



Ismo Risku and Mika Vidlund

Finnish and Norwegian Pension Reform

Implications for Preparing Aged Society

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ABSTRACT

Norway and Finland are expected to face relatively strong pressure in their public finances due to an ageing population and the resulting growing age-related public expenditure. The population of Finland is ageing faster during the next two decades than the rest of the EU member states. Although ageing in Norway is expected to be less pronounced than in Finland and most other OECD countries, Norway has been projected to experience one of the sharpest increases in public expenditures as a share of GDP. In Finland the largest pension reform since the initial years of the scheme has taken effect from the beginning of 2005. Likewise in Norway, the current national pension insurance scheme will in 2010 entail the most comprehensive reform since it was introduced. This paper gives an overview of the structure and functioning of Finnish and Norwegian pension provision. The focus is on major features of the 2005 reform in Finland and the forthcoming 2010 reform in Norway.

Norway and Finland share many similarities in their pension reforms and thus in preparation for ageing society. The recent reform in Finland and the forthcoming reform in Norway should significantly reduce the pressures to increase pension contributions. One of the main factors in this respect is the establishment of the life expectancy based pension adjustment. The idea is to adjust the level of the old age pension to reflect the changes in the longevity. Gains in life-expectancy will affect the benefit levels not pension expenditures. In both countries the average effective retirement age is clearly below the official retirement age. Strengthening the incentives for work has been one of the main principles when countries have renewed their pension schemes. The reforms will bring a closer connection between life time earnings and the pension. Likewise by increasing flexibility and rewarding for later retirement people are encouraged to work longer.

ABSTRAKTI

Norjan ja Suomen julkisen talouden ennustetaan kohtaavan suhteellisen suuria paineita väestön ikääntymisen ja ikääntymiseen liittyvien julkisten menojen kasvun vuoksi. Suomessa väestö ikääntyy nopeammin kuin muissa EU-maissa seuraavan parin vuosikymmenen aikana. Vaikka väestön ikääntymisen ennustetaan Norjassa olevan hitaampaa kuin Suomessa ja useimmissa muissa OECD-maissa, Norjan lakisääteisten eläkemenojen BKT-osuuden kasvu on arvioiden mukaan yksi nopeimmista. Suomessa tuli vuoden 2005 alusta voimaan eläkejärjestelmän suurin uudistus järjestelmän syntyvaiheiden jälkeen. Vastaavasti Norjan nykyinen kansanvakuutusjärjestelmä kohtaa huomattavimman uudistuksen perustamisensa jälkeen. Tämä paperi antaa yleiskuvan Suomen ja Norjan eläkejärjestelmien rakenteesta ja niiden toiminnasta. Päähuomio on vuoden 2005 Suomen uudistuksessa ja Norjan tulevassa vuoden 2010 uudistuksessa.

Norjan ja Suomen eläkeuudistuksissa samoin kuin maiden valmistautumisessa ikääntyvään yhteiskuntaan on löydettävissä monia yhteisiä piirteitä. Suomen viimeaikaisen uudistuksen ja Norjan tulevan eläkeuudistuksen pitäisi vähentää huomattavasti eläkemaksun nousupaineita. Yksi päätekijöistä tämän suhteen on elinajanodotteen huomioiminen eläkkeen määräytymisessä. Ajatus on sovittaa vanhuuseläkkeiden taso vastaamaan elinajanodotteen muutosta. Elinajanodotteen kasvu vaikuttaa etuustasoon, ei eläkemenoon. Molemmissa maissa keskimääräinen todellinen eläkkeelle siirtymisikä on selvästi alle varsinaisen eläkeiän. Työnteon kannustavuuden lisääminen on ollut yksi pääperiaatteista, kun maat ovat uudistaneet eläkejärjestelmiään. Uudistukset lisäävät elinaikaisten ansiotulojen ja eläkkeen välistä yhteyttä. Myös lisäämällä joustavuutta ja palkitsemalla myöhäisemmästä eläkkeelle siirtymisestä kannustetaan ihmisiä työskentelemään pidempään.

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1 Introduction¹

Finland and Norway are both on their way to renew their pension systems. Actually, in Finland the largest pension reform since the initial years of the scheme (1962) has already taken effect from the beginning of 2005. Likewise in Norway, the national pension insurance scheme will entail the most comprehensive reform since it was introduced in 1967. The new pension system should take effect from 2010.

Norway and Finland will face a significant ageing of population over coming decades, thus the need for pension reform is quite similar to the situation in other OECD countries. However, in Finland ageing occurs earlier and is more rapid than in most other OECD countries. Many similarities between these two countries can be found in preparing for ageing society. Both countries are moving towards a more actuarial system neutralizing the effects from further growth in life expectancy. In addition, in both countries the reforms aim to stimulate labor supply. Even though both countries have large pension funds the pension scheme will be based on an intergenerational solidarity contract and the pension systems are to be financed mainly on PAYG-basis.

The purpose of this paper is to give an overview of the structure and functioning of Finnish and Norwegian pension provision. The focus is on major features of the 2005 reform in Finland and the forthcoming 2010 reform in Norway. This paper will describe the main reasons behind the reforms as well as the main goals and changes caused by these reforms in both countries.

The rest of this paper is structured as follows. First, a short economic-demographic overview is given from both countries serving as background information for the reader. After this the forthcoming pension reform in Norway will be presented in section 3. This section will include a short look to the history and a brief description of the current pension system. The main focus is, however, on the 2010 reform. The chapter will concentrate on changes to the old-age pension scheme due to fact that for the other pension arrangements the reform is still under discussion. Thus, an overall picture of all the elements of the reform can not be provided. However, the old age pension of the National Insurance Scheme is the core of the overall pension system, thus providing a basis for all the other pension arrangements. In chapter 4 we shall turn our look to the Finnish pension system and its reform. As the pension reform has already taken effect, a more thorough picture can be given. Finally concluding remarks will be made as well as summarizing the main similarities and differences between Norway and Finland.

1 This paper was originally written for the Korea Institute for Health and Social Affairs (KIHASA) and it was submitted to the KIHASA at the end of November 2007. Thus, all the details concerning the Norwegian pension reform were not known by then. However, some updates have been added into this working paper based on the Norwegian Government's latest proposal (forthcoming bill) which was circulated for hearing on January 2008.

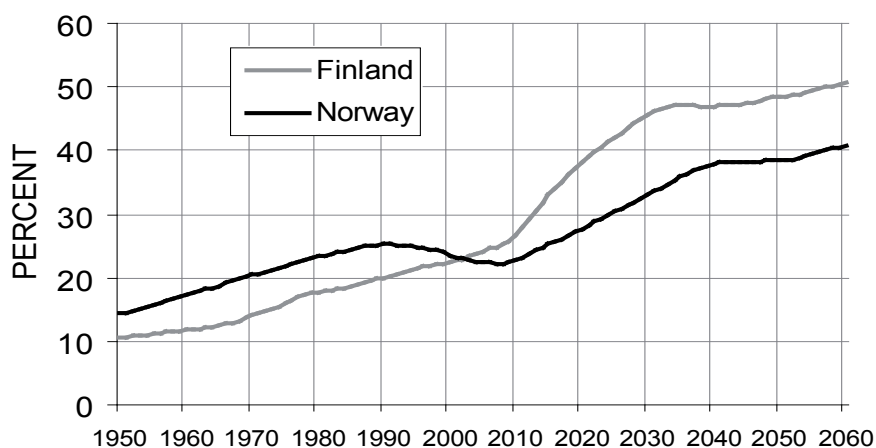
2 Economic-demographic overview of Norway and Finland

2.1 Population

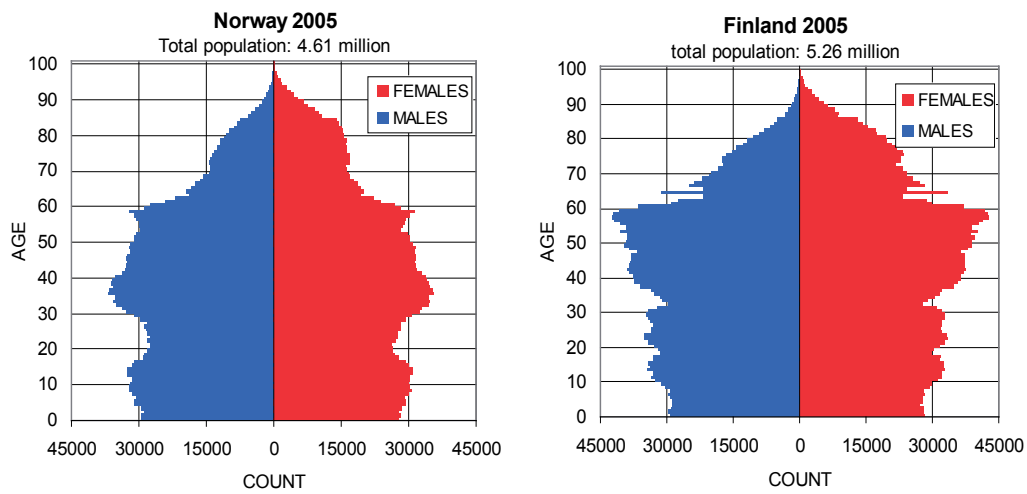
Finland and Norway, like most OECD countries, will experience significant population aging in the next decades. Population aging is particularly fast in Finland. However, current trends imply that in the longer run the rest of the EU will become older than Finland. According to the Eurostat 2005 population forecast old-age dependency ratio (65 + per 15–64 years old) in Finland will rise from 2002 level of 22 per cent to 41 by 2025 and 44 by 2050. The corresponding EU25 figures are 25, 36 and 53 per cent.

Population aging in Norway is milder and comes later than in Finland or in EU25 countries. In fact old age dependency ratio in Norway has been falling from early 1990s and it will still fall (Figure 2.1). To some extent differences in projected old-age dependency ratios are caused by different projection assumptions (Table 2.1). However, differences in the existing population structures are also driving these results. Largest cohorts in Finland are aged between 50 and 60 years whereas in Norway largest cohorts are aged between 30 and 40. Even though the total population in Finland exceeds that of Norway by 14 per cent, number of children aged between 0 and 10 years is slightly smaller in Finland than in Norway (Figure 2.2).

Figure 2.1. Old-age dependency ratios in Norway and Finland, 1950–2060.



Sources: Statistics Norway population statistics and the population projection 2005. Statistic Finland population statistics and the population projection 2007. The Statistics Finland projection ends to year 2040, it is extended in the Finnish Centre for Pensions beyond that year.

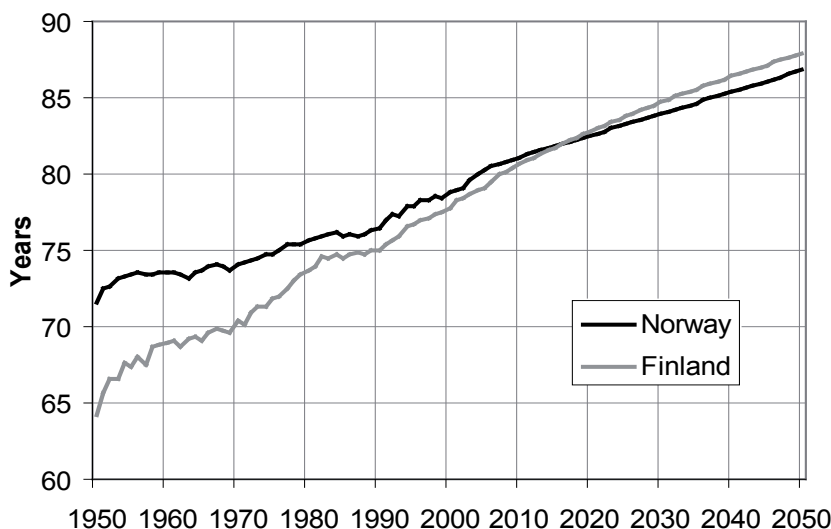
Figure 2.2. Population pyramids, Norway and Finland 2005.

Sources: Statistics Norway and Statistics Finland.

Table 2.1. Overview of the assumptions for the population projections.

	Norway		Finland	
Total Fertility rate	1.8		1.84	
Net immigration per year	16 000		10 000	
Life-expectancy at birth	2002	2050	2002	2050
Men	76.5	84,7	74.9	85.8
Women	81.6	88.9	81.5	89.7

Relatively high fertility is characteristic to both Norway and Finland. Birth rates close to replacement rate and significant net immigration together mean that new birth-cohorts will not decline in their size. Growth in life expectancy is projected to be strong in both countries. At first sight life-expectancy gains may seem exaggerated, at least in Finland. However, these assumptions fit nicely to the observed trend (Figure 2.3). One consequence of these assumptions is that the populations of these two countries will grow until the end of the projection period

Figure 2.3. *Life-expectancy at birth, Norway and Finland 1950-2060.*²

2.2 Macroeconomic trends

Finland

In Finland the total production growth has been strong since deep recession in early 1990s. Between 1995 and 2006 an average growth rate has been close to 4 per cent. Among old EU-countries only Ireland has enjoyed stronger growth rates. Economic growth is expected to cool somewhat in 2008 to about 2½ to 3 per cent. Inflation has also been among the lowest in the EU, with the general government surplus nearing 4 per cent of GDP, a surplus expected to persist in 2007. The budget has benefited from higher-than-expected growth combined with a determined implementation of the government's multi-year spending limits on outlays. The debt ratio has fallen below 50 per cent of GDP (and expected to fall below 40), and the pension systems' assets now approach 70 per cent of GDP.

The labour market has improved markedly since the mid 1990s, with rising participation rates and comparatively strong employment growth. Following the recession of the early 1990s, the unemployment rate reached 16.8 per cent in 1994 and the employment rate fell to a low of 60 per cent. From 1995 onward, the recovery allowed for a reduction in the unemployment rate to current 7 per cent, and a rise of the employment rate close to 70 per cent. The employment rates for, in particular, people aged from 59 to 64 years have increased. This latest employment figure leaves Finland above the OECD average at 65.5 per cent, but well below other Northern European countries. Although Finland has experienced improvement in unemployment and employment rates over the past 15 years, it is now broadly in line with the OECD average.

2 Sources: Human Mortality Database. University of California, Berkeley (USA), and Max Planck Institute for Demographic Research (Germany), available at www.mortality.org and the national population projections 2005 (Norway) and 2007 (Finland).

Especially men lag clearly behind the OECD average, whereas women's participation in the labour market has traditionally been high. (Table 2.2) The total development of the social protection expenditure has been moderate despite the increased demand for pension security and social welfare and health-care services and the high unemployment rate. In 2005–2007, the ratio of social spending to the GDP continued to be 26–27 per cent, which is still below the EU average (for a decomposition of social expenditure in 2005 see Annex 1).

Norway

Growth in the Norwegian economy has been strong for the past three years. Since the summer of 2003, the Norwegian economy has seen a recovery. The gross domestic product (GDP) increased by 2.9 per cent in 2006, while the GDP for “mainland Norway” (excluding income from oil and foreign shipping trade) increased by 4.6 per cent., with mainland GDP expanding by around 4½ per cent annually. The high oil prices, which are a result of vigorous growth in the world economy for several years, have contributed to steep growth in Norway's disposable real income. The strong growth is expected to continue in 2007. Also wage and price inflation have been remarkably subdued. This has been underpinned by the two strong macroeconomic policy pillars of inflation targeting (target of 2½ per cent) and the fiscal guidelines, both adopted in 2001. Fiscal policy has been prudent, and in 2007, for the first time since 2001, the central government non-oil structural deficit is set to meet the target of 4 per cent of the assets of the Government Pension Fund-Global (GPF), in line with the fiscal guidelines.

The large oil and gas revenues, as well as the policy of saving these revenues and investing them abroad through the GPF, have allowed Norway to run large budget surpluses and amass large net government assets. For example, according to IMF (2007) in 2006, the budget surplus of the general government was estimated at 25.9 per cent of its mainland GDP. At the end of 2006, net assets of the general government equaled 150.2 per cent of mainland GDP. The Government Pension Fund was about 121 per cent of mainland GDP (80 per cent of GDP) in 2006. Although the government's net cash flows from petroleum operations are expected to gradually decline, Norway is expected to run large fiscal surpluses for many years to come.

Employment has increased substantially and the unemployment rate is now the lowest in almost 20 years. Norway represents high participation rates for both men and women. The unemployment rate is expected further to decline from an average of 3.4 per cent in 2006 to 2.5 per cent in 2007. Employment is expected to grow by 2.1 per cent in 2007.

The labor market has tightened significantly over the last couple of years. However, the ability to absorb substantial numbers of immigrant workers testifies to its flexibility. The tightening of the labor market contributes to higher wage growth. Based on the wage negotiations concluded so far, wage growth is estimated at 4¾ per cent in 2007. Higher wage growth is expected to lead once again to higher underlying consumer price inflation in 2007.

Table 2.2. Key figures of the Finnish and Norwegian economies, 2005.

	Norway	Finland	OECD
GDP billion, PPPs, US\$, current prices	218.2	162.4	
GDP per capita at PPPs, US\$, current prices	47 207	30 959	30 065
Employment rate, total, % (15–64 years)	75.2	68.0	65.5
- Men	78.3	69.4	75.0
- Women	72.0	66.5	56.1
- 55–64 years old (men and women)	67.6	52.6	52.0
Unemployment rate, %	4.6	8.4	6.6
Total tax revenue, % of GDP	44.0	44.2	35.9
Gross public debt % of GDP	50.6	48.3	76.9
Consumer price index (CPI), change 2004-05,%	1.6	0.7	2.6

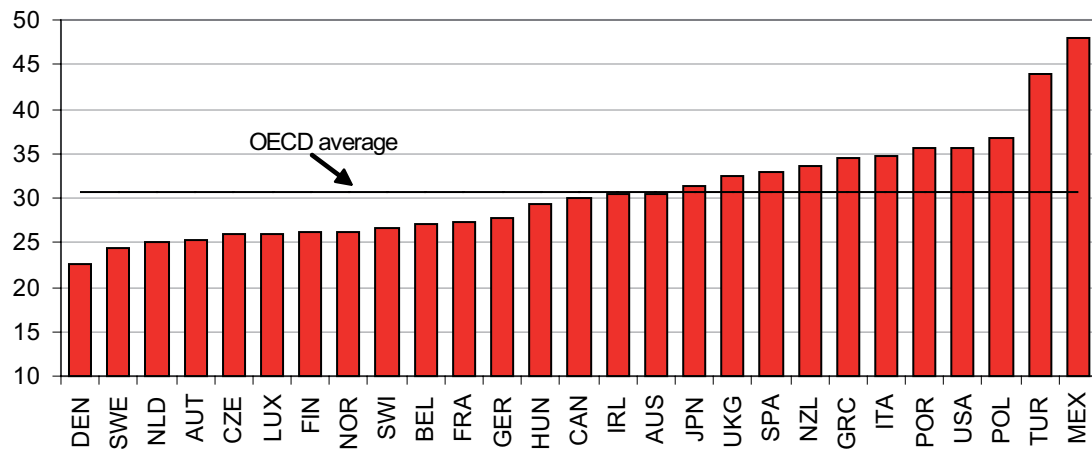
Source: OECD Factbook 2007.

