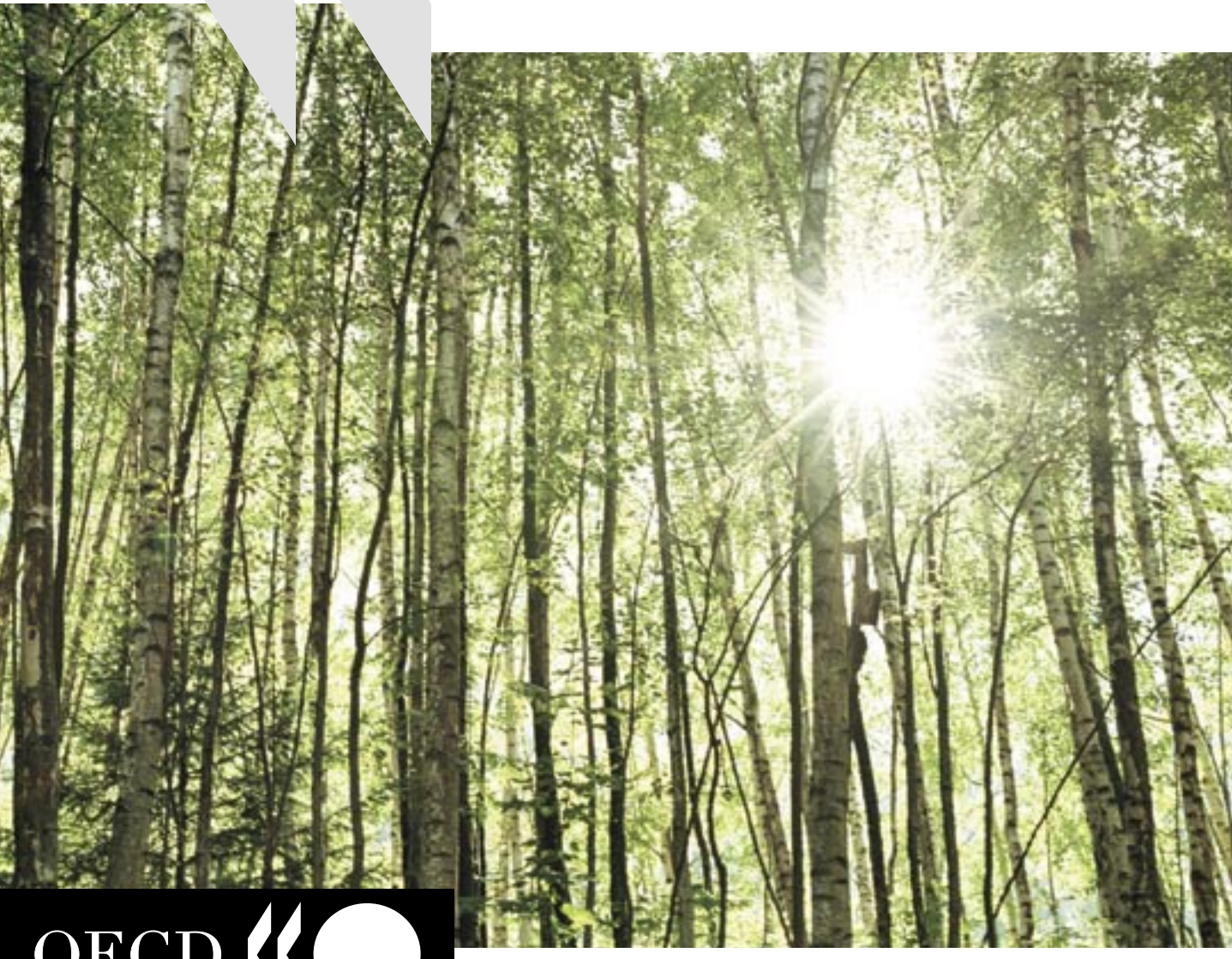
# OECD Economic Surveys

# Norway



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# OECD Economic Surveys

# Norway

## 2005

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

# ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

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*This survey is published on the responsibility of the Economic and Development Review Committee of the OECD, which is charged with the examination of the economic situation of member countries.*

*Publié également en français*

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*This Survey is published on the responsibility of the Economic and Development Review Committee of the OECD, which is charged with the examination of the economic situation of member countries.*

*The economic situation and policies of Norway were reviewed by the Committee on 20 June 2005. The draft report was then revised in the light of the discussions and given final approval as the agreed report of the whole Committee on 29 June 2005.*

*The Secretariat's draft report was prepared for the Committee by Alexandra Bibbee, Benoît Bellone and Flavio Padrini under the supervision of Nick Vanston.*

*The previous Survey of Norway was issued in March 2004.*

# BASIC STATISTICS OF NORWAY

## THE LAND

| | | | |
|---|---|---|---|
| Area (1 000 km$^2$): | | Major cities (thousand inhabitants, 1.1.2004): | |
| Total (2003) | 385.2 | Oslo | 521.9 |
| Mainland (2003) | 323.8 | Bergen | 237.4 |
| Agricultural (2003) | 10.4 | Trondheim | 154.4 |
| Productive forests (2003) | 74.7 | | |

## THE PEOPLE

| | | | |
|---|---|---|---|
| Population (thousands, 1.1.2004) | 4 577.5 | Total labour force (thousands) | 2 371 |
| Number of inhabitants per km$^2$ (1.1.2004) | 11.9 | Civilian employment (thousands) | 2 273 |
| Net natural increase (thousands, 2003) | 14.0 | Civilian employment (% of total): | |
| Net migration (thousands, 1.1.2003) | 11.2 | Agriculture, forestry and fishing | 3.6 |
| | | Industry and construction | 21.0 |
| | | Services | 75.4 |

## PRODUCTION

| | | | |
|---|---|---|---|
| Gross domestic product: | | Gross fixed capital investment: | |
| NOK billion | 1 688.0 | % of GDP | 18.0 |
| Per head (USD) | 54 444 | Per head (USD) | 9 818 |

## THE GOVERNMENT

| | | | |
|---|---|---|---|
| Public consumption (% of GDP) | 22.3 | Composition of Parliament (number of seats): | |
| General government (% of GDP): | | Labour | 43 |
| Current and capital expenditure | 48.5 | Progressive | 26 |
| Current revenue | 58.2 | Christian Democrats | 22 |
| | | Conservative | 38 |
| | | Centre | 10 |
| | | Socialist Left | 23 |
| Last general elections: 10.9.2001 | | Other | 3 |
| Next general elections: September 2005 | | Total | 165 |

## FOREIGN TRADE

| | | | |
|---|---|---|---|
| Exports of goods and services (% of GDP) | 43.6 | Imports of goods and services (% of GDP) | 29.5 |
| *of which:* Oil and gas | 20.5 | | |
| Main commodity exports (% of total): | | Main commodity imports (% of total): | |
| Fish and fish products | 4.9 | Ships | 1.0 |
| Base metals and products | 9.5 | Raw materials (including fuel and chemicals) | 10.4 |
| Machinery and transport equipment (excluding ships) | 7.0 | Base metals and products | 8.4 |
| | | Machinery and transport equipment (excluding ships) | 34.1 |
| Mineral fuels | 63.8 | | |
| Non-oil commodity exports by area (% of total) | | Non-oil commodity imports by area (% of total) | |
| Denmark and Sweden | 18.3 | Denmark and Sweden | 23.4 |
| Germany | 11.4 | Germany | 13.8 |
| United Kingdom | 10.5 | United Kingdom | 6.6 |
| United States | 8.4 | United States | 4.9 |

## THE CURRENCY

| | | | |
|---|---|---|---|
| Monetary unit: Krone | | June 2005, average of daily rates: | |
| | | NOK per USD | 6.49 |
| | | NOK per euro | 7.89 |

# *Executive summary*

*The Norwegian economy continues to recover strongly from its 2002-2003 slowdown. Low interest rates, competition-induced productivity gains, high investments by the booming oil sector, terms-of-trade gains and supportive macroeconomic policies are the main drivers. Inflation is low and labour inputs in terms of hours worked are rising briskly. Strong growth is likely for the remainder of this year and possibly during 2006.*

**Moving towards a neutral macro policy.** *Although inflation remains well under the target, and there is still a little slack in the economy, low inflation in part reflects low or falling import prices, not weak domestic demand. Robust growth could turn into overheating, especially if oil investments continue to rise strongly, though foreign demand presents a downside risk. It would therefore be appropriate for the Norges Bank to gradually move towards a more neutral stance. On the fiscal side, recent deviations from the 4% target of the fiscal rule are large. If the rule is to remain credible, and if the economy remains buoyant, transfers from the Petroleum Fund should not rise further in 2006, and could even fall.*

**Encouraging greater work effort.** *Although participation rates are relatively high, the numbers of Norwegians on sick leave or drawing disability pensions is also high, and their evolution does not seem to be directly related to measures of overall health status. Reforms should continue to tighten eligibility criteria for entry into the schemes, to encourage timely return to the workplace from sick leave, and to focus rehabilitation programmes on faster reinsertion in the workforce. The private early retirement scheme, AFP, is also a powerful mechanism for encouraging early withdrawal from the labour force, and there is no reason why public subsidies to such a generous scheme should continue within a reformed pension system, except for those with long work histories in arduous jobs.*

**Implementing pension reforms and planning for emerging fiscal pressures in other areas.** *Spending on pensions in the National Insurance System (NIS) is currently equivalent to 9% of GDP and this could double by the middle of the century. Reforms proposed by the government to link pension income after retirement more closely with incomes over working lives should encourage later retirement. Nevertheless, spending could still rise by 7 percentage points of GDP. Revenues from the Petroleum Fund will be sufficient to finance only a minor part of foreseeable increases in public spending even with higher oil prices and full implementation of pension reforms. Hence there is a need to rein back the growth of public spending in other areas, especially those which blunt work incentives, or eventually raise taxes.*

**The Norwegian health sector delivers better services but is expensive.** *Recent reforms have led to increased levels of treatment, and citizens agree that service has improved. But the volumes of services have risen more than expected, and salaries for some parts of the medical profession rose steeply in the aftermath of the reforms. Centralisation and rationalisation of hospital activities have not yet resulted in significant economies, and health system cost consciousness is still weak. Consideration should be given to reversing the recent decision to raise the proportion of DRG finance, raising the levels of co-payments by patients, and strengthening incentives for generalists to refrain from prescribing expensive treatments.*

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# Assessment and recommendations

### *The economy is in a healthy state*

The Norwegian economy is in fine form at present. Per capita incomes are high, rising briskly, and evenly spread. Competition from abroad and at home is encouraging strong productivity gains and keeping inflation very low. The operations of the Petroleum Fund are insulating the exchange rate from swelling oil export revenues, and the associated fiscal rule is ensuring that most of them are saved. Although unemployment is falling only slowly from its comparatively low level, total hours worked have expanded.

### *Policies need to ensure that it will remain so*

Four concerns trouble this otherwise benign picture:

- robust growth could turn into overheating, especially if oil investments continue to rise strongly, though foreign demand presents a downside risk;
- oil euphoria and political pressures could result in fiscal policy becoming too expansionary in the near term and unsustainable in the long term;
- the numbers of people of working age on sick leave or receiving disability pensions have climbed to very high levels;
- the current public pension system is clearly unsustainable in the longer term, and even if proposed reforms are fully implemented, the increase in spending on pensions and health will outstrip any likely rise in revenue from the Petroleum Fund under the fiscal rule.

### *Recovery could get out of hand*

The current recovery from the 2002 slowdown is accelerating, fuelled by historically low nominal and real interest rates, a consequent private consumption and residential construction boom and rising house prices, a very rapid increase in oil investments, and high and rising spending by the oil sector on current goods and services produced by the mainland economy. Although nominal wage increases have been moderate, they have translated into substantial real increases because of unexpectedly low inflation; but profitability has not suffered overall because productivity and terms-of-trade gains have also been substantial. Hence both business and household incomes and sentiment are at high levels. Demand impulses from abroad are weak and the output growth has not been followed by a marked decline in unemployment. So far there are no signs of overheating in product or labour markets. A major uncertainty concerns oil investments, which could surprise on the upside, as has happened in the past. *It is thus appropriate that the monetary authorities have signaled their intention to move towards a more neutral stance – although gradually and in small, not too frequent steps – in order to reduce the risk of having to take potentially disruptive measures later on.*


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### *Further slippage from the fiscal rule must be avoided*

The fiscal rule states that only the real return on the Petroleum Fund, assumed to be 4% of its market value, can normally be used for general budgetary purposes. Deviations are permissible if, as in the past few years, the market value suffers or the economy hits a slow patch. But the deviations in 2002-2004 were substantial, and larger than initially projected, and the 2005 budget also implies a transfer considerably exceeding 4% of the end-2004 Fund value. If the transfers from the Fund remain constant from now on, return to the trajectory of the underlying fiscal rule would not occur until 2008. By then, the economy could well be moving into a slow-growth phase. *It is therefore essential that the 2006 budget eschews higher transfers from the Fund. If the economy remains very buoyant, full advantage should be taken of the automatic stabilisers to reduce such transfers. In addition, greater-than-expected tax revenues or other positive surprises in the budget should be used to reduce the deficit. Once return to the fiscal rule trajectory is achieved, it is important that the rule be applied symmetrically.*

### *Norway's handling of its oil assets is exemplary, and should remain so*

Oil wealth in many other countries has been used to finance colossal fortunes for the few, or bread and circuses for the many. Norway has avoided both traps. The revenue from the Petroleum Fund could help to maintain Norwegian living standards long after the oil reserves are exhausted. In addition, macroeconomic and structural policies have been used to ensure that the non-oil economy, which accounts for most of the GDP and virtually all employment, remains as viable and prosperous as possible, including in the traded sectors. But pressures to spend more of the capital of the Fund straight away are strong. The consequences of uncoordinated and unplanned fiscal slippage are clear: squandering of the oil wealth, appreciation pressure on the Krone, and damage to the traded sector. *It is crucial that the Norwegian authorities explain clearly that while the Fund revenue can be spent indefinitely, its capital can be spent only once, and that its capital is being consumed every year that the fiscal rule is overridden. In order to shelter the non-oil tradable sector from the oil revenues and an appreciation of the Krone, it is also crucial to maintain the strategy of investing abroad the revenue from the petroleum sector.*

### *Welfare programmes are blunting incentives to work*

Norwegians live comparatively long and healthy lives; the official retirement age for men and women is, at 67, above the OECD norm; and participation rates are very high at all ages for both sexes. Over their working lives, Norwegian citizens probably furnish on average at least as much work effort as the average OECD citizen. But on a typical working day, a well above average number of those of working age are on sick leave or claiming a disability pension, and around half of those over 62 have withdrawn from the labour force, often benefiting from subsidised early retirement on the AFP scheme. Trends in early retirement, disability, and (until very recently) sick leave, have been strongly upwards and levels are very high by international comparison. The cost to society of these schemes is also very high in terms of lost output. *New policies, or strengthened policies, are needed to arrest these*

*upward trends in non-activity, and if possible reverse them. In addition, recent proposals that would shorten the standard working week, or make the labour market less flexible, should be resisted.*

### *Economic incentives to leave the labour force are strong*

Analysis show that the economic incentives to reduce or curtail work effort through these schemes are substantial: eligibility criteria are not strict, replacement rates are high, and the impact on eventual public pension benefits of leaving the workforce to profit from one or other of these schemes can be quite small. It is revealing that a recent reform, by which doctors must assess capacity to work within 8 weeks on sick leave, was accompanied by a dramatic fall in total sick leave. This suggests that gate-keeping as well as economic incentives and health status are important drivers in this area, and probably also in the area of disability pensions. A reform of the disability pension scheme, splitting it into a permanent scheme and a temporary one entailing rehabilitation has not so far had much impact on either inflows into disability, or outflows into work. Indeed, there has been a marked inflow of younger workers into temporary disability. *If the results continue to disappoint, then more effort should be given to assessing work capacity at an early stage, and encouraging a timely return to the workplace, as work skills erode after prolonged absence. In the pension reform, incentives to move into disability rather than a flexible early retirement scheme should be removed, by adapting the disability scheme accordingly.*

### *The current early retirement scheme is too generous and public subsidies should be curtailed*

The AFP scheme covering early retirement is a private agreement between employers and representatives of employees, financed entirely by the employer in the public sector, entirely by the employer before the age of 64 in the private sector, and 60/40 by employers and the government after that age. The scheme was introduced in 1989 in the private sector with the laudable aim of providing a decent retirement income as from age 65 for people who had left school comparatively young, and who had worked ever since, often in arduous jobs, and whose life expectancy at 65 was probably lower than the average. Over the years, though, its coverage has greatly expanded, and age at entry to the scheme is now down to 62 years. Around three-quarters of older workers now qualify for AFP pensions, and a large proportion of those who do qualify actually claim them. A particularity of the AFP is that entry to it has almost no impact on the size of the eventual public old-age pension at age 67. The average age at retirement has thus dropped precipitously, reducing output and tax revenues, and raising public spending. *The government should therefore curtail the inflow into such schemes by reducing its subsidies, and ensure that they are targeted at those groups for which they were originally intended.*

### *The public pension system is unsustainable*

The current Norwegian public pension system is still maturing, and together with the very high participation rates this means that most Norwegians will be able to claim full pensions, that are indexed to wages and are taxed favourably. With life expectancy continuously increasing, spending could more than double as a percentage of mainland

GDP by 2050 if a reform is not carried out. Public sector occupational pension schemes for central government employees (including teachers and some other groups) are unfunded and will also entail a significant rise in the future public spending burden, especially as the expansion of public sector employment is relatively recent.

### *Reforms under discussion should focus on supporting work incentives and fiscal sustainability*

Broad agreement was reached in the Norwegian Parliament on the proposed pension reforms in May 2005, but important elements are still under discussion. The Parliament supported the introduction of a benefit adjustment factor to account for changes in life expectancies at age of retirement. A minimum pension would be paid to those who had earned low incomes or with less than complete work histories, and there would be an effective ceiling on benefits for high earners. Benefits would be indexed to the average of wages and prices. It is officially estimated that the impact of less favourable indexation treatment, the benefit adjustment factor and the positive impact on labour supply of older workers of actuarial fairness would lead to savings of around 3% of GDP in public spending over the next few decades. However, these effects depend on the final design of the flexible retirement scheme and the link between pension earnings and pension benefits. The government was asked to submit new proposals incorporating a stronger redistribution element, which would weaken the link between lifetime earnings, and pension benefits, and hence also weaken work incentives. The government was also asked to submit an alternative proposal favouring early retirement. *It is very important that the authorities pursue a reform that strengthens work incentives and thus helps to ensure the sustainability of the scheme. Consideration should be given to a more direct and transparent linkage between actual contributions and actual benefits for those between the pension floor and ceiling whatever their age at retirement. The period of transition to the reformed system should be kept short.*

### *Access to occupational pensions varies across sectors and they hinder mobility*

To top up NIS pension benefits many larger companies operate funded occupational pension schemes for their employees, mostly of the defined benefit type. They attract favourable tax treatment provided that the benefits cannot be claimed before 67 years. The schemes cover about one third of private-sector employees, they are firm-specific, and portability between different firms is complex. There is no portability into, or from, the public-sector pay-as-you-go (central administration) or funded (local government) occupational pension schemes which cover all employees there. Combined with the AFP scheme, the public-sector occupational schemes guarantee gross replacement of at least two-thirds of final pay at age 65. The 2004 White Paper proposed mandatory occupational pensions for all in the private sector, starting as early as January 2006, and coherence between the provisions of the public-sector schemes and the reformed NIS old-age pension system. *Because many complex issues of creating new schemes in the private sector remain to be resolved, and because operating such schemes may be very costly for small companies if introduced suddenly, their introduction on a mandatory basis should be phased in gradually. Rules allowing*

*portability of occupational pensions between the public and private sectors should be considered, and the two-thirds guarantee in the public sector phased out over time.*

### *Spending on health is high, and is likely to increase*

There is universal access to publicly-provided health care at all ages and for a very wide variety of treatments. It is not very surprising, therefore, that public spending on health is high. But relative to mainland GDP, spending is also high compared with similar countries, especially after large salary increases were granted to many health-care professionals in 2002. This is the case despite a series of wide-ranging reforms designed to make greater use of market mechanisms instituted in recent years, a purchase system for patented drugs that results in low prices for them, and a system for encouraging use of generics where available. The reforms have succeeded in eliminating shortages, raising efficiency and improving citizen satisfaction. Nevertheless, spending accelerated after the reforms. Centralisation of hospital ownership may have increased political influence, encouraging spending that cannot be justified on cost-benefit grounds. Although hospitals in principle must repay debts incurred by them in the short-term, there are no adequate sanction mechanisms to force them to do so. Co-payments by patients are modest, and the background of swelling oil wealth may have sapped willingness to control costs. Diagnosis related groups (DRG) procedures are arguably too well-remunerated in some areas, leading to supply-driven interventions, while their absence in others (*e.g.* psychiatry) may have resulted in sub-optimal supply. Generalist doctors have a gatekeeper role, but are said to over-refer patients to hospitals.

### *Health reforms should concentrate on value for money, and higher co-payments*

Controlling costs in health care can be time-consuming, entailing studies and cost-benefit analyses to establish the suitability of new drugs and treatments, and the efficacy of existing ones. In principle, though, such mechanisms exist in Norway, but they are too often sidestepped by pressure by citizens on politicians to approve new drugs and treatments. *Even if it is not always possible to resist such pressures, the normal certification procedures should be followed subsequently. In a related area, the recent political decision to raise the proportion of DRG finance to 60%, instead of lowering it, was an expensive one that should be reconsidered soon. In this context, greater reliance on regularly updated international benchmarking should be considered. Spending overshoots by hospitals should be only partially reimbursed, and the possibility to replace the management of hospitals in chronic deficit should be used more actively.* Market forces to rein in spending would arguably be more effective if they acted more intensively at the interface between the patient and the health service supplier. Co-payments are comparatively low, blunting the incentive of patients to demand cheaper treatments, even if the incentives to suppliers to give them are in place. *It would therefore be desirable to gradually introduce co-payments where they do not already exist (e.g. hotel-type services in hospitals) and raise them where they already exist. As in many other countries, exceptions can be made for those on low incomes or the chronically sick.*

### *Long-run sustainability will require additional measures*

The oil wealth and the sensible proposals for pension reform should not be allowed to obscure the basic fact that neither the one nor the other, nor even both in combination, will obviate the need for hard choices for public spending in the years to come. The latest OECD estimates suggest that total old-age-related public spending (on both pensions and health) could rise by around 13 percentage points of GDP over the next few decades, assuming that the pension reform proposals are accepted as they stand and that they have their officially-estimated impact. Most of the increase would still be on public pensions, and it would come about as a result of demographic developments and because the system is still maturing, not because its generosity is excessive. Indeed, if the old-age pension "accounts" were separated out from the general budget, they would certainly show that the system would be in surplus at present at a notional contribution rate of 17½ per cent of salaries, as proposed in the reform package. Spending of oil revenue is currently about 5% of mainland GDP and it could rise to 7-8% at its peak given adherence to the fiscal rule, and gradually shrinking thereafter. Even with an early return to the strict fiscal rule, it is clear that rising oil-related fiscal revenues would be quite insufficient to finance such foreseeable spending increases. Spending the capital of the Fund to close the gap would merely pass on the problem in magnified form to the children of the current working generation. The inevitable conclusion is that there will have to be substantial public spending cuts relative to GDP in other areas and/or a rise in the tax burden. *Spending cuts and/or tax increases should preferably be designed to encourage work effort*. It would be as well to prepare suitable measures while income from oil-related activities remains high, so that they can be phased in gradually, reducing pressure on the exchange rate during a period when the economy is still likely to be prospering. This would guard against the need to take disruptive measures at a later stage that would threaten the sustained growth of national income.

