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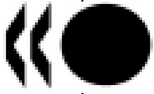

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HOW SHOULD NORWAY RESPOND TO AGEING?

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by
Pablo Antolin and Wim Suyker

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ABSTRACT/RÉSUMÉ

Norway, like most OECD countries, will experience a significant ageing of its population, although it will be less dramatic. Moreover, it starts from an enviable position: employment rates of older people are among the highest in the OECD, pension outlays are currently relatively low and substantial financial assets have been accumulated in the Government Petroleum Fund. However, without reforms, due to the maturing of the pension system, ageing will lead to one of the biggest increases in pension spending as a share of GDP in OECD countries over the next 50 years. This paper thus, after exploring the scale of the demographic changes, examines the relevant institutions and their effect on the decision to retire. In light of the expected increase in the elderly, various issues concerning their economic position and health care are considered. The paper then presents the fiscal impact of ageing: the cost of the pension system will more than double, while health care spending for the elderly will likely rise substantially. The paper ends by outlining the policy options to deal with ageing. It also discusses whether the oil wealth should be used to fund the pension system.

*****

En Norvège, comme dans la plupart des pays de l'OCDE, le vieillissement de la population posera un problème sérieux, mais il sera moins préoccupant qu'ailleurs. De plus, ce pays bénéficie d'une position de départ enviable : les taux d'emploi des personnes âgées sont parmi les plus élevés de la zone de l'OCDE, les dépenses au titre des pensions sont pour l'instant relativement faibles, et d'importants actifs financiers ont été accumulés au Fonds pétrolier de l'État. Néanmoins, du fait de la montée en régime du système de pensions, les dépenses à ce titre rapportées au PIB connaîtront, en raison du vieillissement de la population, l'une des augmentations les plus importantes de la zone de l'OCDE au cours des 50 prochaines années si rien n’est fait pour y remédier. C'est la raison pour laquelle, après avoir tenté de déterminer l'ampleur de l'évolution démographique, le présent document examine les institutions pertinentes et leur incidence sur la décision du départ en retraite. Compte tenu de l'augmentation attendue du nombre de personnes âgées, différentes questions sont abordées concernant leur situation économique et les soins de santé dont elles auront besoin. La section suivante analyse l'incidence budgétaire du vieillissement de la population : le coût du système de pensions fera plus que doubler, tandis que les dépenses de santé des personnes âgées ont de fortes chances de s'élever sensiblement. La dernière section est consacrée aux possibilités d'action qui s'offrent aux pouvoirs publics face au vieillissement de la population, et examine le point de savoir s'il conviendrait d'utiliser la richesse pétrolière pour financer le système de pensions.

JEL codes: I1, I3, J1, J11, J14.

Keywords: Norway, ageing, pensions, health care, long term projections.

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HOW SHOULD NORWAY RESPOND TO AGEING?[1]

Pablo Antolin and Wim Suyker

Introduction

1. Norway, like most OECD countries, will experience a significant ageing of its population, although it will be less dramatic than elsewhere. Ageing will affect public finances through rising spending on pensions and on health care for the elderly. But Norway starts from an enviable position. Employment rates for older people are among the highest in the OECD and the level of early retirement is less of a problem. Furthermore, pension expenditure relative to Gross Domestic Product (GDP) is relatively low, and pensioners currently enjoy reasonable replacement rates.

2. When evaluating the challenges that ageing poses, Norway differs markedly from most other countries. The government has substantial petroleum revenues and possesses ample financial assets, mostly accumulated in the Government Petroleum Fund (Box 1). Generational accounting, which is an integral part of the central government budget paper, reveals that the generational transfer problem stemming from the ageing of population is broadly under control when future petroleum revenues and the current assets of the Petroleum Fund are taken into account. Finally, with the financial assets accumulated in the Government Petroleum Fund, the government could introduce funding in the pension system, enhancing its ability to finance higher pension expenditure, without taxing a generation twice.

Box 1. **The assets of the Government Petroleum Fund will rise substantially in the coming years**

The Government Petroleum Fund was established in 1990 to build up financial reserves to preserve an equitable share of the present petroleum revenues for future generations and decades, and to prevent short-term fluctuations in the oil price from influencing spending in the current and next year's budget. It remained empty until 1996, as a result of the recession of the early nineties, but has seen a rapid build-up in assets in recent years. The Fund is managed by Norges Bank, but separated from the management of official currency reserves and from ordinary central bank functions. Investment guidelines have been issued by the Ministry of Finance and require the Bank to invest the Fund's capital exclusively in foreign fixed-income assets and, since early 1998, in foreign equities. Currently, 60 per cent of the portfolio is allocated to fixed-income assets and 40 per cent to equities. Geographically, the fund is diversified, with 50 per cent invested in Europe, 30 per cent in America and 20 per cent in Asia and Oceania. The ministry sets a benchmark portfolio and determines the maximum investment risk the Bank is allowed to take. The Bank aims at a maximum return within the risk range set by the ministry. It has succeeded in outperforming the benchmark portfolio; its excess return was 2.2 percentage points from early 1998 till the third quarter of 2000 (Norges Bank, 2000). By then, the value of the Petroleum Fund was NOK 357 billion (25 per cent of GDP). Based on a cautious oil price assumption, the Ministry of Finance has projected that total Petroleum Fund assets will reach NOK 589 billion (40 per cent of GDP) at the end of 2001 and NOK 1 070 billion (72 per cent of GDP) by the end of 2004.

3. Nevertheless, there are important problems facing the future of the pension system. Absent reforms, the ageing of the population combined with a still maturing pension system could result in one of the steepest increases in pension expenditure in the OECD in the next 50 years. Pension outlays, including disability pensions, of the National Insurance Scheme are projected to more than double, from the current 7.3 per cent of GDP to 17 per cent in 2050. This paper analyses the reasons for the sharp rise in the financial burden of ageing and discusses options for reform. The first section describes the demographic and employment structure of the Norwegian economy. In brief, the population is ageing less rapidly than the OECD average and a high proportion of the population is employed. But employment rates of older workers, although high, have been falling, as has been the effective age of retirement. The following section describes the current system of support for the elderly and the incentives to retire early. Various issues concerning the economic position and health care for the rising number of elderly persons in future years are also considered. The paper then reviews the impact the demographic changes will have on public finances, as both the number of pensioners and average pensions in the earnings-related scheme could grow by more than 50 per cent over the next 50 years, while health care spending and the cost of care for the frail elderly are also likely to rise substantially. The final section lays out the policy options to cope with ageing.

The old-age burden facing Norway

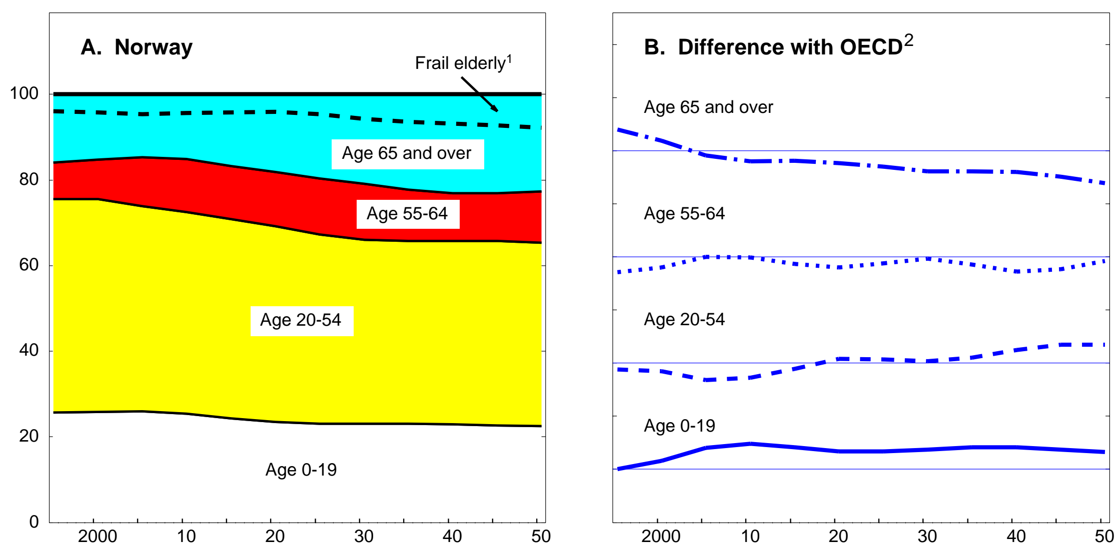
The old will represent a quarter of the population in 2040

4. The Norwegian population will age somewhat less rapidly over the next 50 years than the OECD average but the proportion of those 65 or older will increase from around 15 per cent of the population to 23 per cent by 2040 (Figure 1).[2] The old-age dependency ratio (those 65 and older relative to those of working age) is expected to increase from 26 per cent to 43 per cent by 2040, as compared with more than 50 per cent for the OECD (Figure 2, Panel A). The number of people of working age per old-age person will thus fall from 4 to 2.3.

Despite high employment ratios, old-age workers' employment has fallen during the 1990s

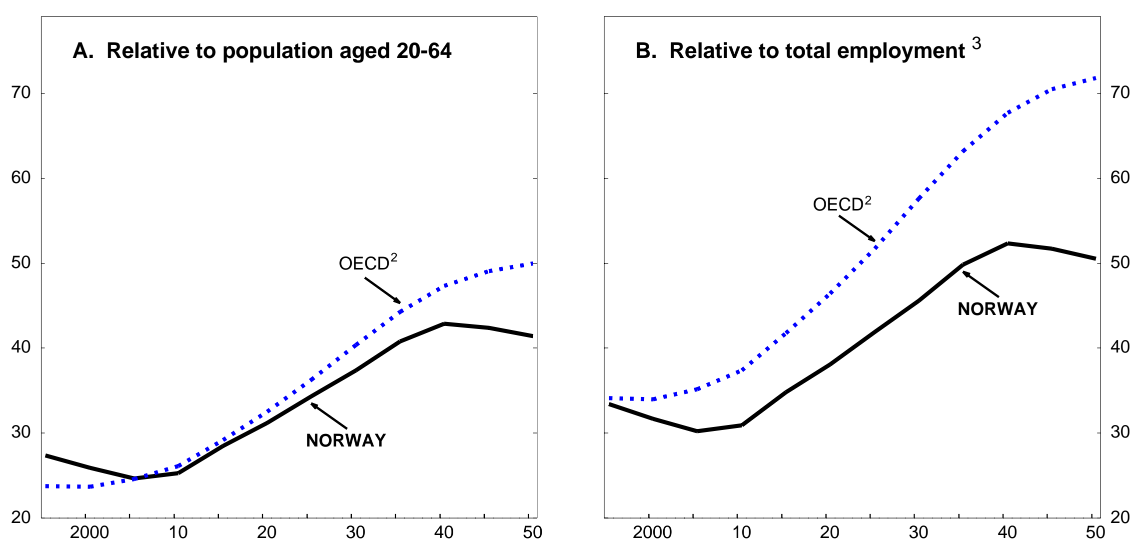
5. Although Norway has the highest employment ratio for older workers (aged 55 to 64) in the OECD (Figure 3),[3] employment rates fall sharply with age, particularly from age 62. Only a third of people aged 64 are employed, even though the official age of retirement is 67 (Figure 4). In the 1990s, employment ratios increased on average but fell for those aged 62 and older.[4] This reflects the introduction of the early retirement scheme (AFP) in 1989 and the gradual lowering of the pensionable age in this scheme during the 1990s. It also reflects the rise in the number of disability pensioners. Under the assumption of constant age-specific employment rates, the long-term pressure of ageing is much less severe in Norway than on average in the OECD (Figure 2, Panel B). However, given recent trends, the age-specific employment rates are likely to develop more favourably in the OECD than in Norway. The relatively better performance may, therefore, turn around.