2.3 Income distribution and relative poverty

The basic principles of the Finnish and Norwegian social security system are founded on the Nordic welfare model which is described as comprehensive or universal. One of the main principles is that the statutory social insurance provides insurance cover for all citizens against loss of income or high costs arising from major social risks such as illness, disability, unemployment, accidents, old age, spouse's death or childbirth.

The Nordic model has also proven to be egalitarian. Essentially all benefits are “gender-neutral”, in that women are treated as individuals with needs and rights of their own. In addition general taxation has the effect of redistributing income. Several previous studies have shown that the differences in the income levels are smaller in the Nordic countries than in most of the OECD countries (Figure 2.4). Income distribution in the Nordic countries has also stayed below the OECD average for decades. Even though income inequality has increased since the early 1980s in Norway and especially in Finland, the Gini coefficient is still among the lowest in the OECD area (see Annex 2). Income inequality among the elderly population has tended to be lower than among the population of working age. The distribution of income among the households is very similar in Norway and Finland (see Annex 3).

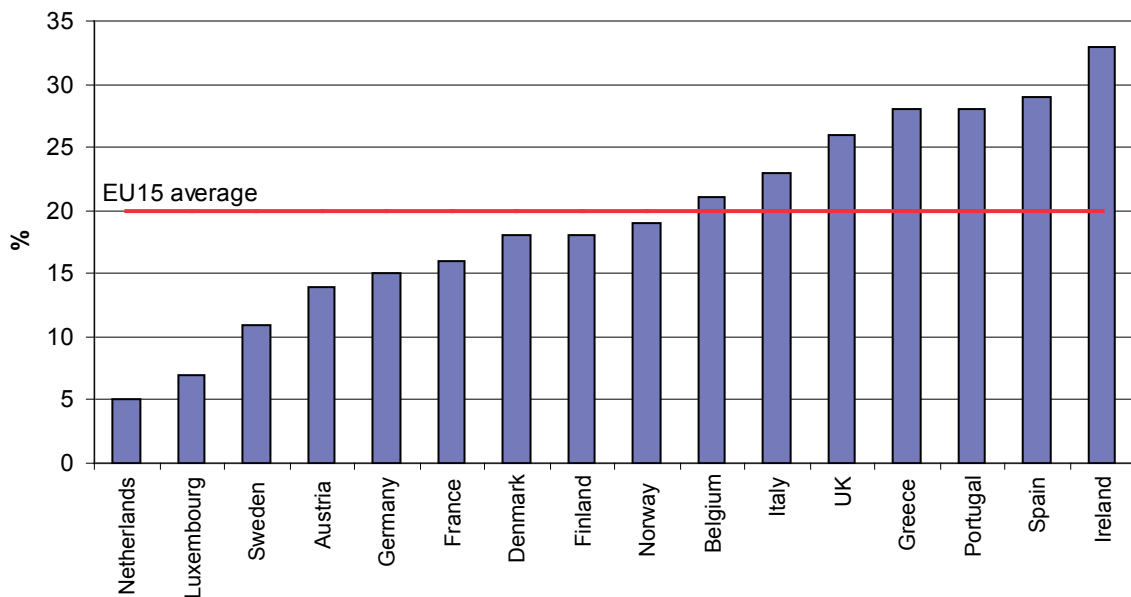
Figure 2.4. Gini coefficients of income concentration in 27 OECD countries, 2000.



Source: OECD.

As a result of the Nordic countries’ universal, redistributive social insurance systems, poverty rates are among the lowest in comparison to EU-15 or OECD countries. In the following (Figure 2.5) at-risk-of-poverty rate comparison has been made for persons aged 65 years and over in EU-15 countries and Norway. As can be seen Finland and Norway look very similar standing side by side below the EU-15 average.

Figure 2.5. The share of persons (65 years and over), in EU-15 countries and Norway, with an equivalised disposable income below the risk-of-poverty threshold, which is set at 60% of the national median equivalised disposable income (after social transfers), 2005.



Source: Eurostat.

Similarities and dissimilarities in living conditions across countries come more into focus when the situation of different household types is examined. Table 2.3 shows the ratio of the population living in households with an income of less than 50 and 60 per cent of the median equivalent disposable income in 2004. The use of two different kinds of thresholds provides an indication of the number of people with incomes just above or below the chosen threshold. In both countries the poverty risk of the elderly clearly increases when the threshold is set at 60 per cent. Once again these two countries look very similar. The poverty risk is highest among those living alone. Especially single people over 65 have a higher poverty risk than others in both countries. The results support the fact that relative income poverty among the elderly tends to be concentrated among the very old and those living alone. These features concern especially women as they live longer than men and they have not been able to accrue a sufficient earnings-related pension. Otherwise, the relative risk of poverty for the elderly is very close to all the other households.

Table 2.3. *Proportion of the population living in households with an income of less than 50 and 60 per cent of the median equivalent disposable income, per cent, 2004.*

	Finland		Norway	
	50%	60%	50%	60%
Single childless people under 65/67 years	15.4	26.9	19.1	25.2
Single providers	6.3	20.3	10.0	18.7
Childless couples under 65/67 years	2.8	5.3	2.3	4.0
Couples with children	3.1	7.9	2.8	5.7
Single people over 65/67 years	11.5	36.0	10.5	37.1
Couples, where one or both partners are over 65/67 years	2.5	8.6	0.7	5.0
All households	5.1	11.7	6.0	11.0

Source: Nososco 2007.

In both countries the most important long-term fiscal challenge is posed by the effects of population aging, expected to begin in the next decade. In both countries the reforms, once implemented, promise improved work incentives likewise long-term pension savings. In the following these will be discussed more thoroughly.

3 Pension schemes in Norway

3.1 Important years in the National Pension Insurance Scheme

The Norwegian pension system has remained quite intact since the introduction of the national pension insurance scheme. The national pension insurance scheme secures an income in the event of old age, incapacity for work and death of the family breadwinner. The scheme is administered by NAV, the Norwegian Labour and Welfare Organisation, which was established on July 1, 2006. NAV is a merger of three former organizations: the National Insurance organisation (state), the National Employment Service (state) and The Social Welfare System (municipal).

The old age pension insurance scheme was introduced in 1936 with the retirement age of 70 years. The pension was means tested and paid to poor. The means testing was removed in 1957 and the old age pension was paid as an equal amount to all. The current National Pension Insurance Scheme³ was established in 1967 introducing a basic pension to all pensioners, and a new element – the employment based supplementary pension, which is paid in addition to the basic pension. The supplementary pension is earnings-related whereas the residence-based basic pension provides a flat-rate minimum income. In 1969 an income test was once again incorporated in the national pension scheme in the form of special supplement for pensioners who have no, or only small earnings-related supplementary pension.

Disability pensions date back to 1936 as temporary measures were introduced to provide assistance to the blind and disabled, but these were replaced in 1960 by a general disability insurance scheme which in turn became part of the National Insurance Scheme in 1967. Likewise, survivors' benefits were made part of the National Insurance Scheme of 1967, replacing earlier allowances for surviving children from 1957 and widows' allowances from 1964.

Later on main changes have been made to the retirement age and to determining factors of the earnings-related pension especially by changing the earnings limits upon which the pension is calculated. Under the National Pension Insurance Scheme pensions are determined in relation to the basic amount (B.a). For example, a full basic pension equals 100 per cent of the B.a. and a full special supplement is 79.33 per cent of the B.a. The basic amount is adjusted by Parliament each year, in accordance with changes in the general income level. The adjustment takes place 1 May each year. The B.a. is 8,352 euros (NOK 66,812) per 1 May 2007⁴. In calculation of earnings-related supplementary pension (so called pension points) the average B.a. is used and its value per 1 May 2007 is 8 190 euros (NOK 65 505).

3 The National Insurance Act came into force on 1 January 1967. Currently benefits from the National Insurance Scheme are granted according to an act of 28 February 1997.

4 Exchange rate used: 1 Norwegian krone (NOK) = 0,125 euros (average rate August 2007).

The ceiling for pensionable earnings and for earnings from which contributions are collected was at first set at 8 times the B.a. In 1970 the ceiling was raised to 12 B.a. However, only income up to 8 B.a. was credited at full rate and income between 8 B.a. and 12 B.a. at 1/3. Pension contributions were collected at full rate up to the ceiling. In 1986 this ceiling for national insurance contributions was erased, so that nowadays contributions are also paid from incomes that do not give any pension right. In 1992 the benefit level was reduced so that the bending point was lowered from 8 B.a. to 6 B.a. and income between 6 B.a. and 12 B.a. was credited at 1/3. Also the supplementary pension per centage (wage-benefit ratio) was lowered from 45 per cent to its current 42 per cent level. On the other hand, pension accruals granted in the case of unpaid care was introduced. In 1998 the special supplement was raised from 63.2 per cent up to current 79.33 per cent of the B.a. Originally (in 1969) it was set at 7.5% B.a.

The retirement age was reduced from 70 to current 67 in 1973. The retirement age was made flexible in that sense that it is possible for the insured person to continue at work and accrue a pension until the age of 70. However, the pension is reduced (40 per cent of the exceeding income) if the earnings exceed a determined limit (2 B.a. in 2007) in the period between the age of 67 and the age of 70. It is not possible to draw old-age pension from the National Pension Insurance Scheme before the general retirement age, except for certain categories of insured persons⁵. However, other pension schemes make retirement possible several years earlier.

3.2 Description of the current pension scheme

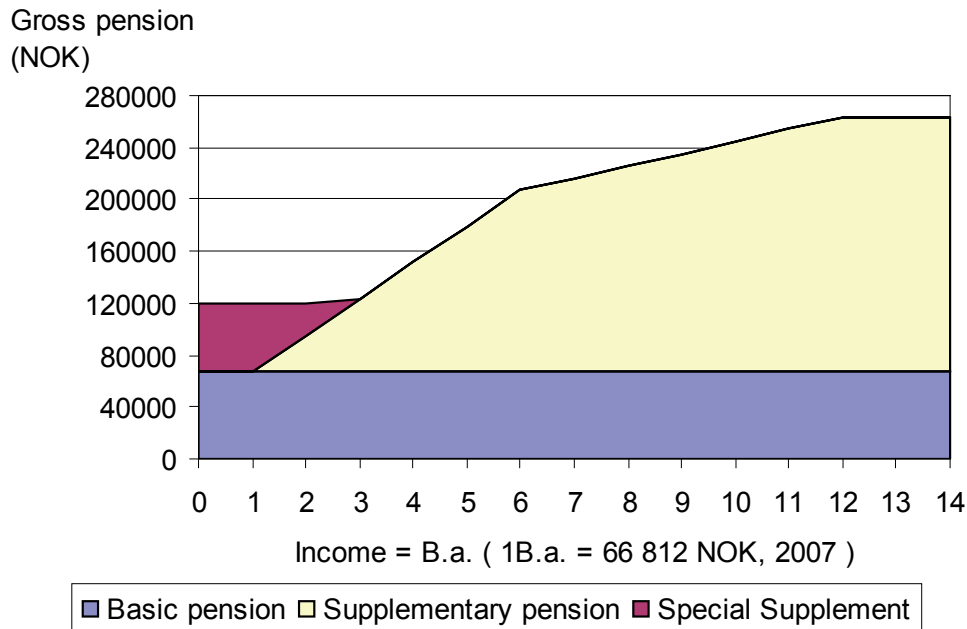
Today, every insured person is guaranteed a minimum old-age pension, which consists of the aforementioned basic pension and a special supplement. The minimum old-age pension is independent of previous income and contributions paid. A full pension is paid if the insurance period (residence) is at least 40 years. If the insurance period is shorter the pension will be proportionally reduced. For a single pensioner the full minimum old-age pension is 1,250 euros (NOK 9,985) a month per 1 May 2007. The special supplement is reduced by 100 per cent of the earnings-related supplementary pension. In addition a pensioner may receive possible supplements (income-tested) for children and spouse.

The amount of the supplementary pension depends on the number of pension-earning years and the yearly pension points. A full supplementary pension requires as a general rule 40 years of accrual. Otherwise the pension is reduced proportionally. A full annual supplementary pension is 42 per cent of the amount which appears when the current B.a. is multiplied by the average pension point for the person's twenty best income years (final pension point). The maximum of pension points, which could be credited for any one year before 1992, was 8.33. For earnings from year 1992 on, the maximal pension point is 7. Example of pension calculation can

5 There are pension schemes that are adapted to the National Insurance Scheme and they function as special early retirement schemes for people under the age of 67. Pension insurance for seamen was introduced in 1949. The retirement age for seamen is 60. Pension insurance schemes for forestry workers and fishermen were introduced in 1952 and 1958 respectively. The retirement age is 63 for forestry workers and 62 for fishermen. The scheme for forestry workers ceased to exist as per 31 December 2005.

be found in Annex 4. Figure 3.1 shows the pension recipient's statutory pension consisting of the minimum pension and the earnings-related pension.

Figure 3.1. Basic structure of the Norwegian statutory pension.



The number of old age pensioners at the end of 2006 was 634,216 (see also Annex 6). The number of pensioners who receive the special supplement is declining, 184,123 pensioners (29%) received the supplement at the end of 2006. About 88% of these were women (161 434). Supplementary pension was received by 580,784 pensioners (91.6%). (NAV.)

The average old-age pension was about 1 516 euros per month (NOK 12,131) at the end of 2006. Average old-age pension for men was 1,800 euros (NOK 14,419) and for women 1,310 euros (NOK 10,478) per month. (NAV.) The average wage was 3 945 euros per month (NOK 31,565) in 2006; for men 4,130 euros (NOK 33,060) and 3,590 euros (NOK 28,707) for women (Statistics Norway). Large differences in the benefits payable to men and women can be seen to be due to a larger accumulation of earnings-related pension for men.

Financing

The national pension scheme is a PAYG system and is financed by contributions from employees, self-employed persons and employers and financial support from the State. Norway also has a large pension fund, which is fully integrated into the state budget (see below for further information).

The contribution rates and the level of state grants are decided upon by Parliament. In addition to pensions the following contributions finance the whole National Insurance Scheme. The pension reform should establish a separate pension premium to make old-age pension saving more visible. This is now under consideration by the Government. The pension commission

proposal for the pension premium was about 17 ½ per cent corresponding to an accrual rate of pension credits 1.25 per cent for each year of employment at today's life expectancy and retirement at the age of 67.

At the moment the social insurance contribution rate for employees is 7.8% of pensionable income (gross wage income). The rate of a self-employed person's contribution is 10.7% of pensionable income⁶ (income from self-employment). The contribution rate for other kinds of personal income (pensions etc.) is 3.0%.

The employer's contribution is assessed as a per centage of paid-out wages. The contributions are differentiated according to the regional zone in which the employees reside. There are seven regional zones reflecting inter alia the level of economic development. The employer's contributions are 14.1% (zones I and I a), 10.6% (I a and II), 6.4% (III), 5.1% (IV), 7.9% (IV a) and 0% (V) according to the zone.

Government Pension Fund

The origin of the Government Pension Fund can be traced back to 1990 when the Norwegian Government Petroleum Fund was formally established. However, the fund mechanism entails that money will only be allocated to the fund when there is a budget surplus. In the first half of the 1990s there were budget deficits due to the strong recession. Only in 1995 was the budget back in surplus, and the first transfer from the state budget to the Petroleum Fund was made in 1996 for fiscal year 1995. After that the Fund has grown strongly.

In order to strengthen the public's sense of ownership of the Fund and make it easier to accumulate financial assets for the state, the Norwegian Parliament adopted the Act relating to the Government Pension Fund in 2005 and establishment in 2006. The name change underlines the aim of the Fund to support savings for financing future pension payments. The pension system under the National Insurance Scheme will, however, remain financed over government budgets on an ongoing basis ("pay-as-you-go").

The Government Pension Fund consists of two parts: "The Government Pension Fund – Global", which is a continuation of the Petroleum Fund, and "The Government Pension Fund – Norway", which was previously known as the National Insurance Scheme Fund (Folketrygdfondet). The Ministry of Finance is responsible for the management of the Government Pension Fund. The operational management of the Pension Fund – Global is carried out by the Central Bank (Norges Bank), which invests the fund's capital in bonds and equities outside Norway in accordance with guidelines issued by the Ministry. Equities account for 60% of the Fund's strategic benchmark portfolio, consisting of equities listed on exchanges in Europe (50%), America/Africa (35%) and Asia/Oceania (5%). Fixed income instruments account for 40% of the portfolio, consisting of fixed instruments issued in currencies from Europe (60%), America/Africa (35%) and Asia/Oceania (5%). At the moment actual benchmark portfolio somewhat differs as the equity portion is being gradually increased from 40 to 60 per cent fol-

6 For certain categories of self-employed persons (fishing, forestry, agriculture) the contribution rate is 7.8%.

lowing the guidelines of Report No. 24 (2006–2007) presented to the Parliament on 13 April, 2007 (Ministry of Finance 2007).

The operational management of the Pension Fund – Norway is carried out by Folketrygd-fondet and it is primarily invested domestically. Equities account for 60% of Fund's portfolio, consisting of equities invested in Norway (85%) and in Denmark, Finland and Sweden (15%). Fixed income instruments account for 40% of the portfolio with the same portfolio as for equities.

The Government Pension Fund-Global consists of petroleum revenues whereas the basic capital of Government Pension Fund-Norway originates primarily from surpluses in the national insurance accounts from the introduction of the National Insurance Scheme. The market value of the Government Pension Fund-Global at 31 December 2006 was 223 euros (NOK 1,783.7) billion (NOK 1,966.6 billion at 31 August 2007), about 114% of mainland GDP⁷ (i.e. excluding petroleum activities). (Norges Bank 2007.) The market value of the Government Pension Fund-Norway was 13.6 euros (NOK 109.1) billion i.e. about 7% of mainland GDP.

The fund is created to meet the rapid rise in public pension expenditures in the coming years. Still, the fund is not earmarked for pension expenditures. The outflow from the fund is the sum needed to cover the non-oil budget deficits. This also means that net allocations to the fund reflect the total budget surplus. Fiscal policy, which regulates the outflow from the fund, is anchored in the guideline that over time the structural, non-oil budget deficit shall correspond to the real return on the fund, estimated at 4%. Thus, in a way real return can be seen to provide a partial pre-funding of pension liabilities. Operation of the Pension Fund is further discussed in chapter 3.5.1.