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*Chapter 1*

# Key issues and challenges

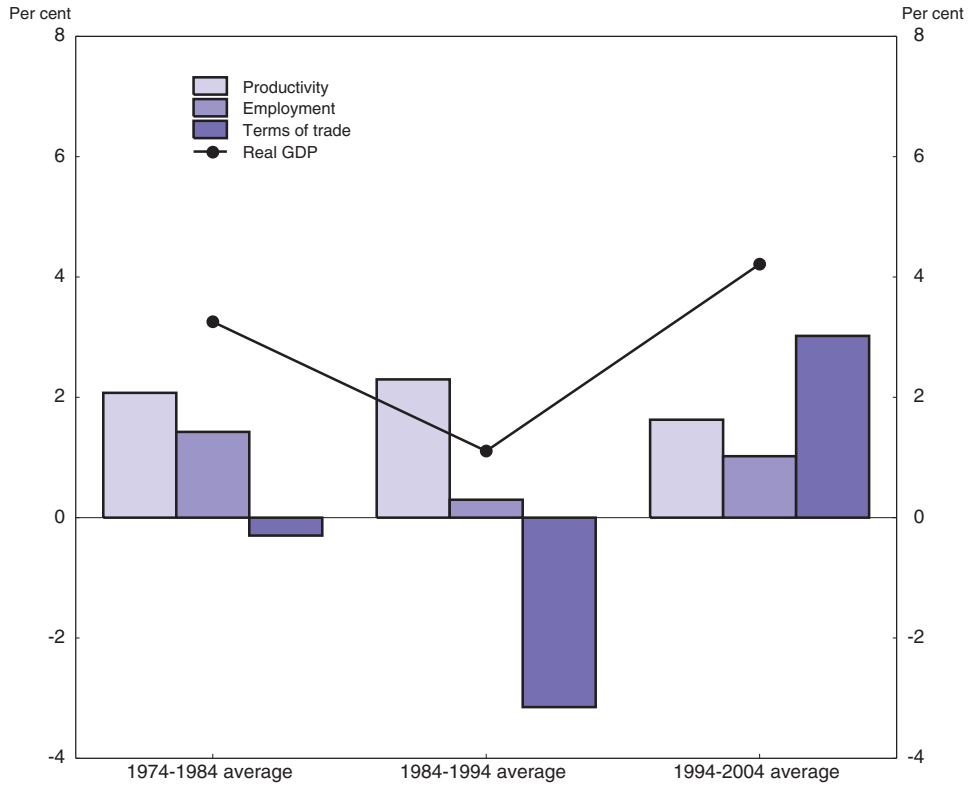
*Norway has very high per capita income and low income inequality. Good policy fundamentals and strong institutions have allowed the transformation of natural resource assets into high growth rather than into destructive rent-seeking. Still, policies need to address future risks to good performance and act to contain them. One such challenge is adapting to a major hike of the oil price without fuelling excessive domestic demand pressure, real exchange rate appreciation, and further crowding out of the exposed sector. So far, Norway has successfully avoided such a scenario by adherence to a prudent macro policy framework and pro-growth structural policy reforms, though there are pressures to spend more of the oil money on social programmes and investment. Another key challenge is to cope with the threat to fiscal sustainability from population ageing. The accumulation of oil receipts in the State Petroleum Fund implies a pre-funding of future old-age pension liabilities, but only partially. A pension reform is needed, and has been proposed. Inflows into early retirements and disability are reducing the average retirement age, increasingly impeding labour supply and amplifying the future financing gap. Health and long-term care spending may also exert significant fiscal pressure as the population ages.*

## An enviable starting point

Norway's economic and policy performance compares very favourably with most other OECD countries. The country is endowed with rich natural resource wealth, but its indubitable material success follows chiefly from sensible economic policies building on strong social and legal norms. Growth has remained high and unemployment low, in contrast to slowing trend growth and stubbornly high unemployment in much of continental Europe, and the economy has been resilient in the recent cycle, in the company of other structurally flexible countries like the United States, the United Kingdom, and the other Nordics. The macroeconomic policy framework plus the oil wealth ensures forward-looking accumulation of oil receipts in a foreign asset fund, and strong surpluses in the external and fiscal current accounts, in stark contrast to deficits and debt plaguing many other countries. Per capita income is among the highest in the OECD and growing fast thanks to the currently favourable terms of trade, on top of steady productivity gains (Figure 1.1). National income remains evenly distributed. The conditions for sustainable

Figure 1.1. **Sources of real national income growth**

Annual growth rates




*Source:* OECD, Analytical database.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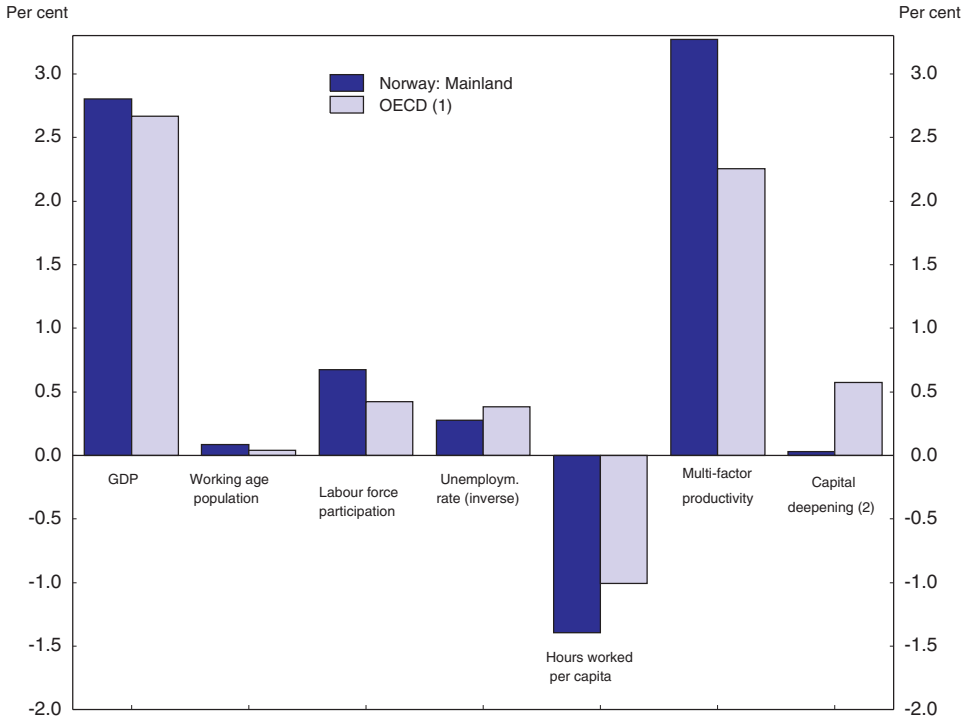
development are on the whole good in Norway, in the vanguard of policies to preserve the environment, extend foreign aid, and promote ethical guidelines in international investments (Annex 1.A1).

## Good fundamentals

A growth accounting framework allows a closer look at the structural factors behind strong economic performance. Mainland productivity growth is comparatively high, including the estimated multifactor productivity component, the main basis for sustained per capita income growth (Figure 1.2).[1] Hours worked per employee have declined faster than in the OECD at large. High growth of already high income arguably makes leisure more affordable, though such "leisure" may consist mainly of work (normally by women) within the home, given that egalitarian wage and tax policies make domestic help relatively expensive.[2] However, average working hours are now stabilising: *first* because the sharp increase in women's participation over the 1980s and 1990s mainly to supply workers for an expanding public sector, with women on average working fewer hours than men, has been exhausted as most employable women are already at work; and *second* because the number of days lost to sick leave declined sharply in the last year, albeit to a still high level. The hours gap is offset by one of the highest female and older worker participation rates in the OECD; hence average lifetime hours worked are higher on international comparison than average weekly or annual hours worked. In any event, the low average hours implies scope for raising labour utilisation in the future, if the incentives are right. A more serious

Figure 1.2. **Per capita real GDP growth and its components**

Annual average percentage changes over 1995-2001




1. Unweighted average of 19 countries.
2. Weighted by income shares.

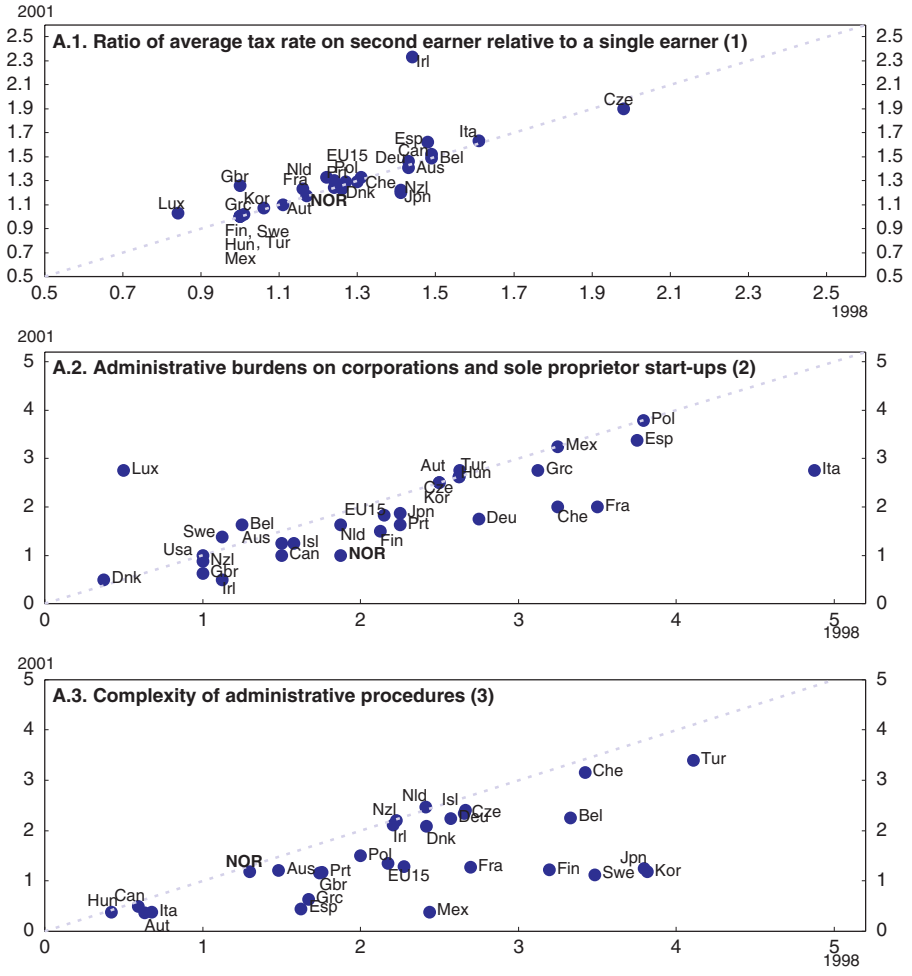
*Source:* OECD, Analitycal database.

concern is the negative trend in participation, which can be traced to an unfavourable dynamic among older workers, mainly via early retirement and disability pensions, which once accessed are largely irreversible. Norway shares with Sweden one of the highest rates of disability, twice the median OECD rate.

OECD cross-country structural indicators show that Norway scores well in many areas: entrepreneurship (various measures), wage and employment flexibility, moderate taxation, and educational attainment (Figure 1.3). This policy record helps to explain the excellent performance of the labour market-low unemployment and strong job creation. Less satisfactory features may be a high level of public ownership, a high level of state aid

Figure 1.3. **Structural policy indicators**

A. Some goods scores




1. The ratio is calculated at an earning level of 67 per cent of average worker earning. The spouse of the second earner is assumed to earn 100% of average worker earning in a family with two children.
2. Index scale of 0-6 from least to most restrictive.
3. Concerns complexity of government communication of rules and procedures as well as licences and permit systems. Corresponds to the indicator of regulatory and administrative opacity.

*Source:* OECD (2005), *Going for Growth*.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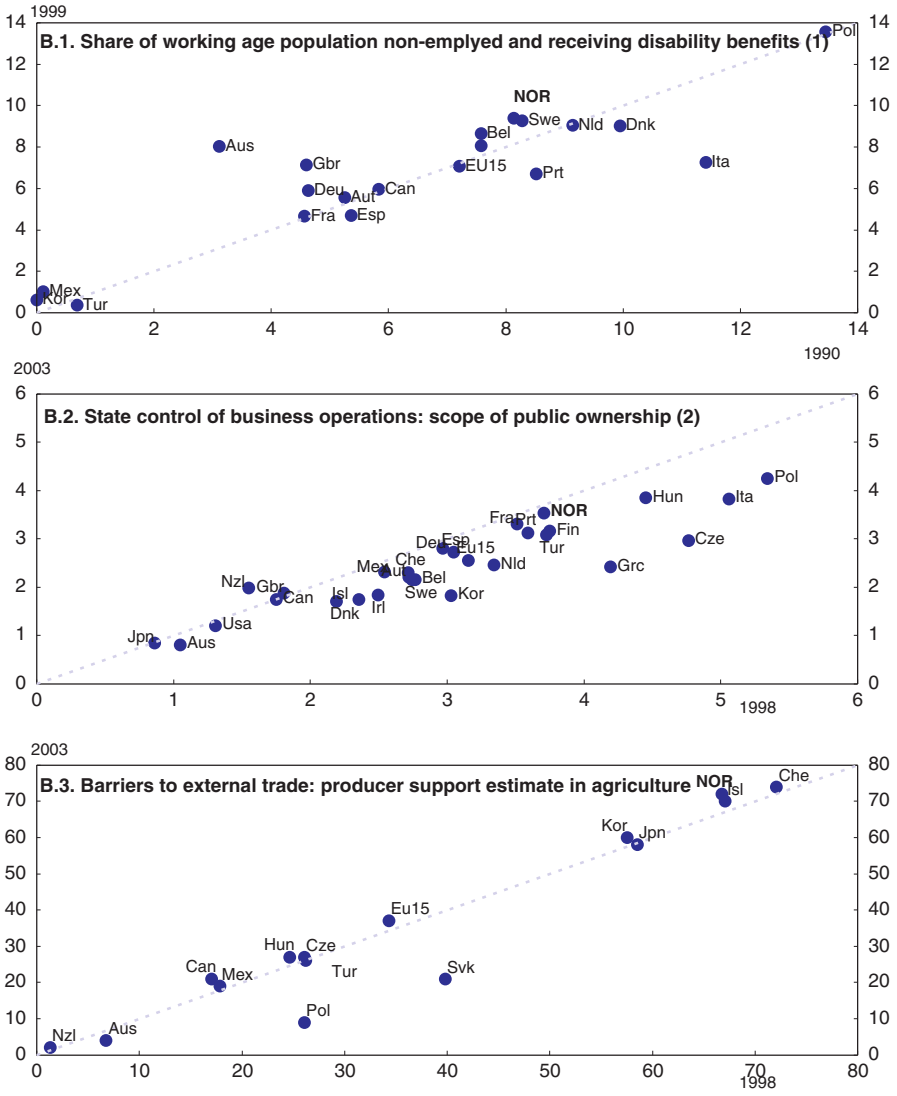
in some traditional industries (agriculture, including food processing, and shipping,), often in connection with regional support policies, and low foreign direct investment inflows (Table 1.1). All these factors weaken competitive forces, according to OECD studies. PISA test scores also suggest that educational quality has yet to catch up fully with quantity (Table 1.2). Also, apart from the oil sector, which uses sophisticated technology, Norway lacks the high-tech service sectors seen in fellow Nordics (see Figure 1.10).

It may be asked then why mainland productivity growth is so strong. Spill-over effects from the high-technology oil sector could be one factor. Another one is openness to international trade in sectors not explicitly protected (effectively most sectors), enhanced

Figure 1.3. **Structural policy indicators** *(cont.)*

B. Some bad scores




1. EU15 excluding Finland, Greece, Ireland, and Luxembourg.
2. EU15 excluding Luxembourg.

*Source:* OECD (2005), *Going for Growth*.

Table 1.1. **Foreign direct investment inflows**

As a percentage of GDP

| | 2000 | 2001 | 2002 | 2003 | 2004 |
|---|---|---|---|---|---|
| **Norway** | **3.58** | **1.25** | **0.33** | **0.90** | **0.20** |
| Finland | 7.37 | 3.08 | 6.0 | 2.04 | 2.50 |
| Sweden | 9.69 | 5.36 | 4.59 | 1.09 | –1.17 |
| Euro area | 6.49 | 2.96 | 2.06 | 1.44 | 0.51 |

*Source:* OECD, *Main Economic Indicators*, Analytical database.

Table 1.2. **Results of the 2003 PISA analysis**

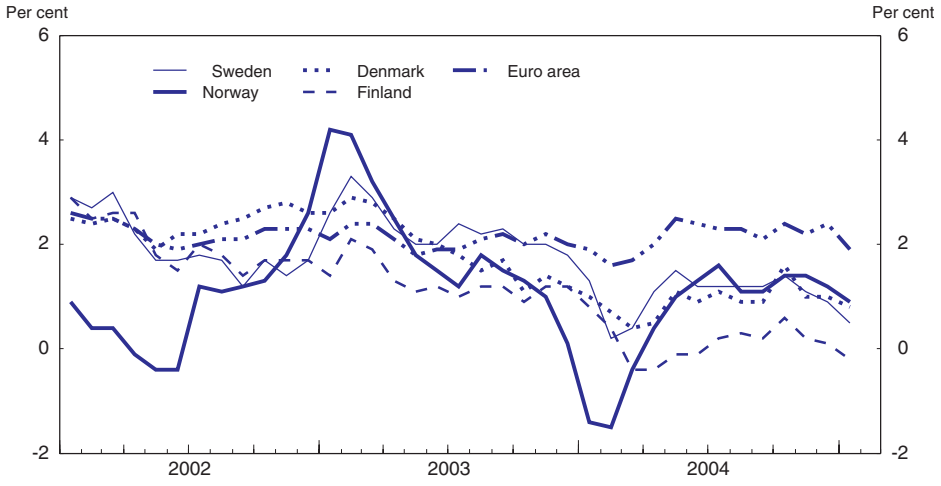
Performance of all students

| | Norway | OECD average |
|---|---|---|
| **Reading literacy** | | |
| Average | 500 | 494 |
| Difference between the 75th and 25th percentiles | 137 | 130 |
| **Mathematical literacy** | | |
| Average | 495 | 500 |
| Difference between the 75th and 25th percentiles | 127 | 139 |
| **Scientific literacy** | | |
| Average | 484 | 500 |
| Difference between the 75th and 25th percentiles | 143 | 148 |
| **Problem solving** | | |
| Average | 490 | 500 |
| Difference between the 75th and 25th percentiles | 135 | 137 |

*Source:* OECD (2004), *Learning For Tomorrow: First Results From PISA 2003*.

Figure 1.4. **Inflation in Nordic countries and the euro area**

Harmonised indices of consumer prices, 12 month changes




*Source:* Eurostat.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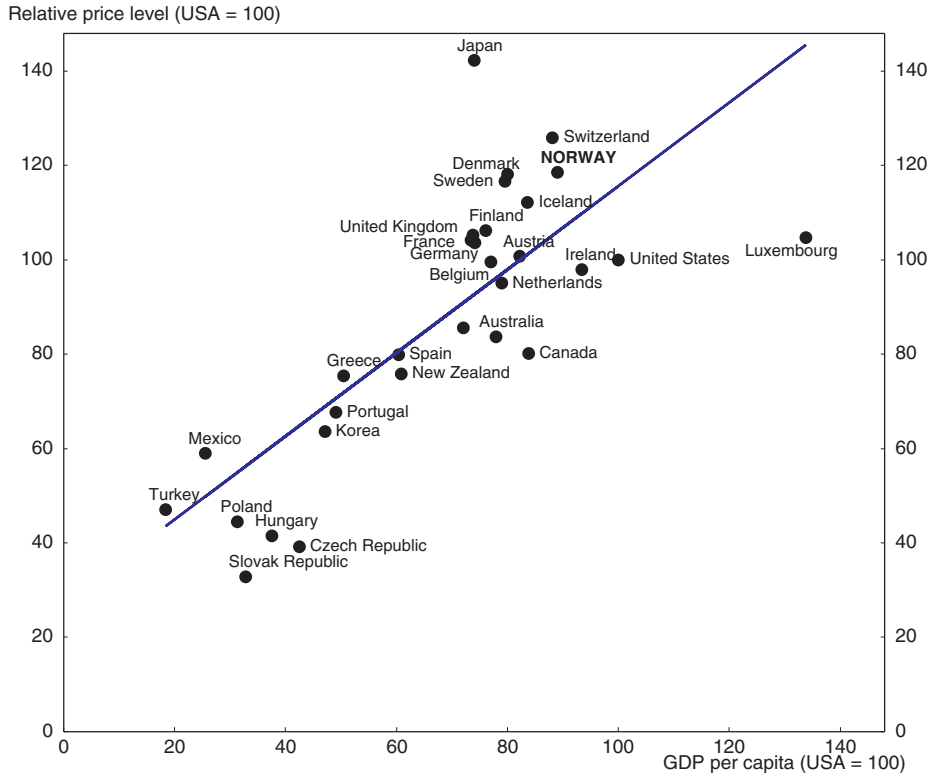
by EU enlargement to Eastern Europe and adhesion of China to the WTO. Regulatory reform has also led to efficiency gains in areas like financial services and retail trade. It is interesting that the Nordic countries seem to share recently high productivity growth and negative inflation shocks in common, against higher inflation rates in the euro area despite its lower growth (Figure 1.4). One reason may be the greater degree of openness of the former. However, Norway's price level gap is still high and suggests significant further scope for gains from competition, even though part of Norway's high price level is likely to reflect high *per capita* income and high indirect taxes (Figure 1.5).

Figure 1.5. **Relative price levels and GDP per capita**
Real incomes and relative prices, 2002 in purchasing parities




*Source:* OECD, *Purchasing Power Parities*.

### *What challenges are there in such a high performing economy?*

The economy today appears to be in an almost unparalleled position of strength, with no major short-term risks. Even so, as a resource-rich welfare state, Norway is exposed to certain risks against which the best insurance is awareness and action in time to contain them. This chapter identifies two key challenges on the horizon. If macroeconomic imbalances were to emerge, as in the last boom, high oil-related revenues might become "too much of a good thing" weakening further the exposed traditional sectors. Secondly, population ageing (longer lifetimes and lower fertility) implies unsustainable fiscal pressures, despite oil revenues, but Norway is lagging on implementing reforms to control the rise in age-related spending, or indeed to streamline other spending to make room for the inevitable increase. The main worry here is that the huge budget surplus and the large,

growing, and very visible Petroleum Fund might obscure the fact that non-oil public finances are in large deficit, and weaken the political will to make hard choices. In neighbouring Sweden, by comparison, acute budgetary problems spurred tough pension reforms.

Nevertheless, consensus-based institutions, and a shrewd policy of planning by taking little for granted, give grounds for optimism. The government has proposed a sound old-age pension reform that will encourage more work effort, though the Parliament asked the Government to reconsider some of the politically most difficult elements of the reform. Norway thus has a better chance of meeting the demographic challenge than most other OECD countries, so long as it maintains the long view. After having avoided the dissipation of its natural-resource endowment in rent-seeking and corruption (as is so often the case elsewhere), Norway's challenge is altogether of a higher order: to maximise the benefits of the resulting savings for the benefit of both present and future generations of Norwegians, in line with the principles established with the Petroleum Fund and associated fiscal rule. At the same time, it is a challenge to prevent growth from being negatively influenced by the oil wealth, which could happen if authorities and voters are blinded by the latter to the extent that Norway lags behind other countries in structural policy measures.

## High oil prices and non-oil sector competitiveness

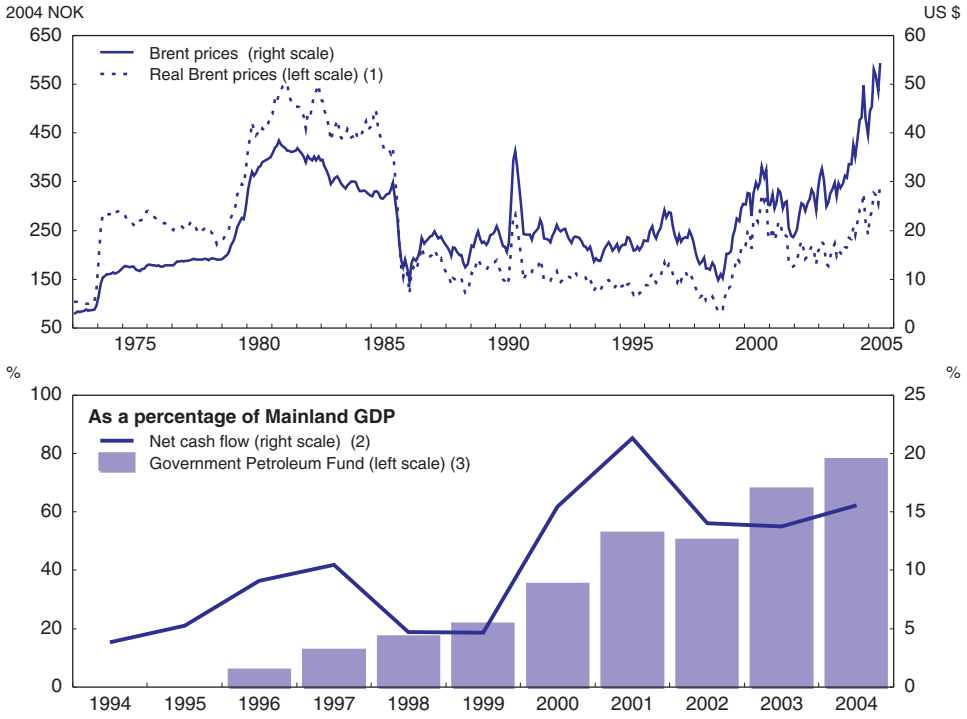
Norway is now the world's third largest exporter of oil after Saudi Arabia and Russia. Norway is also one of the rare countries to have escaped the well-known traps of great natural wealth; this is thanks to enlightened policies that have enabled the economy to take advantage of oil wealth without destroying traditional traded sectors, or concentrating the wealth in the hands of a few. Sharply rising oil prices have added to Norway's permanent wealth but have also heightened the challenge to manage it well.

### *The oil price shock*

The recent oil price rise implies a big positive terms-of-trade shock for Norway. Not only have prices almost doubled in 5 years in dollar terms, and risen to more than half their early 1980's peak in real terms (Figure 1.6), but they are also expected to remain high over the medium term, reflecting fundamental international supply and demand factors. Higher expected oil prices in the first instance encourage more intensive exploitation of already known fields, rather than exploration of new ones, as the original reserves estimates for Norway seem so far to be accurate.[3] An accelerated recovery of reserves usually follows 4-5 years after the initial investments. Indeed, one of the main motors of the current recovery is oil investments, which already account for around one-quarter of total investment and will have grown by almost 20% per annum in real terms over the period 2003-05. Oil investment activity also has important spill-over effects in the rest of the mainland economy. Extremely high profits in the energy sector have further added to incomes and loosened cost-control disciplines, and wage increases in the oil sector have been high.

The higher oil price expands the budget constraint and allows somewhat higher fiscal spending, *ceteris paribus*. In the short-term, when oil production and export volumes are rather inelastic, there is purely a price effect boosting the value of the revenue stream flowing into the Government Petroleum Fund, which is already large (see Box 2.3). In the medium-term, when volumes will have responded to higher investments today, there is a dual effect from higher volumes and prices. It is projected that at their peak (around 2030),

Figure 1.6. **Oil prices and revenues**




1. Monthly average, deflated by domestic consumer prices.
2. Equals total taxes and royalties attributable to Norwegian Crude oil and natural gas production plus net cash flow for SDFI.
3. Market value at the end of the year.