Figure 1. Population trends
Per cent of total population



1. Age 80 and over.
2. Excluding Mexico and Turkey.
Source: Statistics Norway, Eurostat, United Nations and OECD Secretariat.

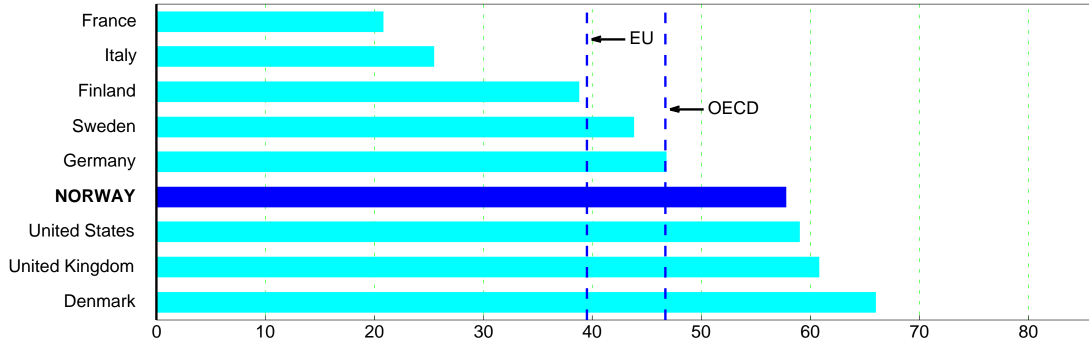
Figure 2. Old-age[1] dependency ratios
Per cent



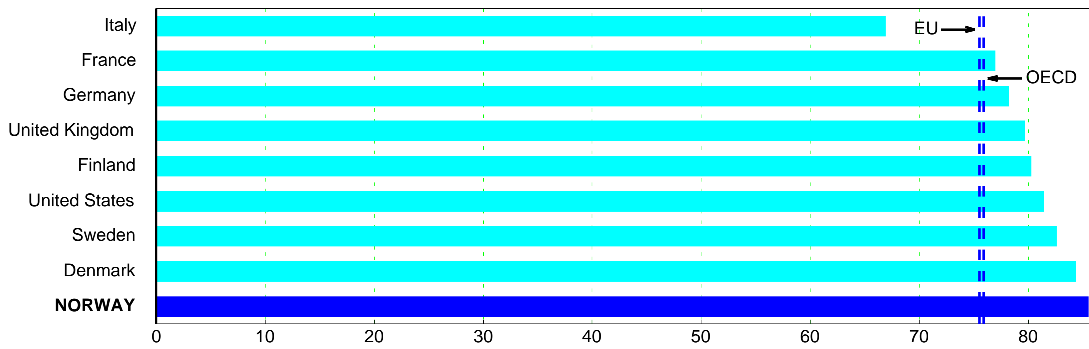
1. Persons aged 65 and above.
2. Average of the rates of individual countries (excluding Mexico and Turkey).
3. For the projections the employment/population ratio is kept constant at its 1995 level.
Source: Statistics Norway, Eurostat, United Nations and OECD Secretariat.

Figure 3. Employment rates in selected OECD countries
1999, per cent

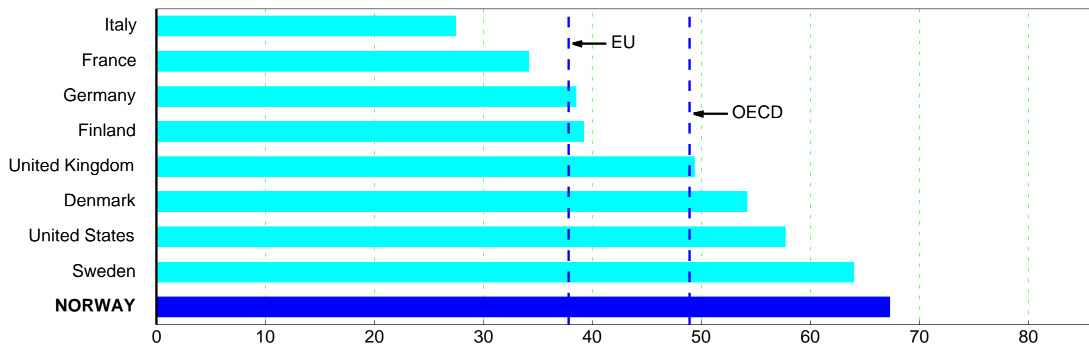
A. Age 15 to 24 [1]



B. Age 25 to 54

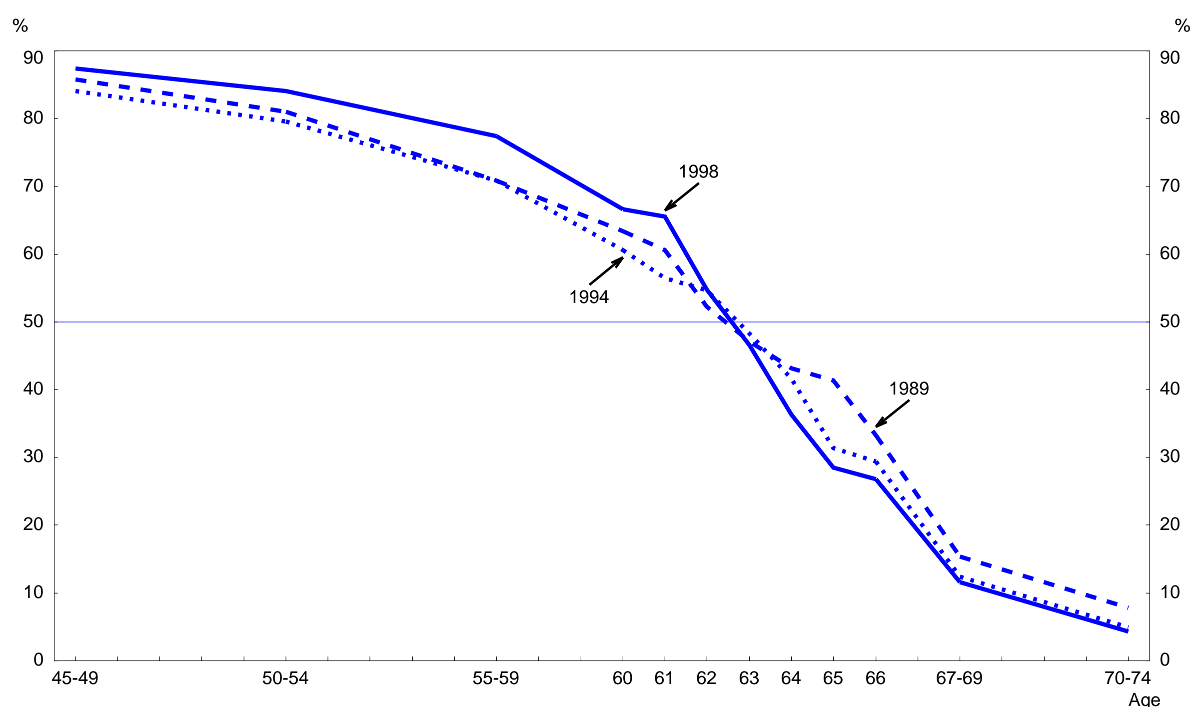


C. Age 55 to 64



1. Age group 16 to 24 for Norway, Sweden, the United Kingdom and the United States.
Source: OECD (2000), Employment Outlook.

Figure 4. Employment rates for older workers in Norway
Persons aged 45 and over



Source: Statistics Norway.

Support for the elderly and incentives to retire

The main features of the pension system

6. The backbone of the Norwegian welfare system providing among others old age, disability, and survivors' pensions is the *National Insurance Scheme* (NIS).[5] It is fully integrated in the central government budget and is not as in other OECD countries a separate social insurance scheme with contribution rates linked to outlays. The old-age NIS pension system consists of a basic pension and a supplementary pension. People with low or no supplementary pension rights receive a special supplement, which together with the basic pension adds up to a minimum pension. It is more than a safety-net provision but less than a scheme that provides all employees a pension that is relatively close to their previous wage. All individuals resident or working in Norway are compulsory members of the NIS. Employers, employees and pensioners pay contributions to the NIS but the contribution rates are not in any way related to the outlays of the scheme. Total expenses of the NIS were around 13 per cent of GDP in 1999, with old-age, disability and survivors' pensions representing 5.2, 2.6 and 0.4 per cent of GDP respectively.[6] Contributions were not sufficient to cover these outlays and, as a consequence, the state transfer to the NIS amounted to 3.5 per cent of GDP in 1999. Benefits are determined in relation to a "basic amount", which is generally referred to by the letter "G". At present, G is about a sixth of the average full-time wage. Parliament adjusts this amount once a year, broadly in line with changes in nominal income. With the entire system tied to the G, the pension system is *de facto* closely linked to wages.[7] NIS old-age benefits are topped up by occupational pension arrangements. Currently, roughly 50 per cent of the workforce is covered by an occupational pension scheme. The importance of personal defined contribution private accounts is currently negligible.

Age-related benefits in the NIS: the minimum pension is about a third of the average full-time wage

7. Age-related benefits in the NIS consist of a minimum pension and an earnings-related pension (supplementary pension), the main features of which are described in Annex. The minimum pension is equivalent to 1.8 G for single pensioners, 2.3 G for a married pensioner with a dependent spouse aged less than 60 years, and 3.1 G (53 per cent of the average wage) if the spouse is over 60 years of age.[8] When both spouses receive the minimum old-age pension, the amount is 1.54 G for each spouse. All individuals with at least three years of residence between the age of 16 and 66 are entitled to a reduced minimum pension. A full minimum pension is granted with 40 years of residence.

8. A person is entitled to a supplementary (earnings-related) pension if his/her annual income exceeded one G (a sixth of the average wage) for three years after 1966. The amount of the supplementary pension depends on three parameters: the number of pension-earning years, the supplementary pension percentage and the computed pension points. The system is regressive as pension points are less than proportional to wages above the average wage and as there are no additional pension points for wages above twice the average wage. Only the average pension points of the person's best 20 income years are considered when calculating pension benefits. Since the system has not yet fully matured, supplementary pensions are so small for about a quarter of the pensioners that the supplementary pension does not give a pension above the minimum pension level.[9] The average supplementary pension is currently just above one basic amount. As new cohorts retire over the next 50 years the average supplementary pension will continue to increase, to just above two basic amounts, partly due to the sharp increase in female labour market participation in the 1970s and 1980s. The rise in average pensions is one of the two main reasons for the more than doubling of the pension outlays as a percentage of GDP in the coming decades.