3.3 AFP- collectively bargained early retirement scheme

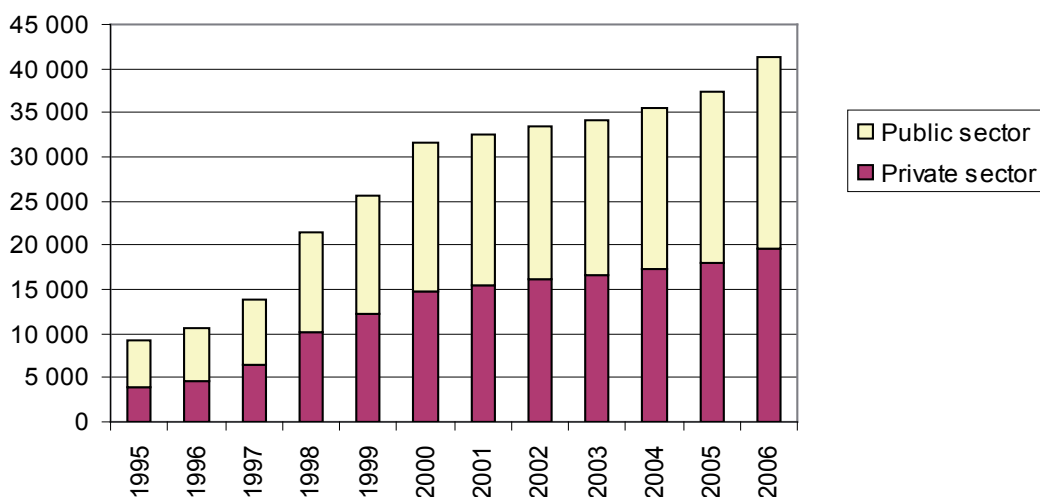
In addition to the national pension scheme a large share, about 60%, of the working population is covered by the AFP-arrangement, an early retirement scheme which was introduced through the 1988 collective negotiations, and extended in later bargaining rounds during the 1990s⁸. People covered by the AFP-scheme can retire at the age of 62 years with little or no reduction in the pension amount (compared to the amount the person would receive if retired at the age of 67 years). The rationale behind the establishment was not to allow for a combination of work and pension, but to relieve older employees who for health reasons wanted to retire earlier than the general retirement age of 67. At the time the retirement age was set at 66 years, but has later been reduced on several occasions; to 65 in 1990, 64 in 1992, 63 in 1997, and finally 62 in 1998. It was not until 1997 that the introduction of the so-called 'partial pension' opportunity enabled employees to combine pension with paid employment in the AFP. On several occasions the scheme has been criticised for being too generous in the meaning that

7 Mainland GDP (2006): NOK 1 563 243 million ; GDP (2006, total): NOK 2 151 670 million (Statistics Norway).

8 The AFP was first introduced in 1988 by means of an agreement between the Norwegian Confederation of Trade Unions (Landsorganisasjonen i Norge, LO) and the Confederation of Norwegian Business and Industry (Næringslivets Hovedorganisasjon, NHO).

too many people leave early and that many of the employees who leave could have stayed in employment longer. The number of pensioners has risen and at the moment there are over 40,000 AFP-pensioners (figure 3.2). Both the employers' organisations and the Government have argued that the scheme should be revised (or abolished). The trade unions and in particular the Norwegian Trade Union Confederation (LO) have strongly defended the scheme.

Figure 3.2. Number of AFP-pensioners in 1995–2006.



Source: NAV.

3.4 Occupational pension schemes

In the public sector, occupational pensions have existed for many years. Pension arrangements for state employees and The Norwegian Public Service Pension Fund were established by law in 1917 and cover all central government employees. During the years after the Second World War, occupational pensions were gradually introduced both in the municipal and the private sector. The Municipal Insurance Company was established in 1949 and administers almost all the special pension schemes for local government employees. Practically also all municipal employees are covered by occupational pensions. In the public sector extensive coordination rules exist governing the relationship between public sector pension schemes and the National Insurance Scheme. E.g. civil service pension scheme guarantees employees 66 per cent of their wage level at the time of retirement (regardless of changes in the level of the national pension insurance scheme) after 30 years of service.

Coverage of occupational pensions was unequal before the Act relating to mandatory occupational pensions entered into force on 2006. Before this, approximately 40% of the employees were covered by occupational pension schemes in the private sector.

In the private sector the great majority of the occupational schemes are company specific and mainly defined benefit schemes. Up to 2000, only defined benefit schemes were given the

special taxation treatment, which is the reason why so few defined contribution schemes were developed in Norway. From 2001, the Act on Defined Contribution Occupational Pensions has regulated defined contribution plans⁹. The new regulations provided tax allowances also for companies with DC-plans.

Based on the white paper regarding the future pension system in Norway (St. meld. nr 12 (2004–2005)), the Storting decided 26 May 2005 that legislation regarding mandatory occupational pension should enter into force from 1 January 2006. The 2006 Act relating to mandatory occupational pensions means that most employers must either have a DC or a DB pension scheme for their employees. Employers who already have an occupational pension scheme must ensure that the scheme satisfies the Act's minimum requirements. The Act does not apply to employers who have a pension scheme in accordance with legislation or collective agreements that apply to state or local authority employees.

Employers will pay contributions into the scheme every year and the contribution must be at least 2 per cent of the employees' earnings between 1 B.a. and 12 B.a. in a DC-scheme. A corresponding requirement applies to DB schemes. In addition to the contribution, the pension scheme shall also contain an insurance element that ensures that employees continue to accrue pension entitlements in the event of disability. It is permitted to exclude employees under the age of 20 and those in part-time employment of less than 20 per cent of a full-time position from the pension scheme. Employees may be required to also contribute to their own pensions, but such contributions will not reduce the minimum requirement for employers' contributions. The main rule is that pensions shall be paid for at least 10 years from the age of 67 years.

3.5 The 2010 pension reform

3.5.1 Challenges facing the pension system

The most important long-term fiscal challenge is posed by the effects of population ageing. The ageing of the population is caused by the fact that pensioners live longer than previous generations. In addition the share of the working age population is shrinking due to declining birth rates.

The latest population projections from Statistics Norway, which were used in the Pension Commission's work, estimate that the remaining life expectancy for a 67-year old will increase from about 17 years today to 22 years in 2050. It was 14 years in 1973 when the retirement age was lowered to 67. The share of the population 65 years and older is projected to almost double towards 2050 as a share of the working population, from slightly more than 22 per cent today, to approximately 40 per cent in 2050.

It is estimated that expenditure on old-age, disability and dependents' pensions within the National Insurance Scheme increases from 9 per cent of mainland Norway GDP at present to almost 20 per cent in 2050 under a continuation of the current pension system. This is

⁹ The new Act relating to defined-benefit pension plans also took effect on 1 January 2001. The regulation of occupational pension schemes was previously covered by the Act relating to taxation on property and income..

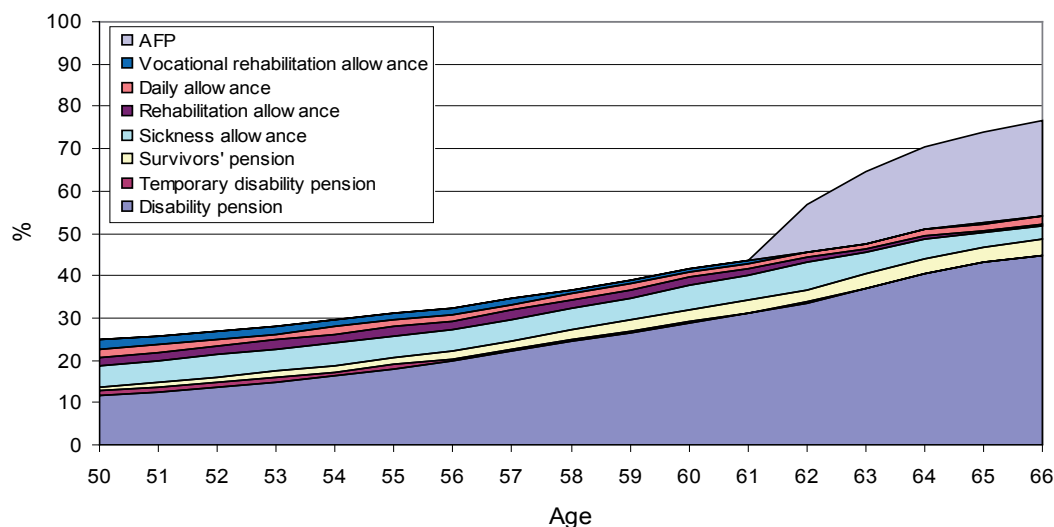
mainly caused by expenditure on old-age pension which is estimated to increase from 6 to about 15 per cent of mainland Norway GDP. (St.meld. nr. 5 (2006–2007.)) This is a significant increase and well above the average when compared to other OECD-countries (see Bellone and Bibbee 2006).

In addition to growing financial burden there are a number of other, so called system-related challenges in Norwegian pension system that have become more evident over the almost 40 years that have passed since the introduction of the current pension system. The main challenges relate to:

- Poor correlation between the overall career income and the pension.
- Uneven possibility for flexible retirement as it is not possible to draw old-age pension under the statutory pension system before the age of 67. Early retirement for non-health related causes is today only available for those who have access to pension schemes outside the National Insurance Scheme, such as the AFP or occupational pension schemes with special retirement ages.
- Lack of incentives to remain at work after the age of 62 as the AFP-scheme is designed to give the same pension at the age of 62 as if one had remained working until reaching the age of 67.
- The civil service pension guarantee a total pension benefit (66%). This implies that government employees are sheltered against changes to the statutory pension system. In addition, as long as private and government pension schemes differ, this may to some extent prevent mobility between the private and the public sector.

Despite Norway's relatively high statutory retirement age a key problem over the past decade has been the fall in the effective retirement age (see Annex 5). Consequently, even though Norway boasts the highest OECD employment ratios for older workers (aged 55 to 64), employment rates fall sharply with age, particularly from age 62. This kind of development can largely be seen to be encouraged by the AFP-scheme. The effect of the AFP-scheme can be seen from the following figure describing the pathways to early retirement in Norway.

Figure 3.3. Share of population aged 50 to 66 on different kind of “early retirement” benefits, 2005.



Source: White paper. St.meld. nr. 5 (2006–2007).

Limited petroleum wealth

The petroleum revenues place Norway in a more favourable financial position than most other countries when it comes to dealing with the growth in pension expenditure. Projections presented in the Norwegian Government’s white paper indicate that the Pension Fund will grow to 195 per cent of mainland GDP at the end of 2010. Given the present guidelines for fiscal policy, the Fund is expected to reach a level of around 250 per cent of mainland GDP by the year 2020, before starting to gradually decline.

However, as can be seen (Figure 3.4) the accrued pension liabilities substantially exceed the assets of the Government Pension Fund. According to the Ministry of Finance the value of the old age pensions accrued was about 480 euros (NOK 3,874) billion at the beginning of 2006 and the amount of pension assets approximately 236 euros (NOK 1,890) billion. Thus, about 49 per cent of the accrued old age pensions were funded in advance. In 2007 the corresponding ratio has risen almost to 55 per cent.

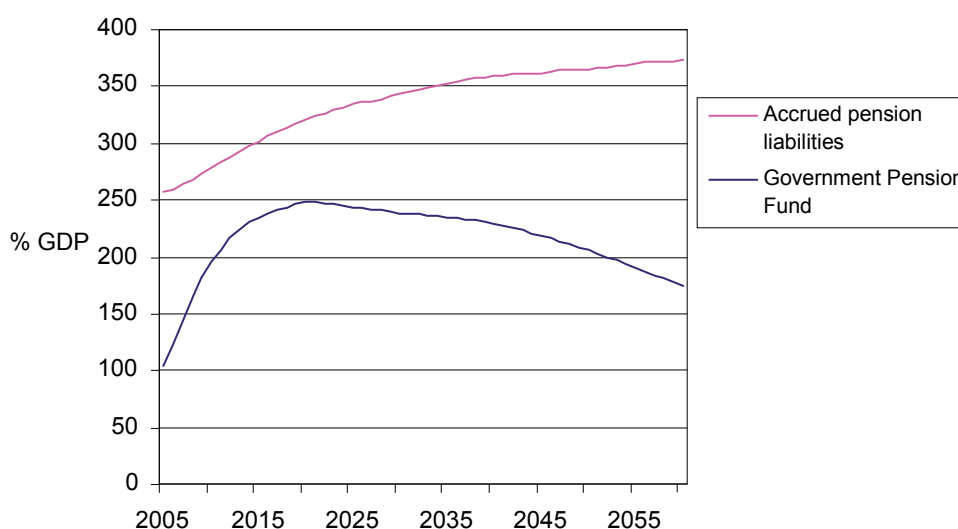
Taking into account also disability and survivors’ pensions, the pension liabilities were estimated at slightly over 300 per cent of mainland GDP in 2006, increasing up to 420 per cent of GDP in 2050.

In addition, unlike most pension funds, the capital of the Government Pension Fund-Global cannot be dedicated to meeting future pension obligations, only its expected real return of 4%, given the fiscal rule. The guidelines for economic policy stipulate that fiscal policy shall be geared towards a gradual and sustainable use of petroleum revenues. Over time the structural non-oil deficit shall correspond to the expected real return on the Government Pension Fund - Global, estimated at 4 per cent. Therefore, only real return can be seen to provide a partial pre-funding of future pension liabilities. The fund is mainly a transformation of depleting re-

sources (oil and gas) into financial assets. As this wealth belongs in theory to present and future Norwegian generations, the capital stock should be preserved, and only the returns consumed, to allow future generations their own choices in allocating these earnings. However, since the fiscal guidelines were established in 2001, the use of petroleum revenues has exceeded the expected real return on the Pension Fund – Global. This is also one of the reasons why the Government proposed a revised Fiscal Budget for 2007 with an estimated structural, non-oil deficit somewhat lower than in the approved budget and below the expected 4 per cent real return on the Fund.

From 1997 until year end 2006, the average annual return on the Government Pension Fund-Global was 6.5 per cent, whilst the average annual real return (after management costs and inflation) which is of relevance under the fiscal rule adopted for budget policy purposes was 4.6 per cent, as measured in foreign currency (Ministry of Finance 2007) (for closer look see Annex 7).

Figure 3.4. *The Government Pension Fund and accrued pension liabilities, per cent of mainland GDP 2005–2060.*



Net interest rate 2 per cent; with real annual growth rate in earnings 2 per cent and real rate of return 4 per cent.
Source: Ministry of Finance.

3.5.2 Background of the reform process

On 30 March 2001, the Stoltenberg Government appointed a Commission, with members from the parties holding seats in the Parliament (Storting) and independent experts, to examine the main objectives and principles of a reform of the overall pension system (incl. reforms to national pension insurance scheme, AFP scheme and occupational schemes). The Commission published a preliminary report on 4 September 2002.

The Commission was to submit its final report to the Ministry of Finance and the Ministry of Health and Social Affairs within 1 October 2003. In autumn 2003, the deadline for completion of the Pension Commission's work was somewhat extended, and the Commission submitted its final report on 13 January 2004 in a green paper (NOU 2004:1 Modernised National Insurance Scheme – Sustainable Pensions for the Future). A broad majority of the members of the Pension Commission, comprising all members except those from the Party of Progress and the Socialist Left Party, supported, in the final report, a reform of the old age pension under the National Insurance Scheme. The Commission assumed a gradual introduction of a modernised National Insurance Scheme from 2010 onwards. The report of the Pension Commission was circulated for consultation on 14 January.

On 10 December 2004, the Norwegian government issued a White Paper (Stortingsmelding nr. 12 (2004–2005) proposing changes to the present pension system on the basis of the Commission's report. On 26 May 2005, the Norwegian Parliament, Storting, made decision on the main principles for a pension reform. The Storting asked the government to return with evaluations and proposals for amendments in the pension system in a number of fields.

Following the compromise reached by parliament in the spring of 2005 the Norwegian government presented its proposal for a new pension system in October 2006. (White Paper: Stortingsmelding nr.5 (2006–2007)). Finally on 23 April 2007 parliament reached broad-based agreement on reform. Agreement closely follows the government's 2006 white paper. Although some questions still remain unresolved, the main characteristics are clear¹⁰.

In connection with the old-age pension reform also disability and survivors' pensions must be adapted to the new old-age pension. Government appointed a public committee on 5 August 2005 which was mandated with committing a study on a new disability pension scheme. The committee published a report (proposal) for a new disability pension scheme on 16 May 2007 (NOU 2007:4). The report was circulated for consultation on 13 June with the final date of 1 October 2007. Evaluations and proposals as regards the survivors' pension scheme will be examined later on by the Government.

In addition to the statutory pension schemes the AFP (early retirement pension) scheme is to be renewed and integrated with the new general early retirement scheme. A tripartite commission set up by the Norwegian government in June 2007 is expected to propose a new early retirement pension scheme by the end of 2007 and the scheme will be incorporated into the wage settlements for 2008.

As a part of the overall pension reform, an obligation was introduced for enterprises to establish an occupational pension scheme securing their employees an old age pension in accordance with the requirements of the Act on mandatory occupational pensions. The deadline for establishing such a mandatory occupational pension scheme was set at the end on 2006, and it had to have economic effect for the employees from 1 July 2006 (latest). The main principles of mandatory occupational pension were already presented in this paper as part of the current pension system description.

10 More detailed Government's paper (forthcoming bill) was sent on hearing on January 2008. The Government bill shall be given to the Parliament later in the spring.

3.5.3 Main aspects of the pension reform

The pension reform is to be gradually phased in from 2010. The main goals of the Government in pursuing a reform are:

(1) Making the pension system economically and socially sustainable. This means a pension system which over time does not impose too great a financial burden on the occupationally active. A prerequisite for an economically and socially sustainable pension system is that it gives good incentives for work.

(2) Having a good income redistribution profile and gender profile. This is pursued by ensuring that all retirees receive a guaranteed minimum state pension and furthermore that all those who have had pension earning get something in return, on top of the minimum pension. This is also of importance for women as long as women have lower incomes than men. Today, many occupationally active women receive a minimum pension in the same way as people without previous income from work. In addition, pension earning must reflect the work effort throughout life. Thus, it is also important to compensate for loss of income due unpaid care.

(3) Being simple and comprehensible the reform should contribute simplicity to make the individuals able to calculate the size of their pension under different circumstances. People should also be able to make well-founded decisions on when to retire and on the need for saving for one's old age.

Following the overarching aims the forthcoming pension reform is based on the following main principles:

- Calculation of benefits based on lifelong earnings
- A flexible retirement age under the National Insurance Scheme
- Introduction of a life expectancy adjustment ratio
- Changing indexation rules
- Basic security in the form of a guaranteed pension
- Redefining and extending pension rights for non-working periods.

The main principles above bring new model for pension accrual likewise for drawing pensions when compared to the present system (see Table 3.1). Each element of the reform will be further discussed below.

Table 3.1. *The main changes to the Norwegian pension system.*

	Pre-reform	After reform
Retirement age	67	From the age of 62 (flexible)
Insurance period	40 years	Lifelong earnings
Pensionable wage	Best 20 years	All career earnings
Life-expectancy adjustment	Not applicable	Life expectancy adjustment ratio
Upper earnings limit (ceiling)	Staggered ceiling from 6 B.a to upper limit 12 B.a	All income up to 7.1 B.a. (linear) ¹
Wage-benefit ratio	42% + 1 B.a (DB-model)	18.1% of income (up to ceiling) into individual account each year (NDC-model) ²
Unpaid care (minimum amount)	Pension earning equal to 4 B.a. up to the age of 7 years	Pension earning equal to 4.5 B.a. up to the age of 6 years ¹
Unpaid care for children	Not pensionable earning	2.5 B.a. as the basis for pension earning
Military service		
Indexing income-based pension payments	Wage growth	Wage growth – 0.75% (constant) ³
Indexing pension entitlements	Wage growth	Wage growth
Minimum pension (amount)	1,7933 x B.a	Guarantee pension at the current level, reduced by 80% of the income-based pension
Occupational pensions	Voluntary	Mandatory

¹ The Governments original proposal for income ceiling was 7 B.a. and unpaid care for children up to the age of 4 (see also Annex 8 for original Pension Commission's proposal and the other three alternative accrual models that have been considered).

² Updated 2008. Corresponding Parliament's earlier (23 April 2007) accepted pension accrual rate 1.35% per year.

³ Updated 2008. Previous proposal: average of wage and price growth.