*Source:* OECD, *Main Economic Indicators* and Energy Information Administration.

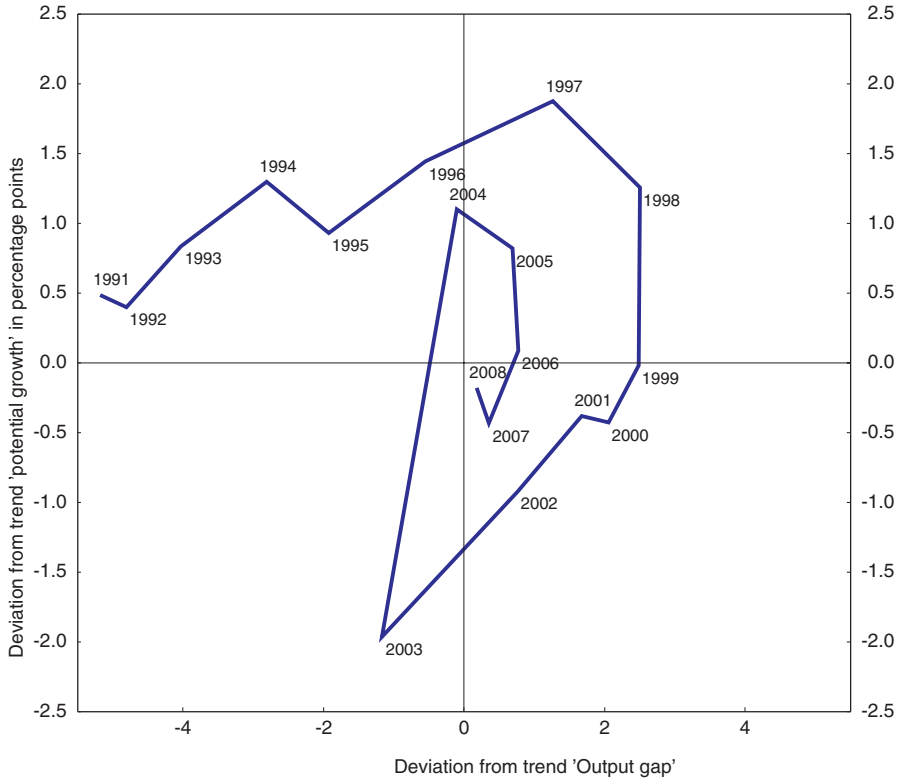
permanent income from the Fund could be around 2 percentage points of GDP higher than initially projected, 7½ per cent of GDP instead of 5½; assuming a $10 rise in the long run oil price, *viz.* from $25 to $35 per barrel. Although this provides some underpinning for higher public expenditure in future, it is far from sufficient to cover projected rises in age-related spending, despite proposed reforms (see below).

The recent oil price rise thus implies exogenous positive shocks to: *first*, the terms of trade, which skews relative prices and hence factor flows in favour of the oil sector and away from other sectors; and *second*, domestic demand, both private and public, in the medium run. The size of the shock is such that it could lead to upward pressures on wages, inflation and the exchange rate.[4] The policy challenge is to stabilise output by judicious use of macroeconomic policies, as well as to uphold non-oil sector competitiveness by fiscal discipline and assertive structural policy reform.

### *Cyclical overheating risk*

Monetary policy will need to guard against wage pressures emerging in an economy awash in oil money, as happened in 1998 and 2002. Although there are as yet no signs of an overheating on the scale of the 1997-98 episode (Figure 1.7), cyclical turning points are rarely foreseen with any accuracy. And once nominal wage growth starts to outstrip productivity as the labour market tightens, the resulting competitiveness losses are very difficult to reverse. The central bank has appropriately announced its intention to

Figure 1.7. **Norwegian mainland economic cycles**




*Source:* OECD, Medium Term Baseline, June 2005.

gradually bring the interest rate towards a more neutral level, with the first interest rate increase coming in July 2005. With bottlenecks emerging, there is a risk of a renewed period of higher wage growth in Norway than among its trading partners. Monetary policy has to take this into account. However, tightening monetary in Norway with reduced prospects for interest rate increases in other countries could lead to an unwelcome strong exchange rate appreciation, creating a challenge for economic policy.

Norway may be nonetheless better prepared to face this challenge than in the past. Monetary policy credibility was enhanced at the start of the inflation targeting regime, when policy in 2002 acted forcefully against excessive wage growth; the memory of that episode is still strong in Norway, hopefully pre-empting inflationary wage demands today. Stronger competition is mitigating inflation and should continue to do so for a while to come. Recent liquidity expansion has gone more into assets (mainly housing) than goods purchases, though this might also entail financial vulnerability as interest rates normalise.[5] Such structural changes should by themselves help maintain balanced growth, as in the other Nordic countries, provided that no major policy mistakes are made, in particular a protectionist response to rising foreign competition, including from foreign labour.

Fiscal policy also plays a role in managing the cycle, though in theory less so under the new policy framework, which ascribes the main role for output stabilisation (as well as inflation targeting) to monetary policy and that for the real exchange rate anchoring to

fiscal policy; previously, the opposite assignment held (see OECD 2004a). Primarily by providing clear information to the market on the future uses of oil money, fiscal policy changes are likely to have much stronger impacts on expectations-based changes in the exchange rate than those induced by cyclical changes in interest rates (via long-term interest rates) in reaction to monetary policy. Monetary policy thus has a comparative advantage in managing the cycle, especially as it is much more flexible, and fiscal policy in anchoring the exchange rate.

There is an important issue here. The fiscal rule sets the permitted non-oil structural deficit equal to 4% (assumed long run real return) of the Petroleum Fund's market value at the start of the year, which means that the allowable deficit fluctuates with both oil and asset prices. While the rule allows for discretionary smoothing of such variability over time, in practice this has happened only in one direction, namely when oil and/or financial market prices fall. The lack of symmetry means that rising oil prices and recovering international asset markets are not yet being used to reduce the deficit, while the latter is overshooting the fiscal rule by almost 2% of GDP and the output gap is turning positive (Figure 1.7).

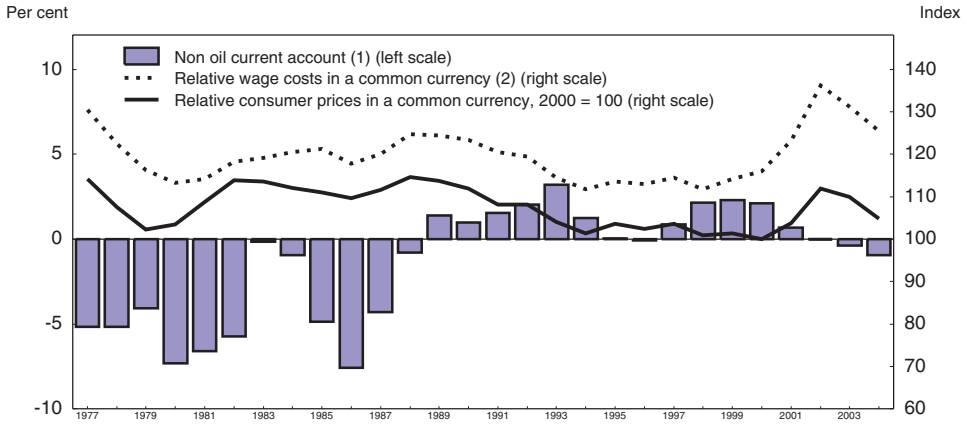
### *Structural crowding out risks*

A large literature points to the observed prevalence in countries with large natural resource wealth of both a "resource curse" and the "Dutch disease". The resource curse is the situation in which rent seeking behaviour displaces productive activity, often ending up in corruption and oppression by a powerful clique in order to capture the bulk of the wealth. The emergence of resource-dependence lowers growth and stunts human capital development. Norway has escaped this curse, thanks to its highly evolved democratic and social institutions wherein the common sharing of risks and fortunes has continued to be the accepted norm. The perceived benefit to society is why the government captures a large share of oil resource rents. Norway in this way sets a powerful example of enlightened policies to other resource-rich countries.

The Dutch disease is the process whereby the resource sector crowds out the traditional traded sector via real appreciation of the exchange rate as large resource rents are absorbed into the economy. In parallel, there is a crowding out of employment because the resource sector typically employs few people.[6] The disease is harder to avoid and may have been mildly manifested in Norway in the boom of the late 1990s and early 2000s, when the real exchange rate appreciated in response to a wage boom, monetary tightening and nominal exchange rate appreciation.[7] Some competitiveness was recouped last year with the monetary policy easing, as the krone fell back – but hourly manufacturing labour costs in a common currency were still 25 % higher than in trading partners in 2004 (Figure 1.8).

Despite the cumulative impacts of competitiveness losses, the non-oil current account deficit is not large (Figure 1.8). It would be however larger were it not for currently favourable terms of trade, as some traditional exports (such as aluminium and shipping) have like oil enjoyed large price increases. Norway has in fact experienced a long-term decline in the share of non-oil exports in GDP. Norway also differs from next-door Sweden and Finland in the amount of FDI that it is able to attract (see Table 1.1),[8] which may inhibit the development of new sectors.

Figure 1.8. **Real exchange rate and non-oil balance**



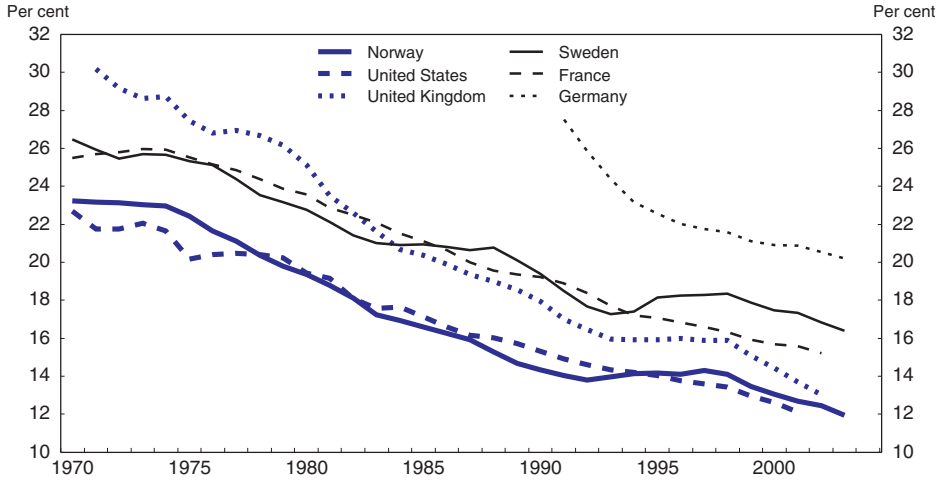

1. As a percentage of mainland GDP. Excludes trade in oil and gas products and in oil-related investment goods and business services.
2. Based on wage costs per hour in manufacturing sector, trading partners = 100.

*Source:* OECD, Analytical database and Statistics Norway.

The pace of shrinkage of the non-oil tradable goods sector (manufacturing) though the share of manufacturing in total employment is now among the lowest seems no faster than in the OECD (Figure 1.9).[9] The "structural" level of unemployment, though still low (the "Nairu" estimated by the OECD is now just above 4%), has ratcheted up with each downturn as manufacturing lay-offs were not fully offset by service sector hiring in the subsequent upturn. In terms of value added, Norway displays among the lowest shares of high technology manufactures and knowledge intensive services in OECD countries (Figure 1.10). Paradoxically, it also displays the lowest share of slow-growth sectors (low-to-mid tech manufactures and agriculture), the counterpart being a relative intensity in the public and oil sectors (not shown). Thus, unlike non-oil rich countries which developed high tech industries as a counterweight to global low-wage competition and deindustrialisation, Norway still faces adjustment costs in the future, when substitutes

Figure 1.9. **Manufacturing employment**

As a percentage of total employment




*Source:* OECD, STAN database.


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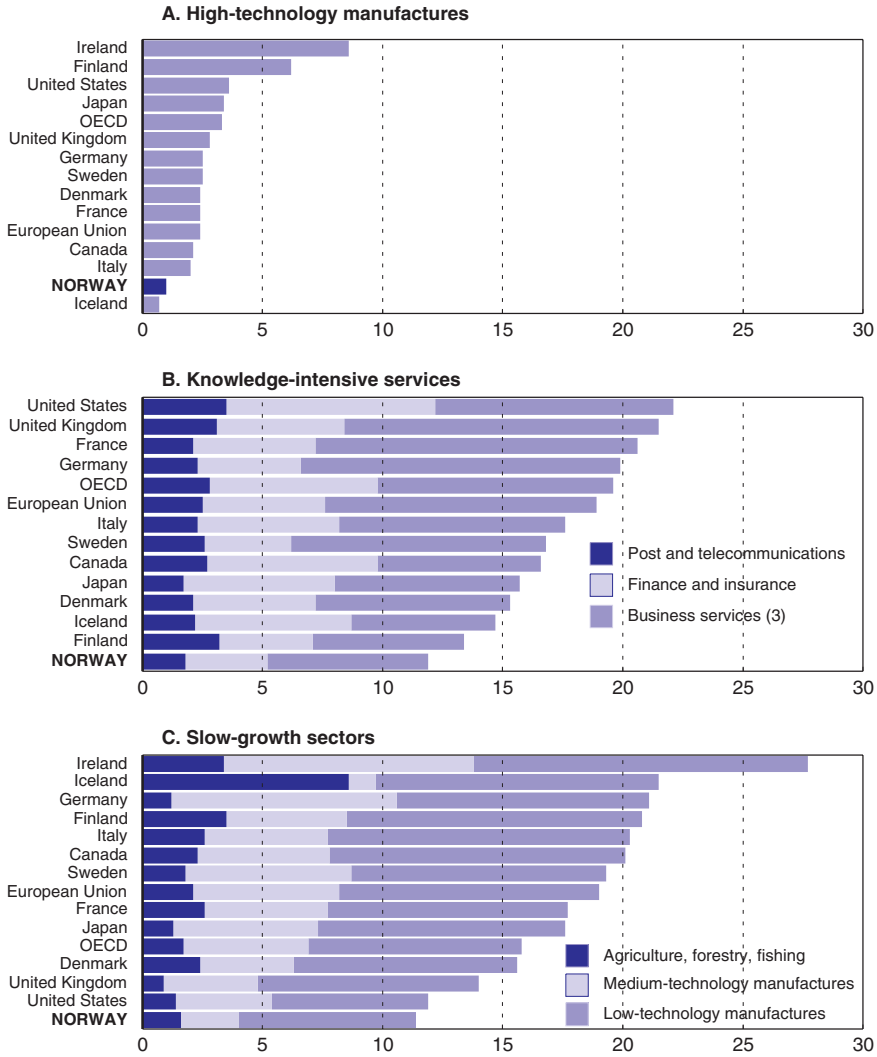
Figure 1.10. **The sectoral composition of output**[1]

Percentages, 2002[2]




1. Share of value added in total value added.
2. Or latest available year.
3. Business services include renting of machinery and equipment (71); computer-related services (72); research and development (73); and other services (74).

*Source:* OECD Science, Technology and Industry database.

will be need to be found for: *i*) oil investments as a driver of growth, which are expected to dwindle after 2006, and *ii*) oil revenue as a source of foreign exchange, especially once the oil fund starts to decline relative to GDP in the more distant future.

The Dutch disease is now being effectively contained by the fiscal rule, which is designed to smooth the absorption of oil money through time to avoid exchange-rate pressures, overheating and waste while sharing the oil windfall with future generations. This is a good and prudent rule, without which public spending would have almost certainly been higher (and less useful) than it was, but this self-discipline is constantly put to the test by the democratic process.[10] Fund assets under this rule will continue to rise

relative to GDP for a further 20-30 years, then gradually decline, implying also a declining size of the permissible non-oil structural fiscal deficit after this point (from a peak of 7½ per cent in 2030 to 6% in 2050).[11]

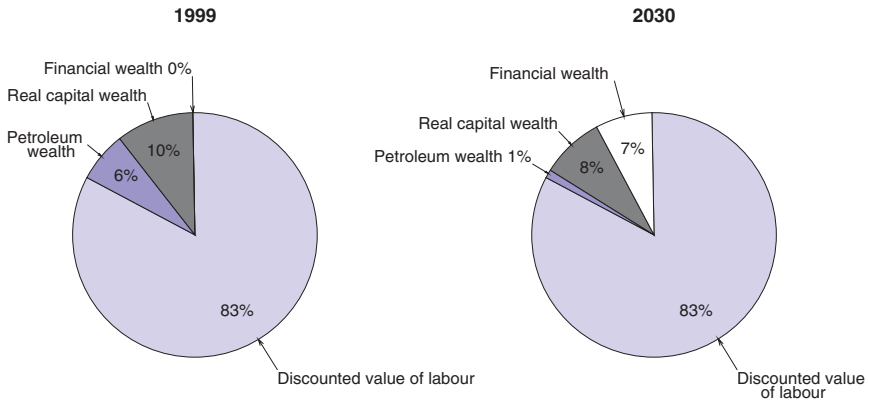
In conclusion, there are some lessons for policies. Norway's present favourable fiscal position must not be allowed to become a cushion against pro-growth structural policies Above all, spending should not be used to subsidise wide-spread early labour market withdrawals. Norway has been doing well in most areas that contribute to higher growth, having pursued reforms in the tax, education and competition areas and planning to do more – though less so in the area of work incentives (Box 1.1). The value of the wealth of human capital vastly exceeds that of oil even at higher oil prices (Figure 1.11), and should be guarded jealously. There is also the risk that the oil income could be spent before it has even accrued, if the expectation is that the permanent earnings from the fund will be higher, as could be happening now. Before long, this would be seen as an erosion of forward – looking policies, boosting the real exchange rate as the fiscal rule loses credibility. Chapter 2 discusses macroeconomic policies to preserve competitiveness of the productive economy.

### Box 1.1. **Oil wealth and expectations regarding the public sector**

The large petroleum fund may have raised people's expectations regarding the ability of the public sector to supply additional services, for example in health services, improvements in the educational system, reductions in the age of retirement, and tax reductions. Indeed, public sector spending and employment have grown rapidly since the discovery of oil in the early 1970s. Survey data shows that a large share of the population believes that reductions in the age of retirement can be afforded on the basis of large oil wealth, and statistics bear out that the effective age of labour market exit has fallen by about 5 years between 1980 and 2004, at a time when life expectancy has increased. A growing petroleum fund could also lead to a neglect of efficiency improvements in the public sector. Empirical work suggests that local level public employees are more likely to resist efficiency improvements and modernisation, while demanding higher wages, in response to the increased oil wealth, compared with those at the central government level and in the private sector (Haugsten, 2004). A key question is whether these attitudes will be reinforced by the recent jump in the oil price, following a period of relative calm since 2002, when employment growth in the public sector has for the first time slackened and wage demands have been mild, in part reflecting a new macro policy regime

An illusion that oil wealth is sufficient to fulfill all desires may stem partly from ignorance as to its real size but also from its public character. For example, if the entire oil fund at its peak (around 190% of GDP or some 300 billion NOK in today's prices) were distributed equally across the population in a single year, the transfer per inhabitant (about 4.5 million people) would amount to about twice the annual average wage (currently about 265 000 NOK, equivalent to about $38 000). If the transfers were made to only workers (about half the population), then it would amount to 4 years of average annual salary, a huge windfall but still falling short of fully financing the present 7 years' gap between the average effective age of labour market exit (60) and the statutory retirement age (67). Thus, the oil wealth is insufficient to finance very early labour market exits alone even if its entire capital were distributed to a single generation. Moreover, by 2050 the liabilities of the NIS pension system will amount to more than 500% of GDP, more than triple the size of the oil fund at that time, even before allowing for the cost of early retirement schemes in the public and private sectors.

Figure 1.11. **Norway's national wealth**
As a percentage of total wealth

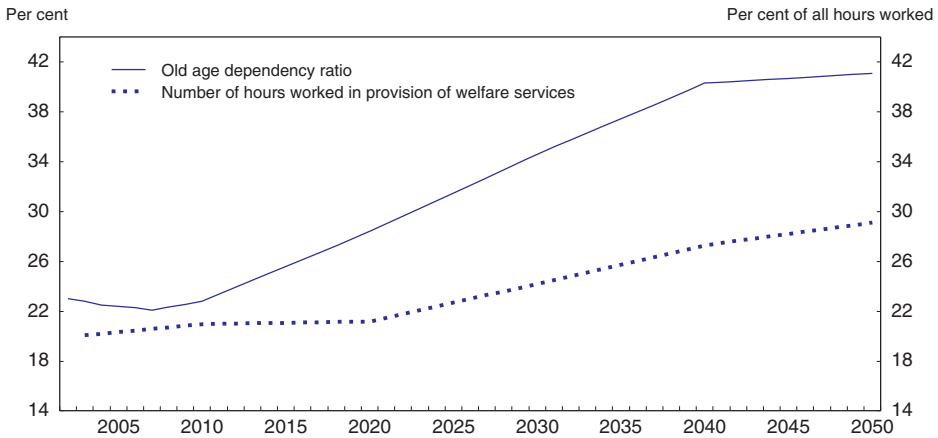



*Source:* Bergo J., "Oil Economic Policy Challenges", March 2003.

## Ageing, social benefits, and fiscal sustainability

As regards ageing issues, Norway starts out from a highly favourable position. Employment rates for older people are among the highest in the OECD, pension expenditure is relatively low, and pensioners currently enjoy reasonable replacement rates. However, Norway, like most OECD countries, will experience a significant ageing of its population in the next decades. The proportion of those 65 or older will increase from around 15% of the population to 24% by 2040. The old-age dependency ratio (those 65 and older relative to those 15-64) is then expected to almost double reaching 40% by 2040, as compared with more than 50% for the OECD, and induce a major shift of resources toward services for the aged (Figure 1.12). On the basis of current rates of labour force participation, the ratio of workers to "retirees" (*i.e.*, all persons aged 50 and over who are not in the labour force) is projected to decline from almost 3 to 1 in 2000 to just over 1.7 to

Figure 1.12. **The old age dependency ratio**[1]




1. The projections are based on the Norwegian medium population projection scenario. This assumes a fertility rate of 1.8 per woman per year from 2005 and an annual net immigration of 13 000 from 2004 to 2050.

*Source:* Statistics Norway, "Population projections for Norway, 2002-2050".

1 in 2050. The growth of the working age population will slow from almost 1% per year currently to close to zero by 2050. Norway therefore faces a risk over the next few decades of slower economic growth, pronounced labour shortages and rising tax rates to finance a greater volume of services for, and transfers to, the older generation.

### *Long term deficits among the highest in the OECD*

#### *Ageing costs and how to pay for them*

In addition to the purely demographic factors, pension expenditures are expected to grow as a result of the continued maturation of the earnings-related, pay-as-you-go second tier which was created in 1967, relatively recently in OECD terms. Growing female labour force participation since the 1970s has prolonged the maturation process. The influx of women into the labour market has so far boosted fiscal receipts by more than it has increased spending, so that current spending on public old-age pensions, at around 7% of GDP, is quite low compared with most other OECD countries (see Figure 3.1). However, when these large economically active cohorts eventually retire they will receive much higher benefits than previous generations, and most people of pension age will by then be entitled to full public old-age pensions. Pension spending will start to rise quickly.

Norway is thus expected to move from being a low spender to one of the top spenders in the OECD area in the absence of reforms. According to the latest national estimates, adding old age and disability pensions together, total age-related expenditure would rise by 10 percentage points of mainland GDP (from 9 to 19%) by 2050 – assuming no significant further rise in the number of disabled or early retirees and disregarding altogether the increasingly costly pay-as-you-go central government occupational pension scheme. The rise in health costs including technology developments and long term care for the elderly is harder to estimate but according to the government could be as high as 4 percent points of GDP; the latest OECD estimates are 3½ per cent.[12] Adding in health costs would bring the expected total rise in age-related spending to some 14-15% of mainland GDP, with risks probably on the upside. This is very far in excess of any plausible rise in permanent revenue from the Petroleum Fund, even under optimistic assumptions regarding oil prices and financial market outcomes. And even if reforms under discussion are implemented, the rise in pension and health spending would still outstrip the capacity of the Petroleum Fund to finance it.