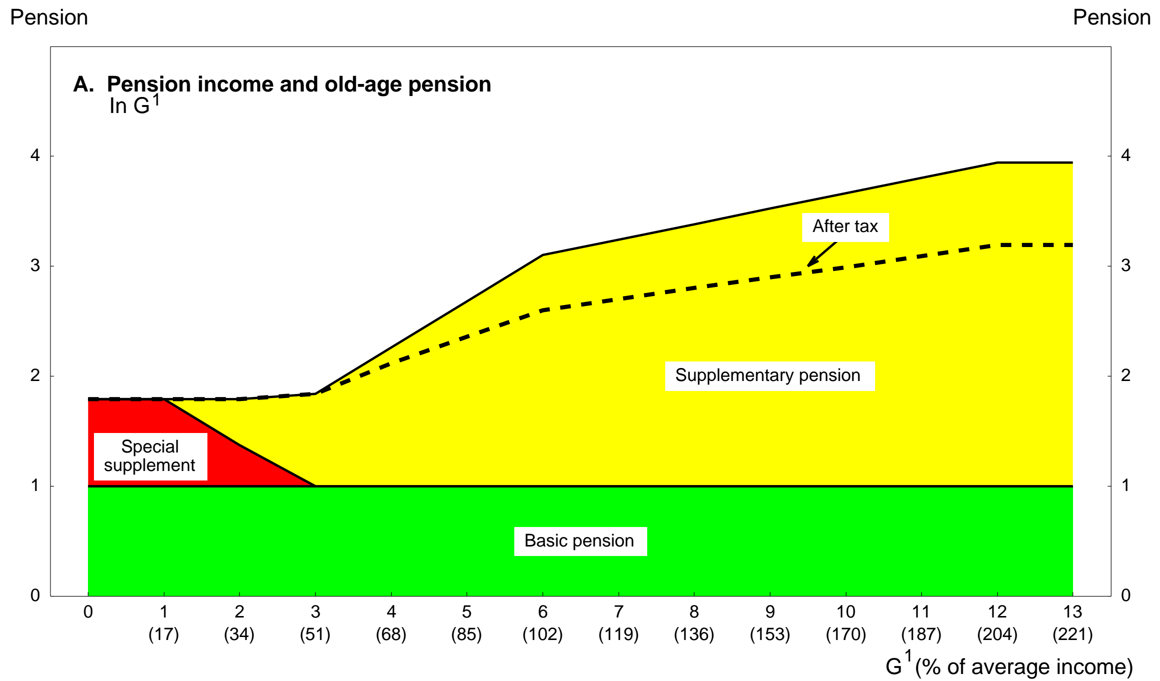
9. Old-age pension benefits are granted only when reaching the official age of retirement at 67. With minimum old-age pensions providing a floor and upper limits on pension points providing a ceiling, old-age pension replacement rates fall the higher the previous income was and range from above 100 per cent for workers with previous incomes below 2 to 3 G to less than a third for high-income workers (Figure 5). As a consequence, occupational pension schemes are essential for high-income workers to have a pension close to their previous wage.

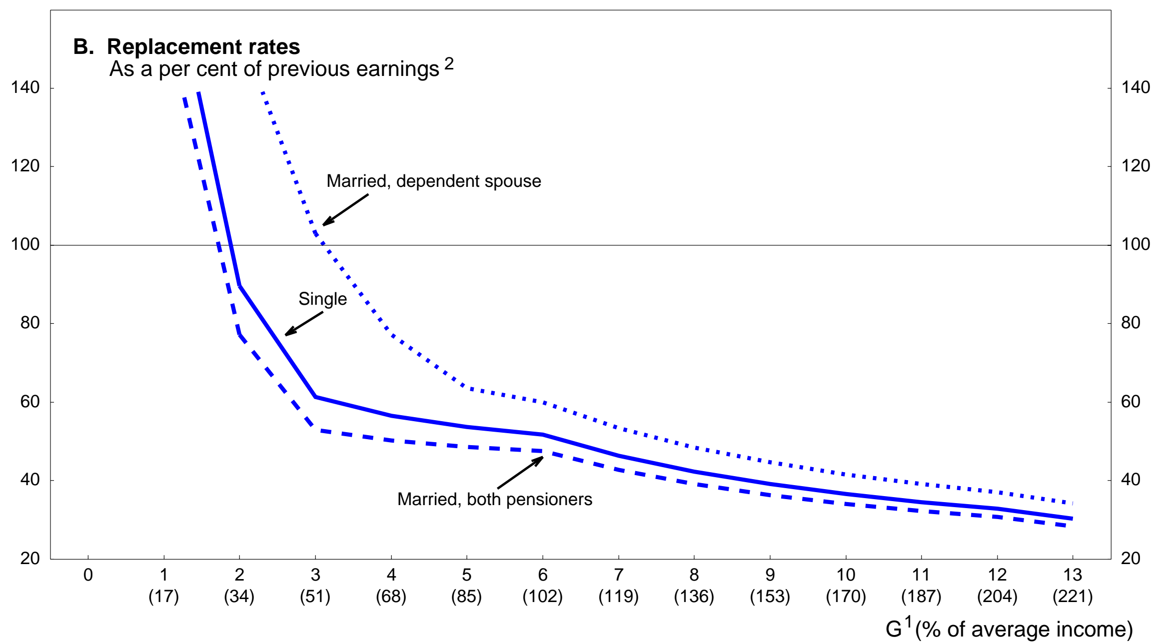
Contributions to the NIS are complex and have anomalies

10. Contributions to the National Insurance Scheme by employers, employees, self-employed persons and pensioners are collected as taxes and are thus not assigned to the NIS while the central government budget grants the NIS the amount needed to cover all expenses. The employer's contribution is a percentage of wages that varies according to the region where the employee resides.[10] The standard rate is 14.1 per cent but the rate for remote regions is zero. An additional employer's contribution of 12.5 per cent is levied on wages exceeding 16 G despite the regressive benefits.

11. There are four income-related rates of National Insurance contribution rates for individuals — 0, 3, 7.8 and 10.7 per cent.[11] Contributions are levied on wage income, income from self-employment, and pensions. Pensioners who have no other income than the minimum pension do not pay contributions.[12] A 3 per cent rate is levied on pensions and income of individuals under 17 and over 69 years. The rate on income from employment and self-employment above 12 G is 7.8 per cent, while the self-employed contribute a 10.7 per cent rate on income up to 12 G. In 1999, NIS contributions of employers and individual insured persons covered around 40 and 30 per cent of total NIS expenses, respectively. The remainder, around 30 per cent, was covered by a state transfer to the NIS.

Figure 5. Pensionable income in the NIS
In 2000





1. G is the 'basic amount' considered for social insurance and income tax purposes. In May 2000, 1 G = NOK 49 092. Average income before tax is almost 6 G.
2. Before tax.
Source: Ministry of Finance and OECD Secretariat.

No major reforms to the NIS scheme during the 1990s

12. Unlike in several OECD countries, there were no major reforms to the Norwegian pension system in the 1990s as there has not been the same kind of anticipated financial pressure to implement far-reaching reforms. According to calculations by the National Insurance Administration, the two reforms implemented in 1992 have reduced pension payments by only 1 per cent in 2000 and are expected to reduce them by 10 per cent in 2050.[13] This is relatively limited compared with reforms in many other OECD countries.[14, 15]

Occupational pension arrangements have an unequal coverage

13. There are additional non-NIS pension arrangements in the form of occupational pensions. All central and local government employees are covered by an occupational pension scheme, while around a third of the employees in the private sector are covered by such a scheme.[16] In the private sector, occupational pensions are firm specific, voluntary and enjoy tax advantages.[17] They are portable within the public and the private sectors but not across them. Yet individuals never lose the earned pension capital and associated pension after completing the vesting period.[18] Occupational pensions in the private sector are of a defined benefit nature, fully funded and based on an average employer contribution of around 8 per cent of the wage bill, while employees usually do not contribute.[19] Like private sector schemes, local government schemes are fully funded but central government occupational pension payments are not funded at all and paid directly out of the budget.

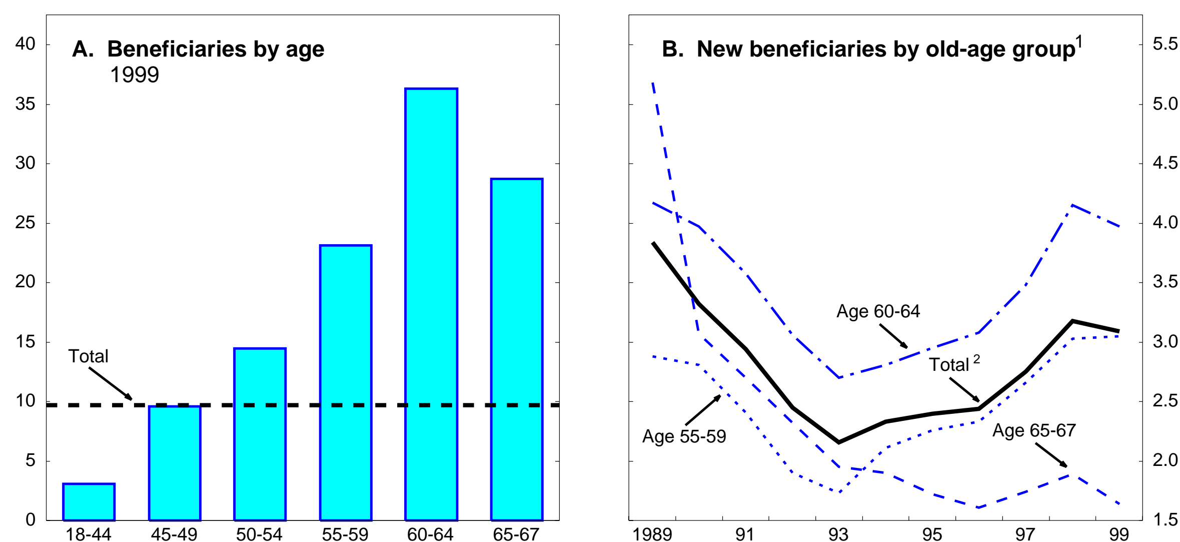
14. Occupational pension schemes aim at supplementing the NIS benefits and determine overall pension replacement rates. Public sector occupational pensions guarantee a total pension, including the NIS, of two thirds of the previous salary. Private sector occupational pensions supplement the NIS benefits and aim to provide a total replacement ratio, including the NIS pension, somewhere between 60 and 70 per cent.[20] Private sector funds are regulated by the new Corporate Pension Act and life insurance companies have set up pension funds for employers. The investment policy of these funds is governed by the standard rules for life insurance companies. Large private pension funds hold 61 per cent of their assets in bonds and 22 per cent in shares, while small funds invest in a more risk averse manner, with 40 per cent in cash and bank deposits, 22 per cent in shares and 30 per cent in bonds.

15. Apart from tax advantages, employers have an incentive to provide these private occupational pension schemes to recruit high-income workers. With the NIS pension benefit rules entailing falling pension replacement rates as income increases, high-income workers find occupational pension schemes that guarantee a much higher replacement rate very attractive. Thus, occupational pensions tend to be concentrated in sectors of the economy with many high-income workers — *e.g.* banking, finance and business service sectors (Hippe and Pedersen, 1992 and Pedersen, 2000).

Disability pensions

16. Disability pensions broadly follow the same benefit rules as old-age pensions. Benefits are calculated by assessing pension years and pension points as if retiring at 67.[21] Therefore, an individual on a full disability pension will get the same pension as a person retiring at 67. As in other countries, the likelihood of being disabled increases with age (Figure 6, Panel A). Disability in Norway is high compared with a range of OECD countries (Table 1). However, this could be partly explained by the limited provision of other means to retire early.

Figure 6. Disability pensions
Per cent of population in same age group



1. Age 65-66 instead of 65-67 for 1989.
2. Age 55-67.
Source: Ministry of Health and Social Affairs; Statistics Norway and OECD Secretariat.