New model for pension accrual

A new accrual model for the old age pension consists of the following qualities:

- According to Government's forthcoming bill sent for hearing in January 2008 an income-based pension shall be based on NDC-model where 18.1 per cent of earnings are credited to the notional account. Pension entitlements shall be adjusted by wage growth and mortality credit. Basically, the new model is corresponding the earlier proposals and Parliament's framework where the accrual rate was set at 1.35 per cent of the income for a person that starts drawing the pension at the age of 67, given the life expectancy in 2010.
- All income between 0 B.a. and 7.1 B.a. (58 100 euros; NOK 465 000 in 2007) shall result in a pension.
- A guaranteed pension at the level of the current minimum pension.
- The guaranteed pension to be reduced by 80 per cent of the earned earnings-related pension.

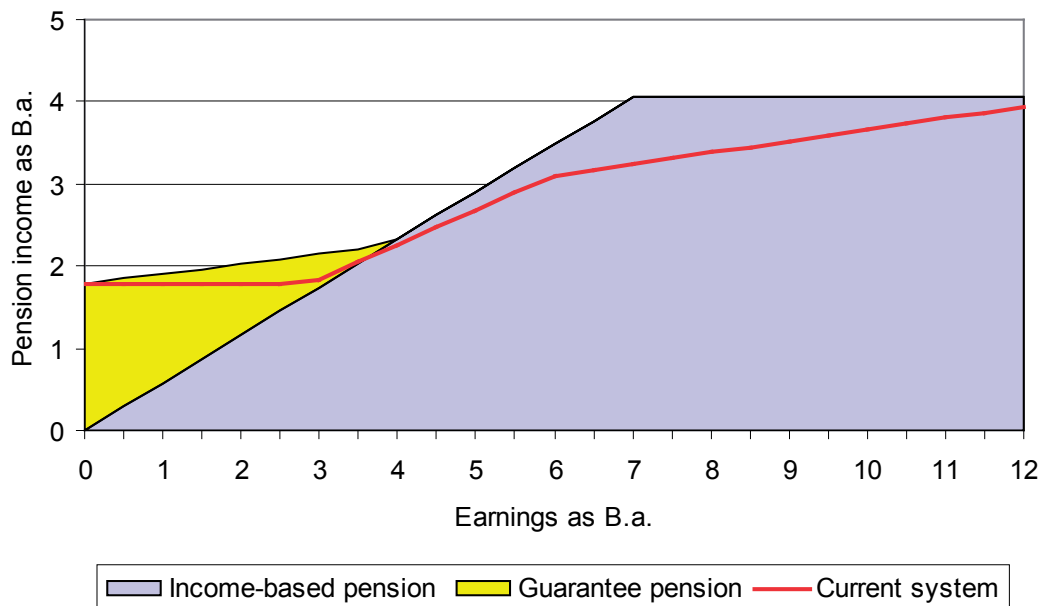
Even after the reform the National Pension Insurance Scheme continues to be financed on a pay-as-you-go basis. Likewise, the pension benefit continues to include two elements, a guaranteed residence based minimum benefit and an income based benefit. Contrary to the basic benefit in the present system, however, it is means-tested against the earnings-related pension benefit (see Figure 3.5).

Reform will bring a stronger relationship between earnings and pension benefits as the earnings-related pension will be based on all-years-rule. Every year pension entitlements will be credited in a pension account in accordance with the person’s employment income and on the basis of unpaid care work.

The reform ensures equal pension for equal lifetime income, irrespective of how this is divided over the working career, as long as the annual income is below the ceiling. In the new pension system there is a lower limit for pension earning thus providing a good ground for supplementary private pension scheme. The pension of the individual will in future consist of the pension from the statutory pension scheme combined with a pension from the supplementary scheme.

The clear correlation between work throughout life and the pension makes the model also easier to understand.

Figure 3.5. *The structure of new old age pension scheme in comparison to the current scheme.*



A new model for drawing pensions

A new model for drawing the old-age pension consists of the following qualities:

- It will be possible to draw a pension from the age of 62.
- The flexible old age pension is designed in such a way that the annual pension reflects the expected number of years as a pensioner.
- It will be possible to draw a full or partial old age pension as long as the pension from age 67 exceeds the level of the minimum pension.
- It will be possible to combine the drawing of an old age pension with work, without the pension being reduced.

The reform will establish a general, flexible retirement age under the National Insurance Scheme. Nevertheless, the AFP-scheme shall be maintained, however, with adjustments which are decided later on (2008) in negotiations with the social partners. According to the Government's guidelines all employees subject to the AFP will receive a supplementary pension regardless of whether they decide to leave early before the age of 67 years. Currently, only those who choose to leave early benefit from this arrangement.

After the reform the pension can be drawn fully or partially from the age of 62 and contrary to the current system it will become possible to combine pension and work without the pension being reduced. There will be no upper limit on retirement age. The aim is to ensure a good balance between incentives for work and freedom of choice. This will be reached by linking the benefits to life-expectancy for each cohort. The pension will be adjusted in accordance with retirement age and remaining life expectancy, thus making the system also more actuarial. By remaining in the labour force for a longer period of time the individual's pension will increase, and vice versa.

Annual pension is increased by approximately 5 per cent for each year the retirement is deferred, because there will be one less year to divide the earned pension entitlement by. In addition, one additional year in the labour force will give extra pension accrual, which increases the annual pension by approximately 2.5 per cent. The proposed drawing model increases the total amount of the annual pension by approximately 7.5 per cent for each additional year in the labour force without drawing a pension.

It is estimated that the life expectancy based pension adjustment will mean that an individual will have to work an additional 8 months in order to maintain the same replacement rate when the life expectancy of the population is increased by one year. This will result in a career 2 ½ to 3 years longer in 2050, with the expected increase in the life expectancy. An example of the effect of the adjustment is presented in the following table, where reference is made to a person born in 1943 and retiring at the age of 67 in 2010. Those born in 1948 are the first who can choose to retire at the age of 62 in 2010. However, as it can be seen from the table, if they leave early their pension is going to be about 21 per cent smaller than those from the 1943 cohort retiring at 67. Likewise, persons born in 1963 will get about 8 per cent and those

born in 1983 about 17 per cent lower pensions than reference level if they retire at the age of 67. Thus, the younger cohorts should work until the age of 69 or 71, respectively, in order to compensate for the effect of the life expectancy adjustments.

Table 3.2. Old-age pension in relation to reference level¹ classified by retirement age and cohort, %.

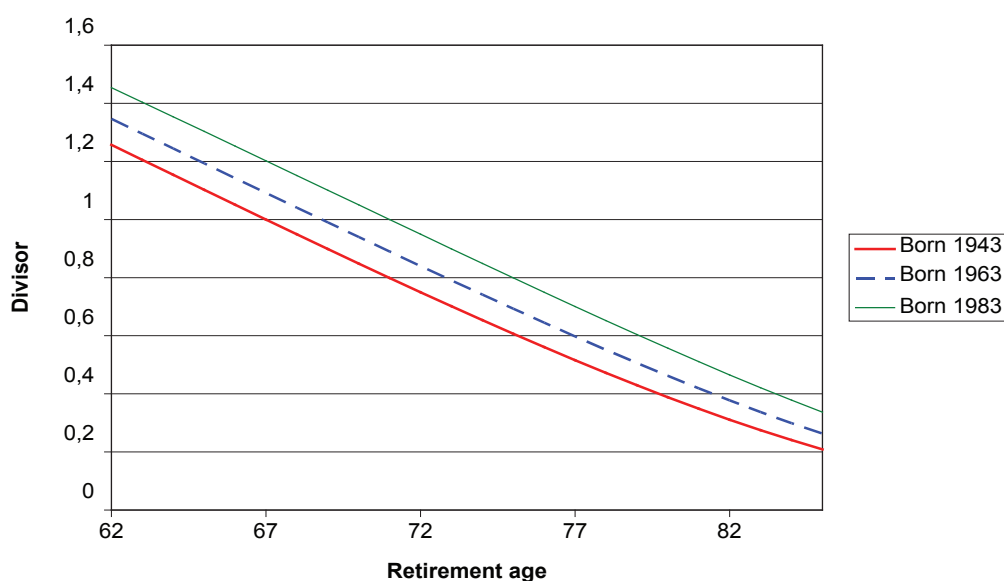
Age	1943-cohort	1948-cohort	1963-cohort	1983-cohort
62	80	79	74	69
63	83	82	77	71
64	87	86	80	74
65	91	90	84	77
66	95	94	88	80
67	100	99	92	83
68	105	104	96	87
69	111	109	101	91
70	118	116	106	95
71	125	123	112	100
72	133	131	119	105
73	143	140	127	111
74	153	150	135	118
75	165	161	144	125

¹ Old age pension to a person born in 1943 and who takes retirement at the age of 67 in 2010 is equal to 100.

Source: Stensnes et al. 2007.

Thus, for a given retirement age, increasing life expectancy is reflected in an increasing divisor. The divisors at different retirement ages for individuals belonging to the above mentioned cohorts are illustrated in Figure 3.6

Figure 3.6. Divisor by retirement ages for selected cohorts.



Source: Stensnes and Stølen 2007.

The Government's proposal gives better incentives for work. At the same time, the overall effect on the pension level will also depend on e.g. life expectancy adjustment ratio and how the individuals adapt to it. The introduction of the life expectancy based pension adjustment ratio is also the most important measure in order to make the statutory pension scheme sustainable in the long run. When the annual pension amounts are adjusted with this ratio the expenditure on old-age pension will remain more or less unaffected by the increased longevity. Individuals will be able to counteract the effect on their annual pension amount by deferring the reduction of their work effort and the drawing of their pensions. The ratio shall be the same for men and women.

In a flexible pension system, the differences in the annual pensions may increase, as a consequence of the individuals' own choice concerning time of retirement. In addition, everybody will not have the same opportunities to remain in work after having attained the age of 62.

Redefining and extending pension rights for non-working periods

The pension reform improves the minimum security of pension accruals for non-working periods. Today, pension accrual is granted in the case of unpaid care for children under the age of 7 and in the case of care for elderly, sick and disabled. After the reform everybody shall get a minimum pension accrual in case of unpaid care equal to an annual income of 4.5 B.a. (NOK 295 000; 36 850 euros), i.e. ½ B.a. higher than today. Otherwise pension entitlements from unpaid care work will be based on previous employment income, with an upper limit corresponding to the basis for calculating statutory maternity pay. Originally the Government proposed granting pension rights for care for children up to the age of 4. However, after the Parliamentary discussions this was changed up to the age of 6 years.

In addition, conscripts are given pension earning. According to the Government's proposal mandatory military service means that one has to refrain from an ordinary income from work, and thus from pension accrual. In the Government's opinion, there are thus good reasons for the introduction of a pension crediting arrangement for persons serving as conscripts. 2.5 B.a. (NOK 163,760; 20,470 euros) is suggested as the basis for pension accrual for completed military service. It is suggested that such credit should be given in addition to any pension accrual based on income from work. The aim is to introduce this arrangement with effect for new conscripts from 2010.

The reform will also improve the provisions for pension accrual for unemployed persons, including persons who are involuntarily working part-time, while receiving unemployment benefits, so that unemployed will be credited with pension accrual based on previous income from work. In the current scheme, pension accrual is based on the unemployment benefits.

According to the pension settlement in the Storting, the Government was also asked to consider crediting students with pension earning. The Government reached the conclusion not to credit students with pension accrual. According to Government's proposal persons with a higher education will often have a higher overall lifetime income than persons without higher education, something which will be reflected in higher pensions.

Changing indexation rules

The income dependent entitlements shall be adjusted by wage growth and mortality credit until retirement, while paid-out pensions shall be adjusted by an average of wages minus the 0.75 percent (constant), that has already been imputed in the divisor when the balance in the notional account will be converted to an annuity (i.e. comparable to the Swedish pension scheme). This change will remove the indexing rule on wages passed in 2002. The guaranteed pension will be adjusted against wages, less the effect of the life-expectancy adjustment ratio.

Transitional provisions

There is no final decision on the transitional provisions for the new accrual model for old-age pension in the National Insurance Scheme. According to the Government's recent bulletin persons born in 1953 or earlier would have their pension entitlements determined on the basis of the present regulations.¹¹ Persons born in 1963 or later will have their pensions determined solely on the basis of the new system. Persons born during the years 1954-1962 will have their pensions determined proportionally on the basis of the present and the new system.

The Government has also not made final decision on retroactive pension entitlements for unpaid care work under the present National Insurance Scheme.

However, the Government proposes that the life expectancy adjustment ratio is to be applied to new retirees from 2010 onwards, with flexible retirement being introduced at the same time. Likewise the new system for the indexing of pensions is to be applied to all retirees from 2010 onwards.

The Government should present a proposal for legislation on a new pension scheme before the year end 2007.

Even after the reform, civil service pensions equivalent to two thirds of the wage at the time of retirement are continued. However, the civil service pension schemes are adjusted to the new National Insurance Scheme model, without decreasing the level of the civil service pensions, but so that they are also covered by the provisions on the adjustment ratio based on life expectancy and the new indexation. The final adjustments will be made through negotiations between the social partners of the public sector. Also the AFP-scheme shall be maintained, however, with adjustments which are decided later on (2008) in negotiations with the social partners.

3.5.4 The main consequences of the reform

The Government's proposal means that the expenditure on old age pensions as a per centage of mainland GDP is estimated to be reduced from 15 to 12 per cent in 2050 when compared to the present system.

In a pay-as-you-go system where public pension expenditures are financed by current tax revenues, the ratio of workers to old-age pensioners has a significant impact on the fiscal balance sheet. One measure of the fiscal burden of the public pension scheme is the so-called contribution rate defined by Disney (2004) as "the average rate (on earnings) that would be

11 see www.regjeringen.no news published 29.11.2007.

required to finance current spending on public pensions without budgetary transfers or the accumulation or decumulation of public pension funds". The contribution rate C may be formally defined as:

$$C = P / (L + 0.5P)$$

Where P represents the yearly general pension expenditures in the National Insurance Scheme, and L represents aggregate yearly labour incomes, included compensation for the labour effort among the self-employed. It has also been taken into account that pension benefits are taxed at about half the tax rate on labour incomes (for further information see Stensnes et al. 2007; Fredriksen and Stølen 2005).

The contribution rate is expected to double from about 11 per cent in 2006 to about 22 per cent in 2050. According to projections presented in the Government's white paper the reform will reduce the contribution rate needed for financing the old age pension expenditure from 21.8 per cent to 17.6 per cent in 2050 when compared to present system¹².

The tax burden of financing the sum of old age, disability and survival pension benefits has increased from a level of about 7 per cent in 1967 to about 15 per cent in the early years of 2000s. The contribution rate is estimated to increase to 25–30 per cent after 2040. This increase of about 10-15 per centage points is equivalent with the estimated increase in the expenditures in the Insurance Scheme from about 9 per cent of GDP in 2002 to almost 20 per cent in 2050 according to the report from The Pension Commission.

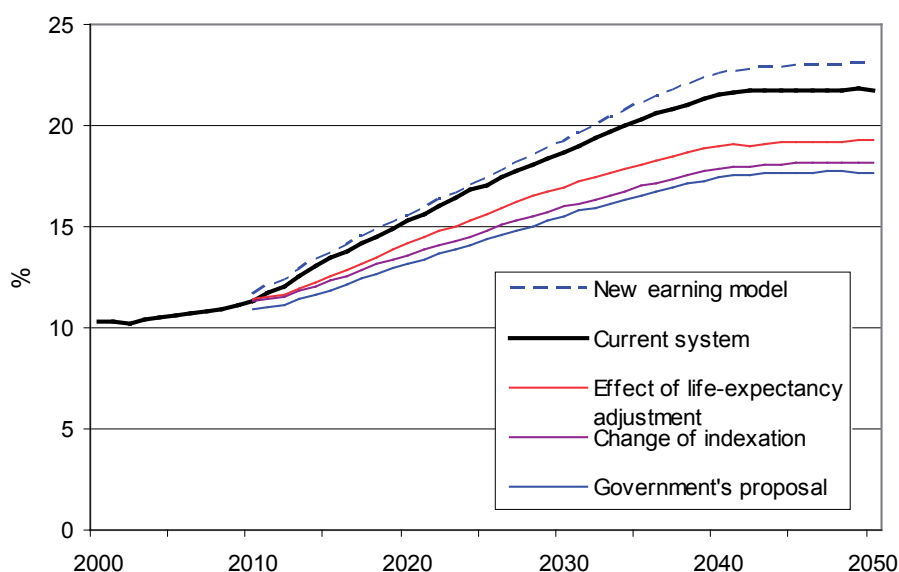
The effects on the contribution rate (base line scenario) for financing old age pension expenditure are presented in Figure 3.7. A decomposition of the main elements of the reform reveals that the new earning model increases pension expenditures, when seen in isolation. This is caused especially by the increased connection between pension entitlements and former labour incomes, likewise the proposed accrual rate of 1.35% which is higher than at present. The effect of this element to is estimated to increase the contribution rate with 1.3 per centage point when compared to the present system. The old-age expenditure in 2050 is estimated to rise to NOK 238.4 billion in comparison to current system NOK 223.6 billion (as measured in 2006-values).

The introduction of the life expectancy based pension adjustment ratio is the main factor of the reform regarding reduction of the contribution rate. As life expectancy is assumed to increase during the entire period of projection, the effect of this element increases. This element also includes the effect of the flexible retirement permitting retirement from age 62. In total the contribution rate is reduced by 3.8 per centage points in 2050 (difference to upper curve).

12 The future pension burden i.e. challenges of financing the increasing pension expenditures depend on the development in demographic characteristics like fertility, mortality and immigration, as well as characteristics affecting supply of labour, like education, disability, retirement age, participation rates and part time work (especially for women), and the design of the pension system. The effects on the contribution rate have been analyzed by use of Statistics Norway's dynamic micro simulation model, MOSART, documented in Fredriksen (1998).

Likewise the change in indexation rules is estimated to further reduce the rate by 1.2 percentage points in 2050. The difference between the two lowest curves represents the effect of increased supply of man-hours among persons of working age. Although labour supply is estimated to increase as much as 4 per cent as a result of closer connection between contributions to and benefits from the pension system, the partial effect on the contribution rate of this element is only about 0.5 percentage point in 2050. Thus, in total the Government's proposal is estimated to reduce the contribution rate by 4.2 percentage point.

Figure 3.7. *Effects on the contribution rate caused by a shift to a new old age system, decomposition in different elements.*



Source: White paper. St.meld. nr. 5 (2006-2007).