Typically there are four ways of addressing this problem: *i)* "pre-fund" the future financing gap by building up assets or drawing down debts in the present; *ii)* do nothing now and plan to raise taxes in the future to cover the gap then; *iii)* pension and health care reforms to reduce future expenditure growth; and *iv)* broad structural reforms to raise future output growth, raising the denominator of the gap. Most countries in the OECD have adopted a mixed approach, with decidedly less emphasis on the second option of doing nothing and raising taxes later since taxes are already sub-optimally high in many countries and raising them would further harm growth.[13]

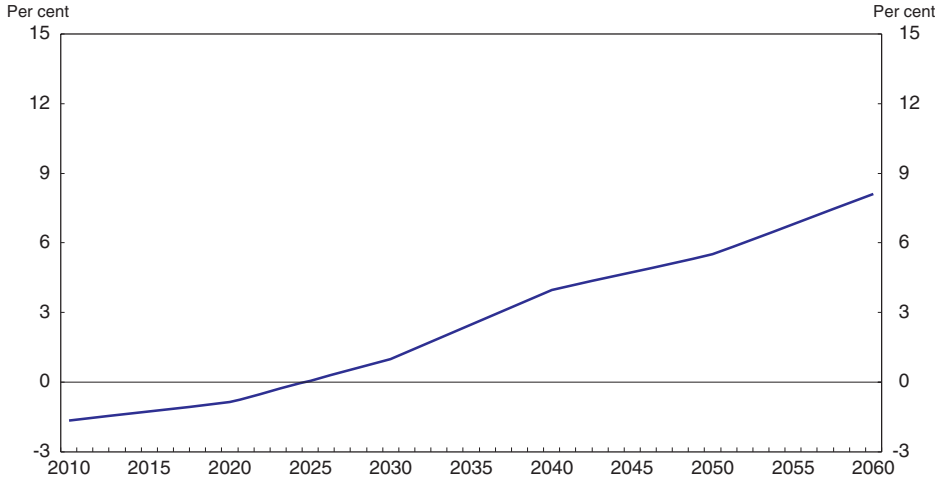
#### *Oil revenue should alleviate the burden but does not obviate the need for reform*

The financing gap in Norway will not necessarily increase as much as indicated by the expenditure figures. Thanks to booming oil revenues, Norway has since 1996 run huge surpluses on the central government budget that have been transferred to the "Government Petroleum Fund" (GPF) and invested in international capital markets (see

Box 2.3). This could be seen as a form of pre-funding of future pension liabilities, although it is not clear to what extent the oil fund serves as a pension fund.[14] In the official baseline scenario, the permanent income from this fund is expected to reach about 6 percentage points of GDP by 2050, implying a net financing gap on spending of around 5 percentage points of GDP by 2050, which will continue to widen as the pension system continues to mature beyond 2050 (Figure 1.13). However, this presupposes discretionary spending reforms to free up the current uses of oil money of around 5% of GDP. In the absence of such reforms, only about 1% extra leeway can be expected from rising future oil fund revenues, raising the financing gap. Moreover, health spending is certain to rise in response to ageing pressures. Thus, reforms to both curb the rise in future pension outlays and close the starting point non-oil deficit gap are imperative (Table 1.3).

Figure 1.13. **The financial gap net of GPF income**

Present pension system and welfare services, as a percentage of mainland GDP




*Source:* Ministry of Finance.

Table 1.3. **The fiscal adjustment**

As % of mainland GDP; pre-reform

| | 2005[1] | 2050[2] | Change |
|---|---|---|---|
| Fiscal balance | 14 | 0 | –14 |
| Oil | 19 | 6 | –13 |
| Non-oil | –5 | –6 | –1 |
| Pension[3] | –7 | –13 | –6 |
| Other | 2 | 7 | 5 |

1. Structural, based on latest budget estimates.
2. Fiscal balance set at "steady state" level needed to ensure stabilisation of government net asset position. Oil revenue set equal to permanent income from GPF.
3. Total spending on old age, early retirement, and disability pensions net of pensioner tax payments (assumed at 30%).

*Source:* OECD estimates.

Normally, immature pension systems generate strong surpluses insofar as contributions considerably exceed outlays while the system is expanding, which in turn is a form of pre-funding insofar as this raises government net assets, *ceteris paribus* (this should be true whether or not separate pension accounts exist or are subsumed into

general taxation and spending as in Norway). However in Norway, region-specific reductions in employer social contributions are widely used as a particularly transparent form of regional aid, which essentially precludes such a form of pre-funding. This is also consistent with the fiscal rule, which sets an upper limit on allowable asset build-up. Nevertheless, lowering taxes now leaves scope for raising them later, on richer future generations.

### *Structural reforms are necessary*

Pension reforms can be a very powerful method of adjustment, because they not only reduce spending directly, but can also be designed to extend the age of retirement and boost labour supply, hence raising growth and fiscal revenues as well. Measures that reduce the "generosity" of pensions also create incentives to work longer, or more continuously before retirement, in order to earn an adequate pension income. Some studies show that working longer is associated with better health due to continuing social interactions and a less rapid deterioration of mental capacity. In any event, despite rising productivity, retiring earlier while living longer is not acceptable from society's point of view, as it puts a large and growing burden on the economically active.[15] At the same time, people who have already worked many years in possibly arduous jobs and can expect lower life expectancy can be given consideration by tying pension benefits more closely to contribution years than to chronological age. The Pension Commission in Norway has recently proposed an old-age pension reform along these lines, which could lower the estimated financing gap by some 2-3% of Mainland GDP mainly via direct spending effects. The Government followed up the proposals in a White Paper, and important elements where supported in Parliament. However, much remains to be done before a comprehensive pension reform is in operation. Obtaining the full benefits of a labour supply response would require coherent reforms in early retirements, public occupational pensions, and disability pensions. These issues are taken up in Chapter 3.

In the area of health care, Norway has implemented an impressive reform which greatly alleviated shortages and quality difficulties in the previous system, in part by making greater use of market-type mechanisms to improve incentives to provide good service. This highlighted a beneficial and efficient way of making spending increases which fulfil pressing public needs and the needs of growth (better health boosts human capital). However, cost pressures have increased since the reform, *per capita* health spending is the second highest in the OECD, wage awards in the sector have been strong, and there seems to be little political will to impose stricter cost-sharing and controls on treatments. There is therefore a risk that the system is not robust with respect to ageing and technological pressures, and that a more cost-aware approach to delivery and reimbursement of health care is still needed. Ideas for doing so will be presented in Chapter 4 in this year's special in-depth chapter on health care reform.

### *Weakened incentives to grow*

Many schemes related to the National Insurance Scheme (NIS) may lead to a high implicit tax on continued work, even though their original intention was to help the sick and the disabled. As documented in Duval (2003), high disability rates for ages between 55 and 60 might be explained by one of the four highest implicit tax rates in the OECD on continued work related to this scheme. And despite recent falls, sick leave is still very high. Indeed, there are still good reasons to choose sickness leave, which pays 100% of

income (up to a ceiling) for up to one year. Academic research has focused on the coherence of the NIS old age pension and early retirement schemes, and shows that under current rules, a relatively high minimum pension benefit and a weak link between contributions and pensions introduce strong incentives for low and middle-income earners to retire early at the age of 62.[16] As pension and disability benefits are taxed at a lower rate than income from work, this again strongly skews incentives against work, especially for the same category of workers.

Consequently, although Norway has the highest OECD employment ratios for older workers (aged 55 to 64),[17] 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. In the 1990s, employment rates increased on average, but fell for those aged 62 and older. Despite a tight labour market, since 1995 the average number of hours worked has fallen at least five hours per week for both prime and 55-59 aged workers. The drop has even been sharper for workers aged 60-64 (OECD 2004b). Adjusting employment rates for persons aged 50-64 for hours worked, Norway ranked only 11th for men and 7th for women in the OECD (out of 20 countries in the sample; Table 1.4). Besides, the average retirement age has followed a downward trend since the mid-1980's from roughly 68 to close to 62 today. This evolution 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. Further including the rise in the number of disability pensioners thanks to an

Table 1.4. **Employment rates for older persons before and after adjustment for hours worked**[1]

| | Unadjusted employment rates | | | | Adjusted employment rates | | | | Weekly hours of work | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Men | | Women | | Men | | Women | | Men | Women |
| | Rate (%) | Rank | Rate (%) | Rank | Rate (%) | Rank | Rate (%) | Rank | | |
| Australia | 67.6 | 11 | 46.6 | 11 | 68.6 | 8 | 33.3 | 11 | 40.6 | 28.6 |
| Austria | 56.3 | 17 | 32.4 | 16 | 57.6 | 15 | 27.4 | 15 | 40.9 | 33.8 |
| Belgium | 51.5 | 20 | 27.0 | 18 | 46.9 | 20 | 18.2 | 20 | 36.4 | 27.0 |
| Denmark | 70.3 | 9 | 60.1 | 4 | 59.6 | 13 | 41.8 | 6 | 33.9 | 27.8 |
| Finland | 59.1 | 15 | 57.6 | 7 | 50.8 | 19 | 42.1 | 5 | 34.4 | 29.2 |
| France | 54.7 | 18 | 42.9 | 12 | 53.4 | 18 | 33.3 | 12 | 39.0 | 31.0 |
| Germany | 57.7 | 16 | 39.6 | 13 | 59.0 | 14 | 29.0 | 13 | 40.9 | 29.4 |
| Greece | 66.0 | 12 | 29.5 | 17 | 71.3 | 6 | 27.8 | 14 | 43.2 | 37.7 |
| Iceland | 95.8 | 1 | 82.7 | 1 | 116.7 | 1 | 69.9 | 1 | 48.7 | 33.8 |
| Ireland | 71.1 | 7 | 34.7 | 15 | 76.5 | 5 | 24.6 | 16 | 43 | 28.3 |
| Italy | 54.4 | 19 | 23.1 | 20 | 54 | 17 | 19.3 | 18 | 39.7 | 33.4 |
| Japan | 84.1 | 2 | 54.8 | 8 | 96.1 | 2 | 49.1 | 4 | 45.7 | 35.8 |
| Netherlands | 65.5 | 13 | 38.2 | 14 | 57.6 | 16 | 19.1 | 19 | 35.2 | 20.0 |
| **Norway** | **78.3** | **4** | **67.3** | **3** | **64.0** | **11** | **41.4** | **7** | **32.7** | **24.6** |
| Portugal | 70.8 | 8 | 48.6 | 10 | 69.0 | 7 | 40.6 | 8 | 39.0 | 33.5 |
| Spain | 64.9 | 14 | 25.6 | 19 | 63.9 | 12 | 21.6 | 17 | 39.4 | 33.7 |
| Sweden | 73.7 | 5 | 70.4 | 2 | 65.5 | 10 | 52.4 | 2 | 35.5 | 29.8 |
| Switzerland | 83.6 | 3 | 59.2 | 6 | 86.7 | 3 | 37.8 | 9 | 41.5 | 25.5 |
| United Kingdom | 68.6 | 10 | 52.9 | 9 | 65.6 | 9 | 33.5 | 10 | 38.2 | 25.3 |
| United States | 73.7 | 6 | 59.6 | 5 | 76.8 | 4 | 52.4 | 3 | 41.7 | 35.2 |
| *Average* | *68.4* | | *47.6* | | *68.0* | | *35.7* | | *39.5* | *30.2* |

1. The adjusted employment rate is obtained by multiplying the employment rate by actual hours worked weekly and dividing by 40.

*Source:* OECD, *Labour Force Statistics*, and OECD database on hours of work.

easily accessible and generous scheme,[18] the effective age of labour market exit has reached a low of 59-60 in 2004, among the lower ones in the OECD. Given those recent trends, the age-specific employment rates are likely to develop more favourably in the OECD at large than in Norway.

### *Conclusion*

The fiscal rule implies an increase in the non-oil structural deficit from around 4% of GDP on average over the past three decades (*i.e.*, since oil started to be exploited) to 7½ per cent by 2030, virtually a doubling. It is important that the expanding budget constraint not be permitted to relax efficiency in the public sector or to subsidise non-working via unreformed transfer schemes. This would amount to an erosion of forward looking policies, and even if the fiscal rule is adhered to and the capital of the oil fund is preserved as planned, there would in this case be an offsetting implicit liability handed down to future workers in the form of tax rises without which it would be very difficult to close the financing gap. Even though the fiscal rule in itself implies a *de facto* pre-funding component (given the assumptions underlying the government's long term baseline), it will be necessary to curb other spending components or increase income by an amount equal to 5 percentage points of Mainland GDP during the next half century. This may require reducing the public's expectations about the uses of oil wealth at an earlier rather than later stage.

Norway has lagged behind the rest of the OECD in the area of pension reform, partly because the need for savings seems less pressing as the system is still immature and spending relatively modest. And as already noted, it is using pension system immaturity to fund other current spending rather than future pension obligations. But even though ageing pressures lie mostly in the future, it is critical to reform the pension benefit system now, before acquired rights start to accumulate as the populous cohorts born after WWII enter the vulnerable ages for early retirement and disability pensions. Because of the constraint of guaranteed rights, pension reform seems more urgent than any other, including health care and other reforms which could still be dealt with in future budgets. The Pension Commission report and the government's reform proposal are timely and go in the right direction, but important decisions remains to be made.

### *Notes*

1. It should be noted that the split between capital intensity and MFP is highly uncertain in Norway.
2. OECD (2004) described how compressed wage structure and high marginal effective tax rates make it impossible to hire household help that is less per hour than outside income earned, virtually forcing women to work in their own homes part time. Ironically, therefore, policies to ensure equality could lead to unequal career paths for men and women and deny some efficiency gains stemming from comparative advantages across individuals. However, competition and the need for high technological skills will probably force more wage differentiation over time, alleviating the problem.
3. Statoil, the national oil company, has been exploring in other parts of the world and has just purchased $2 billion in exploration rights in the Mexican Gulf (*Financial Times*, 29 April 2005). Hence, the company is one of the few in the world boasting rising reserves estimates over the next several years.
4. To some extent a world slowdown in response to the high oil price could act as an endogenous stabiliser, via the channel of lower exports.

5. Similarly, ample global liquidity has helped to push up the prices of commodities, a type of asset. See J. Frankel, "How real interest rates cast a shadow over oil", *Financial Times*, 15 April 2005.
6. History likewise shows that it is difficult to spend sudden wealth increases in an efficient manner, as this may interfere with cultivation of productive working habits, and a country can consequently go into a long period of decline (*e.g.*, Spain in the 17th century). See Haugsten (2004).
7. This is the conclusion of various authors (see *e.g.,* Gylfason 2004, Haugsten 2004, and Roed Larsen 2004).
8. Wages are about 30% higher in Norway than in Sweden. Public ownership, another possible disincentive to inward FDI, is also considerably higher in Norway.
9. This is not necessarily undesirable: the structural shift from industry toward service-based economy is one that must be made in all OECD countries. See Kongsrud and Wanner (2005).
10. Roed Larsen (2004) describes how by the turn of the millennium, pressure from the public on policymakers was so intense that the government felt forced to institutionalise the oil management strategy (i.e., that only returns from the fund, but not the fund itself, could be used domestically), but that ever growing popular demand, based on the perception that Norway is extremely wealthy, is now eroding proper management of the strategy itself. Politicians promising to use the oil receipts as remedies are easily elected to parliament.
11. Akram (2005) develops a model in which spending only part of the return and recapitalising the rest would help to maintain import coverage and budget spending constant through time, avoiding the big structural shifts that are characteristic of Dutch disease.
12. See Duval (2003).
13. This is also the least "generationally fair" of the options, as it puts a heavy burden on future workers to pay for the retirements of the much larger numbers of current workers.
14. It should be noted that, unlike most pension funds, the capital of the fund cannot be dedicated to meeting future pension obligations, only its expected real return of 4%, given the fiscal rule.
15. See, *e.g.*, Leibfritz (2003).
16. In 2003, households earning less than 137 000 NOK (€ 16 700) per year could not increase their pension benefits if they were to work beyond 62.
17. With the exception of Iceland and Switzerland, and Sweden in the case of women.
18. Eleven per cent of the working population and a third of those over 55 are now on disability pension.

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## ANNEX 1.A1

# *Taking stock of structural reforms*

This table reviews action taken on recommendations from previous *Surveys*. Recommendations that are new in this *Survey* are listed in the relevant chapter.

| Recommendations | Action taken since the previous *Survey* (June 2004) |
|---|---|
| **SOCIAL PROTECTION** | |
| Minimise work disincentives in the unemployment insurance system | No action. |
| Reduce sick leave | Number of sick days per worker decreased significantly in 2004. This reversal is likely due to tightening rules on certifying doctors introduced in mid 2004. |
| Tighten disability schemes | A committee to study reform options is to be formed. |
| **LABOUR MARKETS** | |
| Increase flexibility in wage setting | Introduced wage decentralisation for teachers; social partners and the government recognising the possibility for relative wage changes, while reaffirming the leading role of the exposed sectors in wage negotiations. |
| Modernise employment protection legislation | Introduced less restrictive rules on overtime work; *ad hoc* Committee reviewing the worker protection law. Backward action: tightening of allowed supplementary working hours from 16 weeks to 8 weeks. |
| Enhance efficiency of job placement services and ALMP | Introduced performance objectives and bonuses for public employment services; outsourcing on an experimental basis of follow-up and placement services as well as implementing performance-related bonuses for private providers. |
| **EDUCATION** | |
| Improve the assessment of education | Created the Directorate for primary and secondary education responsible for a new national "quality assessment system", of which important elements are: national tests in basic skills, user surveys, school level indicators on resources. |
| Improve the quality of primary and secondary education | Introduced new curricula, insisting on basic skills, with distinct learning targets and evaluated over the 2004-2008 period, new measures to improve the quality of the practical training of teachers. Special entrance requirements for teacher training colleges have been introduced. |
| **FINANCIAL MARKET** | |
| Ensure competition in the banking sector | Finalised DnB and Gjensidge NOR merger leading to a reduction in terms of competitors, but high productivity gains in the banking industry. |
| **QUALITY OF PUBLIC FINANCE** | |
| Raise the efficiency of public spending | Introduced performance-based budgeting in hospitals and higher educational institutions; implementing a new VAT system designed to have neutral impact on municipalities' decision on whether to produce services themselves or buy from private providers; introducing multiyear budgeting. |
| Reform pensions | An agreement on principles of pension reform inspired by proposals released in January 2004 was reached on May 26. The main proposals being to: 1) consider all working years in the calculation of pension entitlements, 2) adjust pension entitlements for all cohorts should life expectancy increase, 3) index pension benefits to the average of prices and wages, 4) establish a Pension Fund based on the Petroleum Fund and the National Insurance Fund. Crucial elements are still under discussion, among these the decision on a flexible pension system and the strength of the link between income and benefits. |

| Recommendations | Action taken since the previous *Survey* (June 2004) |
|---|---|
| Reform the tax system | A tax reform, based on a committee report in February 2003, aims at: 1) reducing the marginal tax differential between labour income (reducing top marginal tax rates) and capital income (shareholder model) 2) phasing out the net wealth tax. The 2005 Budget implements a rise in VAT and reduction in marginal direct tax rates on labour income. |
| **ENVIRONMENTAL POLICIES** | |
| Limit $CO_2$ emissions | Introduced a quota system for the period 2005-2007 that is broadly similar in scope to the EU system, but sources with $CO_2$ tax excluded. Quotas are allocated free of charge. Norway is seeking an agreement with EU on reciprocal acceptance of quotas. Trading opened on Nord Pool as from February 2005. |
| Develop renewable energy resources | Obligation certificates for new renewable electricity will not be introduced as from January 2006 as formerly discussed by the Ministry of Petroleum and Energy. The Swedish government has deferred the possible start up of a common certificate marked until January 2007. A possible Norwegian proposal for a Swedish-Norwegian certificate marked will be deferred accordingly. |
| **AGRICULTURE AND FISHERY** | |
| Enhance competition in the Agriculture market | The Norwegian Competition Authority (NCA) has been authorized to oversee the dairy market based on the Competition Act, as from January 2006. The NCA is currently investigating agreements between the dominant supplier, Tine, and the grocery chains. In a report from June 2005, the NCA argues that listing prices may foreclose small suppliers from the market, and suggests several measures to improve competition. |
| Reduce quotas and tariffs | Export duty on salmon to EU reduced to the general level of 0.75 pct. (from 2.7%). |
| **SUPPORT COMPETITION AND REDUCE STATE AID** | |
| Increase regulatory power of competition authorities | The NCA has been empowered to issue fines against companies that violate prohibitions (while the former law allowed only criminal processes), and to adopt leniency programs. The NCA has received increased autonomy based on principles in white paper on regulators and supervisor agencies ("Tilsyn") of January 2003: the minister will no longer have authority to instruct the regulator in individual decisions, but can require a case to be considered by the "Tilsyn". |
| Increase competition and reduce barriers to entry | A new Competition Act entered into force, bringing Norway's competition law in line with the competition principles of the EU Treaty of Amsterdam; agreements that restrict or distort competition and abuse of dominance are prohibited, instead of the former combination of prohibition and intervention. |
| Reduce state aid, public subsidies and tax distortions | Reduced budgetary support for industries, from 2% of GDP in 1995 to 1.1%.of GDP in 2003, but state aid for agriculture remains extensive representing 70%.of total budgetary support to state aid.<br>Backward action support schemes for shipping were continued and somewhat modified. An operating aid scheme to ship building expired in March 2005, having been re-introduced in March 2003. |
| Reduce sate ownership in corporate Norway | Pursued further partial privatisation in 2004 and 2005, in the telecommunication sector, the oil industry and full privatisation in some other industries:<br>– Telenor ASA (sell-off from state interest from 62.5% to 54%).<br>– Statoil ASA (sell-off to state from 81.8%state interest to 70.9%).<br>– Grødegaard AS (catering), remaining state interest sold (formerly 52%). |
| Improve state-own activities governance | Organised state-owned commercial activities as corporations separate from government administration, *e.g.*, in road and railways construction. Activities of state electricity generator Statkraft SF (statutory enterprise) transferred to a new fully-owned incorporated company, Statkraft AS. |
| **PRODUCT MARKET COMPETITION** | |
| Promote competition in the Postal services | Full liberalisation of the postal market in Norway as of 1 January 2007. Norway has transposed the EU Postal Directive of decided to liberalise the postal market beyond the requirements of the Directive (2009). |
| Reduce barriers to entry in the retail sector | Five year ban on establishing shopping centres outside cities and densely populated areas expired in February 2004, without renewal.<br>Lidl opened its first stores in Norway (grocery trade has been dominated by four chains). |
| Enhance efficiency in transport services | Competition allowed in state purchases of passenger rail transport services. The first contested contract (Gjøvikbanen) was assigned in May 2005, requiring operation to start up in June 2006. |

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*Chapter 2*

# Macroeconomic policies for a balanced and a competitive economy

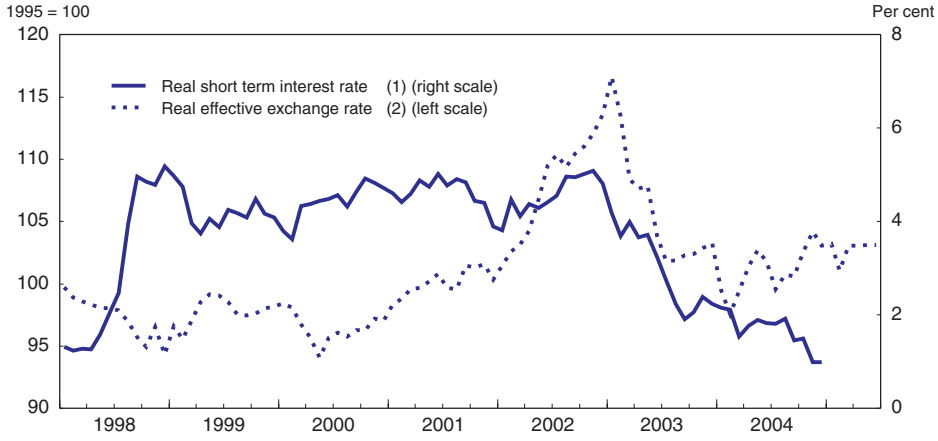
*Appropriate monetary and fiscal policy settings are important to ensure sustained low-inflation growth and the prudent management of large natural resource wealth. The economy has climbed out of recession, and the present recovery is becoming more self-sustained and broadly-based. Inflation is significantly below the Norges Bank target, reflecting low imported consumer goods inflation and wage moderation. Monetary policy faces the dilemma of allowing inflation to rise without triggering overheating and wage push, while households' debt has risen sharply in response to prolonged low interest rates. The structural non-oil deficit is now moving closer to the fiscal rule, though still overshooting it by some 1¾ per cent of mainland GDP despite higher oil prices and strong growth, possibly adding to pro-cyclicality of policies. Fiscal laxity could lead to renewed upward pressure on the real exchange rate. The 2006 Budget will send an important signal about fiscal credibility. Tax cuts underway to reduce distortions may be an efficient way of spending the oil wealth but, in view of the deficit slippage, should be balanced by expenditure tightening, notably in social benefits.*

The Norwegian economy appears to be in a near ideal situation of strong, low-inflationary and increasingly broad-based growth. Upside risks include a substantial pro-cyclical boost from the oil sector along with expansionary monetary and fiscal policies, which could lead to overheating. On the other hand, foreign demand may weaken further. The years 2005 and 2006 could be critical ones for demonstrating the ability of the new policy regime to maintain economic balance and safeguard competitiveness as labour markets tighten as expected, and oil prices remain high. So far, prolonged undershooting of the monetary policy target and overshooting of the fiscal one have not impaired credibility, as policies are judged by markets to be still consistent with their objectives over time. Unemployment has also been slow to fall, in contrast to previous upturns. However, a pro-cyclical policy stance could test the limits of confidence if it continues.

## Policies have contributed to a robust recovery

The economy went through a brief but shallow recession from around mid-2002 to mid-2003 following a tightening of monetary policy in 2002. The subsequent recovery was set in motion by substantial monetary easing as of late 2002, together with supportive fiscal policies and world recovery. By spring 2004, policy interest rates hit bottom at 1¾ per cent and the exchange rate reversed a good part of its former rise (Figure 2.1). The oil price also provided a favourable exogenous demand shock, boosting oil investments and fiscal receipts (Chapter 1). Prices of some of Norway's traditional exports, notably aluminium and shipping, likewise shot up in line with world recovery. Declining prices of some foreign consumer goods, notably clothing and footwear from China and audiovisual equipment, along with a shift of domestic demand toward such goods, resulted in declining import

Figure 2.1. **Monetary conditions**




1. Deflated using the consumer price index excluding changes in duties and energy prices, from 1999, and consumer price index excluding energy prices before this date.
2. Deflated using the consumer price index.