Table 1. **Disability pensioners in selected OECD countries**
1997, per cent of respective age group

	Men and women			Men			Women		
	Total	Age 60-64	Age 50-59	Total	Age 60-64	Age 50-59	Total	Age 60-64	Age 50-59
Denmark	4.3	13.6	8.4	..	..	..	..	..	..
Finland	8.8	43.9	16.8	..	..	..	..	..	..
Germany	4.2	..	..	5.2	29.1	13.2	3.3	13.3	9.2
Iceland	5.6	17.2	9.7	..	..	..	..	..	..
Italy	1.8	..	..	1.5	8.3	4.7	2.0	9.6	6.0
Netherlands[1]	8.1	..	..	9.9	31.5	..	6.3	14.1	..
Norway	7.6	33.8	16.3	6.4	31.0	17.5	8.8	36.7	25.0
Sweden	7.7	33.5	14.2	6.7	21.3	16.3	8.6	34.3	32.8
Switzerland	3.7	..	..	4.2	16.3	9.3	3.2	9.4	7.3

1. Age 55-64 instead of 60-64.
Source: NOSOSCO (1999), *Social Protection in the Nordic Countries, 1997* and C. Prinz (1999), *Invalidenversicherung: Europäische Entwicklungstendenzen zur Invalidität im Erwerbsalter,* Forschungsbericht Nr. 7/99, Bundesamt für Sozialversicherung (BSV), Bern.

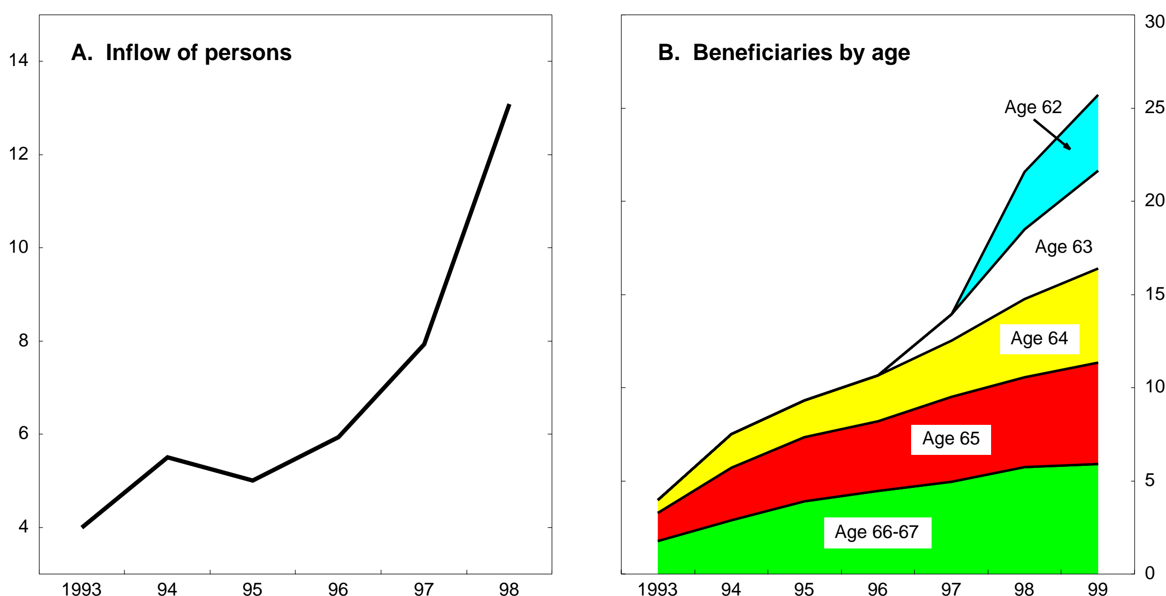
17. The introduction of the early retirement scheme in the 1990s (see below) was followed by a reduced flow into disability of those aged 65 to 67 (Figure 6, Panel B). Revealingly, the share of disabled individuals in the 60-64 age group, which is not fully covered by the early retirement scheme, is higher (Figure 6, Panel A). Medical criteria have been strengthened by the 1991 reform but the implementation of the rules has been more liberal since 1995 and rules differentiating medical conditions have been abolished.[22]

The door to early retirement has been opened during the 1990s

18. Prior to the 1990s, some occupational groups already had access to early retirement. Public sector employees can retire three years earlier than the age limit — which goes from 60 to 70 depending on occupation — if the sum of their age and the number of contribution years to the occupational scheme exceeds 85 years.[23] The 85-year clause is also relevant for certain groups of public employees such as policemen, army officers and firemen who have a lower age limit.

19. In 1989, employers and unions negotiated an early retirement scheme, AFP (*Avtalefestet pensjonsordning*), allowing people to retire earlier than age 67. Currently, the scheme covers the entire public sector — around one third of all employees — and about 43 per cent of private sector employees. The self-employed are not included. The proportion of employees covered increased over the 1990s (Figure 7), both as a result of wider coverage and a gradual reduction in the minimum early retirement age from 66 in 1989 to 62 in 1998.[24] Entitlement rules are as follows:

Figure 7. Number of persons on early retirement pensions
AFP pensions, thousands



Source: Ministry of Health and Social Affairs.

- Employment in the firm in the three previous years or in a firm covered by the AFP-scheme for the last five years.
- Labour earnings at least corresponding to the basic amount in both the year AFP is taken up and the previous year.
- An earnings history such that the average earnings in the 10 "best" years since 1967 are at least twice the basic amount.
- Earnings at least equal to the basic amount during 10 years since the age of 50.

20. Pension benefits are calculated as if the person had retired at age 67, assessing pension points during early retirement on income at the time of taking early retirement. When reaching the age 67, an AFP pension is replaced by an old-age pension calculated as if retiring at 67. The local and central government finance the AFP scheme in the public sector directly out of their budget. In the private sector, 20 per cent of pension benefits are paid directly by the employer concerned; the government pays 40 per cent for those aged 64 to 66 but nothing for those taking AFP at age 62 or 63.[25] The participating employers finance the remaining 40 (80) per cent via a PAYG (pay-as-you-go) "fund".[26]

There are strong incentives to retire as soon as this is an option

21. To the extent that the retirement decision is based on the degree of income replacement, low-income individuals have an incentive to stop working at age 67 when they become entitled to an old-age pension from the NIS. High-income individuals, on the contrary, have more of an incentive to continue working, given their low pension replacement rates, unless they have other assets or are covered by an occupational pension scheme. These schemes reduce this incentive because they in effect set an overall replacement rate of 66 per cent for public sector employees and normally between 60 and 70 per cent for private sector employees.

22. The NIS is not "actuarially neutral" with respect to the year of retirement, providing negative incentives to work beyond age 67. For all income levels and household types, the value of the pension wealth of an individual (*i.e.* the discounted sum of pension benefits received during retirement) decreases with working an extra year (Table 2).[27] A complementary indicator of the disincentives to continue working is the change in pension wealth relative to earnings that a person would earn if retiring later — *i.e.* the implicit tax on the additional year of earnings from the loss in pension wealth.[28] The results from these calculations show that the implicit tax is high, in particular for low-income earners. High-income earners face a smaller implicit tax, but working an extra year nevertheless reduces their pension wealth.[29]

23. More important than the disincentives in the old-age pension scheme to continue working after the age of 67 are the strong incentives to retire early due to the AFP schemes (Table 2). Indeed, only 26 per cent of those aged 65-66 are in the labour force (Table 3).[30] The implicit tax is positive for all income groups but is significantly higher for low-income earners, suggesting that the incentives to retire early are particularly strong for this group.[31] Furthermore, the pension guarantee of two thirds of wages from occupational pensions applies to public sector employees retiring between age 64 and 67, enhancing the incentives to retire early, in particular for public sector employees with high incomes.[32] In the 2000 budget paper, the previous government suggested to reduce the incentives to retire earlier by ending the building-up of pension rights during early retirement. This would indeed reduce the negative incentive of working an extra year but they would, nevertheless, remain, in particular for low-income earners (Table 2, hypothetical case). New rules for combining part-time work and receiving an AFP pension were introduced in August 2000. This is in line with recent proposals for coping with ageing populations (OECD, 1998 and 2000) recommending flexible retirement, where both receipt of pensions and part-time work are available simultaneously.

Table 2. **Replacement rates, pension wealth accrual rates and implicit tax of working an extra year**[1]

Per cent

Family status	Income (G)	Replacement rates		NIS		AFP[2]				Hypothetical case[2, 3]			
		Before tax	After tax	Accrual rates	Implicit tax	Accrual rates		Implicit tax rate		Accrual rates		Implicit tax rate	
				Age 67	Age 67	Age 62	Age 65	Age 62	Age 65	Age 62	Age 65	Age 62	Age 65
Single	2	90	111	-7.7	90	-5.6	-6.7	90	90	-5.6	-6.7	90	90
	6	54	64	-6.1	41	-5.6	-6.7	52	52	-4.0	-5.1	37	39
	12	34	46	-6.0	25	-5.6	-6.7	33	33	-3.8	-4.9	22	24
Married with dependent spouse	2	154	73	-7.7	154	-5.6	-6.7	154	154	-5.6	-6.7	154	154
	6	62	79	-6.3	50	-5.6	-6.7	60	60	-4.2	-5.3	45	48
	12	35	50	-6.2	30	-5.6	-6.7	37	37	-4.0	-5.1	27	28
Married, both receiving a pension	2	77	95	-7.7	77	-5.6	-6.7	77	77	-5.6	-6.7	77	77
	6	49	58	-6.0	37	-5.6	-6.7	48	48	-3.8	-4.9	33	35
	12	32	43	-5.9	23	-5.6	-6.7	31	31	-3.5	-4.6	19	21

1. Calculations are based on an individual having 40 years of contributions and a life expectancy of 80 years. It does not consider the occupational pension guarantee of two-thirds of wages. No time discount is used in the calculations. The average income is equal to 6 G.
2. Of working an extra year at ages 62 or 65.
3. Pension years and pension points are evaluated at the time of retirement and not at 67 as under the AFP rules.

Source: OECD Secretariat and Ministry of Finance.

Table 3. **Labour market status of people aged 60 to 66**
1999, as a percentage of the respective population

	Total population (thousand)	Employed	Unemployed	Pensioners		
				AFP	Disability	Other[1]
Age 60-64	183	54	1	8	35	2
Age 65-66	67	25	1	17	30	26

1. Includes home-workers.
Source: Statistics Norway.

Pension tax rules also make continuing work unattractive

24. Pension income is taxed favourably in Norway (Box 2). The contribution to the NIS is 3 per cent compared with the standard rate of 7.8 per cent for employees (and those receiving a minimum pension pay no contribution at all).[33] In addition, pensioners get a higher basic deduction and under certain circumstances they can benefit from special limitations on tax. These favourable tax rules make retirement "cheaper", thus strengthening the incentives to retire early.[34]

Box 2. **Taxation of pension benefits**

The 2000 *OECD Economic Survey* on Norway examined the tax system (see also Van den Noord, 2000). Income in Norway is taxed in three instalments. There is a contribution to the NIS, an ordinary income tax (28 per cent of income, excluding a basic relief and the standard allowance) and a surtax (13.5 per cent of income above the surtax threshold). In principle, pension income is taxed as other income. However, the NIS contribution of pensioners is 3 per cent instead of the standard 7.8 per cent (and those receiving a minimum pension pay no contribution at all). Moreover, pensioners are allowed an extra basic deduction from the ordinary income tax base of NOK 17 640, which is doubled for married couples where both spouses are disabled pensioners or an old-age couple where both are formerly disabled pensioners.

Furthermore, pensioners with low income do not pay taxes or are subject to a special tax limitation rule (*skattebegrensningsregelen*) (Table 4). Under this rule, old-age and disability pensioners pay 55 per cent of their income after deducting 22 per cent for basic relief and a further NOK 73 800 for singles or NOK 120 600 for married couples.* If at least one of the spouses can be assessed according to the limitation rule, the couple must be *jointly* assessed by this rule if that entails lower taxation than under the ordinary rules. According to the Ministry of Finance, about 10 per cent of pensioners did not pay tax because of low income and/or low net wealth in 2000; nearly 40 per cent paid tax according to the limitation rule; and roughly half of the pensioners paid tax according to the ordinary, favourable tax rules for pensioners.