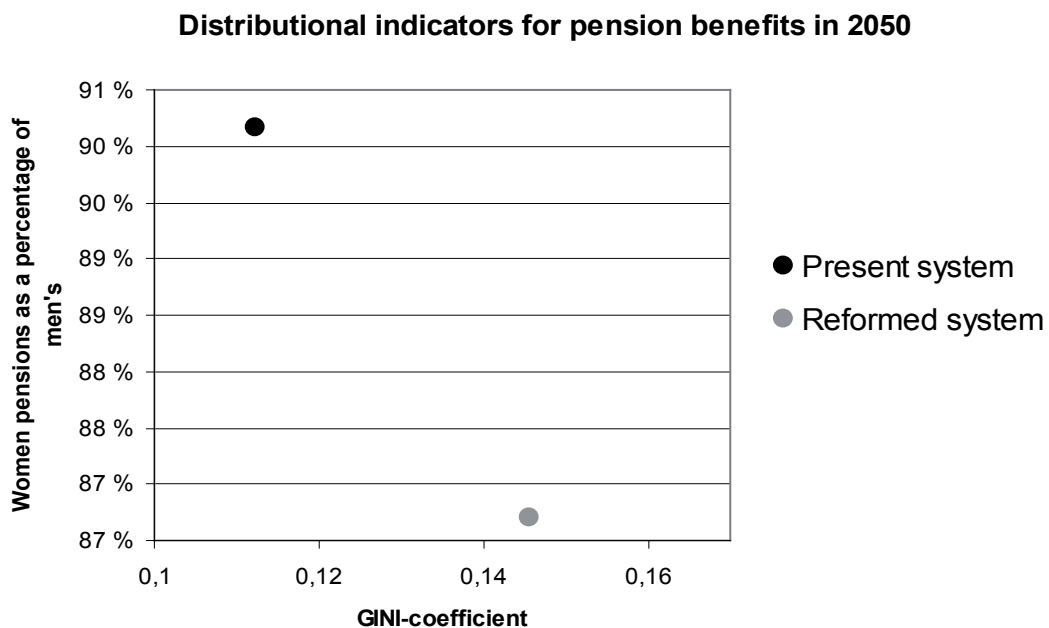
According to the Government's white paper the new system should give the average future pensioner, regardless of wage level, more money than existing pensions that take effect at age 67. But there are two complicating factors that make a real comparison harder to measure, and they are both likely to work against future pension levels. One is an adjustment for life expectancy. All future pensioners will have their pensions reduced in step with increases in national life expectancy. The other is that pensions will not be increased completely in step with national wage increase rates, meaning pensioner purchasing power will be under that of the work force. Even so, pensions are increased more than the price growth.

A changed indexation of paid-out pensions is, when seen in isolation, estimated to reduce the average replacement rate by 7–8 per cent after 10 years as a pensioner, compared to the situation if the pensions were indexed in line with the growth in wages.

Moreover, the reform seeks to maintain the redistributive characteristics of the present system. Stensnes and Stølen (2007) have analyzed the consequences of the reform by using the MOSART model and the first impressions of how different accrual schemes distribute income between individuals at system maturity in 2050 are shown in Figure 3.8. The horizontal axis measures the GINI coefficient of inequality and the vertical axis shows women's pensions as a share of men's, on average. Along the two dimensions, the reformed system would indicate growing inequality.

However, it is worth noting that there is greater inequality in labor incomes than pension benefits. The public old age pension scheme is redistributive, due to components such as a minimum benefit and the annual income ceiling on accumulating pension entitlements. Income replacement ratios are therefore higher at the lower end of the income scale. A closer link between earnings and pensions in the accrual scheme will therefore tend to increase inequality in benefits, while this very link is also at the heart of improving work incentives by reducing the implicit tax rate on social security contributions. In deciding on a pension accrual scheme, government is faced with the classical trade-off between equality and efficiency.

Figure 3.8. *Distributional indicators for pension benefits in 2050.*



Source: Stensnes and Stølen 2007.

Stensnes and Stølen (2007) have also analyzed distributional consequences of the present and reformed old age pension systems in more detail breaking annual pension benefits in 2050 down by pension income per centile (see Annex 9). For the bottom four deciles, pension levels will remain largely unchanged with pension reform. This is mainly caused by a guarantee pension at the same level as the minimum pension in the present system before taking adjustments for

increasing life expectancy into account. The distributional impact of the other elements affecting the lowest deciles is not large, and the different elements partly counteract each other. The top six pension income deciles will experience an increase in the pension level, reflecting both the increased accrual coefficient for pension entitlement and the sharpened actuarial properties of the system in general. The gains are largest for the highest income groups. For both schemes the curves are convex for the uppermost deciles, because they exhibit an increasing gap compared with the average incomes.

4 Pension schemes in Finland¹³

4.1 History of pension provision

4.1.1 *The first National Pension Act and Start of Earnings-Related Pension*

The national pension scheme covering the whole population was established in 1937. The insurance based on personal pension saving accounts was mandatory for persons aged 18–65. An independent Social Insurance Institution, supervised by Parliament, was established to implement the act. This administrative model still applies to the national pension scheme.

The National Pension Act of 1937 never achieved its aims. Due to the modest 2 per cent contributions, the level of the pensions could never have become very high. In addition high inflation during the war and reconstruction period gnawed the scheme. The low level of the national pension was the cause of dissatisfaction.

The employers and the employees had together established pension funds for the employees already prior to the National Pension Act. However, administration of these funds lacked actuarial know-how and their affairs were not supervised. At the end of the 1950s they covered about 220 000 people. The pension entitlements were usually lost when changing jobs. In addition pensions for 25 000 persons were arranged in private insurance companies.

The State had its civil servants' pensions, and many municipalities had their own pension regulations for their officials. According to the Public Welfare Act, the employer was liable to provide for his long-term employee in case of loss of work capacity due to old-age or illness. It was required that the employee did not get an income elsewhere. Until 1970 children had a legal obligation to provide for their ageing parents.

4.1.2 *“Civil servants’ pensions for all”*

In the 1950s the structure of the labour force was changing with industrialization and the number of rural population started to decrease. Women continued to participate in the labour market after the war, so the social security in old-age based on home care diminished. Assistance pensions for war widows, orphans and invalids provided a new model for pension provision.

13 Chapter 4.1 draws on Kontio (2007) and, chapter 4.3 on Börsch-Supan (2005).

There was a general agreement on the need to reform the National Pension Act, but all the more disputes about the direction of the change, even within parties. The flat-rate scheme financed by tax revenues came into force in 1956. This solution was supported by the representatives of the rural population. The level of the national pensions increased even 2.5 times. The abolishment of the pension accounts was felt as an income transfer to farmers. This caused resentment especially in the employees' organizations.

The earnings-related pension committee was established at the end of 1956. When shaping the earnings-related pension scheme the motto was "civil servant's pensions for all". The committee suggested creation of two pension acts, which would cover most of the private-sector employees. The general private-sector pensions act Employees' Pensions Act, (TEL) and the Temporary Employees Pensions Act (LEL) were enacted in 1961 and 1962. Financing of the pensions was and is still based partially on the pay-as-you-go principle and partially on pre-funding.

The employers got the right to borrow the accumulated pension funds through so-called premium loans. The employers' support for the act was also sought through suggesting that earnings-related pensions be handled by private insurance providers. The committee saw a decentralised scheme also as cheaper than a centralised scheme.

The employees found the guarantee of receiving the accrued pensions from different employment contracts very important. Due to this vesting principle the competing pension providers needed a liaison body, maintaining a common register of the pension entitlements. The Finnish Centre for Pensions was founded. The Finnish Centre for Pensions was also to handle pension components financed jointly on the pay-as-you-go principle.

4.1.3 Period of broadening pension benefits

The 30-year period after the enactment of TEL in 1961 was a period of extension of the range and level of the pension benefits. As the number of pensioners was still low, the financing base was favourable for benefit enhancing reforms. The period was also dominated until the mid-1970s by the dispute over the direction in which to develop the pension system. Rivalry alternatives were the earnings-related pension scheme and the national pension scheme.

Originally the earnings-related pensions covered only old-age and disability. The TEL target level was 40 per cent of the final wage. An old-age pension accrued from employment contracts of at least six months from the age of 23, and a full old-age pension based on final wage accumulated in 40 years. The old-age pension could start at the age of 65. In contrast, in the LEL industries, where the work typically consisted of short-term employment contracts, average earnings were the basis of the pension. In the beginning earnings-related pensions were very small. They mainly supplemented the national pension.

In case of incapacity for work the person's pension was calculated as if he or she had continued to working until the age of 65. The time from the beginning of the disability to the age of 65 is called the projected pensionable service. Survivors' pensions extended the scope of the scheme in 1967.

The Employees' Pension Act affected the modernisation of the civil servants' pensions. Local government pensions were harmonised through a separate act (Local Government Employees' Pension Act KVTEL). The State Employees' Pensions Act (VEL) was enacted in 1966.

In 1970 also entrepreneurs and farmers obtained statutory pension provision through the Self-Employed Persons' Pensions Act (YEL) and the Farmers' Pensions Act (MYEL). The following year the pension benefits were extended by the unemployment pension.

Earnings-related pension provision was improved especially through an overall increase in 1975, when the accrual rate was increased from 1 per cent to 1.5 per cent and the target level of the pension rose from 40 to 60 per cent. In this connection the roles of the national pension and the earnings-related pension were redefined. The primary role of the earnings-related pension was emphasised. Instead of the earlier full wage indexation a half-way index (50% weight on wages and 50% weight on consumer prices) was applied to pension calculation and revaluation of pensions from 1977.

The individual early retirement pension was introduced in 1986. The individual retirement pension was a disability pension, with milder incapacity requirements than the normal disability pension. Also certain independent professionals and remaining non-covered temporary workers obtained their own pensions act, Pensions Act for Performing Artists and Certain Groups of Employees (TaEL) in 1986. The part time pension was introduced in 1987. It subsidises aged workers who want to shift to the part time work. The age limit has varied between 56 and 58.

4.1.4 Cost-cutting reforms in the 1990s

The statutory pension scheme, as well as the whole society, faced a real challenge during the recession in the early 1990s. The unemployment rate reached almost 17 per cent in 1994 and GDP fell from 1990 to 1993 almost 11 per cent.

In order to lessen the cost burden of the employers the employees were made directly responsible for part of the earnings-related pension costs from the beginning of 1993. The pension contribution was divided into the employers' and the employees' shares. Further changes of the contribution rate were equally divided by the employers and the employees. This principle still applies. The 66 per cent target level in the public sector pension replacement rates was abandoned. Accrual rates were lowered and age limits were raised to match the private sector basis.

In 1996 an extensive pension reform took effect. Previously the pensionable wage was calculated by taking into account the two middle-most years from the four last years in each employment contract. The calculation base gradually changed to the ten last years of each employment contract. Pensions paid to persons aged over 65 were revalued by a new index, in which consumer prices have a weighting of 80 per cent and wages a weighting of 20 per cent. The accrual rate for projected pensionable service was weakened from 1.5 after the age of 50 being 1.2 between 50 and 60 and 0.8 between the ages 60 and 65. The basic amount of the national pension, which was paid to all pensioners, was abolished.

4.2 The 2005 reform

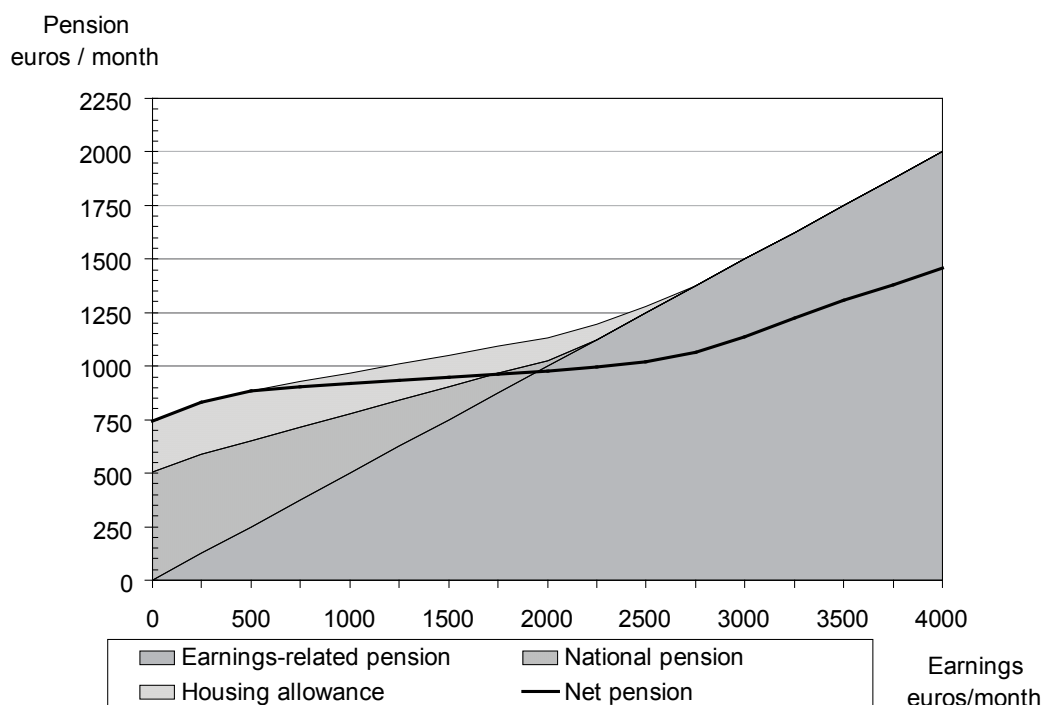
4.2.1 The national pension scheme

The 2005 reform kept the national pension scheme by and large untouched. It guarantees a minimum pension if the person’s earnings-related pension is small. The benefits include old-age, disability and unemployment pensions as well as the survivors’ pension. The national pension scheme contains also special supplements including housing allowance for pensioners. Unemployment pensions will be abolished from the national pension scheme due to the 2005 reform.

The national pension is usually awarded at the same time as the earnings-related pension. Each Euro paid by the earnings-related pension scheme reduces the national pension by 50 cents until the national pension is zero (Figure 4.1). Approximately half of all retirees receive income from this scheme, but only 7 per cent have a national pension as their only pension income.

All benefits and earnings limits in the national pension scheme are linked to the consumer price index. From time to time an overall increase to the national pension is made by decision of the Parliament, so that the level of national pensions would not lag too much behind the general living standard. The latest overall increase was carried out in 2006 and the next will take effect at the beginning of 2008.

Figure 4.1. Total pension in 2007 according to earnings level, euros/month.



4.2.2 *The earnings-related pension scheme*

Focus of the 2005 reform is the earnings-related pension scheme. It pursues three major aims:

- (1) to make the earnings-related scheme more sustainable by
 - (a) linking old-age and survivors' benefits to life-expectancy
 - (b) increasing the extent of prefunding
- (2) to decrease labour market distortions by
 - (a) restricting access to early retirement
 - (b) introducing a window of flexible retirement age
 - (c) sharply increasing the accrual rate within the window of retirement
 - (d) abolishing the cap on the replacement rate
 - (e) abolishing the link between benefit calculation and employment relationships
- (3) to make the system more equitable by
 - (a) basing benefits on life-time earnings and harmonizing benefit rules
 - (b) equalizing the minimum age for benefit computation and contribution requirement
 - (c) changing indexation rules
 - (d) redefining and extending accrual for non-working periods
 - (e) redefining pensionable pay for the projected pensionable service

One principle of the reform was that each earned euro should contribute to the pension. Below each element of the reform will be discussed.

1 Increasing the sustainability of the earnings-related pension scheme

(a) Linking benefits to life-expectancy. From 2010 onwards old-age and survivors' benefits will be indexed by life expectancy. The aim of the life-expectancy factor is to adjust benefit levels so that the present value of the benefits does not change when life expectancy changes. Beginning with the cohort of 1948, the starting level of the old-age pension of each cohort is multiplied by this factor. Each year the factor is the annuity value of the unit pension for a person aged 62 years relative to the annuity value of the unit pension for a person who is aged 62 in 2009.

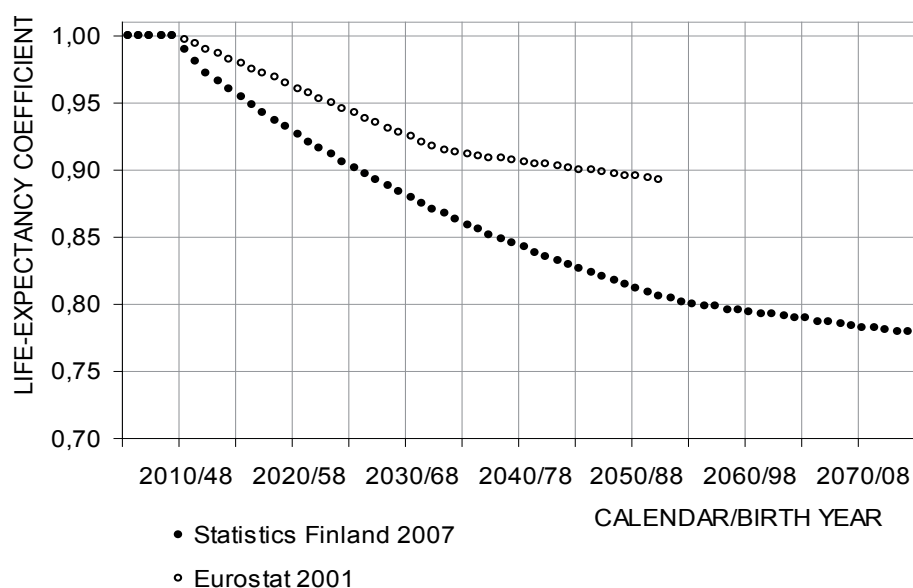
Estimates of the life-expectancy factor based on two different population projections are presented in Figure 4.2. The effect of the factor has increased in between the population projections. For the younger cohorts the factor will create a substantial "pension gap". Whether this gap will be filled by working longer, saving privately or a smaller pension is simply accepted is up to the individual.

(b) Increasing the extent of pre-funding. The Finnish earnings-related pension scheme is a partly pay-as-you-go and partly funded system which has about 120 billion euros worth of assets, invested both domestically and internationally (see Chapter 4.4).

The funds are not individualized at the employee level, in the sense that an employee would be able to differentiate the funded part from the pay-as-you-go part nor to make an individual investment decision. The funded part affects the contribution rate, not benefits.

The 2005 reform included a decision to increase funding by 7.5 per cent of private sector wages during the next 8 years. This is additional funding on top of normal funding required by the scheme's rules. The build-up of the 7.5 per cent fund is financed by an increase in the contribution rate of about 0.9 percentage points

Figure 4.2. The life-expectancy coefficient according to a pre-reform (Eurostat 2001) and the latest projection (Statistics Finland 2007). The coefficient is determined for each birth-cohort.



2 Decreasing labour market distortions

The effective retirement age among Finnish workers is low compared with other OECD countries (Annex 5). The 2005 reform takes a number of measures to increase the labour force participation among elder workers. The aim is to increase the effective retirement age by three years until the year 2050.

(a) Restricting access to early retirement. The pre-reform pension scheme had a multitude of pathways into retirement, including unemployment pension, variants of disability pensions and the part-time pension.

The unemployment pension will be abolished for persons born 1950 or later. However, these individuals can still receive earnings-related unemployment benefits from the age of 57 until they are eligible for old-age pension. This is two years later than the corresponding unemployment tunnel for older generations.

The individual early retirement pensions among the disability pensions will be abolished for individuals born after 1943. However, social factors in addition to medical factors will be taken in the account when granting disability pensions to individuals older than 60 years.

The part-time pension is made less attractive by reducing the accrual rate and increasing the eligibility age by two years. Workers can take up part-time pensions now two years later at age 58. Part-time earnings contribute to the old-age pension at the same rates as full-time earnings. In addition, the difference between full-time and part-time wage also enjoys pension accrual. The difference enjoyed an accrual rate of 1.5 per cent, in the reform this was reduced to 0.75 per cent.