*Source:* OECD, Statistics Norway.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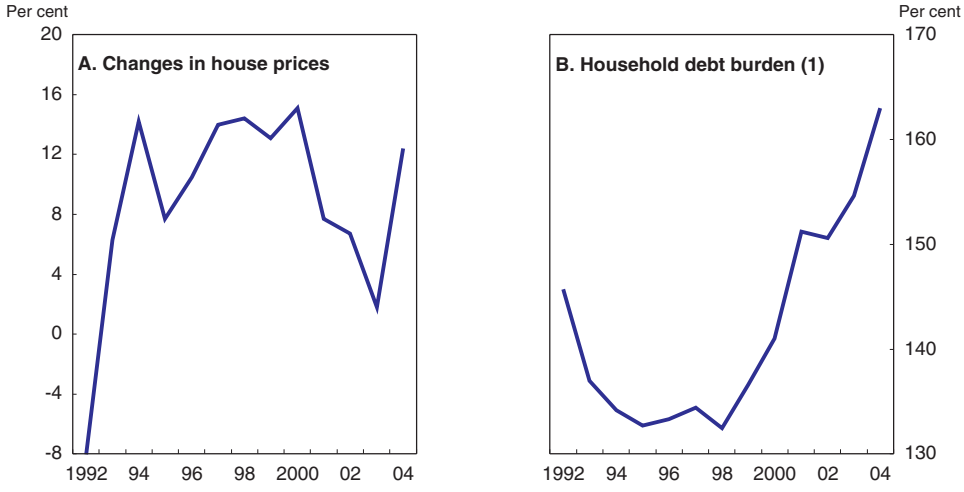
prices, notwithstanding the exchange rate depreciation. The krone began to appreciate moderately once again from around mid-2004, partly reflecting portfolio capital inflows in response to the higher domestic return to capital associated with the higher oil price, which added to the downward import price pressure with a short lag.

The main motor of recovery has been household consumption, which responded to low real interest rates, and the boost to real incomes from cyclical productivity and terms-of-trade gains. Housing investments and household indebtedness have picked up strongly as well, spurred by rising house prices and the persistence of historically low interest rates, which may have brought demand forward in time (Figure 2.2). Traditional exports responded to improving competitiveness and foreign market growth. Oil investments surged, directly adding to mainland growth and also having indirect spill-over effects into other mainland industries which supply the oil investment goods sector. More recently, non-oil business investment has started recovering as capacity has risen to normal levels and balance sheets are healthier. This is a welcome development, as the investment ratio declined in recent years and the capital stock, including in housing, seems to below (Figure 2.3).

Employment growth has so far lagged that in output, as employers have made use of existing slack in resources and productivity rose strongly. More intense global competition may also have encouraged greater efforts to boost productivity. Nonetheless, employment in terms of hours worked rose, because of both increased use of overtime and a large decline in sick leave. The latter came in response to reforms in the National Insurance, and partly reversed the prior adverse trend (Chapter 3). Rising participation as the economy recovered has further contributed to an only slow decline in the unemployment rate. With persisting slack in the labour market, nominal wage growth has remained at under 4% in 2003-04, and is projected to be 3½ per cent or less in 2005,[1] which is quite moderate in the Norwegian context and further supports the recovery of investments and exports.

Domestic goods and service inflation likewise remained subdued in view of the high productivity growth and negative output gap. With also a deflationary trend in import prices, core consumer price inflation (12 month changes) remained near zero throughout the first half of 2004. Thereafter, it began to rise and reached around 1% in the autumn, but

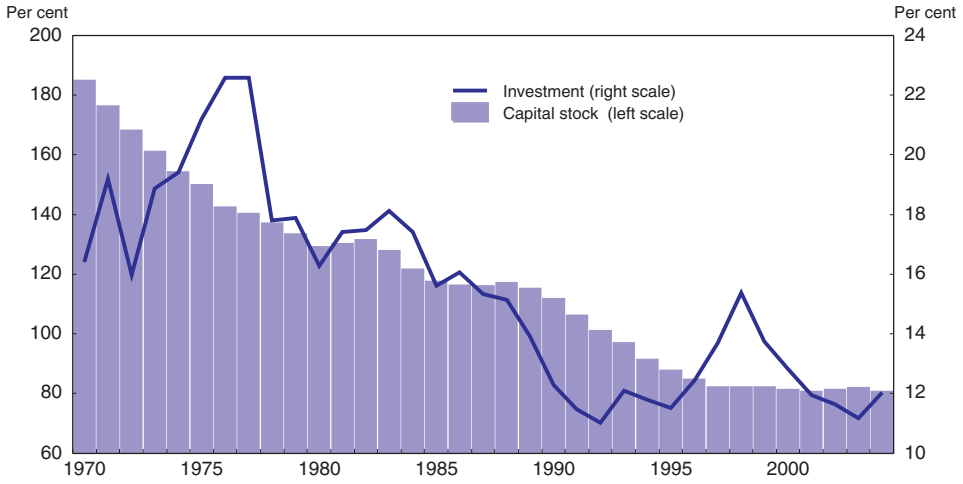
Figure 2.2. **House prices and household debt burden**




1. Loan debt as a percentage of disposable income.

*Source:* Norges Bank.

Figure 2.3. **Investment and capital stock**
As a percentage of GDP, for non-oil business sector




*Source:* OECD, Analytical database.

dipped back to a ¾ per cent rate in the early months of 2005 (despite a rise in VAT rates on 1 January), well below the central bank's operational target of 2½ per cent. Such low inflation gave rise to real wage increases significantly above the already strong productivity growth. Nevertheless, the rise in "real product wages" remained modest owing to the large wedge between the GDP deflator and the CPI – a clear manifestation of the benefits to both consumers and producers of large terms of trade gains in these years.

Enhanced competition due to structural changes has played a noteworthy role in recent wage and price moderation, on top of the normal cyclical effects. Norway was ahead of the EU countries in dismantling textile quotas under the Multi Fibre Agreement, helping to explain the strength of the downward "China effect" on imported consumer goods inflation. With EU enlargement, Norway also benefited from increased scope for trade in services and became part of a larger labour market. Construction is one such sector benefiting from increased cross-border trade and labour inflows from the new member countries: activity levels in construction are very high but there are no signs yet of wage acceleration. In previous upturns, construction was often an early source of labour market pressure.[2] Domestically, liberalisation in the air transport and retail distribution sectors, which benefited respectively from entry of a new domestic and a new foreign competitor, allowed sharp price declines in air fares and compression in distribution and selling costs. Recent opening of the book market along with e-commerce appears to be now reducing book prices. In general, therefore, stiffer domestic and international competition combined with excess supply conditions at home created incentives to rationalise costs and reduce mark-ups. These same factors have increased productive capacity.

Looking ahead, the OECD expects mainland growth of about 3¾ per cent in 2005, falling to 3% in 2006 as oil investments taper off and monetary policy starts tightening in mid-2005, and the inflation target is reached by end-2006 (Table 2.1). Nevertheless, risks are on the upside. The benign structural shocks to costs and prices, by definition one-off, may start to wane; indicators suggest that inflation pressures are beginning to surface.[3] Oil investment intentions reached historical highs at end-2004, but have underestimated actual investments in the past, in particular during the boom of 1997-98. Housing starts

Table 2.1. **Demand and output**

| | Current prices NOK billion | Percentage changes, at constant prices | | | | |
|---|---|---|---|---|---|---|
| | 2001 | 2002 | 2003 | 2004 | 2005[1] | 2006[1] |
| Private consumption | 651.3 | 3.0 | 3.0 | 4.3 | 4.1 | 3.0 |
| Public consumption | 314.8 | 3.7 | 1.4 | 2.0 | 1.8 | 1.8 |
| Gross fixed capital formation | 278.9 | –1.0 | –2.0 | 8.9 | 14.5 | 2.5 |
| Public fixed capital formation | 41.7 | 1.0 | 9.1 | –0.6 | –0.6 | –0.4 |
| Petroleum activities[2] | 59.8 | –0.4 | 1.8 | 15.7 | 23.1 | 2.8 |
| Residential | 54.2 | –0.6 | –5.3 | 12.4 | 15.5 | 5.0 |
| Other private | 123.2 | –2.1 | –6.4 | 7.6 | 14.7 | 2.0 |
| Stockbuilding[3] | 20.7 | –0.2 | –0.9 | 0.9 | 0.0 | 0.0 |
| Total domestic demand | 1 265.7 | 2.1 | 0.4 | 5.7 | 5.7 | 2.6 |
| Exports of goods and services | 697.3 | –0.8 | 1.6 | 1.3 | 0.1 | 2.5 |
| Non manufactured goods | 363.0 | 2.3 | 0.3 | –0.5 | . . | . . |
| Imports of goods and services | 436.8 | 0.7 | 2.2 | 9.0 | 6.8 | 2.8 |
| Foreign balance[3] | 260.5 | –0.5 | 0.0 | –2.0 | –2.0 | 0.1 |
| Gross domestic product | 1 526.2 | 1.1 | 0.4 | 2.9 | 3.1 | 2.5 |
| *Memorandum:* | | | | | | |
| Mainland GDP at market prices[4] | . . | 1.4 | 0.7 | 3.5 | 3.7 | 3.0 |
| Consumer price index | . . | 1.3 | 2.5 | 0.5 | 1.4 | 2.4 |
| Private consumption deflator | . . | 1.4 | 2.6 | 0.7 | 1.5 | 2.5 |
| Unemployment rate | . . | 3.9 | 4.5 | 4.5 | 4.2 | 3.8 |
| Households saving ratio[5] | . . | 8.8 | 9.9 | 9.6 | 9.2 | 4.9 |
| General government financial balance[6] | . . | 9.3 | 7.7 | 11.5 | 14.4 | 14.6 |
| General government financial balance, excluding oil revenues[6] | . . | –2.1 | –4.5 | . . | . . | . . |
| Current account balance[6] | . . | 12.6 | 12.8 | 13.8 | 14.8 | 14.7 |
| Current account balance, excluding oil exports[6] | . . | –4.9 | –5.3 | –6.6 | . . | . . |

1. Projected.
2. Includes platforms under construction, crude oil production oil drilling and pipeline transport.
3. Contributions to changes in real GDP (percentage of real GDP in previous year), actual amount in the first column.
4. GDP excluding oil and shipping.
5. As a percentage of disposable income.
6. As a percentage of GDP and as a percentage of mainland GDP for excluding oil indicators.

*Source:* OECD, *Economic Outlook* No. 77.

were at record levels in early 2005. Productivity slowed in late 2004, so that employment and unit labour costs are starting to rise. Steady labour market tightening will translate into a gradual accumulation of wage pressure, which could be exacerbated by buoyant activity in the oil and gas sector. This would help to pick up inflation, with a lag, but is a recognition that pro-cyclical policies are continuing.

The inflation targeting framework has helped to stabilise the economy and its credibility has grown. The current economic environment is a challenging one for monetary policy, given asymmetric effects of higher oil prices on demand in Norway and its major trading partners, positive domestic supply shocks, and intense global price competition which have encouraged historically low interest rates. The decline in interest rates in Norway has been over 5 percentage points from their peak in late 2002, equivalent to the US peak-to-trough decline, against only 2% in the euro area. With similar interest rates internationally (close to zero in real terms), the stance of monetary policy seems relatively easy in Norway, where the "natural" real rate of interest has been estimated at 2½ to 3½ per cent, against 2% or so in the euro area and in the United States.[4] However, inflation is much lower in Norway.[5] So long as the interest rate is below its natural level,

monetary policy remains by definition expansionary. This implies that Norway must eventually tighten more than trading partners as output gaps close. At equilibrium, the nominal short term interest rate in Norway should be around 5-6%, compared with 1¾ per cent currently.

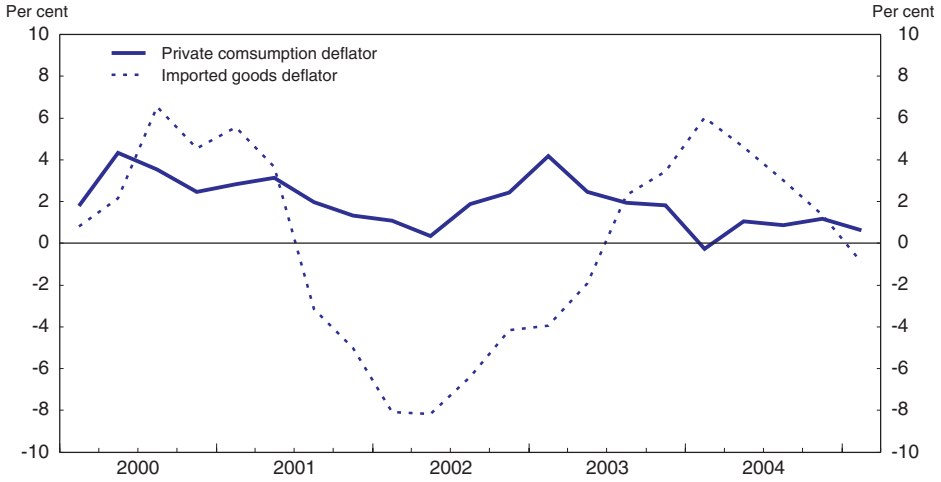
### *The current policy dilemma*

The appropriate monetary response to factors pushing inflation down depends on the nature of the shocks. The above discussion suggested that undershooting of the inflation target has been mainly the result of benign structural shocks to prices, reflecting forces of mainly foreign but also domestic competition raising real incomes and welfare, rather than to any breakdown in policy transmission. Indeed, domestic goods and services price inflation was already within the tolerance band for inflation in early 2005, and is moving in line with Norges Bank's inflation forecast (Figure 2.4). Once the one-off factors arising from international and domestic competition dissipate – and the timing of this is hard to forecast – inflation could rise quickly while lags in policy transmission are very long (normally 1-2 years). But if the Bank tightens prematurely while these special factors unexpectedly persist, it risks damaging its credibility and pushing down inflation expectations. In such a case, current inflation undershooting could become entrenched. Such a dilemma arises any time that inflation and stabilisation objectives require opposing movements in the interest rates, normally because of supply shocks. The oil price rise implies a countervailing demand shock, however, with price impacts now in the pipeline, easing the dilemma.

The Bank has coped with the dilemma by exploiting more fully its scope for flexibility in pursuit of the inflation target.[6] In mid-2004, it announced a shift to a "1 to 3 year" time horizon for achieving its inflation target, from a 2 year horizon previously.[7] More recently, it has indicated its intention to bring policy rates towards more normal levels over the next four years. A gradual rise in interest rates, in small and not too frequent steps, has been signalled.[8] This process has already begun with a ¼ per cent point rise in policy interest rates as of July 2005. In general, gradualism is a desirable feature of monetary policy shifts, not only because it avoids excessive swings in real activity, which could occur in present

Figure 2.4. **Domestic and imported inflation**

Year on year changes




*Source:* OECD.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circumstances by exacerbating financial vulnerability and causing unwelcome appreciation of the exchange rate,[9] but also because it allows the central bank to gauge the repercussions of its policy, which may be especially important in the current situation of high uncertainty about the determinants of inflation and exchange rates and the sluggish rise in employment.[10]

These arguments have validity, but they should not overly constrain policy behaviour, for several reasons. *First*, high uncertainty on the inflation forecast could just as well imply the need for a swift action as a cautious one, given evolving circumstances.[11] This was amply demonstrated in 2003, when a rapid turnaround was clearly called for as the exchange rate had appreciated sharply and the real economy weakened. *Second*, the longer the interest rates stay so far below neutral levels, the larger the housing bubble to be feared.[12] From that perspective, rates should probably be raised sooner rather than later and on a sustained basis. Indeed, Norges Bank takes financial vulnerability conditions into account in its policy settings.[13] *Third*, the relationship between the exchange rate and the international short term interest differential is not airtight, as the former depends on other factors as well, such as the oil price, although some appreciation has already taken place as markets expect that the Norges Bank will tighten relatively more than foreign central banks are likely to. More importantly, exchange rate movements are easily reversible over time whereas wage increases are not.[14] It is better for the Bank to err on the side of pre-empting wage pressures than to be constrained out of an excessive concern about the exchange rate.

The policy mix is also relevant. Fiscal policy plays a key role in exchange rate determination over the medium-term, by shaping expectations on the future path of spending of petroleum revenue, which is itself is large relative to the size of the economy and population (Chapter 1). Hence, a shift to tighter fiscal policy could help contain any upward pressure on the currency, reducing the constraints on monetary policy. A similar consideration holds for inflation determination. Even as the bank tightens, the rise of the real interest rate will lag that in the nominal rate insofar as inflation is at the same time set to rise. So long as the real interest rate is below its "natural" rate, inflation pressures could continue to build, albeit at a diminishing rate. During this period, fiscal policy should be focusing on an orderly return to the fiscal rule, or even beyond it, to ease the monetary policy dilemma while building its own credibility.[15]

### *Credibility is improving*

The move in 2001 from exchange rate to inflation targeting as the basis for Norway's monetary policy is still a relatively recent regime change, and establishing the right institutional framework is in part a learning process. As a relative latecomer to inflation targeting, Norway can also benefit from the experiences of other inflation targeting central banks around the OECD. The last year or so has seen progress in this regard. Recommendations of outside expert observers and international best practices have also been taken into account.[16]

### *Analytical tools*

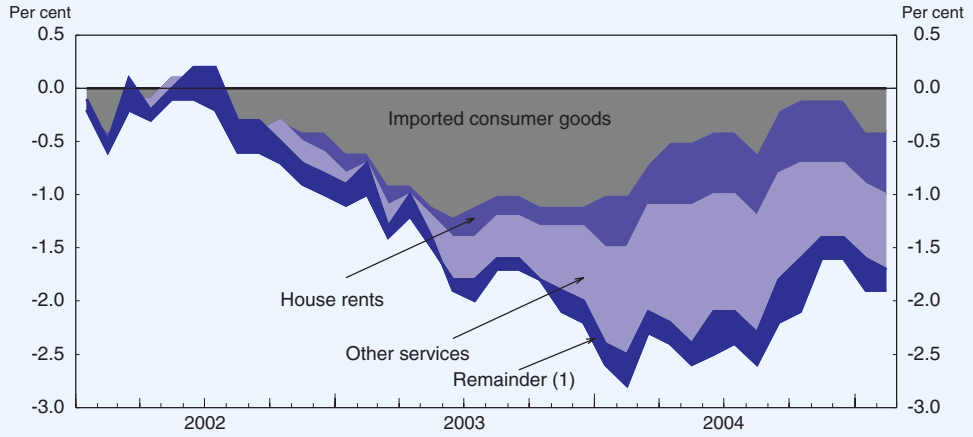
The ability to project developments in inflation and output and understand why they deviate from their desired values is a crucial element of flexible inflation targeting as followed by the central bank, giving weight to both the inflation target and output stabilisation in its objective function. There needs to be, first of all, a good understanding

### Box 2.1. **Improving inflation forecasts**

The presence of large structural shocks to inflation in recent years has posed challenges to the quality of Norges Bank forecasts of inflation. In the early years of the inflation targeting regime, forecast errors tended to be large, even in the first forecast period, and turning points were missed.[1] In part this was because the existing models were geared to exchange rate rather than inflation targeting. Norges Bank addressed this issue by updating its models and methodology and regularly presenting *ex post* evaluations of its inflation forecasting errors. It has thereby demonstrated that exceptional supply-side factors, notably low imported inflation, low rents, and increased competition in newly liberalised sectors, were the main sources of error (see also Figure 2.5). This seemed to convince the public, as inflation expectations based on surveys did not fall in response to persistent negative inflation errors.[2] Also, *ex ante* forecasts seemed to improve as errors have been declining more recently, while actual developments in the sight deposit rate during the past year have been kept within the interest rate interval set prior to each strategy period. However, the published uncertainty bands around forecasts still widen rapidly. Continued development of the Bank's own analytical tools and a greater recourse to outside information and independent forecasts, especially when these differ significantly from the Banks' own analyses, seem warranted. Indeed, the Bank already examines data incoming from its regional network as an important non-model check on its model-based analysis, and plays a prominent role in the research community involving valuable exchanges of information and practices.

Figure 2.5. **Contribution to the decline in CPI-ATE**

Percentage points




1. Agricultural products, fish products, consumer goods produced in Norway, services with wages as dominant factor.

*Source:* Norges Bank.

1. See Nymoen (2004).
2. Deflation becoming entrenched in expectations was for a time, but seems to be no longer, a matter of concern to the Bank. See *Inflation Reports* in 2004.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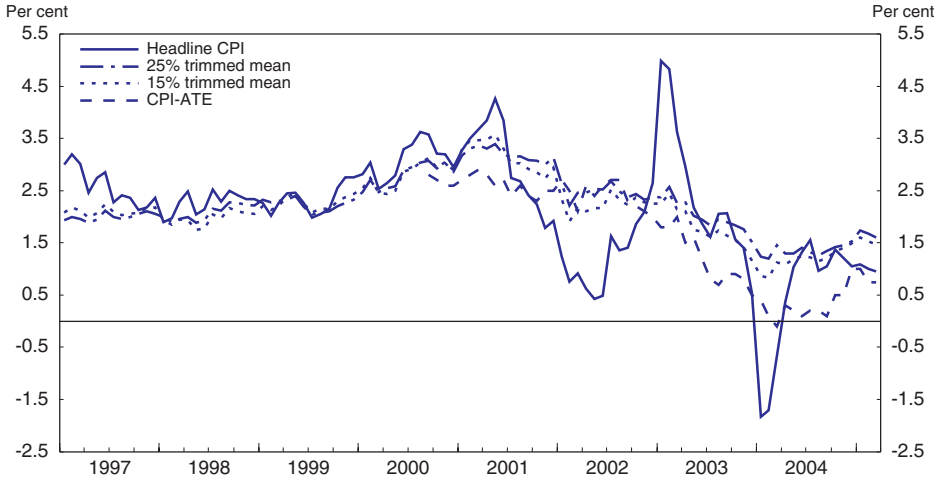
of the monetary transmission mechanism itself, *viz.*: *i)* the pass-through of domestic interest rates into exchange rates and then from exchange rates back into prices;[17] and *ii)* the policy feedback into domestic wages and prices via interactions with product and labour markets (see next section below). But coping with present uncertainties also would seem to require a better knowledge of the exogenous disturbances keeping inflation unexpectedly low – which are global in scope but also largely one-off, though perhaps not short-lived, in nature. Norges Bank has made progress in this regard by continually developing its analytical tools in order to reduce, or explain, inflation forecast errors (Box 2.1).[18]

Another option is to largely ignore temporary disturbances by acting on an adequate measure of underlying inflation trends. OECD work suggests that statistical constructs, such as trimmed and weighted means,[19] might be better correlated with future CPI inflation insofar as they do a better job in filtering out transitory disturbances than conventional measures of core inflation (in Norway's case, CPI-ATE). Figure 2.6 shows that underlying inflation on such a statistical measure could currently be some ½ to 1% higher than suggested by CPI-ATE, being quite close to the 1997 situation in terms of stages of the business cycle. These measures should be taken into account when assessing the course of monetary policy. The risk in following the information conveyed by CPI-ATE only, is that actual inflation could end up higher than the Bank expects.[20] Norges Bank has itself begun to publish weighted and trimmed means,[21] which suggest up to ½ per cent higher underlying inflation than that implied by CPI-ATE, serving as a useful check on the latter and presumably informing policy.[22]

Figure 2.6. **Alternative measures of underlying inflation**

Year on year changes




*Source:* OECD calculations.

### *Communication strategy*

Box 2.2 discusses the major recent strides in central bank communications transparency and accountability, particularly regarding markedly improved predictability and explanation of policy strategies and decisions, and higher qualifications of Executive Board members. To consolidate progress, Norges Bank should consider following certain key recommendations of the expert committee charged with making evaluations of

### Box 2.2. **Transparency and accountability**

The point of a clear communications strategy is to enhance the predictability of monetary policy, allowing markets to behave in an efficient manner, hence promoting the goals of policy. There have lately been very positive steps in this regard. The strategy document has been incorporated into the tri-annual *Inflation Report*, rather than published *ex post* as a stand-alone document at the end of the strategy period as formerly. Thus, markets now know much better what to expect from monetary policy. Furthermore, the main issues and their various angles discussed at the Executive Board's meetings are published in summary form for the 2 p.m. press conference following each interest rate meeting of the Board. The inflation report is also published at 2 p.m. the same day as the monetary policy strategy is approved by the Executive Board.

The Bank has been seen by markets as clarifying the operational objective of low and stable inflation while also giving weight to the size and the sign of the output gap.[1] Unexpected exchange rate changes enter into consideration only by their impact on the projected path of inflation and output. This may be important for credibility of inflation targeting insofar as the opening statement of its mandate had earlier been seen by some as putting exchange rate and inflation stability on equal footings, muting the regime shift,[2] while raising the risk of asymmetric pursuit of monetary policy due to political influence putting excessive weight on the employment as opposed to the inflation target.[3] The Bank also improved the "time consistency" of its forecasts (to avoid giving the impression that achievement of the inflation target is perpetually 3 years away), by basing its inflation forecast on market predictors of interest rate, rather than on a constant interest rate assumption as in the past. The Bank also states whether the forward market rates provide a good balance between the objectives of reaching the inflation target and stability of the real economy. These practices improve the clarity of forecasts and should continue.[4]

Of course, there is always scope for improvement. It is desirable that the bank publish details of its forthcoming macro model, NEMO. Otherwise, the main analytical tools remain a kind of "black box".[5] Also, the summaries of Board discussions are helpful but do not provide full information. Given apparent practices in some other countries (*e.g.,* Bank of England), publication of the minutes, with a short delay and votes attributed to individual board members, might be desirable, although this is still the matter of some debate internationally and the costs and benefits to Norway of such a change should be carefully considered. In particular, Board members would have to spend more time explaining themselves to the public as their votes would be known. This might require devoting more resources to staff and salaries. Presently, Board members work only on a part-time basis, whereas in the Bank of England, for instance, this is a full-time job. The latest Norges Bank Watch (NBW) report recommends increasing resources to Board staff in any event, in order to enhance the quality and relevance of their input.