* Two per cent of net wealth exceeding NOK 200 000 is added to the income.

Table 4. **Income brackets for pensioners**[1]

In 2000, in G[2]

	Single person	Married couple[3]
No tax liability if the pension income is below	1.93	3.15
Paying tax according to the limitation rule if the pension income is in the interval	1.93-3.15	3.15-5.17
Paying tax according to the ordinary scheme for pensioners if the pension income exceeds	3.15	5.17

1. The following assumptions are made: the pensioners do not have other income than pension, they are not formerly disabled pensioners, their net wealth does not exceed NOK 200 000 and they receive standard allowances only. An additional assumption for a married couple is that the spouses have an equal amount of pension income.
2. G is the "basic amount" considered for social insurance and income tax purposes. In May 2000 1 G = NOK 49 092.
3. Total pension income.

Source: Ministry of Finance.

Income levels of older pensioners are currently relatively low, but gradually improving

25. Around one in nine elderly Norwegians has net income below the poverty threshold — defined as 50 per cent of the median net income — which is almost double the rate of the Norwegian population as a whole (Table 5). Elderly people suffer higher levels of poverty because many older pensioners only receive the minimum pension. However, poverty among old-age individuals has fallen substantially from 1986 to 1998 while overall poverty rates remained stable. The large increase in the minimum pension in 1998 explains the large fall in poverty rates among the elderly, in particular among women as they are the majority of those receiving a minimum pension. As the pension system matures, poverty rates among the elderly should continue to fall further.

26. Poverty rates are highest among the single elderly and very old women (Table 5). One in four single elderly have income below the poverty threshold, and 22 per cent of women aged 75 or older are below the poverty threshold. In contrast, elderly couples experience much less poverty than the population as a whole. This appears to reflect that many very old pensioners were not entitled to supplementary pensions, and if entitled they are low. Moreover, the minimum pension is below the relative poverty threshold (Epland, 2000). Nevertheless, this problem will dwindle as the pension system matures.

27. Poverty rates are very sensitive to the equivalence scale elasticity (the weight given to family members to calculate individual income within the family).[35] This is especially so for older persons who usually live in relatively small households. For example, using an equivalent scale elasticity of 0.7 instead of 0.5 reduces the poverty among the elderly considerably as it lowers the median income per individual more than the individual income of the elderly. In this case, the poverty rate of the elderly falls to around 1 per cent, much below the 4.5 per cent for the total population.

Table 5. **Poverty rates in Norway**

Persons with income below half of the median household disposable income,[1]
per cent of same population group

		1986	1996	1998
Total population		6.4	7.5	6.3
Age 65 and older	Total	19.5	16.2	11.0
	Single	39.5	35.3	25.1
	Couple	5.2	1.9	0.9
Elderly persons				
Total	Age 65-74	10.0	7.8	4.8
	Age 75 and over	31.7	24.0	17.1
Men	Age 65-74	5.7	4.2	3.0
	Age 75 and over	17.1	13.0	6.9
Women[2]	Age 65-74	13.4	10.8	6.2
	Age 75 and over	40.2	31.0	23.6

1. Equivalence scale = 0.5.
2. In 1996 women as a per cent of the total population were: 4.5 per cent for age 65-74 and 4.8 per cent for age 75 and over. The same age groups as a per cent of the population in the same group are 54.1 per cent and 63.4 per cent respectively.

Source: Statistics Norway.

Care and services for the elderly

The institutional framework

28. Care for the elderly is largely publicly financed and provided (Box 3). The Norwegian health care system, which was reviewed in detail in the 1998 *Survey* (OECD, 1998*b*), is organised at three levels: the central government, the counties and the municipalities. The central government is responsible for framework policies governing the scope and standards of care provided, and for regulatory oversight on the achievement of goals. The central government establishes broad guidelines and supplies information on financing, operating costs and investment policy, and monitors compliance of the national health care policy. Counties have the responsibility for managing and running hospitals, while municipalities are responsible for ambulatory care. While there are distinct advantages to having responsibility for some welfare services at different government levels, the present arrangements encourage municipalities and counties to shift part of the burden onto each other by restricting supply.[36] Based on national legislation, the municipalities provide a wide range of services for the elderly ranging from home help and home nursing to service housing and long-term institutional care.[37] In recent years, local authorities have attempted to reduce segmentation and to rationalise and streamline services by bringing them under the same administrative service within the municipality.

Box 3. **Financing of the health and social care system for the elderly**

The Norwegian health and social care system provides high quality services with universal coverage. Total health care spending amounted to around 8 per cent of GDP, which is broadly in line with the OECD average. By contrast, outlays for the elderly represented around 3 per cent of GDP in 1997, the highest share in the OECD after Sweden (Table 6). These services are financed through a combination of block grants from the central government, which are calculated on the basis of a set of criteria, including per capita income, population density and demographic structure of the municipality, the revenue from local taxes and out-of-pocket payments by the patients. The central government also provides earmarked grants and subsidies for major reforms and investment projects. Concerning primary health care and hospital care about 83 per cent was financed by the public sector in 1998 (including NIS and government subsidies), while out-of pocket payments by patients covered the remainder.* The public sector covers approximately 85 per cent of the care service expenses of elderly people, while the remainder is financed mainly by user charges and reimbursements from the National Insurance Scheme for medical treatment, physical therapy and medicines. For other care services for the elderly, user charges are based on user's income. Concerning home care, user charges cover about 3 per cent of the total costs: home nursing, respite services and support services (help to eat, help to get out of and into bed, help with personal hygiene) are provided free of charge; practical services (home help) are also almost free for the low-income pensioners; and for institutional care, user fees cover currently approximately 16 per cent of the total expenses (pensioners pay 75 per cent of their basic amount above the threshold of 12 per cent of the basic amount, and 85 per cent of the supplementary pension for long-term institutional care). Services are not asset tested.

* There is a ceiling on the amount individuals are required to pay in this way each year.

The demand for services

29. Most people of retirement age are independent. Almost 94 per cent of those above the age of 65 live in private accommodation and only one-fifth of this group receives regular home services. In 1995, about 6 per cent of those over 65 and a quarter of those over 80 were in long-term institutional care and less than ½ per cent of those over 65 were in service housing. The share of over 65-year-olds in institutional care declined during the 1980s and 1990s, accompanied by the increase in home services, and this has contributed to reduce the operating costs of the system. Notwithstanding the trend, Norway still has more resources concentrated on institutional care, especially nursing homes, compared with other Scandinavian countries. In addition, the elderly are heavy users of hospital services. Those over 65 — 16 per cent of the population — use half of the hospital capacity; even though, over the last couple of decades, hospitals have managed to reduce substantially the average length of stay of the older patients and to shift responsibility for rehabilitation of the elderly to the municipalities. Thus, although the nursing homes are mainly used for long-term stays, the pressures on hospitals have led some to provide short-term institutional care as well. Yet, most nursing homes also provide short-term institutional care for cases of acute illness and for respite services. This raises issues regarding their appropriate role and functioning within the overall health care system, that the Ministry of Health and Social Affairs is currently examining.

Table 6. **Health care for the elderly**[1] **in OECD countries**

Public expenditure as a per cent of GDP, 1997

	Health care for total population	Services for the elderly and disabled people
Norway	**6.7**	**3.1**
Australia	5.9	0.7
Austria	5.8	0.5
Belgium	7.8	0.4
Canada	6.3	..
Czech Republic	6.6	0.5
Denmark	6.7	3.1
Finland	5.7	1.6
France	7.4	0.7
Germany	8.1	0.8
Greece	5.0	0.3
Iceland	6.7	2.0
Ireland	5.3	0.4
Italy	5.7	0.2
Japan	5.7	0.3
Korea	2.7	0.2
Luxembourg	5.9	0.5
Mexico	1.6	0.0
Netherlands	6.2	0.5
New Zealand	6.3	0.0
Poland	4.8	0.3
Portugal	5.3	0.2
Spain	5.7	0.3
Sweden	7.2	3.9
Switzerland	7.3	0.3
Turkey	2.4	0.1
United Kingdom	5.7	0.6
United States	6.5	0.0
EU average[2]	6.7	0.7
OECD average[2]	6.1	0.3

1. Persons aged 65 and above.
2. Weighted averages. The OECD total excludes Hungary for both series and Canada for health care.

Source: OECD, Social expenditure database and OECD Secretariat.

Recent policy changes concerning care for the elderly

30. In 1997, Parliament adopted a four-year action plan, covering the years 1998-2001. The main aim was to ensure that the capacity of the local social and health care services keeps up with the increasing number of elderly people and ensure improving quality (the quality of care as measured by housing and institutions' standards and the number of qualified personnel — was not considered satisfactory). Goals include promoting the independence of individuals as long as possible, encouraging user participation in assessing needs and establishing uniform standards. Minimising costs of long-term care by enhancing co-operation between hospitals, primary health care and care services for the elderly has not been a focal point in the action plan. However, it is considered an important aim by the Ministry of Health and Social Affairs.

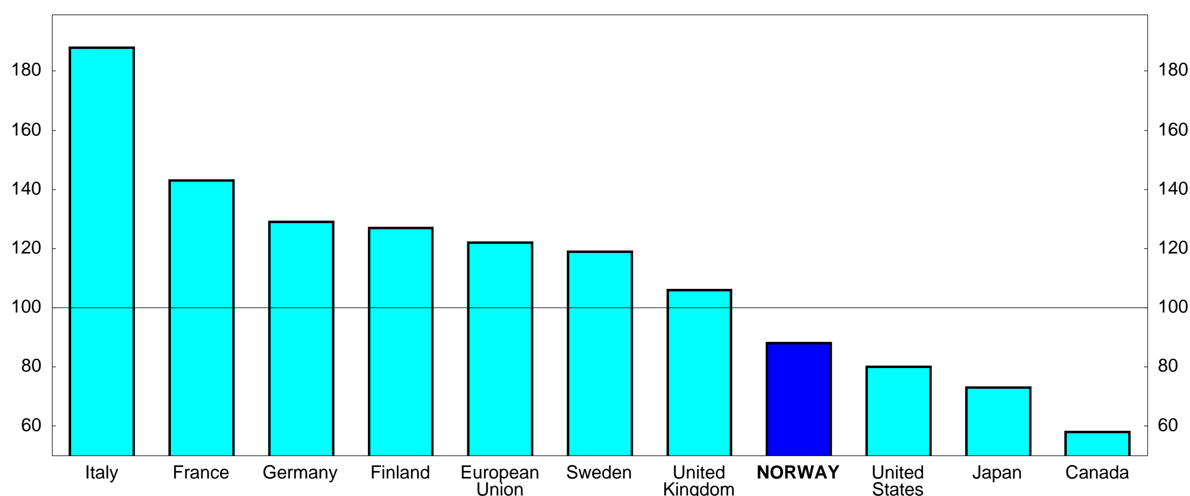
31. In the light of current use patterns and the low cost of services to the user, the financial burden of the care system could rise rapidly. There is an extensive use of some high cost services which require a better assessment of the best solutions for individuals. Furthermore, preventive measures described above will permit the elderly to live independently as long as possible and reduce these costs. While there are distinct advantages to having responsibility for some welfare services at different government levels, as this permits local circumstances to be taken into account, it encourages municipalities and counties to shift part of the burden onto each other by restricting supply. Finally, the low level of charges is likely to have boosted demand for public services.