(b) Introducing a window of flexible retirement. The old system had an old-age retirement age of 65 and the possibility to retire earlier between ages 60 and 64 at the cost of actuarial adjustment to the pension. The adjustment was 0.4 per cent per month (4.8 per cent p.a.). The reform changes this to a window of retirement between ages 63 and 68 plus an early retirement option at age 62. The adjustment is 0.6 per cent per month (7.2 per cent p.a.). Retirement incentives during the window period are mainly governed by a high accrual rate (see c below).

(c) Increasing accrual rates at older ages. Benefits are calculated by multiplying indexed pensionable earnings with the accrual rate. In the pre-reform system the accrual rate was 1.5 per cent for earnings between ages 23 and 59 and 2.5 per cent for earnings between ages 60 and 64. New accrual rates are 1.5 per cent between ages 18 and 52, 1.9 per cent between ages 53 and 62 and 4.5 per cent between ages 63 and 67. Age-dependent accrual rates value earnings in later life more than earlier earnings. Therefore they create an incentive to work later.

(d) Abolishing the cap on the replacement rate. The pre-reform scheme provided a cap on replacement rate through so-called pension integration. The private-sector earnings-related pension could not exceed 60 per cent of the highest pensionable wage during the career. In the public sector the limit was 66 per cent. This mechanism created a disincentive to work once the cap was reached. The new system abolishes the cap and there is no maximum on the replacement rate anymore.

(e) Abolishing the link between benefit calculation and employment contracts. In the pre-reform scheme the pensionable wage was calculated as an average from the ten last years of each employment contract. In practice this was a complicated rule with special clauses. However, if salaries increased with seniority, it created a disincentive to change job.

3 Increasing equity

There are many elements in the 2005 reform designed to make the earnings-related pension scheme more equitable and more actuarial. In addition the reform added some “carrots” to reduce the impact of many “sticks”.

(a) Basing benefits on life-time earnings and harmonizing benefit rules. As described above, the pre-reform scheme had elements of a final salary system. This procedure ignores earning differences among workers earlier in the career. It tends to benefit individuals with increasing salaries and stable employment contracts. However, in some sectors (self-employed, farmers and LEL workers) life-time average earnings have always been the basis of benefit calculation. One undesirable property of the old benefit rule was that even exactly identical earnings careers produced different pensions, if the number (or timing) of employment contracts varied between individuals.

After the reform the scheme bases the pensionable wage on all earnings and does not distinguish among jobs in different sectors of the economy. The number or timing of the employment contracts does not affect the benefit level.

(b) Minimum age for benefit computation and contribution requirement. In the pre-reform system employers and employees had to pay contributions into the scheme from age 14 on. The benefit accrual, however, started at age 23. Individuals who started their careers early were penalized relative to individuals starting their career at age 23. In the reformed scheme contributions are due for workers aged 18 and over and benefit accrual starts at the same age.

(c) Changing indexation rules. The reform introduced a subtle change in the indexation formula applied to the pensions in payment. In the pre-reform scheme benefits of retirees aged less than 65 were indexed according to the half-way index (50% wages 50% prices). After age 65 the index was changed to a 20–80 mixture. This created dissatisfaction among pensioners older than 65. The new scheme applies the 20–80 mix between wage and price increases to all retirees. However, in order to prevent large relative benefit decreases a lump-sum increase to young and middle aged pensioners was introduced. For individuals under 27 years of age the lump-sum increase is 21 per cent of their earnings-related (disability) pension. This increase is granted when the pension has been five years in payment. For persons older than 27 years the increase is reduced by 0.7 percentage points until it has disappeared.

The working-age index (or wage coefficient) which is used to convert nominal money to real valued money to form the basis for the benefit calculation was also changed. Before the reform the 50-50 index was applied. In the new system this was changed to an index with 80 per cent weight to wage changes and 20 per cent weight to price changes. It was estimated that this index together with basing benefits on life-time earnings would be cost neutral.

(d) Redefining and extending accrual for non-working periods. The reform unifies and extends accrual calculation during non-working periods. Earnings-related unemployment periods had been covered also in the pre-reform scheme. Also non-working periods lasting less than one year, given that they were inside an ongoing employment relationship accrued a pension. Under the new system a pension accrues during earnings-related unemployment, parental leave, sickness leave and studies which terminate with qualification. There are also some less significant non-working periods accruing a pension.

(e) Redefining pensionable pay for the projected pensionable service. Before the reform an individual either had or had not a right to the projected pensionable service in the case of disability. Without the projected pensionable service the disability pension equals the accrued pension. The accrued pension is always low if the individual is young. The projected pensionable service was granted if the end of the last employment relationship was not too distant from the occurrence of the disability. This meant that one single day could be decisive when calculating the amount of the pension. In the reformed scheme the wage used for the projected pensionable service is the average wage from the five years preceding the disability. One day can not be decisive anymore when granting the disability pension.

The most important changes of the 2005 reform from the point of view of long-term expenditures are collected in Table 4.1 sign (+ / -) shows a direction of the impact.

Table 4.1. *The most important changes affecting pension expenditures in the 2005 reform.*

	Before the reform		After the reform		Cost
Pensionable earnings	The last 10 years from each employment contract		Life-time earnings		-
Indexing entitlements	Wage 50 / Price 50		Wage 80 / Price 20		+
Accrual rates	23-59	1.5%	18-52	1.5%	+
	60-64	2.5%	53-62	1.9%	
			63-67	4.5%	
General retirement age	65		63-68		?
Accrual for non-working periods	One year rule and earnings-related unemployment benefit		Almost all earnings-related benefits		+
Life expectancy coefficient	No		Yes		-
Restricting early retirement			Individual early retirement and unemployment pension abolished. Start of the part-time pension from 56 years to 58 years		-

Transition rules

The main rule is that the changes take effect from the beginning of the 2005. The pensions earned prior to 1.1.2005 are calculated as if the employment relationship ends 1.1.2005. This pension accrual is vested. After 1.1.2005 pensions accrue according to the reformed legislation.

There are several qualifications to this general rule. Private sector employees who retire from the job they are holding on 1.1.2005 by 2012 are guaranteed a pension calculated according to the old legislation. However, if the new legislation results in a higher pension, it will be paid. Public sector employees must work until retirement in jobs they are holding 1.1.2005 if they want to enjoy special accruals based on old more generous benefit rules which were in force until early 1990s (see Chapter 1.3).

Restrictions of early retirement affect only younger cohorts. The right to the part-time pension at the age of 56 is kept for cohorts born in 1946 or earlier. Younger cohorts have the right to the part-time pension after the age of 58. The individual early retirement pension is abolished for cohorts born in 1944 or later. The removal of the unemployment pension will affect cohorts born after 1949. The life-expectancy coefficient affects cohorts born in 1948 or later.

Unification and renaming of pension acts

As a consequence of the 2005 reform the private-sector employee pension acts TEL, LEL and TaEL were unified into the Employees Pension Act (TyEL). Also the local government and the state employees' pension acts were rewritten and renamed (KVTEL -> KuEL, VEL -> VaEL).

4.3 Effect of the 2005 reform on long-term prospects

The Finnish Centre for Pensions calculated long-term contribution and expenditure effects of the 2005 reform in 2002. These projections are described below. The projections include only private sector employee schemes (TEL, LEL and TaEL), though the effects would be roughly similar if all the earnings-related pensions were included into the projection. Main assumptions of the projections are shown in Table 4.2.

Table 4.2. Main assumptions of the long term projection 2002.

	In 2002	In 2050	
		Old legislation	New legislation
Life expectancy, men	74.9	80 years	
women	81.5	85 years	
Old-age dependency ratio	22%	44%	
Employment rate	67.7%	70.4%	72.0%
Effective retirement age	59 years	60.4 years	62.0 years
		2005–2050	
Growth in earnings level (p.a.)		1.75%	
Investment yield (p.a.)		3.5%	

It was estimated that the 2005 reform would postpone the effective retirement age by 1.6 years in the long run. Furthermore due to earlier reforms there was an assumption of an increase in the effective retirement age of 1.4 years. Therefore the total postponement would be three years. In 2002 it was anticipated that the effective retirement age would increase by 0.6 years by 2008. This change was in fact achieved by 2006.

The old legislation implied ever increasing expenditure and contribution rates. These were consequences from ever increasing life expectancies. The reform stabilised the expenditure level after the 2030s to 31 per cent of the wage sum (Figure 4.3). As far as the long term expenditures are considered, the most important reform element was the life-expectancy factor. In fact, according to the latest population forecast it is even more important than estimated before the reform (Figure 4.2).

The contribution effects of the reform follow mostly from the expenditure effects. However, the effect of the extra funding is also visible in Figure 4.4. Taken together, according to the long term projections the reform would cut expenditure and contribution rates approximately by 4 percentage points in the long run.

Figure 4.3. The projected expenditure rate for private-sector employees' pension schemes (TEL, LEL, TaEL), 2002–2005.

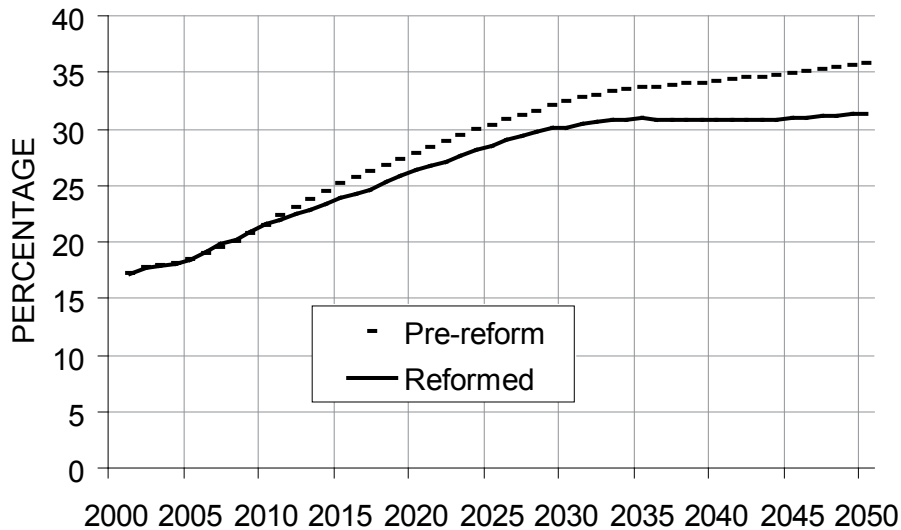
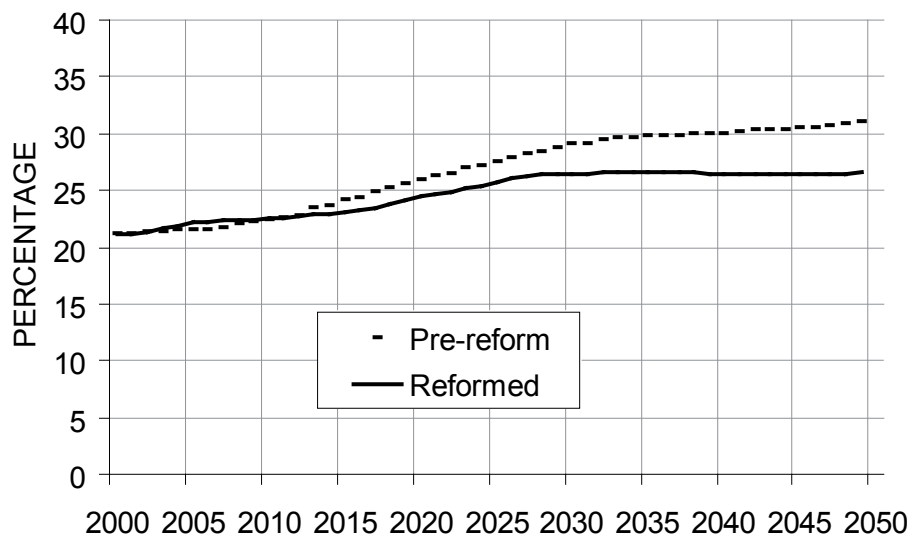


Figure 4.4. The projected contribution rate for private-sector employees' pension schemes (TEL, LEL, TaEL), 2002–2005.



4.4 Pension financing

After the 2005 reform benefit rules in the earnings-related pension scheme are mainly the same for all insured regardless of pension act. However, financing arrangement vary between the acts.

The employers, the employees and the state contribute to the financing of the pensions. The role of these contributors varies between the schemes. Pensions are mainly financed through the pay-as-you-go (PAYG) principle, but some schemes also include significant pre-funding (Table 4.3). The employees have paid part of the pension contribution since 1993 (Chapter 1.4).

Table 4.3. Insured, contributors and assets in pension schemes.

Act	Insured	Contributors	Assets (31.12.06)
TyEL	Private sector employees	Employers, employees	78.9 bn €
MEL	Seamen	Employers, employees and the state	0.7 bn €
YEL, MYEL	Self-employed	Self-employed and the state	≈ 0
VaEL, KuEL	Sivil servants	Employers, employees and the state	34.8 bn €
National Pension	Residents	Employers and the state	≈ 0

4.4.1 Private sector

Since their introduction private-sector employee pensions are being financed through partial funding. Part of the pensions is funded in advance and part is financed from current pension contributions. The implementation of private-sector employee pension provision has been decentralised to pension insurance companies (7 companies), company pension funds (30 funds) and industry-wide pension funds (8 funds).

The employer chooses the pension provider. However, the pension benefits do not depend on the pension provider. The pension providers may give bonuses or rebates on the pension contributions to the employers as permitted by its solvency. The level of the bonuses has varied considerably both between pension providers and over time. Bonuses vary also between insurance contracts within the pension company.

The pension insurance companies' pension contribution includes pooled (or PAYG), old-age and disability components. The assets for future pensions are accumulated through the latter two components. Average contributions for the year 2007 are shown in Table 4.4.

The pensions of self-employed persons are financed purely on the PAYG principle. The self-employed persons' contributions are used to cover the pension expenditure for the year in the question and the state finances the remaining portion.

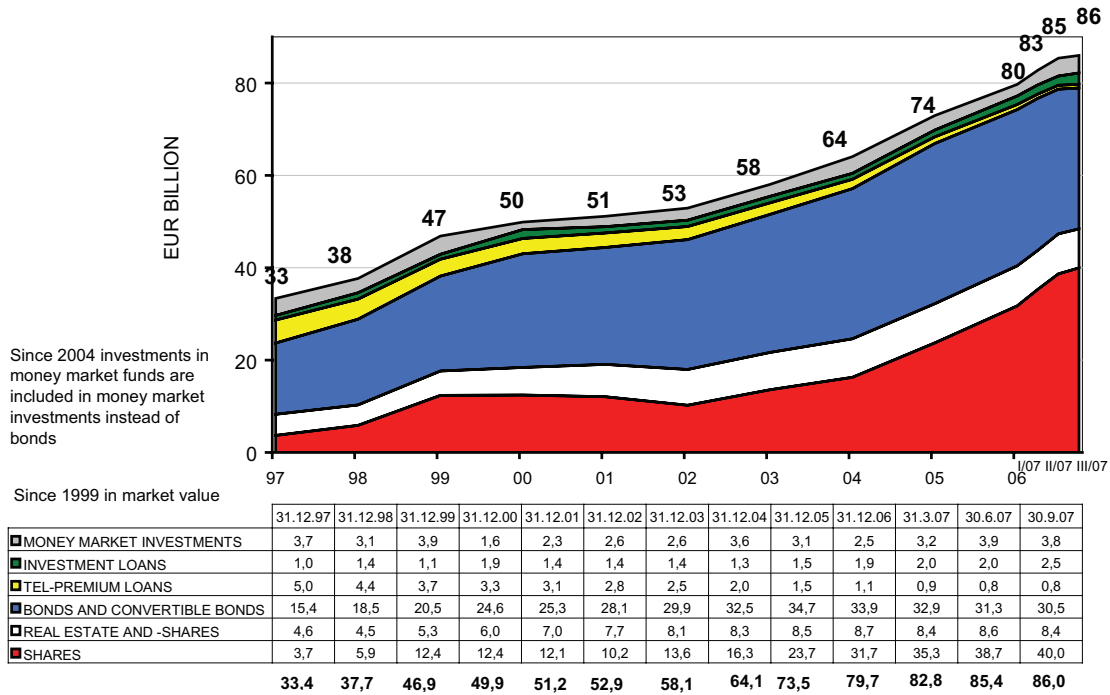
Table 4.4 Average components of the TyEL contribution in 2007.

Component	Per centage
Pooled (PAYG)	16.1
Old-age	3
Disability	2
Other expenses	0.9
Bonuses	-0.4
Temporary rebate	-0.5
Total contribution	21.1

Asset allocation and realised returns

Premium lending directed at the employers and investment loans were the most important investments up to the beginning of the 1990s. The deregulation of the financial market from the 1980s and the recession in the 1990s significantly reduced the demand for premium lending. During the recession in the early 1990s the Finnish state rapidly acquired debts, and by 1997 Finnish government bonds had become the most important asset class for the private-sector earnings-related pension scheme. Investment regulations were reformed in 1997. The aim was in general to diversify more investments and in particular direct more assets to stocks. The proportion of share investment grew between 1997 and 2006 from 11 to 40 per cent (Figure 4.5).

Figure 4.5 Investment portfolio of the private sector pension providers in 1997–2006.



Source: the Finnish Pension Alliance TELA.

The market value of the invested capital has more than doubled between 1997 and 2006. The growth is due to the investment returns on and the fact that the funded contribution components have so far exceeded the funded components of pensions paid. At the end of 1997 the proportion of investment in shares in the private sector was 11.0 per cent and at the end of 2006 as high as 39.3 per cent of all investments.

The period 1997–2006 is divided into three sub-periods according to the development in the stock market. The years of 1997–1999 and 2003–2006 were years of strong increase in share prices and the years 2000–2002 were years of strong decrease in share prices. The realised average return over the whole period was 7.3 per cent (money-weighted average, MWR). The average real rate of return was 5.8 per cent a year. Yearly returns are presented in Annex 7.

The realised real rate of return of almost 6 per cent clearly exceeds typical values used in the long term projections. Even though the return has been achieved through fairly low-risk investments, there is reason to use a lower return assumption in the projections. The high realised returns are partly a consequence of the exceptionally good returns on Finnish shares during this particular period. Also decreasing interest rates have contributed to realised returns. The prevalence of either phenomenon cannot be relied on for the future.

Investment and financing reform in 2007

The investment operations and financing technique of the private-sector earnings-related pension scheme were reformed significantly through legislative changes at the beginning of 2007. The main aim of the reform is to increase the risk-bearing ability of the pension providers so that they can increase the proportion of investments in shares in their investment allocation. This raises the expected return and risk level of pension assets. When realised, the improved investment returns reduce the need to increase the pension contribution in coming decades.

Financing rules in force prior to 2007 implied that the ratio of pension assets to wage sum would increase continuously. At the beginning of 2007 regulations were changed so that asset accumulation will slow down in the long term. As a consequence the contribution level will be more stable over time.