The proper balance between political independence and democratic accountability is another issue. At end-2003 the political independence of the Executive Board was much improved by changes in the regulations on appointments, and it is now composed of independent experts in the field rather than persons with connections to political parties as in the past. The Governor also was invited to testify regularly before the Storting, which has been much appreciated by the latter. However, the Governor also meets with the Finance Minister just before presenting his policy decisions to the Executive Board, which might give the appearance of diminishing the relevance of the latter and raising political influence of the former. NBW 2004 had recommended that the Governor meet with the Minister immediately following the Board meeting but before the press conference of the same day. However, NBW 2005 did not think that this was a problem that was in need of fixing.

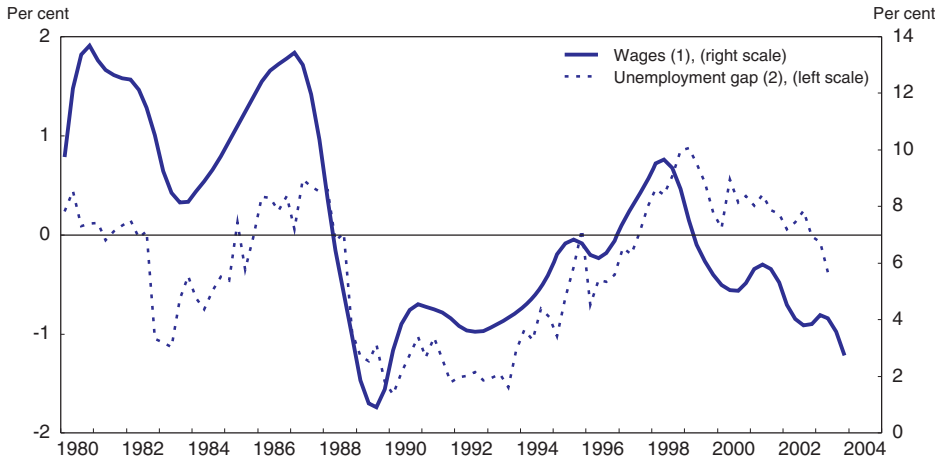
1. Earlier, the Bank indicated that it would not start to raise interest rates until foreign central banks (notably, the ECB) started to do so. Now, it is stating that it has not raised its interest rates ahead of other central banks because inflation has been lower in Norway. The distinction seems small but important: it seems to establish that inflation rather than exchange rate is the variable being targeted.
2. See various issues of the IMF Article IV reports for Norway, which argue for elimination of the exchange rate reference in the opening sentence of the mandate.
3. The most recent NBW report (Dorum *et al*. 2005), however, thinks that the Bank has gone too far in disassociating itself from the exchange rate implications of its policy decisions – even though the Bank repeatedly points out that it does take exchange rate reactions into account insofar as they affect the operational targets.
4. The Bank changed its approach regarding the interest rate assumption already once in the past: earlier it had used the forward market rate assumption as presently, but then switched to a constant interest rates assumption, before switching back again. It has also now made an exception at the longer end of the interest rate spectrum, and substituted its own long run forecasts acknowledging that excess liquidity in the markets probably understate the true long run interest rate expectations. See Norges Bank (2005b).
5. The Bank of England, by contrast, publishes not only the full details of its macroeconomic model, with frequent analytical studies of the model, but also the computer code for the model which allows the public to make its own simulations. See Bjornland *et al.* (2004).

monetary policy conduct, notably to bolster the relevance and input of the Executive Board by devoting more resources to it, and to reduce information asymmetries with the public by providing more details about the Bank's main analytical tools.

## Key role of labour and product market competition

The most critical predictors of underlying inflation are the behaviour of wages and profit margins (cost push and pricing power). In turn, these tend to depend upon the employment and output gaps, respectively. According to the OECD's latest projections (Table 2.1), the unemployment rate should fall below the "NAIRU" around mid-2005 and the corresponding gap will become positive in 2006. Likewise, as real growth outstrips its potential rate, the output gap will turn significantly positive in 2005, peak in 2006 and then decline toward balance only in the medium term as growth abates.[23] Both gaps suggest emerging cost-inflation pressures in the near-to-medium term. Past experience shows that wages are very sensitive to the unemployment gap, and prices to the output gap, the latter especially in the upward direction (Figures 2.7 and 2.8). Monetary policy influences the gap mainly on the side of actual unemployment and GDP growth rates (via demand), while structural policies affect the "equilibrium" values of these variables (via supply). Monetary policy will thus be much more effective if structural policies work in tandem with its objectives.

Figure 2.7. **Wages and unemployment gap**



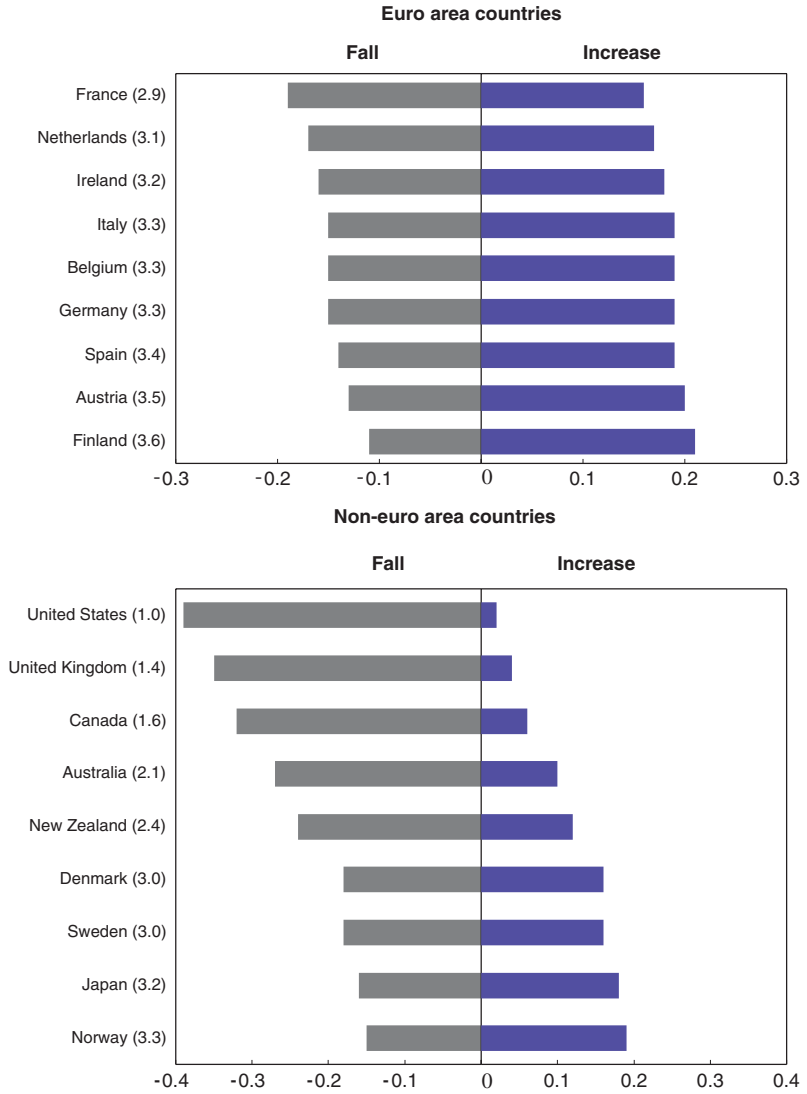

1. Year on year changes.
2. Difference between the "non-accelerating wage rate of unemployment" (NAWRU) and unemployment rate.

*Source:* OECD.

### *The wage bargaining model*

It is not clear to what extent recent wage moderation signals a return to outward-oriented centralised wage setting with manufacturing in the lead (the 1992 Social Alternative). It is possible that economic actors learned a lasting lesson from the 2001-2002 episode, when too high wage awards provoked a monetary policy reaction under the new policy regime, with a subsequent exchange rate rise that in the end only harmed employers and workers in the exposed industries. If so, central bank credibility would make future policy more efficient and thereby silence the critics.[24] Furthermore, budget constraints appear to remain relatively hard at the sub-national levels of government,

Figure 2.8. **Prices and the output gap**
Coefficients of structural rigidity[1] and simulated inflation reaction[2]




1. Structural rigidity index shown in parenthesis following country name.
2. In negative zone, inflation fall induced by following a percentage point widening of a negative output gap, and in positive zone, inflation increase following a percentage point widening of a positive gap.

*Source:* Cournède B., A. Janovskaia and P. Van den Noord, "Sources of inflation persistence in the euro area", *OECD Economics Department Working Paper*, No. 435.

where the generous 2001 wage awards were subsequently followed by reductions in personnel. Such fiscal policy credibility might tame wage growth in the public sector, despite possible "euphoria" linked to high oil prices (*cf.* Box 2.1 above). All the same, the manufacturing sector is shrinking following a period of rising globalisation and cumulative competitiveness losses (Chapter 1), and its continued ability to encourage aggregate wage discipline by example will be tested in the coming major spring 2006 wage rounds, almost certainly under conditions of tighter labour markets. Indeed, Norges Bank believes that the NAIRU, the rate of unemployment at which wage pressures emerge, may have risen.[25]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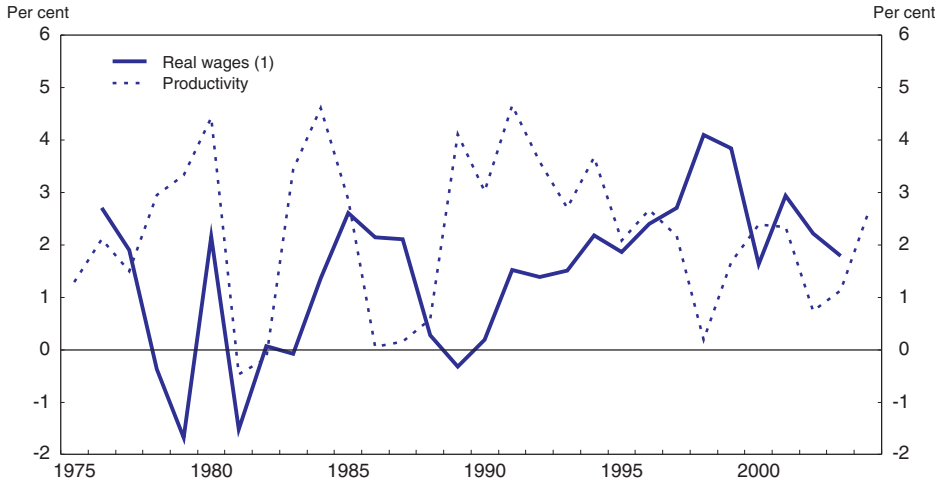
Given these uncertainties, it is desirable to implement structural policy reforms that are consistent with ongoing moderation in wage behaviour. Labour markets in Norway are in fact already comparatively flexible in the OECD and especially European contexts, as proven by the low rate of unemployment. However, the rising oil wealth and pro-cyclical policy stance will require continuing vigilance. The following developments in this domain, both positive and negative, seem pertinent:

- A new "working environment" act has been passed, going in the direction of increased labour market flexibility. The use of fixed-term contracts has been liberalised, while protecting workers under such contracts against precarity by giving them permanent worker rights after 4 years. But the new regulation on working time reduces employer flexibility by shortening the averaging period over which maximum weekly hours are calculated and by allowing individual opt-outs from the regulation; the old regulation was better.[26]
- The trade unions have proposed to extend collective agreements to all workers, including those working for a foreign firm under contract, notably in the construction sector. In limited areas, collective agreements are already extended. Further extension of this protectionist action could be damaging for wage moderation. It should be resisted.
- A promising idea that has been floated (including apparently by Norges Bank itself)[27] is to give more prominence to second-tier bargaining and in turn allowing real wages to better match productivity gains, which can vary substantially across firms, sectors, and time periods (Figure 2.9). This idea could be pursued by the social partners, who have already signalled an interest in allowing more relative wage changes (while subject to a continuing lead role by the exposed sector), as well as by government, which has already introduced wage decentralisation for teachers.

Figure 2.9. **Real wages and productivity growth**




1. Using private consumption deflator.

*Source:* OECD, Analytical database.

As noted above, global competition is the ally of monetary policy insofar as it has rendered rent-seeking behaviour in sheltered service sectors harder to achieve. This has enabled not only lower price margins but also wage moderation in the affected sectors.

There have also been more diffuse benefits. Price reductions in sheltered sectors exposed to competition have imparted significant purchasing power gains to all consumers, in turn holding down wage claims, boosting profitability and lowering price pressures all around. Price levels are still quite high in Norway (together with those of Japan and Switzerland the highest in the OECD; see Figure 1.5) – even in clothing and footwear which have seen dramatic price declines in recent years[28] – suggesting substantial further scope for such direct and indirect one-off gains from competition.[29] It is important that households understand that enhanced competition will make them materially better off, not worse off.

Policy progress in the competition area has been continuing, notably a new Competition Law enhancing the powers of the Competition authority (see Annex 1.A1). Nevertheless, it may be necessary to move faster on privatisation in sectors such as banking and energy, a key recommendation of the last *Survey*. This might help also to raise currently-low FDI inflows into the non-oil sector (see Table 1.1). FDI, in turn, has been found by the OECD to be an important source of ongoing competition and innovation in the economy, hence with long-lasting benefits to growth. Reduction of agricultural protections also remains a priority, and indeed this seems to be one of the few areas where EU membership would bring benefits not being offered by EEA membership already. Another area would be fisheries and aquaculture including processing, which are only partly covered by EU/EEA competition rules and therefore face various import restrictions in the EU market.

It is also desirable in this context to continue introducing market-like mechanisms into government services, exposing them to competition from the private sector and thus better aligning compensation with performance, even though this is not always easy to do given the public good nature of most public services. Key sectors in this regard are health and health care services, where demand pressures are likely to be high in the coming years (Chapter 4), as well as education where quality improvement are being sought (below). Market forces have thus far been used in the public sector mainly to guide the allocation of resources by signalling relative prices, as in the case of DRG-based financing for hospital services or performance-based research grants, which is important. Exposing public services to more cost-constraining competition, insofar as feasible, would also be desirable not only for government finances but also for wage discipline in the economy at large, given that fully one-third of all workers are in the government sector. It is important to implement changes as planned in the VAT treatment so as to level the playing field between public production and outsourcing of services.

## Fiscal policy: reinforcing its credibility

Experience to date suggests that, even though performance under the rule could have been much better, fiscal policy has in a larger sense been prudent. However, continued one-sided deviations from the rule of spending 4% of the oil fund's value could undermine fiscal credibility, and lead to upward pressures on the real exchange rate. Spending and deficits should be reduced in order to return to the rule more quickly than currently planned. This would help to stabilise the economy and limit the crowding out of traditional sectors from the rising oil price, and transmit more resources to the future generations. The next few years is the ideal time, given temporarily favourable demographics and strong real GDP growth, to close the gap with the rule and press forward with structural reforms to safeguard future fiscal sustainability.

### *Budget policy and the fiscal guidelines*

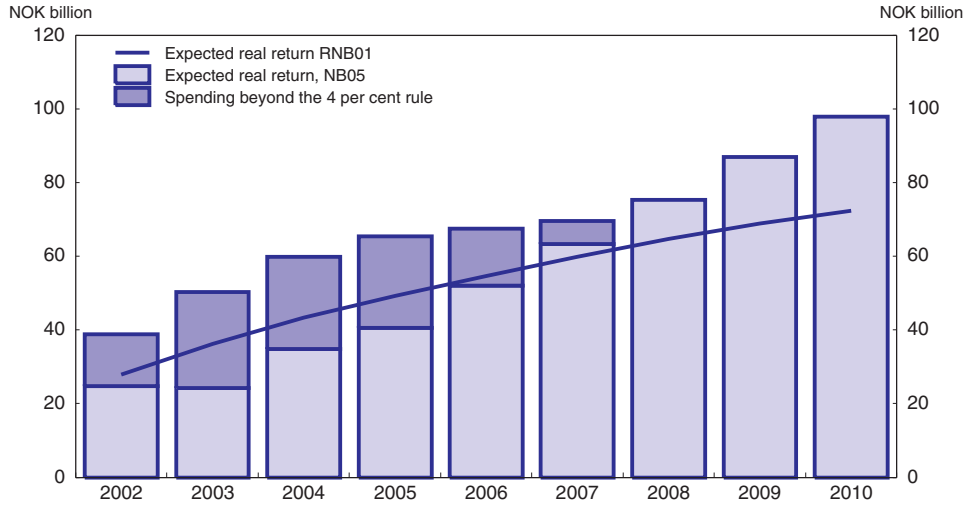
The fiscal rule states that petroleum income should be phased into the economy on a par with the expected real return on the Government Petroleum Fund (Box 2.3), assumed to be 4%. The goal is a smooth and sustainable phasing in of petroleum revenues over time. At the same time, the rule puts considerable emphasis on stabilising the economy over the cycle. Automatic stabilisers should be allowed to operate and discretionary fiscal policy is not ruled out, though fiscal policy should have a medium-term orientation – implying that discretionary policy should be symmetrical across the business cycle. When the rule was adopted in 2001 (becoming operational in 2002), the planned medium-term annual average impulse, as measured by the increase in the structural non-oil deficit, was 0.5 and 0.3% of GDP per year, respectively, over the two sub-periods 2001-05 and 2006-10. The actual yearly increase in oil revenue spending in the first of these periods (using Budget estimates for 2005) has been only slightly higher than earlier envisaged (averaging 0.6% of GDP), but overspending of the fiscal rule has been significant, about 1% of GDP in 2002 and 2% in 2003-05 (Figure 2.10).

#### Box 2.3. **The Government Petroleum Fund**

The Government Petroleum Fund (GPF) was established in 1990 to build up financial reserves in order 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 1990s, but has seen a rapid build-up in assets in recent years. As supported by previous OECD Surveys (*e.g.*, OECD 2004a), the government has recently proposed to merge the GPF and National Insurance Scheme fund into a "Pension Fund". Its real return can be seen to provide a partial pre-funding of future pension liabilities. This fund is mainly a transformation of depleting resources (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.

As a monetary policy tool (by sterilizing foreign capital inflow and preventing any appreciation due to oil revenue), the GPF also prevents any sharp moves of the Norwegian Krone. The fund is managed by Norges Bank, but separated from the management of official currency reserves and from ordinary central bank functions. According to the investment guidelines issued by the Ministry of Finance, the fund's capital is invested exclusively in foreign financial assets; 50 to 70% of the portfolio is allocated to fixed-income assets and 30 to 50% to equities. The fund is geographically diversified with roughly 40 to 60% invested in Europe, and 60 to 40% in the Americas, Asia and Oceania. The ministry sets a benchmark portfolio and determines the maximum investment risk the Bank is allowed to take. The value of the fund was NOK 357 billion in 1998, and has risen to NOK 1012 billion (75% of mainland GDP) by end 2004. Total return on the GPF over the last two years has been 22.6% primarily reflecting high returns in equity markets. For the period 1997 to 2004, the average annual real return was 4.0% after deducting management costs. In 2004, new ethical guidelines were adopted in the allocation of the fund's international investments.

Figure 2.10. **Structural deficit and expected real return on GPF**




*Source:* Ministry of Finance.

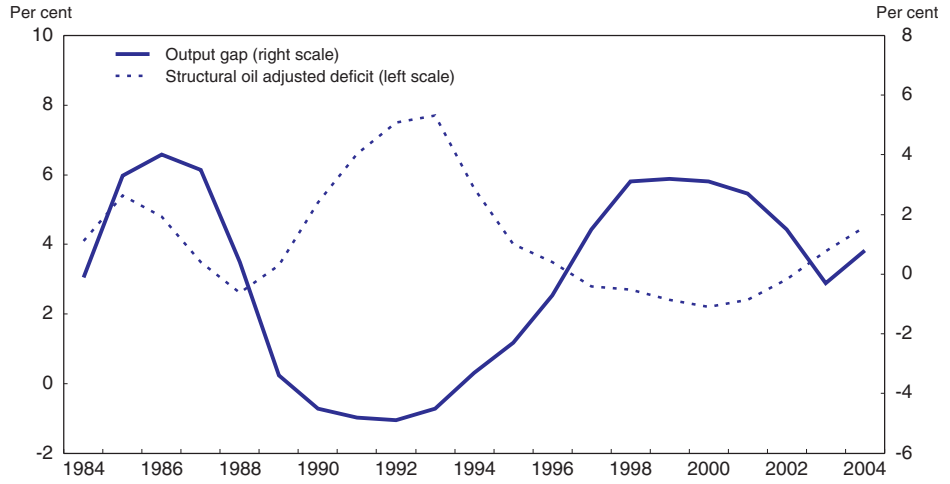
This slippage reflected, *firstly*, the need to stabilise the economy during the slowdown in 2002-03, and continued negative output gap and shortfalls in tax revenues into 2004; and *secondly*, that the actual evolution of Fund income was less favourable than initially projected in the wake of the bursting of the global stock market bubble. A sharp bounce-back in 2004 allowed the Fund's return to average 4% in real terms over the period 2001-04, in line with the assumption, but the initial years' losses in the Fund's capital value continued to weigh down on the subsequent income generated. The recovery of world asset markets and the upward adjustment of oil prices in 2003-04 have by now almost fully offset the capital value losses in 2001-02: the market value of the fund is currently around 75% of mainland GDP, close to what was expected back in 2001. Starting next year, however, the fund's value will start to rise more quickly as the higher oil price feeds through more fully, so that fiscal performance will start to be measured in relation to a more generous baseline. By end-2005, the fund should exceed 90% of GDP and by 2010 reach almost 150%, with its real return (the permitted deficit) rising to almost 6% (Figure 2.10).

Overshooting has thus been a persistent feature of implementation of the rule since its inception. While this was initially consistent with the leeway provided by the rule, the extent of overshooting as the domestic economy and global equity markets recovered was less justified.[30] The output gap, according to OECD estimates, has closed and is turning positive during 2004-06 (see Figure 1.7), but the structural non-oil deficit has been rising (see Table 2.2). The government maintains that the 2004 and 2005 budgets have not been expansionary, as a detailed analysis of the line-by-line components of the budget demonstrate a very small impact on aggregate demand (Box 2.4), and it plans only a modest tightening in 2006. But the use of discretion over the recent cycle appears to be asymmetric, and at odds with a more *bona fide* counter-cyclical discretionary policy observed in earlier cycles (Figure 2.11). Extrapolation of the historical pattern would require substantial fiscal contraction in both 2005 and 2006.

Such asymmetry would be inconsistent with the medium-term orientation of the rule: if discretionary overshoots of the baseline deficit path are allowed during periods of weak growth and slumping international markets, a counterpart undershooting should be

Figure 2.11. **Fiscal stance over the cycle**

Per cent of mainland GDP




*Source:* Ministry of Finance.

required when these conditions reverse. It may even be questioned whether substantial discretionary fiscal policy is at all advisable, given that it is very difficult to fine-tune fiscal policy beyond the operation of the automatic stabilisers while discretionary spending increases are often very difficult to reverse politically, and monetary policy has already been assigned a major role in output stabilisation within the "flexible" inflation targeting framework.[31] The government should consider redrafting the rule to state more clearly the permitted deviations from the baseline (much as in the case of the monetary policy target), both in terms of size and duration.

Compared with other OECD countries with self-imposed fiscal rules, Norway has not performed any worse than most – although this should hardly be a cause for self-congratulation. The deviations from the rule seem to be growing, however, despite recovery (Figure 2.12). It should be noted furthermore that the current estimated non-oil structural deficit of close to 5% of GDP is considerably larger than the corresponding balances most in other OECD countries, even after taking into account corresponding net asset positions (Figure 2.13). This implies a larger net fiscal contribution to domestic demand than elsewhere, but also substantial scope for raising future taxes in order to fill the future financing gap.

There is no indication that fiscal policy has as yet suffered any loss of credibility in the markets, despite technical overshooting of the rule. It is well known that populist pressures to spend more of the oil wealth on the current generation have been strong, and that the government was about as successful as could be hoped under the circumstances in resisting such pressures. Even so, a faster than allowed absorption of the oil wealth, if it persists, could damage credibility and create upward pressure on the exchange pressure, also doing little to prepare for the ageing challenge and depriving future generations of the use of Fund capital (by definition being spent whenever there is an overshooting of the rule). Maintaining fiscal credibility will require closer adherence to the rule as economic conditions stabilise. The government has reiterated its commitment to the rule, while justifying deviations from it so far as being entirely consistent with its escape clauses. It will therefore be important to avoid further slippage in the 2006-10 period and to engineer

### Box 2.4. **Government estimates of the fiscal stance**

Changes in the structural budget deficit are commonly used as a summary indicator of the fiscal stance. From 2004 to 2005 the change in the structural, non-oil budget deficit was estimated at 0.4% of trend-GDP for Mainland-Norway in the National Budget 2005.

However, different changes in the budget do not affect the domestic economy in the same way. For example, an increase in government consumption has a larger impact on the level of domestic activity than a similar reduction in net taxes. To take account of such effects the Ministry of Finance has since the National Budget 2002 carried out simulations on a disaggregated macroeconomic model (MODAG). In these simulations, the actual budget is compared to a reference path where all income and expenditure items are assumed to grow in line with nominal mainland trend-GDP. The calculations include incomes and expenditure of both local and central government, except net petroleum revenues and net capital income from foreigners and Norges Bank.

