. However, as both of the new funds suggested here will be based on existing organisations, the change will not be dramatic. In addition there will be necessary to "restart" the Norwegian petroleum fund, and that may have larger consequences.

The fund to take over the responsibility for the general supplementary pensions will inherit previous organisation both for collecting premiums, paying out pension and for fund management. The premium collection is at present done by the tax authority and that can continue. The administration of the obligation to pay out supplementary pensions can also

²⁵ IMF (2005) points out that "there appears to be a shortage of longer-term NOK investment opportunities" (p 14.). Also "Further measures to facilitate a deeper domestic capital market would therefore be of benefit for the life insurance and pension sector, as well as from other perspectives". Here it is referred to advantages for domestic corporates to "have a liquid domestic bond market to tap" (p 30.).

²⁶ Based on market values August 3, 2006 the six companies have this rank amongst all (including foreign) companies listed on the Oslo stock exchange: 1 Statoil, 2 Hydro, 3 Telenor, 4 DnB NOR, 9 Yara, 31 Cermaq.

continue. The fund management takes at present place in the Government Pension Fund – Norway and Global. These two funds have a tiny overlap in their interest for Nordic equity other than Norwegian that needs to be sorted out, but can otherwise continue their work. The biggest challenge for the organisation may be to organise the work with bonds denominated in Norwegian crowns. There are probably also some challenges in bridging the activities of premium collection, payment of pensions and fund administration. It shall be necessary to have a liquidity management as well as a risk control unit. In summing up, the establishment of this fund should not lead to any large new organisation.

The state employees' pension fund exists at present, but is for the biggest part financed by the state on a pay as you go basis. The present organisation can continue to pay out pensions and collect premiums even if some premium calculation and collection have to be revised. The fund will have to expand its tiny fund management organisation considerably as only a little part of the obligations is funded. The fund at present is 0.5 billion euro and covers the pensions of the pharmacists.²⁷ As referred to above it is estimated that full funding of the occupational state pensions would require a fund of 37.5 billion euro. The administration of the fund would therefore have to be expanded, but due to economics of scale the expansion need not be dramatic. Also for this fund there would probably have to be a strengthening of risk and liquidity management as a consequence of the reform.

Summing up

It is hard to find changes in the capital market that are not for the better. The most pronounced changes relate to the bond markets and they will be larger and more liquid. As a second round effect this shall probably improve the possibilities to organise fixed rate lending in the market for other lenders than the government. There shall also be more liquidity in equity markets. The expansion of the fund administration and the portfolio management industry following a reform must be assumed to professionalize the industry in Norway.

Referring to arguments quoted in section 5.3, a more professional management industry should contribute to improved capital allocation. This will also be a real gain from a solution for pensions that is based on more funding.

²⁷ Having the pharmacists as members of the occupational pension system for the state is a "left-over" from the system with local government appointed monopolies for pharmacies.

7. Conclusions

In the review of the pension reform in Norway it has been pointed out that important political results have been obtained. Pension expenditures are stabilised through a less favourable indexation of pensions that also takes into account life expectancy. This indexation system will give considerable improvements in the incentives to work at old age. However, a funded solution for supplementary pensions would be more trustworthy and therefore provide an even better solution in this respect. In particular, a funded solution would make it easier to maintain the necessary political discipline.

A real cost of the chosen “real, but not legal funding” is that the tax wedges probably shall remain at their present value. This is the real cost of the fiscal flexibility. As the funded solution will reduce the tax wedges, the use of public sector assets to establish the solution need not lead to a lower priority for other claims towards the public.

The funded solution will lead to a larger growth in the securities markets and the institutional investment sector in Norway than what follows from the pension reform. This will probably give additional gains most importantly it is likely to improve the facilities to take up market loans.

If a solution that is based more on funding were to be chosen, an important public activity would be to set up a regime that safe-guards the fund and promotes value enhancing behaviour. International experience points to the prudent person approach as most relevant in this respect. The additional Norwegian concern to shelter the main-land economy from overheating due to the petroleum incomes, are easier to deal with when the prudent person approach is the underlying regulatory philosophy.

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