4.4.2 Public-sector earnings-related pension financing

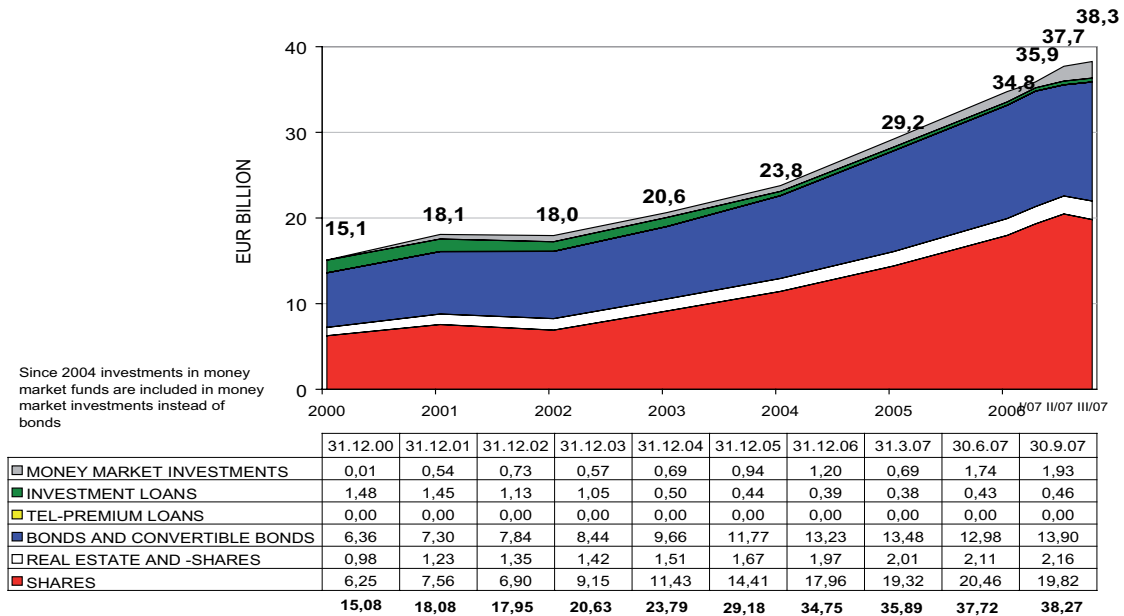
Public-sector pension financing was based on the PAYG principle until the late 1980s. At that time the Local Government Pension Institution started pre-funding aiming to prevent contribution rates increasing to unsustainable levels. The target is to stabilise the contribution rate slightly under 30 per cent of wages.

The premium income under the local governments' pension scheme (KuEL) consists of the salary-based employer and employee contributions. In addition, there are pension contributions based on pension expenditures and early retirement pensions. These contribution components help to maintain the salary-based contribution level close to the private sector level. Otherwise local governments would be biased to privatise their services production because of the pension contribution.

All the pension contributions from the state pension scheme (VaEL) are collected to the State Pension Fund. However, this fund does not pay the pensions. The state pensions are paid by the State Treasury from the state budget and the State Pension Fund may contribute and usually does contribute to the budget. The aim of the State Pension Fund is to accumulate funds until the assets correspond to one-quarter of the state pension liabilities. In 2007 almost half of the target was achieved.

At the end of 2006 the Local Government Pensions Institution held 22.0 billion euros worth of assets and the State Pension Fund 10.3 billion. Figure 4.6 shows the development of earnings-related pension assets of the whole public sector from the end of 2000 to the end of 2006.

Figure 4.6 The investment portfolio of the public-sector pension providers, 2000–2006.



Source: the Finnish Pension Alliance TELA.

Of the public-sector earnings-related pension assets approximately 52 per cent are invested in shares. The proportion of foreign investments in all investments was about 80 per cent. The proportions of investments in shares and foreign investments were clearly higher than in the private sector.

The higher proportion of investments in shares is explained by the difference in funding mode. In the public sector only the amount of the employee’s accrued pension rights has been determined, but not the share funded from it or thus the pension liability to be covered. The investment operations are based on the target allocation of investment objects as decided by the administrative bodies, from which deviations can be made within certain limits, for instance, on the basis of development in the view on interest rates or share prices.

The Local Government Pensions Institution has also set a long-term target for the real rate of return, which is four per cent a year as of the start of funding. The average annual real rate of return of the investments of the Local Government Pensions Institution has been 4.9 per cent from the beginning of 1988 to the end of 2005. The State Pension Fund sets its targets annually.

The public-sector investment returns have varied more than the private-sector returns (Annex 7). In years of falling share prices returns have been lower and in years of rising share prices higher than in the private sector. The larger variation is due to the larger proportion of investments in shares in the public-sector assets.

4.5 Future prospects

The projections below have been prepared at the Finnish Centre for Pensions in autumn 2007 (Biström et. al. 2007). The expenditure projections are based on the legislation which took effect in 2005. The calculations concerning the financing of private sector pensions follow the rules which take effect from the beginning of 2007.

4.5.1 Assumptions

The most significant assumptions of the long-term calculations presented in the following are:

1. Population forecast by Statistics Finland 2007
2. The effective retirement age increases by 1.6 years by 2025 and by 2.4 years by 2050 (2006: 59.5 years)
3. The employment rate increases to 71 per cent by 2025 and to 72 per cent by 2050 (2006: 69 per cent)
4. The real annual growth rate in earnings is 1.75%
5. The real return on pension assets is 4.0%.

Figure 4.2 showed the development of the life expectancy coefficient. Other aspects of the Statistics Finland population forecast were presented above (Chapter 2.1). Rapid population ageing during the next 20 years is characteristic to Finland. In the longer run, however the pace of the population ageing is likely to slow down.

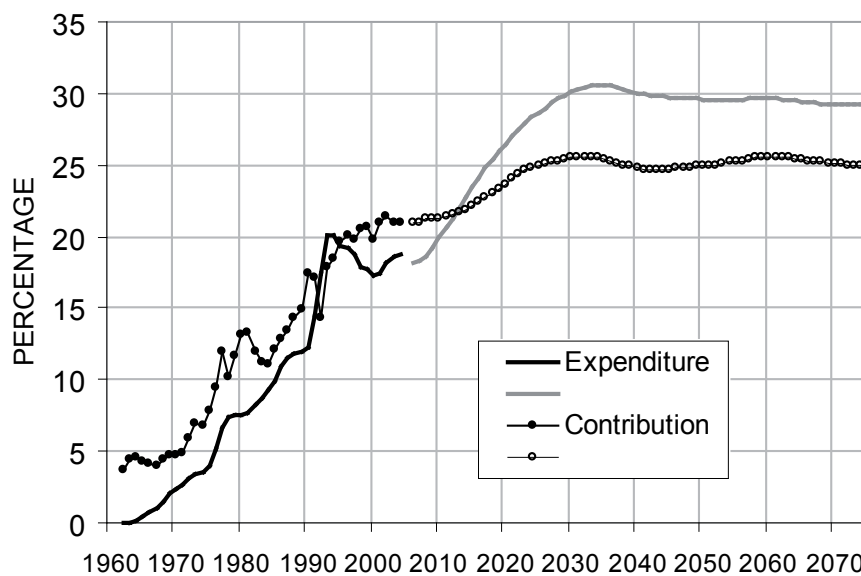
The long-term retirement age, employment rate assumptions are similar to those used in 2002 projection. Furthermore the assumed growth rate of the earnings level is unaltered. The 1.75 per cent growth rate is close to Finnish historical experience. Investment yields are assumed to be 0.5 per cent higher in this latest projection compared to the earlier projections. Historical experience of close to six per cent yield as well as the financing reform of 2007 motivated a higher rate. This last assumption is significant when evaluating the development of pension contributions and funds.

4.6 Expenditures, contributions and assets

The pension expenditure under the pension acts for private-sector employees (TEL, LEL and TaEL/TyEL) in proportion to the wage bill has been increasing since the acts entered into force in the early 1960s (Figure 4.7). The overall increase of 1975 can be seen in the figure (Chapter 1.3). The recession in the 1990s and the recovery from this recession are the main deviations from the trend. In 2005 the expenditures amounted to 18.1 per cent of the wage bill. The growth in expenditure continues up to the 2030s, after which the expenditures settle at a good 30 per cent of the wage bill.

The partial funding is visible in Figure 4.7. The contributions have exceeded the expenditures, except for the worst years of the recession. The difference between contributions and expenditures as well as the asset yields has been used to accumulate pension assets. The expenditure level will exceed the contribution level permanently from the initial years of the 2010s onwards. The difference between expenditures and contributions is financed through yields on the assets.

Figure 4.7. Pension expenditure and contribution as per centages of the wage bill for TEL, LEL and TaEL/TyEL in 1963–2075.



The expenditure and contribution rates have been trending up because the scheme is maturing and the population is ageing. The pension acts are still in the maturation phase, since the oldest age groups have not had time to accrue an earnings-related pension during their whole work history. However, mostly the future increase in expenditures is a consequence of population ageing.

Although the expenditure level under TyEL will exceed the contribution level in the near future, the value of the assets of the pension providers handling TyEL insurance increases over the whole projection period. Even the ratio of TyEL assets to the wage bill increases till

the early 2030s. At the end of 2005 the TyEL assets amounted to approximately 1.8 times the corresponding wage bill. The pension assets will amount to almost 2.5 times the wage bill in 2030 and roughly this level is maintained later on.

Public-sector pension expenditure in proportion to earned income has been about 10 percentage points higher than private-sector expenditure. This difference will continue to grow in the next few years, but in the longer term the differences in pension expenditure per centages between the sectors will narrow (Figure 4.8).

The current difference in pension expenditure per centages is due to the historically more generous pension benefits of the public sector and privatisations. They have transferred jobs from the public to the private sector. On the other hand, there are no significant differences in current pension accruals between the sectors. In the projection the labour force shares of the different sectors are assumed to remain at their current levels.

The total statutory pension expenditure can be divided into private-sector earnings-related pensions, public-sector earnings-related pensions and national pensions as well as the group other pensions, which includes pensions from workers' compensation and motor liability insurance, military accident compensations and pensions for front-veterans (Figure 4.9).

Figure 4.8. *Earnings-related pension expenditure, per centage of the wage bill by sector, 1985–2075.*

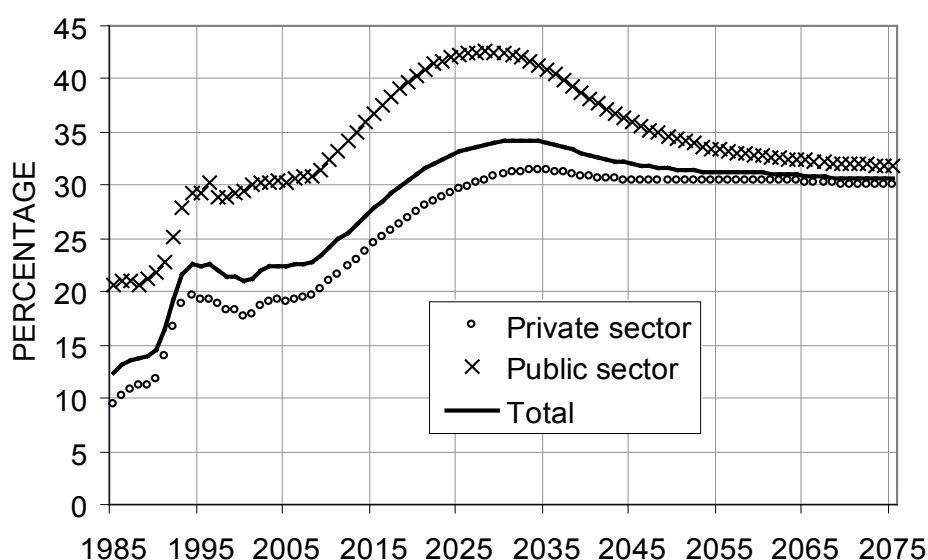
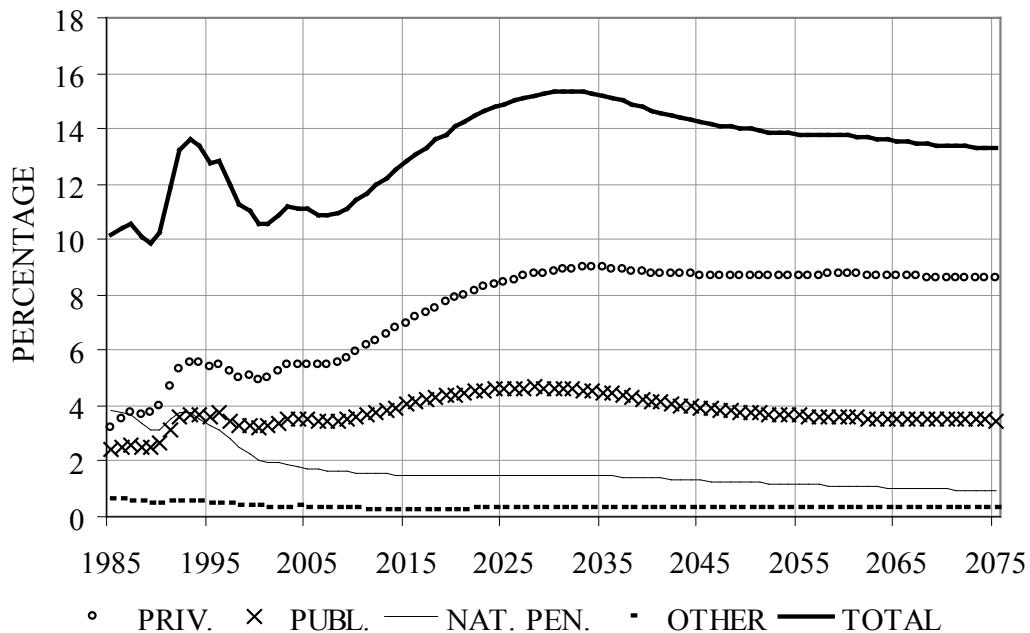


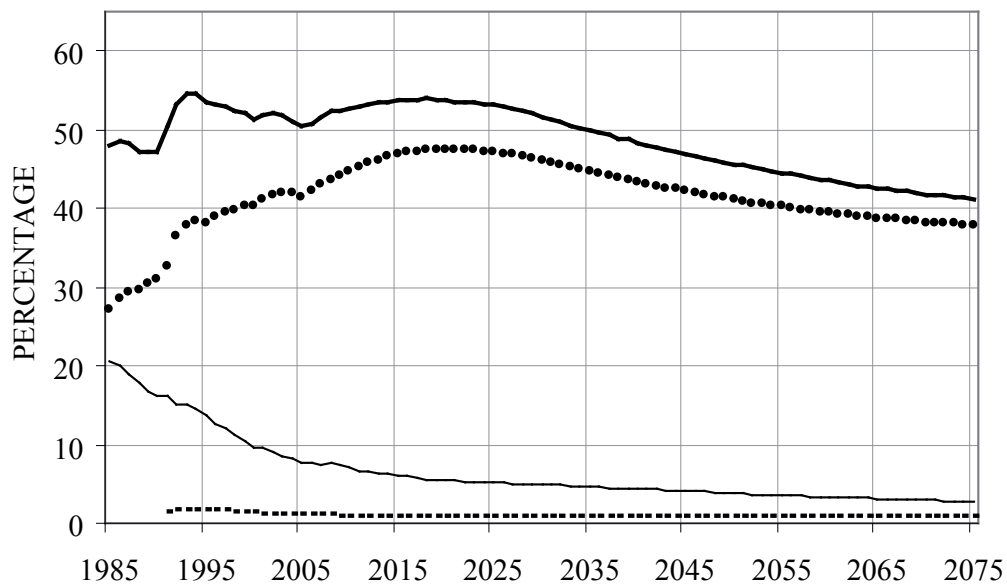
Figure 4.9. Statutory pension expenditure in per cent of GDP in 1985–2050.

The recession in the 1990s dominates the historical GDP share of pension expenditures. The GDP share of the statutory pension expenditures is currently not significantly higher than 20 years ago. This is slightly surprising because the old-age dependency ratio of the population has increased continuously and the earnings-related pension scheme has been in its maturation phase. The significance of national pensions has declined. Also the GDP share of the labour income in general has declined after the recession.

The projected growth in earnings-related pension expenditures is mainly a consequence of population ageing. Decreasing trend after 2030 comes from various sources. The life-expectancy coefficient limits expansion of earnings-related pension expenditures. Also public sector pension accruals are lower than they used to be. The decrease in national pension expenditures is mainly due to the fact that in the projection national pensions follow by 50/50 weight prices and wages. On the other hand the labour force does not shrink after 2030.

4.7 Benefit level

Average benefit levels can be deduced from the expenditure projection. The ratio of the average pension to the average wage has been close to 50 per cent during the last 20 years. The earnings-related pension has grown faster than the wage level and the national pension has grown at slower pace. These trends will continue until the 2020s. At that time the earnings-related pension scheme, which was established in 1962, will mature. From 2010 the life expectancy factor will cut the level of the earnings-related pensions, but it takes time to make a significant effect on the average benefit level.

Figure 4.10. Statutory pensions in per cent of the average wage.¹⁴

The ratio of average pension to average wage is of course an imperfect income measure. Currently close to one-third of the working age population are not employed or self-employed, that is they are not paid a wage. On the other hand, all pensioners by definition receive a pension. Different household sizes, paid and received income transfers as well as capital income also affect the purchasing power. All things considered, pensioner households' disposable income was 80 per cent of the population average in 2004 (Rantala 2006)

14 The beneficiaries include domestic residents receiving a pension in their own right. Persons receiving only survivors' or part-time pensions are excluded.

5 Conclusions

Norway and Finland are expected to face relatively strong pressure in their public finances due to an ageing population and the resulting growing age-related public expenditure. The population of Finland is ageing faster during the next two decades than the rest of the EU member states. Although ageing in Norway is expected to be less pronounced than in Finland and most other OECD countries, Norway has been projected to experience one of the sharpest increases in public expenditures as a share of GDP.

However, at the moment both countries are in a good financial position when compared to many other OECD countries. Growth in the economies has been strong in recent years and it is expected to continue. As a consequence employment has increased and unemployment decreased. Strong economic growth has affected positively to the general governments' financial positions. Substantial pension funds place these two countries in a more favorable financial position than most other countries when it comes to dealing with the growth in pension expenditure. However, in Norway the pension funds are not earmarked for pension expenditures only. Revenues are partially used to cover overall budget deficits and the fund is fully integrated into the state budget. Another specific feature in the Norwegian pension fund is that it is mainly based on oil and gas-revenues. Despite large assets, the funds will only be able to absorb only a relatively small share of the rising expenditure. As was shown in this paper the pension fund in Norway has been projected to gradually decline after 2020. Naturally, as the petroleum wealth is limited this will bring fluctuation in the projections. Anyway, in both countries the increase in pension expenditures will have to be compensated for also by other means.

The fiscal policy has been prudent in both countries and Governments are aiming to achieve stronger economic growth especially by boosting employment, among other things. This would strengthen the general governments' financial position. This aim, strengthening the incentives for work has also been one of the main principles when countries have renewed their pension schemes. In both countries the average effective retirement age is clearly below the official retirement age. Low effective retirement age runs contrary to the substantial projected increase in life expectancy. Besides expenditure pressure, the shrinking labor supply threatens to narrow down the tax base, which could jeopardize the sustainability of pension schemes.

Norway and Finland have succeeded to prevent poverty among the elderly quite efficiently. This can largely be seen to be due a residence based national pension which aims to reduce poverty and comprehensive earnings-related pension schemes. The replacement levels in comparison to previous earnings are quite high among those with low or no earnings-related pension. However, as the national pensions in Finland are mainly adjusted in line with the increase in prices the relative benefit level among low earners is likely to reduce over time. In Norway national pensions are better guaranteed as benefits are adjusted in line with the increase in wages.