For 2005, the nominal growth rate of mainland trend-GDP is estimated at 4.9%. Based on the 2005 budget proposal, government expenditures (except capital expenditures to Norges Bank and abroad) are estimated to grow by 5.2%, while government income (except oil revenues and capital income from Norges Bank and abroad), is estimated to grow by 4.9%.

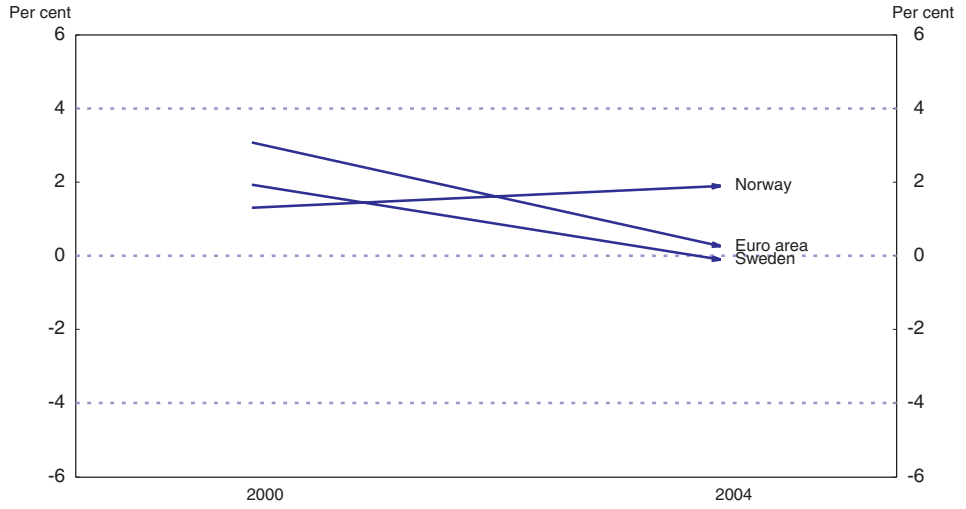
Generally, higher growth in expenditures than in nominal mainland trend-GDP indicates an expansionary budget. However, simulations on the macroeconomic model MODAG indicate that the development on the spending side of the 2005 budget is slightly contractionary. Expenditure growth is boosted by the development in transfer items, including development aid, which only to a small degree affect the mainland economy. Government consumption and other transfer items grow approximately in line with nominal trend-GDP. Hence, growth in these important items does not contribute to mainland growth above trend. Government investment on the other hand grows at a lower rate than trend-GDP, which explains that developments on the expenditures side as a whole slightly depresses mainland growth compared to trend.

The contractionary effect of developments on the expenditure side of the budget is neutralised by changes in the composition of government revenues. Whereas total income grows at the same pace as nominal trend-GDP for Mainland Norway, revenues from direct taxes (excluding oil taxes) grow at a rate below that of nominal mainland trend GDP, slightly boosting the mainland activity level. Seen as a whole, the model simulations indicate that the proposed 2005 budget has a neutral effect on mainland activity (GDP in Mainland-Norway) in 2005.

a rapid return to the deficit path indicated by the rule. The coming period of above potential growth and subdued demographic pressures (the smaller cohorts born during WWII are entering retirement, lowering inflows into the pension system), should be ideal for this purpose.

The year 2005 is a crucial one in the process of gaining fiscal credibility, first with the usual re-evaluation of the current year budget in May and then preparation of the 2006 Budget in October, at which time general elections are also being scheduled. Developments, in fact, are so far reassuring. Unlike in 2004, when through-year budget slippage was significant (Table 2.2),[32] the recent revised 2005 Budget shows a modest reduction in the use of petroleum revenues compared with the initial Budget, with deviation from the rule remaining slightly smaller than in 2004. This signals that Norway

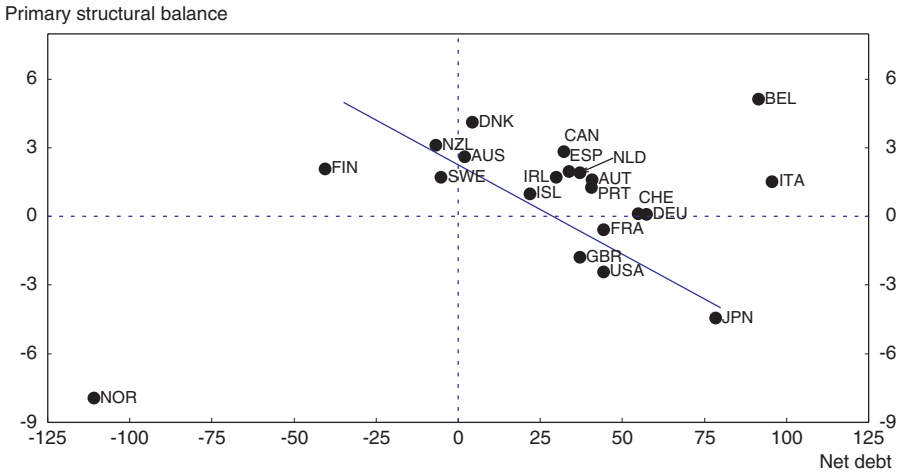
Figure 2.12. **Deviations from fiscal rules**




*Source:* OECD, *Economic Outlook* No. 77.

Figure 2.13. **Primary structural balances and net debt in OECD countries**

As a percentage of GDP, 2004




*Source:* OECD, Economic Outlook 77 database.

should get back on track through a modest fiscal tightening over the coming years. The government proposes to hold the structural non-oil deficit constant in real terms, allowing a return to the baseline by 2008 as the value of the fund rises (see Figure 2.10). It would be well to do so sooner than 2008, starting with corrective actions in the 2006 Budget, and applying currently expected budget room for manoeuvre in 2007-08 to deficit reduction rather than to higher spending (Table 2.3).

### *Structural measures to strengthen public finances*

Much of the deficit growth has thus far reflected either tax cuts or rising spending on labour market exit schemes (Table 2.4). Whereas the former use of public resources often reduces economic distortions, the latter almost always increases them. Public sector

Table 2.2. **Budget outcomes since 2001**
(as % of Mainland trend GDP)

| | 2001 | 2002 | 2003 | 2004 | | | 2005 | |
|---|---|---|---|---|---|---|---|---|
| | | | | NB04[1] | RNB04[2] | Final | NB05[1] | RNB05[2] |
| *a.* Oil adjusted deficit | 0.1 | 5.3 | 5.3 | 5.2 | 5.2 | 6.1 | 5.5 | 5.5 |
| *of which* | | | | | | | | |
| Total expenditures[3] | 43.8 | 48.2 | 46.5 | 46.1 | 46.2 | 46.5 | 46.4 | 46.1 |
| Total revenues[4] | 43.7 | 42.9 | 41.1 | 40.9 | 41.0 | 40.4 | 40.9 | 40.6 |
| *b.* Correction items | 2.3 | –2.0 | –1.3 | –1.3 | –1.0 | –1.6 | –0.6 | –0.7 |
| *c.* Non-oil structural deficit (a + b) | 2.4 | 3.3 | 4.1 | 3.9 | 4.2 | 4.5 | 4.9 | 4.8 |
| *d.* Value of GPF at start of year | 34.5 | 52.5 | 48.8 | 65.8 | 65.0 | 65.3 | 77.4 | 74.4 |
| *e.* Expected real return on GPF (d*.04) | 1.4 | 2.1 | 2.0 | 2.6 | 2.6 | 2.6 | 3.1 | 3.0 |
| *f.* Excess spending (c – e)[5] | 1.1 | 1.2 | 2.1 | 1.3 | 1.6 | 1.9 | 1.8 | 1.8 |

1. Initial Budget estimates passed in October of the previous year.
2. Revised Budget estimates, published in May of the concurrent year.
3. Excluding petroleum items
4. Excluding oil revenues.
5. The fiscal rule was operational only from 2002 onwards. The figure for excess spending in 2001 is shown only for informational purposes, *i.e.* what performance under the rule would have been had it been in effect.

*Source:* Ministry of Finance.

employment has also risen rapidly, at least until 2001, which raises the risk of inefficiencies and pushes up pension costs, given very generous public sector occupational schemes (see Chapter 3). The government has, appropriately, stated its commitment to use expanding budget resources in growth-friendly ways, *i.e.*, with the main emphasis on tax reductions and investments rather than on current transfers. It has already acted to bring sick leave absences under better control, begun to use more market signals (performance based finance) in guiding the allocation of budget resources. There is an ongoing public sector modernisation programme (see last *Survey*), where productivity improvements in the public sector need to be focused. While desirable in any context, such steps seem even more critical in light of the ample and widening budget constraint, which could by itself lead to the neglect of productivity improvements in the public sector (see Box 1.1). However, activity-based financing of public services should be used in a prudent way since this tends to put upward pressure on expenditures and can easily entail adverse incentives with respect to resource allocation and activity reporting, as seen clearly in the experiences with activity-based financing of hospitals (see Chapter 4).

Major new spending pressures will arise with ageing of the present generation, and within that optic the issue becomes one of how to reduce, not increase, spending (see Chapter 1). The main sources of current and prospective public expenditure pressure are by

Table 2.3. **Fiscal leeway in the medium term**
NOK billion

| | 2006 | 2007 and 2008 |
|---|---|---|
| Normal tax growth (measured in spending power) | 8 | 8 |
| Consequences of 2005 tax decisions | –1 | – |
| Other income bindings | –2 | – |
| Expenditure bindings | –5 | –5 |
| "Fiscal leeway„ without increased spending of petroleum revenues | 0 | 3 |

*Source:* Ministry of Finance.


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Table 2.4. **The sources of deficit**[1]

% of GDP

| | 2000 | 2001 | 2002 | 2003 | 2004 |
|---|---|---|---|---|---|
| Direct taxes | 20.2 | 20.3 | 19.9 | 19.7 | 21.7 |
| *Of which*: | | | | | |
| From households | 11.1 | 11.3 | 11.6 | 11.6 | 11.5 |
| From enterprises | 9.1 | 9.0 | 8.3 | 8.1 | 10.2 |
| Indirect taxes | 14.0 | 13.8 | 13.9 | 13.6 | 13.3 |
| Social security contributions | 9.0 | 9.3 | 9.9 | 10.0 | 9.7 |
| Other current transfers | 10.6 | 9.1 | 7.3 | 7.4 | 7.6 |
| Property and enterprises income | 4.3 | 5.2 | 5.7 | 5.6 | 5.5 |
| **Total current receipts** | 58.1 | 57.7 | 56.7 | 56.4 | 57.8 |
| Government consumption | 19.1 | 20.6 | 22.3 | 22.8 | 22.0 |
| Subsidies | 2.2 | 2.2 | 2.4 | 2.4 | 2.3 |
| Social security outlays | 13.3 | 13.7 | 14.8 | 15.7 | 15.0 |
| Other current transfers | 4.9 | 4.7 | 5.0 | 4.8 | 4.7 |
| Interest on public debt | 0.2 | 1.8 | 1.8 | 1.8 | 1.5 |
| **Total current disbursements** | 39.7 | 43.1 | 46.3 | 47.5 | 45.4 |
| **Saving** | 18.4 | 14.6 | 10.4 | 8.9 | 12.4 |
| Gross investment | 2.6 | 2.7 | 2.8 | 2.7 | 2.9 |
| Net capital transfers received | 0.7 | 0.2 | 0.3 | 0.6 | 0.0 |
| Consumption of fixed capital | 1.9 | 1.9 | 2.0 | 2.0 | 1.9 |
| **Net capital outlays** | 1.5 | 1.0 | 1.1 | 1.2 | 1.0 |
| **Total disbursements** | 42.7 | 44.3 | 47.5 | 48.9 | 46.6 |
| **Net lending** | 16.9 | 13.6 | 9.3 | 7.7 | 11.5 |
| *Memorandum items*: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cyclically-adjusted primary balance | –2.5 | –4.1 | –7.1 | . . | . . |
| Cyclically-adjusted net lending | 13.0 | 10.4 | 5.7 | 4.1 | 7.7 |

1. OECD definitions. In particular, the primary balance is calculated taking into account both interest payments and interest receipts, and excluding oil transactions for Norway.

*Source:* OECD.

far entitlements and non-discretionary spending, which broadly correspond to the National Insurance Scheme (NIS), notably in its programmes for sickness leave pay, disability pensions, rehabilitation benefits, and in-kind medical benefits.[33] Clearly most of structural adjustment must take place in terms of such social spending, as discussed in the next two chapters, but strengthening the fiscal situation across the board is essential to solve problem.

### *Budget reform*

The government has recently considered a budget reform including a multi-year budget. The result is a 3-year budget forecast for all areas at an aggregate level based on continuing existing policies and incorporating investment plans. This budget forecast is not politically binding, but serves as a management tool in order to view implications of decisions beyond the next year. Backing up the fiscal guidelines by a medium term plan to specify a credible path back to the 4% rule, should be considered. A nominal spending ceiling, deficit objectives, and concrete measures to achieve them could be specified in the context of such a plan. The current (largely informal) spending rule –- that real growth of public spending be equal that of GDP -– may have contributed to containing expenditures, but it should be considered if it is sufficiently adequate insofar as the public expenditure to

GDP ratio has been steadily rising, since the growth of the government deflator has exceeded that of GDP.

The government has rejected a comprehensive shift from cash-based to accrual accounting and stated that appropriations still should be cash-based (see last year's *Survey*). The government does recognise the favourable features of accruals accounting, notably in providing better cost information and establishing an improved basis for assessing resource allocation with regard to the achievement of policy objectives. Accordingly, a pilot project was launched in 2005, where 10 pilot agencies of the central government have introduced accrual accounts as supplements to the regular cash based accounts. The aim is to establish a baseline for benchmarking costs both between government agencies and in relation to private organisations, and to gain a better view of assets and liabilities of the agencies. After an evaluation in 2006, the government will decide on further steps, including the possibility of compulsory supplementary accrual accounts for all central government agencies. After having gained experience from the pilot project, further steps to implement accrual accounting on a broader basis should be considered.

### *Tax reform*

A chief objective of fiscal policy in 2005-06 is the implementation of a new phase of tax reform. In many ways this reform attempts to fulfil the objectives of the major reform in 1992, which were simplicity, efficiency and fairness of the tax system, correcting some deviations from these principles over the intervening years. A further objective of the new reform is to boost employment and strengthen the business sector by easing the tax burden on both. The main measures are as summarised in Box 2.5.

The reform is on the whole positive. It is encouraging that the reform has been made largely self-financing via an increase in VAT taxation, rather than being allowed to increase the deficit. In that sense the reform represents a shift from labour income to consumption taxation, which is generally more efficient. Nevertheless, the VAT rate is already very high and a preferred method of finance would have been to reduce distorting expenditures, and to move toward unification of the various VAT rates. This approach should be implemented regarding further planned tax reductions in 2006. Simplicity and fairness principles have been promoted by the abolition of allowances for commuting, dependency, and daily expenses of off-shore workers (these changes however have been partially reversed in the revised budget this year). A particularly important change is the reduction in marginal tax rates on labour income, which should stimulate labour supply. The narrowing of the gap between labour and income taxation will also allow a shift from the split to the shareholder model, helping in turn to stem the growing problem of tax arbitrage by artificial shifting of labour income to capital income by self-employed and business proprietors (see last year's *Survey*). Reduction of the net wealth tax is likewise a move in favour of more efficient tax system. However, the alleviated taxation of housing further increases the incentives to allocate savings toward housing rather than productive investments. Thus, greater use should be made of the property tax, which is an efficient tax but far lower in Norway than in most other OECD countries.[34] The government however believes that taxation of real property should continue to be voluntary on the part of local governments.

### Box 2.5. **Main measures in tax reform**

A central plank of the government's economic platform was the 2001 "Sem declaration", which aimed to reduce overall income and other taxes by some NOK 31 billion. Following earlier tax cuts this still requires NOK 12 billion in cuts starting with the 2005 Budget. The government decided to implement these further tax cuts within the context of a new phase of tax reform over the period 2005-07.

In 2005, the surtax on labour income will be reduced by 1.5 percentage points in bracket 1 (from NOK 381 000) and by 4 percentage points in bracket 2 (from NOK 800 000), lowering the maximum marginal tax rate including employer's social security contributions from 64.7 to 61.5%. (The Skauge Committee recommended further reductions in the surtax by up to 5 percentage points in 2006.) Basic allowances for wage income will also be increased, ensuring reduced marginal tax rates for workers who don't pay surtax. This brings the total tax relief for labour incomes in 2005 to NOK 7.7 billion, and it is estimated that more than 1 million workers will face lower marginal tax on wage income as a consequence.

To help pay for these tax reductions in 2005, certain deductions and special provisions were scaled back in the National Budget for 2005 (retrenchment of the daily commuting allowance, abolition of the per diem allowance and the tax exemption for per diem compensation for commuters, abolition of the dependency allowance and of the tax exemption for free diet for employees on the continental shelf and for seamen's wage supplements, etc.), allowing NOK 1.1 billion in extra receipts. In the revised budget some of these changes were however reversed, leading to reduced tax receipts of NOK 470 million. In the National Budget for 2005 the general VAT rate was increased from 24 to 25%, and the low rate from 6 to 7%, altogether bringing in almost NOK 5.5 billion. The rate on food was reduced from 12 to 11%, reducing receipts by NOK 600 million.

A dividends and capital gains tax of 28% on individuals will take effect from 2006, and returns on their financial assets corresponding to a risk free rate will be tax exempt – the so-called shareholder model. Together with the lower marginal taxation of labour income, this will allow abolition of the "split model" by 2006 (*i.e.*, the current splitting of taxable income into labour and capital income in the case of proprietorships, partnerships, and "active owners" of small business). Dividends and capital tax between companies are tax exempt from 2004.

A "Sem-declaration follow-up" implies a further NOK 2.7 billion reduction in taxes, mainly concerning abolition of the tax on imputed income on owner occupied housing. Furthermore, the wealth tax is to be eased in the course of 2006 and halved by 2007, with a view to its full abolition. Counting also tax changes in 2004 with revenue effects in 2005, mainly an increase in the electricity tax, the final overall net cost of the reform in 2005 is NOK 2.4 billion.

#### *Tax expenditures*

A special feature of the tax system in Norway is the regional differentiation of the employer's social contribution. The employer's social contribution is paid on gross salary payments of employees. The tax works as an ordinary tax on labour and there is no link between the revenues from the tax and the expenditure under the National Insurance Scheme. The tax is differentiated according to place of residence of the employees. The aim of the regional differentiation is to promote employment in peripheral regions. Norway was forced by the EFTA Surveillance Authority (ESA) to change this tax system in 2004. The

Norwegian authorities have, however, signalled their intention to reintroduce the system if the forthcoming revision of the ESA and the Commission guidelines on national regional state aid will allow such a measure. Being directly linked to the employment of people in peripheral regions, the measure is seen as having a clear incentive structure and low costs of administration compared to other regional state aid measures. Since benefits are distributed uniformly, the formal tax expenditures under the scheme are, however, large.[35]

### *Education*

One of the most important uses of public resources is to make investments in human capital – the main driver of *per capita* income growth in the long run. Indeed, Norway already shows one of the highest rates of per pupil spending and completion of secondary and tertiary degrees in the OECD. But educational performance does not seem to match the high commitment of resources. In the two PISA studies by the OECD to date, Norway's scores were rather mediocre. The Norwegian government is taking this outcome quite seriously and is now undertaking a thorough review of its policies in the education field.[36] These acknowledge that more resources is not the only solution to improved results, and target a return to "basics" in the curriculum, along with educational rigour, better monitoring, and improved teacher quality, apparently more in line with the educational culture in the best performers (*e.g.*, Finland). These steps could be buttressed by a greater use market mechanisms such as is occurring in the health area (see Chapter 4). For example vouchers have proved successful in improving school quality in a number of other OECD countries. At the tertiary level, the use of tuition fees along with income-contingent loans have been shown to improve education outcomes while reducing regressivity.

### *Notes*

1. The Revised National Budget for 2005 assumes 3¼ per cent wage growth for 2005 (v. 4% assumed in the original Budget), noting that the majority of the wage settlements for this year are already concluded.
2. It is even possible that competition from foreign workers in the construction sector contributed to the decline in sick leave absences there.
3. The commodity price index for industry rose by 6% in March 2005, compared to a year ago, in part reflecting higher energy costs.
4. See OECD *Economic Outlook 76*, Box 1.4. The higher neutral rate in Norway may reflect its relatively strong productivity growth.
5. It may be that as a small, open economy, Norway faces a weaker monetary policy transmission mechanism than more closed economies, which is why it has experienced more exaggerated cycles and swings in interest rates across the cycle. Sweden, for example, similarly faces very low interest rates and inflation.
6. The monetary policy regulation stipulates a flexible inflation targeting regime, whereby in the short to medium term, monetary policy shall balance the need for low and stable inflation against the need for output and employment stability. The monetary policy regulation stipulates a flexible inflation targeting regime, whereby in the short to medium term, monetary policy shall balance the need for low and stable inflation against the need for output and employment stability.
7. See Governor's speech in July 2004.
8. See Norges Bank (2005a and 2005b).
9. Indeed, the Bank was subject to considerable criticism about having provoked an unnecessary degree of appreciation during its 2002 tightening episode.
10. See discussion in Dorum *et al.* (2005) on the so-called "Brainard gradualism" principle.
11. See Nymoen (2004) for a discussion of the confidence bands and also Bjornland *et al.* (2004).

12. See Inflation Report 1/05, Box on "Developments in household debt", indicate that a rise in interest rates that is more rapid than in the baseline scenario implies a lower rise in house prices and build up in household debt. Nevertheless, much of the rise in house prices and household debt in either scenario reflects an adaptation to beneficial structural changes in credit markets, not just the monetary policy stance.
13. See its *Financial Stability* reports.
14. The Governor himself has made this point in his latest annual speech (Norges Bank, 2005a).
15. There are likewise beneficial policy interactions going in the opposite direction. The high unemployment in the downturn of 2002 and 2003 may have increased the pressure for an even more expansionary fiscal policy. If monetary policy had not eased as decisively as it did at the time, the resulting expansion of fiscal spending might have been very difficult politically to reverse. See Dorum *et al*. (2005).
16. In particular, Norges Bank Watch (NBW), an evaluation committee of outside experts in the monetary policy field funded by the government but fully independent from it, seems to have had a positive impact.
17. See Inflation Report 1/04, Boxes on "The pass-through from the krone exchange rate to prices for consumer goods" and "The exchange rate for the krone and exchange rate expectations".
18. Assessing the stance of policy also requires an accurate assessment of the output gap, hence potential GDP, which is notoriously difficult to achieve. NBW 2004 has suggested that potential output forecasts of Norges Bank (NB) could be improved in two ways: *i)* the simple Hodrick-Prescott filter used by NB to ascertain potential GDP, even though having the virtue of simplicity and transparency, should be replaced by a more structural approach or a better (*e.g.*, Kalman) filter; *ii)* a quarterly rather than annual frequency as currently used by NB for construction of the potential output series might also better catch turning points. A case in point is the economic slowdown that began in mid-2003. Statistics Norway's (SN) output gap indicator showed a clear turning point in June 2003. However, NB's output gap showed the turning point coming only in October 2003. Many observers thought that the easing came too late. A key difference is that SN uses quarterly frequency to calculate the output gap whereas NB uses an annual one.
19. See OECD (2005), chapter on "Measuring and assessing underlying inflation".
20. This would come on top of the risk that the natural rate itself is mis-measured. See Norges Bank (2005b), Box entitled "Why are long term interest rates so low?".
21. NBW 2004 (Bjornland *et al*. 2004) has suggested that the measure of inflation that the Bank targets, a type of core inflation which excludes taxes and energy from the overall CPI (CPI-ATE), does not well capture underlying inflation trends nor does it fully exploit the leeway for ignoring temporary disturbances accorded by the central bank's mandate. The latter states the following about policy implementation: "In general, the direct effects on consumer prices resulting from changes in interest rates, taxes, excise duties, and extraordinary temporary disturbances shall not be taken into account".
22. See Inflation Report 1/05, Chart 4.
23. The OECD's projections assume that the central bank starts to raise rates sooner and more strongly than currently expected by markets, which forms the basis of the central bank's projections. Hence, under the OECD methodology the gaps would be even larger than under the central bank's assumptions.
24. The tightening in 2001 raised interest rates to over 7%. It is hard to imagine that interest rates could go so high again in the foreseeable future.
25. See Norges Bank (2005a).
26. A total of 400 hours overtime per year is permitted, half of which can be imposed by the employer and the other half negotiated with the worker. However, over any 8 week period, total hours cannot exceed 48 hours per week. Formerly, this averaging period was 16 weeks, with no opt-outs.
27. See annual address by Governor Gjedrem (2005).
28. Statistics Norway has reported (23 May 2005) that clothing and footwear prices in Norway are 34% higher than the EU average and 20% higher than in Sweden, Denmark, and Finland.
29. See OECD (2004) for a quantitative estimate of the potential price reduction impacts of privatisation.

30. Indeed, at the time of the preparation of the 2004 Budget, and even more so of the 2005 Budget, signs of recovery were strong and clear. For example, in its September 2003 macroeconomic forecasts, Statistics Norway foresaw mainland GDP growth of 3.3 and 2.3% in 2004 and 2005, respectively, and in its September 2004 forecasts, there were revised up to 3.9 and 2.9 respectively.

31. The IMF (2004) has argued against the use of discretion in fiscal policy.

32. This is perhaps surprising in light of strong growth and the savings from the unexpected 20% decline in sick leave absences in the year. The main factor was continued undershooting of revenue estimates.

33. The NIS is a branch of the central government. From the point of view of central government budgeting, local level (county and municipal) expenditure is channelled through the device of aggregate cash limitation process (kommuneoekonomien) within which non-discretionary expenditure is a comparatively small fraction.