Pension expenditure will more than double as a share of GDP

32. Norway starts from a better situation than most other OECD countries, with a below average share of public pension expenditure in GDP and substantial government assets (Figure 8).[38] However, NIS pension outlays as a share in GDP are projected to increase more than two-fold in the next 50 years, from a current level of 7.3 per cent to 17 per cent by 2050.[39] The total expenditure will actually be higher, because the official calculations do not take into account the occupational pension guarantee of two thirds of previous earnings for public sector employees or the transfers for the early retirement scheme. Including them could increase pension outlays to just below 20 per cent of GDP by 2050.[40] When health care expenditure for the elderly are included, public expenditure for supporting the elderly, as a share of GDP, will be much higher in Norway than in most OECD countries. Calculations of the tax necessary to finance NIS pension expenditures and the early retirement scheme, suggest that the implicit tax rate will have to rise from a current 19 to 34 per cent of wages by 2050 if taxation of pension income is not taken into account. When it is (at approximately half the tax on wage income), the increase is from 17 to 29 per cent (Fredriksen, 1998).[41]

33. The projected increase in pension spending can be decomposed into three factors: population ageing, changes in the labour market and the pension system's parameters. Figure 9 shows the increase in pension expenditure as a share in GDP that would result if only one of these factors is allowed to change according to the assumptions underlying the projections.[42] Pension expenditure would increase to 11.6 per cent of GDP if the only influence were demographic. It would remain almost constant if only changes in employment rates implicit in the projections are taken into account. If population and labour market parameters were kept constant, pension expenditures would increase to 10.3 per cent of GDP. Thus, it is the ageing of the population and the parameters of the public pension system itself, including the maturing of the system, that are the main factors behind the increase in pension expenditure. They represent, respectively, 54 and 43 per cent of the total increase.

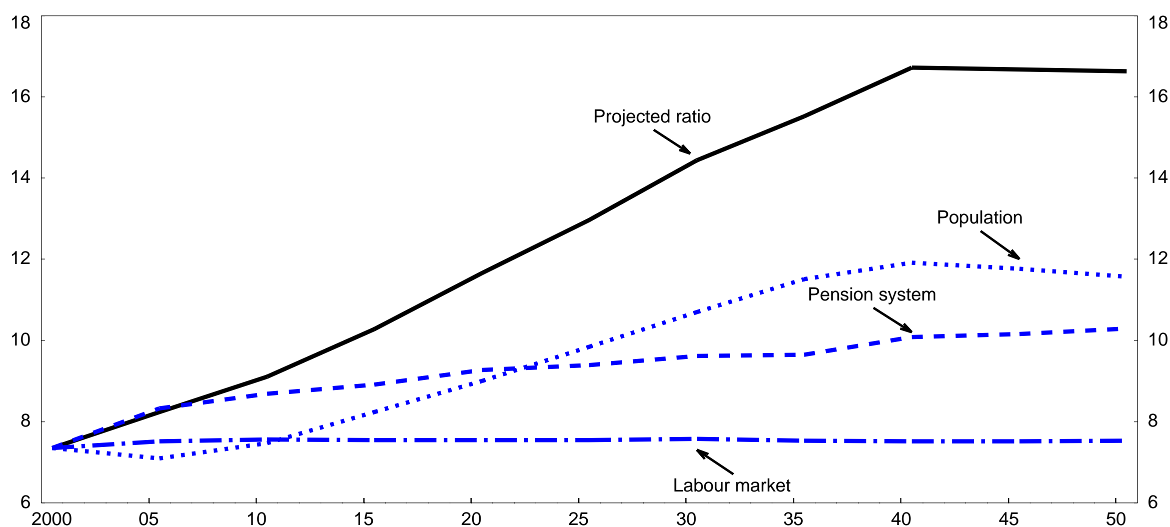
Figure 8. Pension expenditure as a share of GDP in selected OECD countries[1]
1997, OECD = 100



1. Differences in the tax treatment of pensions across countries are not taken into account. The OECD total excludes Hungary. Both the EU and the OECD are unweighted averages.

Source: OECD Social Expenditure database, 2000.

Figure 9. Projected pension expenditure and its components[1]
Per cent of GDP



1. The figure shows the projected time profile of pension expenditure as a share of GDP (projected ratio) and how this share would evolve if only population ageing occurs (population), employment and participation rates change (labour market) or average pensions with respect to productivity change (pension system), according to the assumptions implicit in the projections.

Source: Ministry of Finance and OECD Secretariat.

34. The average old-age supplementary pension is projected to increase by almost 55 per cent because the supplementary (earnings-related) component of the NIS still has to mature and the cohort effect of low pensions will dwindle. The average supplementary pension is currently just above one basic amount. As new cohorts will retire over the next 50 years, the average supplementary pension will continue to increase, converging to just above two basic amounts. Moreover, the pensionable income, pension points and pension benefits are all indexed to the basic amount that is closely linked to wages.

35. These projections are subject to various uncertainties. Higher life expectancy (two to three more years) or a reduction of the fertility rate to the OECD average would increase the implicit tax rate by 1 and 2 percentage points respectively. Furthermore, the oil price assumption, which is crucial in the Norwegian case, is rather conservative, with an oil price slightly below US$20 per barrel (in 2000 prices) for 2003-50. The sensitivity for the productivity assumption may be relatively limited as pension benefits are closely linked to wages and hence productivity (a relatively low productivity growth rate of 1.3 per cent on average per year is assumed while the consensus estimate suggests 1.5 per cent). Phasing out early retirement through the AFP, not allowing people to take disability pensions instead and raising the official age of retirement to 70 would reduce the implicit tax burden by 7 percentage points, from 29 to 22 per cent. A reduction in the growth of the basic amount by 0.75 percentage point annually, relative to wage growth, would reduce the projected implicit tax increase by roughly the same magnitude. Increases in old-age care costs may be somewhat tamed by an increase in the self-help functionality of the elderly (Jacobzone *et al.*, 2000; Botten *et al.*, 2000).

Options for reform

36. Norway needs to implement reforms to meet the challenges of the ageing of the population in the coming decades. Without them, Norway will experience one of the sharpest increases in public expenses as a share of GDP resulting from ageing in the OECD. First of all, measures are urgently needed to prevent a further fall in the effective retirement age. Secondly, reforms within the current pension and care system should be envisaged. Finally, a more radical reform agenda could take advantage of the oil wealth and move towards funding of the pension system. Box 4 outlines the major reform options.

Reduce incentives for early retirement

37. To prevent a further fall in the effective retirement age, and eventually raise it, reforms of the disability pension scheme and the early retirement scheme are needed. The recent proposals of the *Sandman Committee*[43] should be implemented without delay to curb the rise in disability pensioners. Furthermore, the early retirement arrangements should be overhauled. While the official retirement age under the NIS has remained high in international comparison at 67, the AFP scheme provides strong incentives to retire early. The system should be put on an actuarially sound footing; this would imply an end to the AFP as it now stands. If it is considered desirable to allow for greater flexibility in the timing of retirement, then the current old-age pension arrangements could be extended to allow retirement before 67 but with retirement benefits for earlier retirement fully actuarially adjusted. The government should stop paying part of the early retirement benefits in the private sector and should ensure equal early-retirement schemes for the public and private sector. The “85-year-clause” in the public sector should also be reconsidered as there are no reasons for a more favourable pension scheme in the public sector. Furthermore, the tax system, which treats retirement income more favourably, reinforces the incentives to retire early, and should therefore be reformed. While reforms to reduce early retirement will reduce pension expenditures and will have positive effects on labour supply and, therefore, on the tax base, they will only contain part of the rise in pension outlays as a share of GDP.

Box 4. **Synopsis of options to reduce the fiscal impact of ageing**

Remove incentives for early retirement

- Abolish pension accrual during early retirement for both the early retirement scheme (AFP) and old-age pensions. Put the early retirement scheme on an actuarially sound footing.
- Use the whole working career earnings to calculate the pensionable wage and average pension points instead of the best 20 years.
- Implement the proposals of the Sandman Committee concerning sickness benefits and disability pensions.
- Abolish incentives in the tax system to retire early.

Rein in pension benefits and introduce actuarial fairness in the pension system

- Index pension benefits to a combination of prices and wages rather than to wages alone. Effects on minimum pensions should be carefully considered.
- Index pension rights to the growth of the economy.
- Increase the number of years required to be entitled to a full pension.
- Adjust the supplementary pension percentage downwards.

Restructure the overall pension system

- Separate the minimum pension from the earnings-related part.
- Move to a system of only one earnings-related pension scheme. This system should have no ceiling on pension benefits.
- Consider the use of part of the Petroleum Fund to finance the pension system.
- Consider the introduction of a "virtual" defined-contribution arrangement, as in Sweden and Italy in the earning-related schemes.
- Consider the introduction of personal pension accounts.

Enhance the efficiency of the health care and non-health care system for the elderly

- Provide more information on current practices to reduce the wide quality and cost variation between municipalities.
- Review the current system of user charges in order to avoid situations where ceilings lead to a shift to more costly facilities.
- Improve the co-ordination of care provision within and between municipalities and reduce incentives for municipalities and counties to shift costs onto each other.
- Consider higher user charges on a broad basis and complement income-testing by charges on the estate.

Pursue structural reforms of labour and product markets and the public sector that would lift labour productivity

Reform options within the current framework

38. Reforms to be considered within the current NIS old-age pension system concern, first, the indexation of pension benefits. During the 1990s, many OECD countries removed wage indexing of pension benefits when overhauling their pension systems, resulting in lower future pension outlays. Pension benefits have, for instance, been indexed to prices (*e.g.* Italy, France and the United Kingdom), a combination of prices and wages (*e.g.* Finland) or to after-tax wages (*e.g.* Germany). Measures that would improve the actuarial fairness of the pension system should also be considered. This would include calculating average pension points on the entire work history of individuals instead of the best 20 years and the indexing of pension rights — as opposed to pension benefits — to the growth of the economy by indexing the G to mainland GDP (as in Italy).[44] The pension system is currently anchored to 40 contribution years for entitlement to a full pension. While it rewards later retirement than the official

retirement age of 67, the actuarial adjustment is not complete. De-coupling the system from 40 years and introducing actuarial adjustment would reduce the disincentives to work beyond 67 years embedded in the pension system. Alternatively, increasing the number of years necessary for entitlement to a full pension from 40 to 42, while keeping the statutory age of retirement at 67, would also encourage later retirement. The supplementary pension percentage, currently at 42 per cent, could be adjusted downwards further.

39. Furthermore, the current pension system provides unequal coverage. Occupational pension schemes cover only 50 per cent of the workforce and the public sector pension scheme, by guaranteeing a total pension of two thirds of the previous salary, is on average more generous than the schemes in the private sector. New legislation on private sector occupational schemes, which has come into force in 2001, will increase the coverage. However, this raises the question of the economic advantages of having two income-dependent pension schemes (the supplementary pension scheme within the NIS and the occupational schemes).

40. Although it is difficult to make judgements in the absence of information on wealth, many old-age households (mainly single people and older women) may live below the poverty threshold, although this will change as the current system matures. The income support and distributive role of the public pension system via the minimum pension could be separated from the earnings-related component to help address the problems of the poorer groups. In this manner, the pension system would become more transparent with two tiers: a redistributive tier in the form of minimum pensions and an earnings-related tier. The latter could be funded (see below). Finally, a third tier consisting of private personal pension accounts of a defined contribution nature could be introduced to top-up pension income on a voluntary basis. There are no strong reasons for the state to step in and encourage these private personal accounts (for example, by providing a tax shelter) and give away tax revenues when the pension system already guarantees a reasonable replacement rate.