In both countries the pension reforms are intended to improve long term fiscal sustainability, basically by stimulating employment. Earnings-related pensions are modified so that benefits are calculated on the basis of incomes received during the whole professional career. This also brought reforms for pension accrual for non-working periods. Pension accrual for non-working periods became more transparent and comprehensive. In total the reforms will bring a closer correlation between work throughout life and the pension. Likewise in comparison to previous system the new pension system ensures equal pension for equal lifetime income. Previously, in practice both countries had elements of final or last years salary system. This was visible especially in Finland, as pensionable wage was calculated as average from ten last years of each employment contract. All-years-rule is thus an important step towards making the pension system more sustainable and fair. Reforms will make the pension scheme easier to understand and more robust over time.

Norway is also establishing a similar guarantee pension as in Finland. Thus, incentives for work are added also for people with low incomes compared to current system when insured may not receive any pension in excess of the national pension.

At the same time, the overall effect on the pension level will depend on e.g. the life-expectancy based pension adjustment and how the individuals adapt to it. Together with the flexible retirement age individuals have a possibility to choose whether they want to compensate the effect of the life expectancy adjustment and remain in the work force for a longer period of time or retire with a lower pension. In both countries life-expectancy adjustment will begin to affect the level of new pensions from 2010 onwards. In Norway flexible retirement age and the effect of life-expectancy adjustment affect also the guarantee pension, contrary to Finland.

As a result of the reforms adopted, the replacement rate is over time projected to decline due to the life expectancy adjustment and the extension of the calculation of pensions on whole career earnings, unless retirement is postponed. Also indexation rules were changed. Norway is to change the indexation of paid-out earnings-related benefits which shall be adjusted in line with the average of the growth in prices and wages. Otherwise earnings-related pension entitlements and guarantee pensions shall continue to be adjusted in line with changes in wages. In Finland the 2005 reform brought only minor changes to indexation of pensions in payment. The pension entitlements are adjusted with a mixture of wages at 80% and of prices at 20% after the reform instead of 50 – 50 weights before the reform. This index change together with the extension of the calculation of pensions on whole career earnings was estimated to be cost neutral. Guarantee pensions in Finland continue to be indexed with the consumer price index increased with discretionary overall adjustments by the Parliament.

Norway established mandatory occupational pensions which is partially planned to compensate the reductions in future benefit levels. In Finland the strategy is different, concentrating to the development of statutory pension scheme and there has been no active policy for development of private pension provision or a “multipillar” pension system. As a major difference to Norway and a specific feature of the Finnish earnings-related pension scheme is that there is no income or pension ceiling.

The reformed pension scheme in Finland and the forthcoming pension reform in Norway make pension schemes far more sustainable. The recent reforms of the pension system should significantly reduce the pressures to increase pension contributions. Due to life expectancy adjustment pension schemes expenditure will in practice remain unaffected by the increased longevity. In both countries the last reforms imply a rise in the effective retirement age. In Finland the latest results indicate that the older employees are remaining in the labor market longer than they did before the reform of 2005.

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ANNEX 1

The social expenditure in Norway and Finland as per centage of GDP by main group and type (cash vs. services) 2005.

	Norway		Finland	
	As % of GDP	Of which in cash (%)	The social expenditure in per cent	Of which in cash (%)
Families and children	2,9	56	3,1	55
Unemployment	0,6	85	2,5	90
Illnes	7,7	32	6,9	18
Old-age	7,1	74	9,0	89
Disability	4,6	82	3,4	73
Survivors	0,3	98	1,0	100
Housing	0,1	0	0,3	0
Other	0,6	49	0,5	54
Total	23,9	59	26,7	63
GDP million NOK/ EUR	1 942 887		157 162	

ANNEX 2

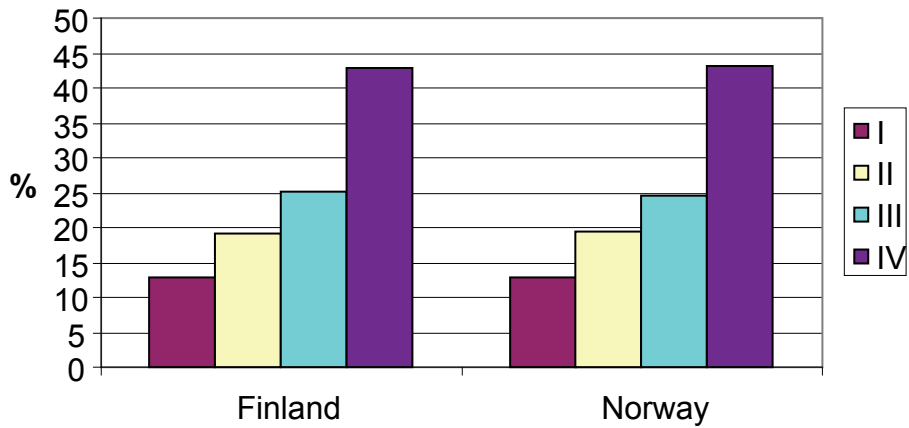
Distribution of household disposable income among individuals, Gini coefficients, mid-1980s to years around 2000.

	Mid-1980s	Mid-1990s	2000
Australia	31,2	30,5	30,5
Austria	23,6	23,8	25,2
Canada	28,7	28,3	30,1
Czech Republic	..	25,7	26
Denmark	22,8	21,3	22,5
Finland	20,7	22,8	26,1
France	27,6	27,8	27,3
Germany	..	28,3	27,7
Greece	33,6	33,6	34,5
Hungary	..	29,4	29,3
Ireland	33,1	32,4	30,4
Italy	30,6	34,8	34,7
Japan	27,8	29,5	31,4
Luxembourg	24,7	25,9	26,1
Mexico	45,1	52	48
Netherlands	23,4	25,5	25,1
New Zealand	27	33,1	33,7
Norway	23,4	25,6	26,1
Poland	..	38,9	36,7
Portugal	..	35,9	35,6
Spain	36,7	33,9	32,9
Sweden	19,9	21,1	24,3
Switzerland	26,7
Turkey	43,5	49,1	43,9
United Kingdom	28,6	31,2	32,6
United States	33,8	36,1	35,7
OECD average ¹	29,3	30,9	31
Slovenia	22,3
Notes	Mid-1980s rather than 1985		
	Mid-1990s rather than 1995		
1	OECD average includes listed countries for which data are available for mid-1980s		

Source: OECD Factbook 2007: Economic, Environmental and Social Statistics -
For further information: Förster, Michael and M.Mira d'Ercole 2005.

ANNEX 3

The distribution of the disposable household income for Finland and Norway in 2004, broken down by quartiles. The quartiles have been calculated on the basis of the equivalent disposable income. The first quartile is made up of the households with the lowest incomes, whereas the households with the highest incomes are found in the fourth quartile.



Source: Nososco.

ANNEX 4

Example of old-age pension calculation in Norway.

Example 1. Calculation of pension points, if pensionable income at the bending point i.e. 6 x average B.a. in 2007:

Insured's annual income = 6 x average B.a., year 2007:

$$\frac{6 \times 65\,505 \text{ NOK} - 65\,505 \text{ NOK}}{65\,505 \text{ NOK}} = 5 \text{ pension points}$$

Example 2. Calculation of pension points, income exceeding 6 x average B.a:

Insured's annual income: 423 900 NOK

6 x average B.a. : 393 030 NOK

Exceeding income: 30 870 NOK, where 1/3 is taken into account = 10 290 NOK

Income from which the pension points are calculated: 393 030 + 10 290 = 403 320 NOK

$$\frac{403\,320 \text{ NOK} - 393\,030 \text{ NOK}}{65\,505 \text{ NOK}} = 5.16 \text{ pension points}$$

Example 3. Pension amount.

Insured's average pension point figure (20 best years) = 5.16 (final pension point)

40 pension earning years, with 15 pension earning years prior to 1992:

$$1) \quad \frac{66\,812 \text{ NOK} \times 5.16 \times 25 \times 45}{40 \times 100} = 96\,960,91 \text{ NOK}$$

$$2) \quad \frac{66\,812 \text{ NOK} \times 5.16 \times 15 \times 42}{40 \times 100} = 54\,298,11 \text{ NOK}$$

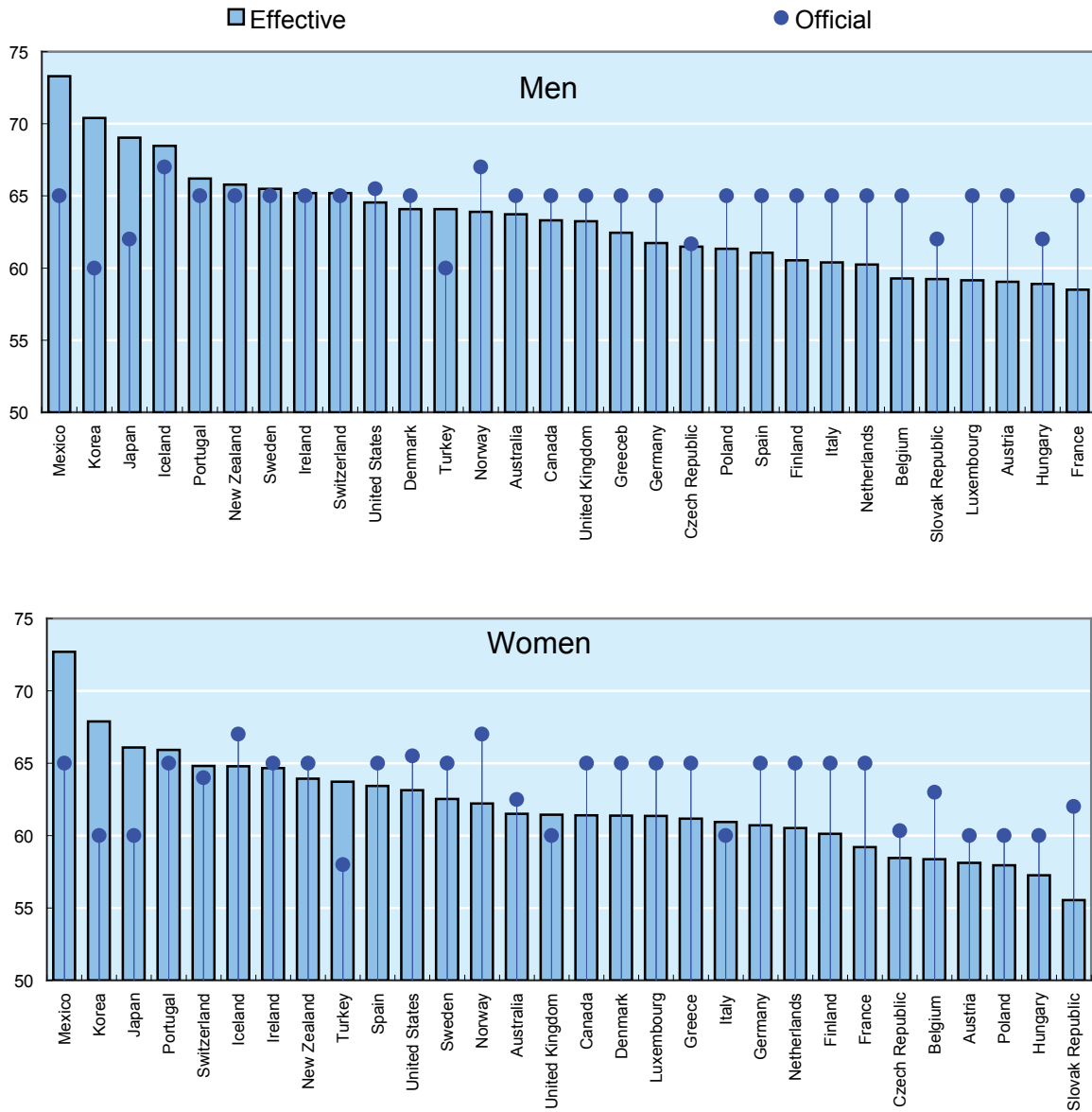
$$3) \text{ Supplementary pension (in total)} = \underline{151\,259,02 \text{ NOK}}$$

$$4) \text{ A full basic pension} = 66\,812 \text{ NOK}$$

$$5) \text{ Old-age pension, total} = \underline{218\,071 \text{ NOK}}$$

ANNEX 5

Average effective age of retirement versus the official age, 2005. Source, www.oecd.org.



ANNEX 6

Number of pensioners in Norway and Finland at year end 2006.

31.12.2006	Norway	Finland ¹
Old-age pensioners	634 216	918 930
Disability pensioners	327 818	256 276
Part-time pensioners	-	30 628
Unemployment pensioners	-	47 621
Special pension for farmers	-	30 545
Surviving spouse	24 009	259 162
Surviving children	14 043	24 625
Total	1 000 086	1 313 566

Source: NAV, Finnish Centre for Pensions.

¹ One person may simultaneously receive several different pension benefits. For line Total, each person has been counted only once.

ANNEX 7

Annual real returns on the Pension Funds in Norway and Finland, 1997–2006, %.

	Net real return	1997	1998	1999	2000	2001	2002	2003	2004	2005		Average
FIN ¹	Private-sector	6.3	10.5	10.9	1.5	-1.3	-0.7	7.3	7.4	10.4	6.4	5.8
	Public-sector	-	-	-	-0.1	-3.4	-9.2	8.5	8.2	13.8	8.4	4.9
NOR	Pension Fund-Global ²	7.2	8.2	10.9	0.4	-3.7	-6.6	10.8	6.3	8.5	5.6	4.6
	Pension Fund-Norway ³	5.6	-2.3	6.2	3.1	1.0	0.5	13.3	10.1	7.3	8.6	5.2

Source: Norwegian Ministry of Finance 2007; The Finnish Pension Alliance (TELA).

¹ The real return is calculated by deflating the nominal return by the change in consumer prices for the relevant year. The average return has been calculated by weighting the observed return for each year with the average bound capital during the year (money-weighted average, MWR).

² Geometric real return in international currency calculated on the basis of a weighted average of retail price growth in the countries included in the Fund's benchmark portfolio. Average management costs were 0.09 pct. of the assets under management over this period.

³ Geometric real return in Norwegian kroner. Management costs are assumed, for technical calculation purposes, to have been 0.05 pct. of assets under management.

ANNEX 8

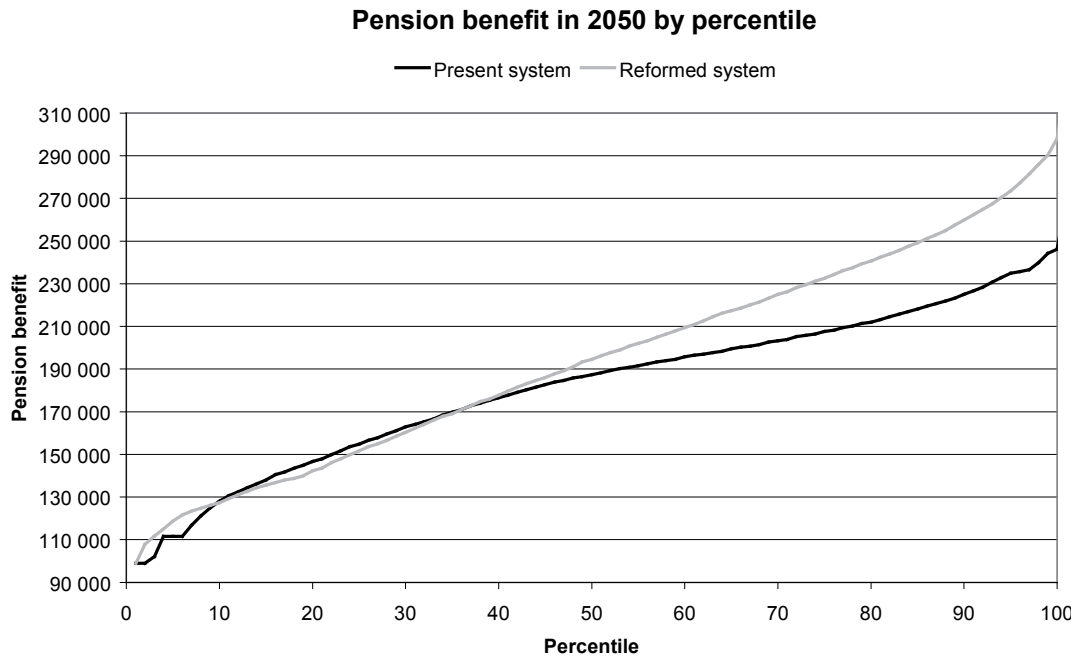
Main differences between the proposed pension accrual models in the Norwegian pension scheme.

	Government's proposal	Pension Committee's proposal	Model with basic pension (Model D)	"Bending point" model (Model A) ¹
Accrual rate	1.35%	1.25%	0.85%	1.7% for 0–3 B.a. 0.8% for 3–8 B.a.
Lower limit for pension earning	0 B.a. 7 B.a.	0 B.a. 8 B.a.	1.79 B.a. 8 B.a	0 B.a.
Ceiling	0 B.a.	0 B.a.	1.79 B.a.	8 B.a.
Basic pension	1.79 B.a.	1.79 B.a.	–	0 B.a.
Guarantee pension	1.79 B.a.	1.79 B.a.	1.79 B.a.	1.79 B.a.
Minimum pension	80% of the	100% up till 1 B.a.	–	1.79 B.a.
Reduction of guarantee pension	earned income-pension	and 60% over 1 G		100% up till 1 B.a. and 60% over 1 G
Unpaid care	4.5 B.a. for child under 4 years	5 B.a. for child under 6 years	5 B.a. for child under 6 years	5 B.a. for child under 6 years

¹Another variation of this type of model is model B. Model B gives an income-based pension equal to 2.3% of the income up to 2 B.a., and 0.7% of the income between 2 and 8 B.a.. The guaranteed pension will be reduced with 100% of the income-based pension.

ANNEX 9

Pension benefits*(NOK) in 2050 by per centile.



* Benefits are shown before indexation and exposure to the life expectancy adjustment divisor for a constant level of the B.a., which is given a nominal anchor equal to its 2006 mean value (NOK 62 161).

As corrections for life expectancy and indexation are excluded from the distributional analysis, this is the main reason why a majority of income groups seem to gain from the reform. The figure is therefore a good indication of distributional consequences, but misleading seen from a fiscal perspective.

The Finnish Centre for Pensions is the statutory central body of the Finnish earnings-related pension scheme. Its research activities mainly cover the fields of social security and pension schemes. The studies aim to paint a comprehensive picture of the sociopolitical, sociological and financial aspects involved.

Eläketurvakeskus on Suomen työeläkejärjestelmän la-
kisääteinen keskuslaitos. Sen tutkimustoiminta koostuu
pääasiassa sosiaaliturvaan ja työeläkejärjestelmiin liit-
tyvistä aiheista. Tutkimuksissa pyritään monipuolisesti ot-
tamaan huomioon sosiaalipoliittiset, sosiologiset ja talou-
delliset näkökulmat.

Pensionsskyddscentralen är lagstadgat centralorgan för
arbetspensionssystemet i Finland. Forskningsverksamheten
koncentrerar sig i huvudsak på den sociala tryggheten och
på de olika pensionssystemen. Målet för forskningsprojek-
ten är att mångsidigt belysa aspekter inom socialpolitik,
sociologi och ekonomi.