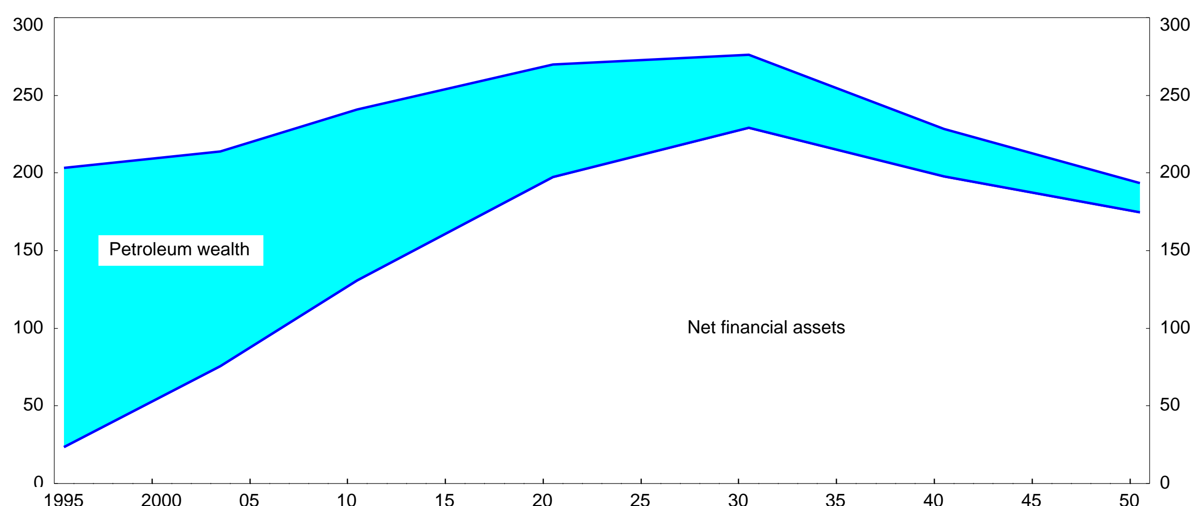
The oil wealth could be used to switch to a funded pension system

41. As noted above, current pension arrangements will lead to substantial increases in spending. Without the possibility to use the assets of the Petroleum Fund, large increases in tax rates would have been required to maintain fiscal stability. This possibility places Norway in a unique and enviable situation. Currently, the public sector has a large and rising net asset position once the Fund is taken into account (Figure 10). According to the 2001 draft budget paper, generational accounts suggest that the budget is in generational equilibrium and that no changes in current government outlays are needed to prevent a higher tax rate for coming generations. Due to the current double-digit budget surplus and the substantial assets in the Petroleum Fund there is, however, considerable political pressure to increase current spending. Earmarking part of the Government Petroleum Fund for future pension expenditures might help to contain these pressures. On the other hand, earmarking would also pre-empt alternative uses of the assets accumulated in the Fund and risk locking in social security entitlements.

42. More radical options for pension reform should also be considered. A first option is to move to a "virtual" defined-contribution arrangement, as in Sweden and Italy. Under this system, individuals accumulate "contributions" in fictive accounts over their working lives with the individual receiving an "annuity" based on the cumulated contributions on retirement. The Petroleum Fund could then be used to prefund this system. The Fund is, however, not sufficiently large to fund all pension liabilities. A second option is a mandatory defined-contribution system outside the public sector. Individuals would, in this case, hold individual accounts and be obliged to save a minimum amount of their income. In this case, the Petroleum Fund could be allocated to individual accounts on the basis of previous lifetime earnings. Such a funded pension system will be better guarded against unexpected demographic shocks. The transition to a funded system implies in general the need to "tax a generation twice", but the petroleum wealth puts

Norway in a favourable position to implement such reforms. Saving through individual accounts would replace taxation for the pay-as-you-go system, which could well strengthen incentives to work, save and invest.

Figure 10. Public sector net wealth
Per cent of GDP



Source: Ministry of Finance.

Options for improving care for the elderly

43. Population projections point to a sharp increase in the ratio of the very old (older than 80 years) to the total population and relative to the working age population (Figure 1). The ratio is expected to rise from 4.2 per cent of the total population (7.2 of the working-age population) to 7.8 (14.2) per cent in 2050. In the light of current use patterns and the low cost of services to the user, the financial burden of the care system could rise rapidly. There are several policy areas where the authorities could consider limiting cost increases:

- First, preventive measures that would permit the elderly to live independently as long as possible may need to be strengthened further.
- Second, there may be a need for a better assessment of the best solutions for individuals within the context of current extensive use of some high cost services. Some countries have set up geriatric assessment units (bringing together the elderly, their families, the family doctor and social workers) to better assess the needs of the elderly and the mix of services needed to keep them independent for as long as possible. Such measures are even more necessary where the elderly pay only a small share of the overall costs.
- Third, there should be a better consolidation of supply across municipalities. There are distinct advantages to having responsibility for some welfare services at different government levels as this permits local circumstances to be taken into account. However, where it encourages municipalities and counties to shift part of the burden onto each other by restricting supply, a

better integration would reduce costs. At the same time, there may be economies of scale and scope, which can be obtained if nearby municipalities combine services for the elderly.

- Finally, consideration should be given to increased user charges on a broad basis for care and health services for the elderly. As it stands, only 3 per cent of the cost of home care services and 16 per cent of the cost of long-term institutional care are covered by user charges. Where higher user charges for long-term institutional care are above annual income, individuals could accumulate debits with the government which could be subsequently charged against the individual's estate, thus removing some of the more egregious effects of pure asset testing such as the forced sale of dwellings.[45] While it is clearly the care needs of the elderly which should remain the key factor determining the timing of entry into long-term care, such measures could also encourage greater family support for the elderly to the degree they could eventually benefit from a larger inheritance. With prices for long-term care closer to their costs, there would also be increased scope for charging higher prices for home care. However, considerable attention would need to be taken in setting prices for home care, so that individuals are encouraged to live independently as long as possible. For example, higher charges for home care for individuals on low incomes (and few assets) could quickly raise the overall cost of living independently to levels above the cost of entering long-term care. Thus increased charges may need to be resource tested, thus limiting them to higher income groups.

The recommendations of the 1995 Survey

44. Ageing and public finance in the long run were earlier analysed in detail in the 1995 *OECD Economic Survey of Norway*. Saving a growing portion of oil and gas revenues was seen as the best option to cope with ageing in the coming decades. The authorities indeed managed to save a considerable part of the petroleum revenues in the Government Petroleum Fund. On the other hand, the authorities failed to halt the downward trend in the effective retirement age through a rise in disability pensions and a broadening of early retirement schemes. In the case of early retirement, it even contributed to this trend by its partial financing of the scheme and by allowing a favourable tax treatment. The 1995 *Survey* also recommended reducing the cost of the system by creating incentives for deferred retirement and by reducing the favourable tax treatment of pension benefits. No progress was, however, made. On the contrary, the relatively strong rise in the minimum pension even increased pension spending. Finally, the 1995 *Survey* recommended considering to rely to a greater extent on occupational pension schemes (while the current *Survey* recommends a move to a system of only one earnings-related pension scheme). The authorities have continued to stress the crucial role of the National Insurance Scheme and its analysis of long-term developments has remained focussed on this public scheme. Nevertheless, recent changes to the occupational pension schemes are likely to lead to a greater role of the occupational schemes in the future.

NOTES

1. This paper was originally produced for the OECD Economic Survey of Norway, which was published in February 2001 under the authority of the Economic and Development Review Committee. The authors, who are members of the Economics Department, are indebted to Vesa Makkonen and Howard Oxley, without whom the section on care and services for the elderly would not have been possible; Carl Gjersem for his estimable help in understanding the Norwegian pension system; Peter Hoeller for valuable comments and drafting suggestions, as well as Jorgen Elmeskov, Mike Feiner, Val Koromzay, Monica Queisser and Nicholas Vanston; Desney Erb for statistical assistance and Valerie Luccioni for secretarial skills.

2. These projections are from Statistics Norway (Statistics Norway, 1999). Higher fertility rates than in many other OECD countries explain the less rapid ageing. These projections present a more optimistic development regarding the old-age dependency ratio than the UN projections (UN, 1999), which assume much lower net migration flows and a larger increase in longevity — 2.4 and 1 year more for women and men, respectively, by 2050. Given the fact that the literature suggests an increase of one year per decade, there is some risk that longevity is underestimated in the projections of Statistics Norway.

3. With the exception of Iceland and Switzerland, and Sweden in the case of women.

4. Calculations of the expected age of retirement of a worker aged 50 or 60, show an important drop from 64 to 62.7 years and from 65.8 to 64.7 years, respectively during the decade. Blöndal and Scarpetta (1998) calculated the effective age of retirement to be 63.8 in 1995 for men, down from 66.5 in 1970 and 64.6 in 1990; for women it was 62 in 1995, down from 66.2 in 1970 and 63 in 1990. For both genders, the average age at retirement is nevertheless significantly above the OECD and European average.

5. Moreover, it provides rehabilitation benefits, occupational injury benefits, benefits to single parents, cash benefits in case of sickness, maternity, adoption, unemployment, medical benefits in case of sickness and maternity, and funeral grants (Ministry of Health and Social Affairs, 2000).

6. The remainder corresponds to health care and sickness benefits. There are also central and local government health outlays which are not part of the NIS health expenses.

7. Recently, G has risen approximately in line with wages, while earlier it rose by less.

8. In May 2000 the basic amount was set at NOK 49 092 — *i.e.* around 17 per cent of the average production worker wage or full-time employee's annual earnings.

9. The earnings-related pension is not on top of the minimum pension but on top of the basic amount (1 G). Pensioners receive a supplement if the basic amount plus the earnings related pension is less than the minimum pension. About 87 per cent of all pensioners receive a supplementary pension but only 60 per cent receive one that gives a pension above the minimum pension.

10. There are five regional zones according to geographical situation and the level of economic development with the following associated contribution rates: 14.1, 10.6, 6.4, 5.1 and 0 per cent. Enterprises with branches in various zones are liable to pay the employer's contribution at the highest rate irrespective of where the employee resides.

11. Moreover, contributions cannot exceed 25 per cent of income above 45 per cent of the basic amount.

12. The same holds for persons with a very low income (less than 45 per cent of G).

13. The two changes were: *i)* only income up to 6 G instead of up to 8 is credited at full rate as pensionable income in the supplementary pension scheme, with one third of income between 6 G and 12 G (instead of 8 to 12 G); and *ii)* the coefficient to calculate the supplementary pension was reduced from 45 to 42 per cent. This was accompanied by a measure that has increased spending. Three pension points were introduced in the supplementary pension scheme for persons who are taking unpaid care of children below 7 years of age and of disabled, sick and elderly persons at home.

14. In 1998, the full basic amount was reduced from one basic amount to 75 per cent of the basic amount if the pensioner's spouse has a yearly income exceeding 2 G.

15. However, an official committee — the *Moland Committee* — reported on radical changes to the pension system (NOU, 1998). It described four possible models: *i)* to continue the present policy entailing that pensions are financed on a pay-as-you-go basis, while government financial savings are accumulated in a general purpose state fund, the State Petroleum Fund; *ii)* to establish a state pension fund; *iii)* to set up a contribution-based private pension fund; *iv)* to set up private pension funds with free individual investment choice. It concluded that the pension commitments should be funded partly or completely instead of continuing the current system of pay-as-you-go financing, but the Committee did not indicate its preference for one of the three alternative options presented. There has not been a government follow-up to the report. The same holds for the report of the *Olsen Committee* (NOU, 1998*b*) which recommended to make the existing early-retirement scheme less generous or to integrate the early-retirement scheme into the old-age pension scheme with somewhat lower pensions in the case of early retirement.

16. While occupational pensions are not compulsory for local government employees, collective agreements between the social partners have made them so in practice. They are compulsory for central government employees.

17. Deductibility of the contribution for employers, no wealth taxation on assets, no taxation of fund income, and pension payments taxed as pension income.

18. The vesting period is reduced from a maximum of 3 years to 1 year since January 2001, with a transition period of 2 years for the various schemes to adapt to the change. In the private sector pension rights are transferred into a separate individual contract upon leaving the firm before the age of retirement. Profits on the pension capital exceeding the guaranteed rate are allocated to them. If the individual later joins a firm with an occupational pension plan, the firm may take such prior rights into account. The capital must then be transferred to the firm. A person who quits working in the public sector and takes a job in the private sector, will retain the earned part of the pension from the public occupational pension system. This pension will be indexed to G. If he joins a private firm with an occupational scheme, he will start earning a new pension (with the possibility of ending up with a total consisting of a full private and a reduced public pension).

19. New legislation to extend tax advantages to include defined contribution schemes was recently approved by the Parliament.

20. New legislation has established a ceiling of 70 per cent for income exceeding 6 G. However, existing schemes are below this ceiling.

21. Partial disability entails a proportional reduction in disability benefits.

22. Conditions such as back pain or depression were governed by different criteria for a period.

23. For example, for a 29 year old person starting to work as a public employee and continuing until 57, the sum of age and contribution years (57+28) is 85 and he can retire at 57.

24. The AFP minimum age was set at 66 from January 1989. However, it was gradually reduced in the 1990s to 65 in January 1990, to 64 in October 1994, to 63 in October 1997 and to 62 from March 1998 onwards.

25. Moreover, the AFP leads to lower social security receipts for the government.

26. Employers participating in the AFP programme pay contributions according to the number of employees in the company. The contributions are calculated as fixed rates according to weekly work hours — NOK 75 per month for 4 to 19 hours, NOK 110 for 20 to 29 hours and NOK 150 for 30 or more hours. The Fund works in a pay-as-you-go manner and its only obligation is to ensure that everyone who has been already granted a pension receives it until reaching 67. AFP "funds" represent less than 0.1 per cent of GDP and are mainly deposited in bank accounts and invested in state/municipality guaranteed obligations. The Norwegian Public Service Pension Fund does not have any funds to cover expenses. They are covered by government subsidies. The current system, by de-linking early retirement in individual firms from the cost to the firms creates a "moral hazard" problem, encouraging firms to retire workers who have low productivity relative to their wages.

27. The accrual rates measure the proportion of the gain/loss in pension wealth of working an extra year over the pension wealth of retiring immediately.

28. Both pension wealth and tax are corrected for the discounted value of contributions.

29. Norway is by no means exceptional in this respect. See Blöndal and Scarpetta (1998) for a review on how pension wealth varies with age in selected OECD countries.

30. In most other European countries very few people are in the labour force after the age of 65.

31. As benefits are calculated by assessing pension years and pension points as if retiring at 67, the pension wealth loss of working an extra year is equal to an annual pension benefit and thus the implicit tax is equal to the replacement rate.

32. In the private sector an occupational pension cannot be taken out before the age of 67.

33. In the Norwegian situation, with social security outlays fully integrated in the government budget a low contribution rate of old-age pensioners cannot be justified on insurance principles. In a pure social security insurance system, low and even zero contributions of pensioners to the old-age pension scheme are justified on insurance principles but, at the same time, there are grounds for a higher contribution to the sickness cost insurance scheme by the elderly.

34. Several studies have shown that the tax system introduces strong incentives to retire early (Hernæs *et al.*, 2000).

35. The existence of family economies of scale makes the equivalence scale lower than one.

36. The Norwegian government has recently decided to propose to Parliament the transfer of responsibility for specialised health care — including hospitals — from the county to the state level in 2002.

37. There are a number of forms of care. As most of the municipalities are small, with half of the 435 municipalities having less than 5 000 inhabitants, many of them have organised so called "combined institutions" including both residential and nursing home units. Residential and nursing homes are used mainly for long-term stay, but nursing homes are also used for short-term accommodation for rehabilitation and respite care. In recent years, service housing, offering independent living combined with certain care services available on site, and as such considered as an intermediate solution between institutional care and ordinary retirement flats, has progressively substituted for the traditional residential homes and to some extent also nursing homes. Residential and nursing homes have still remained the dominant service. Home help and home nursing help are the most important home based community services, but most municipalities also provide other services like meals-on-wheels, counseling, handy man, alarm and respite services. In addition, there are approximately 300 service centres, which are open to all retirees in a particular municipality. These centres function partly as a service institution and partly as a meeting and activity place. Support for informal care (*e.g.* families or neighbours) was introduced in 1986, but only a few individuals have so far been included in the programme, and most often they are home carers for disabled children.

38. Only Australia, Canada, Iceland, Ireland, Japan, New Zealand, Portugal and the United States have lower ratios.

39. Projections from the National Insurance administration and the Ministry of Finance.

40. The cost of the occupational pension will probably increase as the number of people receiving an occupational pension will increase, although more people will become entitled to a full supplementary pension. Furthermore, costs of the early retirement scheme will continue to increase as more people will retire earlier.

41. Statistics Norway provides these projections, which include the cost of early retirement but not the cost of the occupational pensions' guarantee. It uses a more complex model (MOSART) to calculate the implicit contribution rate as the ratio of pension expenditure over the tax base.

42. The other two factors are kept constant at their value in 2000.

43. It proposed to introduce economic incentives in the benefit scheme to reduce sick leave (NOU, 2000). To ensure better control, it proposed that employers should pay 20 per cent of the sickness payment during the NIS period, in addition to full payment for the first 16 days. The committee, with the exception of the trade union representatives, also proposed to reduce sickness payments from 100 to 80 per cent of the salary for the first 16 calendar days. To compensate for the reduction in sickness payments, the committee proposed to reduce the employees' contribution to the national insurance scheme. Furthermore, the committee proposed changes to the disability pension scheme: its main proposal was to introduce temporary disability pensions which would be automatically reviewed after three to four years. There is not yet an official reaction to the report; the government intends to present its views during the first half of 2001. (For more details see Chapter II of OECD, 2001).

44. Pension benefits are benefits received once the individual has retired. Pension rights are the build-up of rights to future benefits while in active life.

45. While asset testing is highly contentious in many countries, many very old people do have assets, which are often left to their children because their consumption needs are limited and their assets remain largely untouched in their last years of life. Because of this, part of the transfers/subsidies which the elderly receive in the form of long-term care, benefit their children. Simple administrative arrangements allowing the state to recoup part of the cost of care at the time of inheritance would avoid some of the difficult political aspects. Nonetheless, attention needs to be paid to the possible effects of such measures on savings behaviour over the longer term.

GLOSSARY

AFP *Avtale Festet Pensjonsordning* (early retirement scheme)
G "Basic amount" for social insurance and income tax purposes
GDP Gross Domestic Product
NIS National Insurance Scheme
NOK Norwegian krone

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ANNEX

PENSION BENEFITS PROVIDED BY THE NATIONAL INSURANCE SCHEME

A *basic amount* is paid to all residents with at least three years' contributions between the age of 16 and 66. A full basic amount requires a minimum residence (insurance) period of 40 years; shorter periods reduce the basic amount proportionally. A full basic amount is one G for a single person. However, it is only 75 per cent of the basic amount if the pensioner's spouse receives a pension above 2 G or has a yearly income above 2 G.

People with earnings exceeding the basic amount for any three years during their working life, receive an earnings-related pension (the supplementary pension). Those pensioners who have no or only a small supplementary pension are entitled to a *special supplement* from the National Insurance Scheme (NIS). The basic amount and the maximum special supplement together form the *minimum pension*. A full special supplement is paid, if the insurance period is at least 40 years and it is reduced proportionally for shorter periods. Supplementary pensions received are deducted from the maximum special supplement.

The special supplement is 79.3 per cent of the basic amount (*i.e.* about 13.5 per cent of average wages) for single pensioners or married pensioners with a spouse entitled to a NIS pension as well. This amount is doubled for a pensioner with a dependent spouse 60 years or older. The special supplement is 74 per cent of the basic amount for pensioners whose spouse is entitled to a supplementary pension, higher than the special supplement. Yet, the sum of the total supplementary pension and the special supplement of both spouses shall not be lower than twice the special supplement, *i.e.* 158.7 per cent of the G.

The *supplementary pension* scheme was introduced in 1967 aimed at complementing the basic amount, mitigating the sharp fall in retirement income due to the low basic amount, by linking pension benefits to previous wages. About 87 per cent of all pensioners receive a supplementary pension but only 60 per cent are above the minimum pension. A person is entitled to a supplementary pension if his/her annual income exceeded the average basic amount or G for any three years after 1966. The amount of the supplementary pension depends on the number of pension earning years and the yearly pension points. Pension points are computed for each calendar year based on pensionable wage multiples of G minus one. The pensionable wage is the sum of all income up to 6 G plus one third of income between 6 and 12 G. Income exceeding 12 G is disregarded. The maximum pensionable wage is 8 G but the maximum pension points, which can be credited for any single year is thus 7 G.[1] The average pension points of the person's best twenty income years multiplied by the supplementary pension percentage, 42 per cent, and the proportion of pension-earning years under or over 40 years, provides the supplementary pension in terms of basic amounts.[2, 3]

Those born before 1937 can receive a full supplementary pension, as if based on 40 years of contributions, if they have contributed to the NIS for a long enough period.[4] But these transitional provisions only apply to annual income up to 5 G. Persons who are taking unpaid care of children under 7 years of age and of disabled, sick and elderly persons at home are credited under the supplementary pension scheme up to 3 pension points, equivalent to someone earning 4 G.

Spouse supplement: a pensioner supporting a spouse who is not a pensioner is entitled to an income-tested supplement up to 50 per cent of the basic amount. Incomes above the minimum pension for couples plus 25 per cent of the basic amount are withdrawn at a rate of 50 per cent.

Child supplement: a pensioner is entitled to a supplement of up to 30 per cent of G for each dependent child younger than 18 years. This supplement is income tested at the same rate as the spouse supplement, but the threshold before the supplement is reduced is the minimum pension for couples plus 25 per cent of the basic amount for each child.

Survivors' benefits: a surviving spouse is entitled to a pension that amounts to 1 G plus 55 per cent of the supplementary pension of the deceased. When reaching 67, survivors transfer to their own old-age pension, and receive their personally acquired supplementary pension or 55 per cent of the aggregated supplementary pension of the survivor and the deceased person's supplementary pension, if this is more favourable. Survivors' pension benefits are means tested with a withdrawal rate of 40 per cent for income above 1 G. However, the minimum pension is always granted.

There is no specific housing allowance within the NIS old-age pension scheme but there are housing benefits which can be granted via the local social assistance offices in each municipality.

NOTES

1. The maximum pension points before 1992 were 8.33 because income up to 8 G was credited at full rate and income between 8 and 12 G at one third until then.

2. If the person concerned has earned pension points for less than 20 years, the average of all pension point figures credited is used.

3. The supplementary pension percentage is 45 per cent for pension points earned on income prior to 1992. Thus, a person who retires at the end of 2000 with 40 pension earning years and 7 average pension points, will get a supplementary pension calculated as: 7 x G x (42% x (9/40) + 45% (31/40)). Thirty one is the number of years before 1992.

4. People born from 1898 to 1917 are entitled to a full supplementary pension if they have contributed to the NIS for at least 20 years. People born from 1918 to 1936 need to have contributed to the NIS each year from 1967 to the year of their 69th birthday.

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