34. The OECD is pursuing a special project on fiscal federalism, the results of which could be helpful for countries like Norway in need of developing better local sources of finance.

35. The Norwegian National Insurance scheme is a fully integrated part of central finance. There is no earmarking of revenues, and both revenues and expenditure items are fully integrated into the Fiscal schemes. The revenue from the employer's social contribution is neither earmarked to pensions nor any other insurance scheme but is part of the ordinary tax system. In 2003, the total tax revenues from Mainland Norway amounted to about 460 billion NOK while the tax revenue forgone related to the regional differentiation of the employer's social contribution tax was about 8 billion NOK.

36. There seems to be a growing awareness that the education reforms of the mid-1990s may have gone too far in both an equalising and individualistic direction, and that a renewed emphasis on "traditional" values such as curriculum basics, teacher quality, competition, and student discipline may be in order. The White Paper can be found at: *www.kunnskapsloeftet.no/filer/competenceforcedevelopment.pdf*.

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ANNEX 2.A1

# *Alternative measures of underlying inflation in Norway*

Headline inflation rates can be volatile, often because of substantial movements in commodity, food prices or other components. Catte and Sløk (2005), discuss how such volatility in a key price index can make it difficult for policymakers to accurately judge the underlying state of, and prospects for, inflation. They particularly examine ways in which core consumer price inflation can be measured, as well as its potential usefulness for policymakers, based on evidence in the United States, the euro area, Japan, the United Kingdom and Canada. There are indeed various methods to build core inflation rates: permanently excluding specific components, excluding various components on a period-by-period basis or downplaying the more volatile price changes so as to reveal the underlying, more persistent components.

The CPI-ATE, calculated by the Norges Bank can be considered as a "Standard core measure", as it excludes permanently specific items. However it is a short series, only available since 2002. Figure 2.6 exhibits some illustrative calculations of alternative measures of underlying inflation, estimated with the model of Catte and Sløk (2005) as extended to Norway. These show that inflation is low in Norway, but not as much as the CPI-ATE may indicate. Trimmed means aim to exclude what are regarded as excessively volatile changes as they occur, and are constructed by first ranking in descending or ascending order the price changes recorded by all the individual CPI components in a given period and excluding the top and bottom "×" per cent, that is, the components corresponding to "×" per cent of total CPI weights on each side. The trimmed means used here are calculated on a month-on-month basis, after seasonal adjustment. The year-on-year or three-month inflation rates are then calculated as the means of the remaining price changes.

Five thresholds have been tested: 2, 5, 10, 15 and 25%. A special case of the trimmed mean is the weighted median, corresponding to a trimming percentage of 50%; in this case, only the component leaving 50% of the weights on each side of the distribution is retained. Interestingly, trimmed inflation measured by a 5% bilateral trimmed-mean was extremely close to the CPI-ATE inflation.[1] Estimation started from the component breakdown of the Consumer Price Index (the 12, 39, and 93 item sub-divisions) available on the web-site of Statistics Norway. Some of these detailed sub-components have been published for only a short period of time, limiting a perfect statistical treatment on series because a lack of exhaustive items. It explains the reason why the CPI-ATE has only been calculated since 2002. However, for a large number of sub-groups, it was possible to reconstruct a correspondence between the weights of the 93, 39 and 12 divisions. Then, various

indicators were computed using the 39 division as a basis and then replacing items with the more disaggregated data when these were available. In the end, the model was based upon a relatively large sample (about 80 components), starting from March 1979.[2]

Even though this flexible approach allows us to extend the sample of estimation and may improve the cyclical vision of underlying inflation, the main challenge to produce a more precise statistical measure is access to sufficiently detailed sub-indices of CPI-ATE from Statistics Norway. This would allow a more detailed calculation rather one that has to be based on aggregate components when detailed subcomponents are currently missing. The finer the price breakdowns, the more reliable and meaningful should trimmed means be.

### *Notes*

1. Trimmed means measurement may differ marginally from Norges Bank estimates, (see for instance Norges Bank (2005c), pp 16-17) due to differences in breakdown components, periods of estimation and seasonally adjustment methods.
2. All the individual CPI component series were seasonally adjusted except "financial services", which was too short. The adjustment was carried out using a version of X12. An alternative would be to use NSA, where the data series are relatively short. But, in general, results differ and seasonally adjusted data tend to give more meaningful results. A third possibility, which would remove the need for seasonal adjustment, would be to calculate median and trimmed means from year-on-year price changes, rather than from month-on-month rates as we did. The limitation in that case is that higher-frequency measures such as 3-month annualised inflation rates, which are potentially interesting with indicators that are much less volatile than headline inflation can no longer be constructed.

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*Chapter 3*

# Long term sustainability of the pension and welfare system

*Norway will face a fast maturing old age pension scheme over the 30 next years whereas oil revenues will supply only a small part of implicit liabilities related to the present generation. The Norwegian government has recently proposed new measures to strengthen long term fiscal sustainability. They aim at raising the effective retirement age and promote a shift to a more actuarially fair pension system. The main objective was the creation of a system of contributions to notional accounts that give rights to actuarially fair and longevity-adjusted benefits at any age after 62. The notional contribution rate is 17½ per cent of earnings for all, irrespective of taxes actually paid. Benefits would be indexed to the average of prices and wages, instead of wages as at present. Estimated savings arising from strengthened work incentives introducing a longevity coefficient, and less generous indexation are three percentage points of GDP over the long term. For the proposals to have maximum impact, public subsidies to existing early retirement schemes should be removed and eligibility for disability pensions and long sick leaves tightened. A broad agreement was reached in the Norwegian parliament on the proposed principles of pension reform in May 2005, but crucial elements are still under discussion, among these the decision on a flexible retirement age and the strength of the link between income and benefits.*

## The Norwegian welfare state

Workers and residents in Norway benefit today from a widespread welfare state. Persons insured under the National Insurance Scheme (NIS), the main general social insurance system in Norway, are entitled to old-age, survivor's and disability pensions, rehabilitation benefits, medical benefits during sickness, maternity or adoption leave, family allowances and unemployment benefits. As shown in Figure 3.1, Norway appears a relatively median spender in term of social benefits, and quite comparable to Nordic countries when expenditures are expressed as a percentage of Mainland GDP.[1]

The NIS finances old-age, disability and widows' pensions and unemployment benefits, sick pay and health cover. It is fully integrated in the central government budget and is not, as in most other OECD countries, a separate social insurance scheme with contribution rates linked to outlays.

Norway, like most OECD countries, will face a significant ageing of its population over coming decades. In addition to purely demographic factors, social spending is expected to grow as a result of continued maturation of the earnings-related second tier pension which was created in 1967. As a major pension reform is under preparation in Norway, this chapter mainly focuses on retirement pensions, sick leave and disability pensions. Health care and long term care challenges are analysed in the next chapter.

## The old-age pension systems

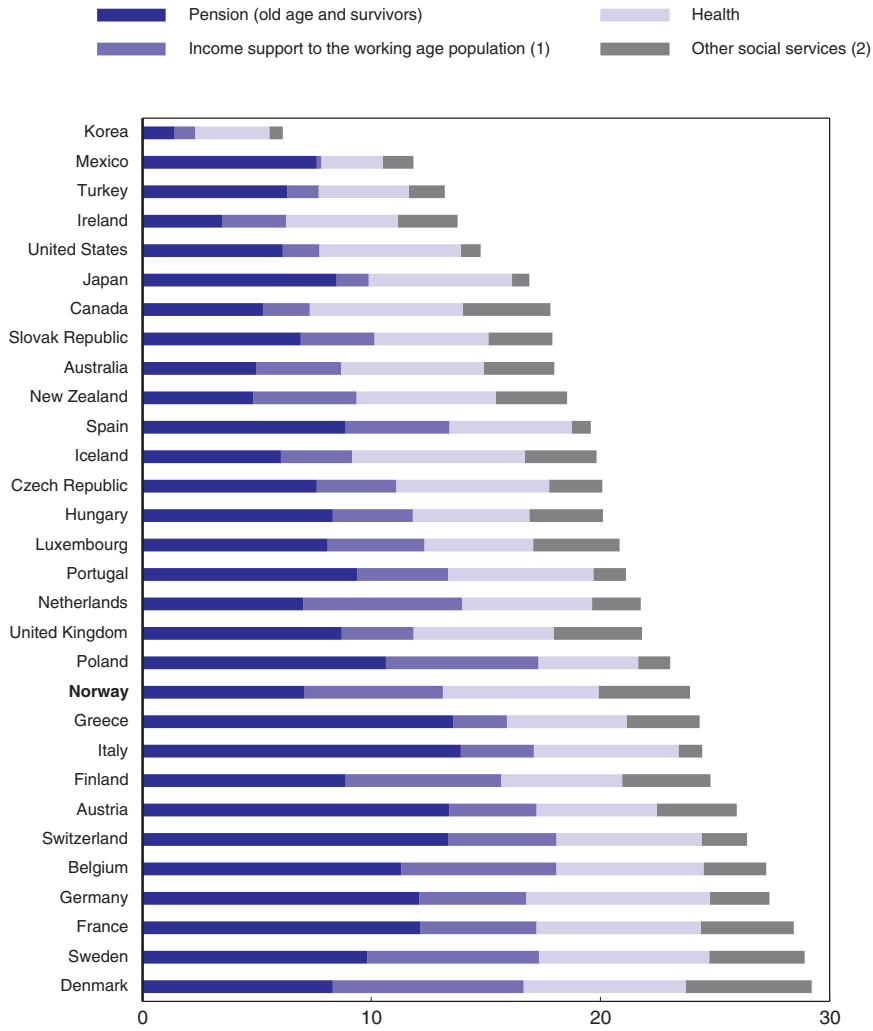
Retirees in Norway can receive income from up to three main sources: the Norwegian old age public pension scheme, managed by the National Insurance System (NIS); the private (but publicly subsidised) early retirement scheme *Avtalfestetpensjon* (AFP) and its public sector counterpart, and various occupational pension regimes.

### *The NIS public pension*

The NIS public pension is a pay-as-you-go defined benefit scheme which consists of a flat-rate basic pension, a means tested special supplement and a non-actuarial earnings-based supplementary pension, all integrated in the state budget. The NIS old-age pension scheme has its historical roots in the Scandinavian tradition for redistributive minimum protection in old-age, and mimics technical aspects of the old Swedish ATP-scheme. The NIS old-age pension system is combined with those for sickness insurance, disability and rehabilitation benefits, family allowances and public health. There are no earmarked contribution rates. Its main features are:

- The minimum pension[2] and the supplementary pension can be claimed only at 67 years of age.
- The minimum pension is paid to all residents with at least 3 years of earnings history between the ages of 16 and 66.

Figure 3.1. **Public social benefits in OECD countries**
% of GDP, 2001




1. Income support to the working age population includes incapacity (disability and sickness), active labour market policies and unemployment benefits.
2. Other includes family and housing benefits.

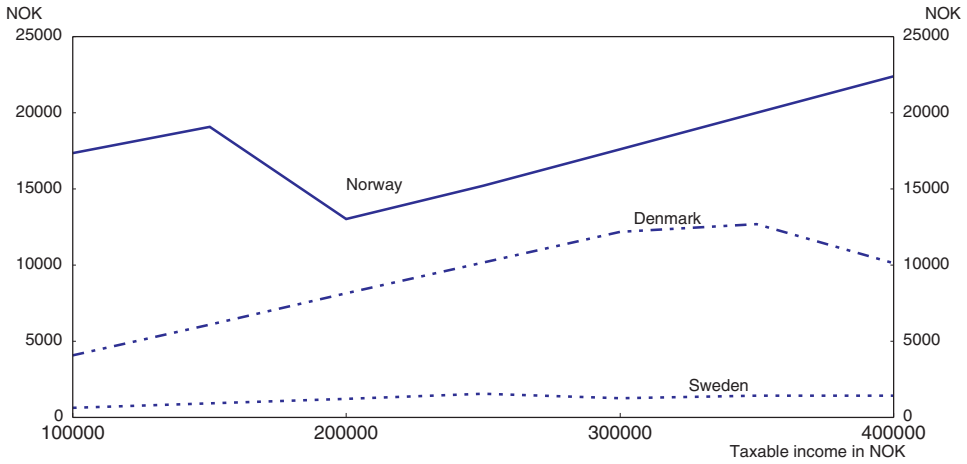
*Source:* OECD, Social Expenditure database.

- The supplementary pension is based on a points system, with full benefits, calculated on the best 20 earning years, conditional on 40 years of contributions. Benefits are reduced proportionately for shorter work histories.
- The minimum pension is NOK 108 852 (€ 13 260) at present. The maximum pension is about NOK 239 000 (€ 29 000) at present.
- Since 2002, NIS pension benefits are indexed on wages. Prior to that, they were increased in an *ad hoc* way, which on average was equivalent to about a 50/50 indexation on prices and wages.

- Compared with many other OECD public pension systems, particularly those in continental Europe, the Norwegian public pension does not seem generous: the age at which it can be claimed is high, at 67, the gross replacement rate is comparatively modest for those on average earnings, and is low for those on high earnings. But many Norwegians can in practice retire earlier through the AFP-scheme.
- NIS pension benefits are taxed as income, except for those with pension income only (including disability and survivor pensions) lower than NOK 121 000 for a single pensioner in 2005. Pensioners in this category are exempt from both income tax and NIS contributions. These differences in taxation between wages and pensions are high compared to other Scandinavian countries (see Figure 3.2).
- Around half of people receiving benefits and/or pensions either pay no tax or do so under a tax-limitation rule (see Annex 3.A1).[3] The net replacement rate may thus even be higher after income tax for a large number of pensioners. For a worker earning half average wages, the net replacement rate (after income tax) is about 85% of average net earnings, while for one on 2.5 times average wages, the replacement rate is about 43%. For a worker on average wages, the net replacement rate is approximately 65%, in each case assuming at least 40 years of work history (OECD 2005).

Figure 3.2. **Difference in taxation of wage and pension income in the Scandinavian countries**[1]

2005




1. Supplement of taxes for a wage earner relative to a pensioner, converted in NOK 2005. A Norwegian worker earning 150 000 NOK in 2005 has to pay a supplement of taxes of about 19 000 NOK compared to a pensioner earning the same revenue.

*Source:* Ministry of Finance in Norway, Ministry of Finance in Sweden and Ministry of Taxes in Denmark.

### *The AFP scheme creates strong incentives to retire early*

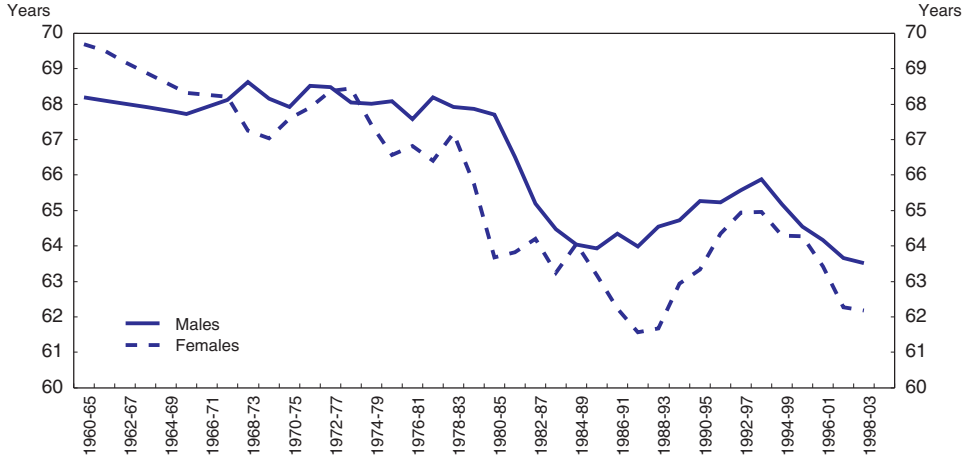
Introduced in 1989 through an agreement between employers, unions and the government, the AFP early retirement scheme has kept evolving. At the outset, the scheme was intended especially to target those who had left school early and had already accumulated a long work history before the regular retirement age. Conditions have loosened and generosity is high:

- The entitlement age was initially set to 66 but has gradually slid, to reach 62 in 1998;

- The institutional settings and eligibility conditions for the AFP are essentially 10 years of work after the age of 50 with annual income above or a fairly low minimum level (roughly 120 000 NOK 2005) and an annual income at retirement at least equal to 60 000 to be entitled a full-rate pension at 62 rather than 67.
- AFP pensioners are accorded pension rights in the NIS until 67 years, and the AFP benefit corresponds to the old age pension one would have received from the NIS from 67 years plus an additional AFP subsidy. The sum of pension and AFP subsidy is subject to a ceiling of 70% of previous income.
- Today, this programme covers all employees in the public sector and almost half of the employees in the private sector (mainly sizeable firms). In 2004, more than 30 000 persons benefited from an early pension (30% of the population aged between 62 and 66). About half those entitled to claim an AFP pension now do so.
- The AFP scheme is less attractive to high earners because the replacement rate is low (occupational pension supplements cannot be claimed before 67). Nevertheless, more than 44% of high income individuals eligible for AFP chose to transit through the AFP in 2000.

Not only are the AFP benefits easy to access, but they are rather generous and provide little incentives to stay in the labour force. The introduction of the AFP early retirement scheme has coincided with a sharp decline in average effective retirement age (see Figure 3.3). The payments are calculated as the pension benefit the individual would have received at age 67 plus an additional early retirement subsidy. In addition, the final supplementary old-age pension level is calculated *as if the individual had continued in the labour force* until the standard retirement age of 67.

Figure 3.3. **Average effective retirement age in Norway**[1]




1. Average age of withdrawal from the labour force for individuals older than 40 based on changes in participation rates by five-year age cohorts over five-year intervals.

*Source:* OECD (2004b).

AFP schemes are today heavily subsidised in the private sectors through direct support or tax rebates: employers in the private sector bear the full burden only for the age group 62-63 – with the individual employer paying 25% and the rest financed via sectoral collective agreements – and not more than 60% for the age group 64-66. In the public

sector, the government and municipalities bear the full cost for their employees aged 62-66. The payments to this scheme amounted to about NOK 6 billion in 2003 (about 7% of spending on regular old-age pensions), of which the private sector was responsible for about 50%. The total government contribution to the private sector schemes, including the value of tax benefits and accumulated pension benefits under the National Insurance Scheme, was just under NOK 1 billion. Hence, although the AFP is the result of an agreement between employers and trade unions, there are fiscal implications for the government, because of the public subsidies, lower receipt of income tax, and higher regular old-age pensions.

### *... notably because of a broken link between contributions and pensions*

Given the fairly weak individual eligibility conditions, and the favourable economic incentives, AFP has gained popularity. Bratberg *et al.* (2004) find that the AFP economic incentives strongly influence early retirement decisions. These authors estimate that by a conservative judgement, at least 50% of the AFP retirees would have stayed in the labour force without this scheme. Fehr *et al.* (2003) shows through simulations that a relatively high minimum pension benefit and a weak link between contributions and pensions introduce strong marginal implicit incentives for low and middle-income earners to retire at the age of 62. In 2003, households earning less than 137 000 NOK a year would not increase their pension benefits if they worked longer. In addition, these households most recent labour income was either below or only slightly above the minimum pension. Rational low and middle income earners (see Table 3.1, for a definition) should therefore retire at 62 while high income earners should remain in the labour force to 67 or 68. Nevertheless, strong preferences for retiring early clearly exist even for the latter group.

Table 3.1. **Status of individuals eligible for AFP early**

| | Low-income | Medium-income | High-income |
|---|---|---|---|
| Still in work | 33.5 | 37.2 | 45.1 |
| AFP early retirement | 54.3 | 51.4 | 44.0 |
| Disability pension | 6.4 | 5.1 | 2.6 |
| Unemployment benefits | 2.6 | 2.4 | 1.5 |
| Private schemes, other | 3.2 | 3.9 | 6.8 |

*Note:* "Low-income" is annual income equal to or less than 185 000 NOK, "Medium income" is between 185 000 and 240 000 NOK, "High-income is above 240 000 NOK.

*Source:* Bratberg *et al.* (2004).

In addition, the combination of the Norwegian old-age pension and AFP implies some counter-intuitive distributional effects according to Pedersen (2004). Many (typically female) workers with a considerable work and contribution history, but insufficient for them to qualify for the AFP, end up receiving only minimum benefits at age 67. In the same way, the present rules for the NIS pension based on the 20 best years favour white-collar workers, whose careers are typically shorter and marked by a rising earnings profile, introducing strong redistributive biases.

### *Occupational pensions need more coherence, portability and a widened coverage*

Today, there are several heterogeneous occupational pension schemes in operation in Norway, and the government pledged in connection with the 2004 collective bargaining round to introduce a mandatory occupational pension for all employees (see Box 3.1).

#### Box 3.1. **Occupational pension schemes in the public and private sectors**

In the public sector, occupational pensions are universal and of the defined benefit type, designed as add-ons to the public pension and guaranteeing a total pension equal to two-thirds of final gross income. Central administration employees are ensured occupational pay-as-you-go defined benefit pensions by law, through a special scheme called SPK (Statens Pensjonskasse). Local administration employees are also guaranteed a two-thirds gross replacement rate, but are covered by an agreement between workers' and employers' unions. Those schemes are also defined benefits but funded: they may be operated by the mutual insurance company KLP (Kommunal Landspensjonskasse). Whereas a special agreement between public sector occupational pension schemes opens total transferability or rights between local and state schemes, no transfer is possible from a private to a public occupational scheme and some rules remain quite restrictive (see Box 3.2).

In the private sector, occupational pension schemes are firm specific, privately funded and mainly defined benefit. Contributions are tax deductible *inter alia* on condition that no benefits are payable before the age of 67. A private pension plan is strictly internal, and all employees must be members. While there is no vesting period, employees leaving during their first year forfeit their accrued pension rights. Private sector occupational pension plans are common in large companies, rare among small companies.

The current tax-favoured occupational pension plans cover about a third of the workforce in the private sector. Up to 2000, only defined benefit schemes were given the special taxation treatment, which may explain 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 plans. The two acts contain similar minimum rules concerning coverage, benefit qualifying conditions, vesting and the protection of rights in these plans. Early retirement is not covered by occupational pension schemes, neither in the public, nor in the private-sector (see further). In addition there are tax-favoured private supplementary (and non-compulsory) pensions especially among self-employed, with retirement allowed at age 64.

When combining occupational pension and work income from the same employer, the pension is reduced proportionally with the increase in the worker's earned income. It is not possible to receive a full occupational pension and still work full-time for the same employer, but possible if the occupational pension is from a governmental or municipal employer and the work income comes from an employer in the private sector, or *vice versa*. Coverage of occupational pensions is unequal since all public sector employees are covered whereas only 36% of employees in the private sector (including the self-employed) are members of an occupational pension scheme. Transfers of entitlements are limited, since they can only take place between public schemes or between private schemes. In addition, special regulations for the vesting period in the public sector schemes might hinder mobility of civil servants to the private sector, acting as a deterrent to resign (see Box 3.2). Measures to improve portability between private and public sectors and within the private sector should be considered.

### Box 3.2. **Issues on portability of occupational pension schemes**

*In the public sector*, two issues arise, introducing some restrictive rules that could hinder mobility for workers between private and public sectors due to occupational pension regulations :

- Occupational pension rights belonging to employees with less than 3 years of service are not honored. These rights stay on the books and will be added to the employee's record in case they again become member of a public scheme (regardless of whether this is a local or central administration scheme).
- Rules for entitling a full pension in the public sector may also deter mobility. Thirty years of service are required for a full replacement rate at 67 but if the employee resigns this number is increased to forty years, implying a fall in the replacement rate. This rule may lead to a substantial brake to mobility because, for many employees, resigning from the public sector to go into the private sector may imply a substantial loss of pension rights.

These issues often arise in privatization processes, adding substantial complication for companies to transfer their workers' rights and clear their implicit pension liabilities. Reforming those rules to fit the OECD recommendations on Core Principles of Occupational Pension Regulation should thus be considered.

*In the private sector*, an employee leaving a defined benefit occupational plan has the account turned into an individual contract, based on actuarial principles (but both valorisation and indexation depend on returns in the insurance company leading to potential deviation from actuarial neutrality). The employees may then choose to continue tax-favoured payments into their contract, given an annual ceiling and a deadline for taking up the offer. If a private sector employee (a former member) enters a new private plan:

- either the plan will not count the employee's existing rights, which implies that the employee will have different rights in multiple occupational plans when he or she retires;
- or the new plan will include these rights, based on specific actuarial rules of transfers. Such a transfer will increase the employee years of service in the plan. But employees bear some actuarial risks: they gain or lose through this operation given their age, individual wage careers, and return on assets in the insurance company that handled the individual contract. Besides, these transfers give rise to high administrative "menu costs", that defined contribution benefits may avoid.

### *The National Insurance Scheme is far from being sustainable*

According to the latest national estimates, adding old age and disability pensions, the gap between spending and revenues, absent reforms, would rise by about 10% (from 9.5% to 19.3%) of mainland GDP by 2050.[4] Previous OECD estimates have anticipated an extremely large rise in old-age spending, compared with other OECD countries (see Table 3.2), putting Norway at the forefront of the countries most challenged by ageing.

There are some major differences, though, between Norway and other countries, which explain why public spending on pensions is set to rise so steeply. One important reason as in all OECD countries is demographic pressures: the baby boom generation will soon start moving into retirement, and they had comparatively few children whose taxes will pay for the public pay-as-you-go pensions. The main reason why Norwegian spending

Table 3.2. **Projections of age-related spending 2000-2050**[1]

Levels in % of GDP, changes in percentage points

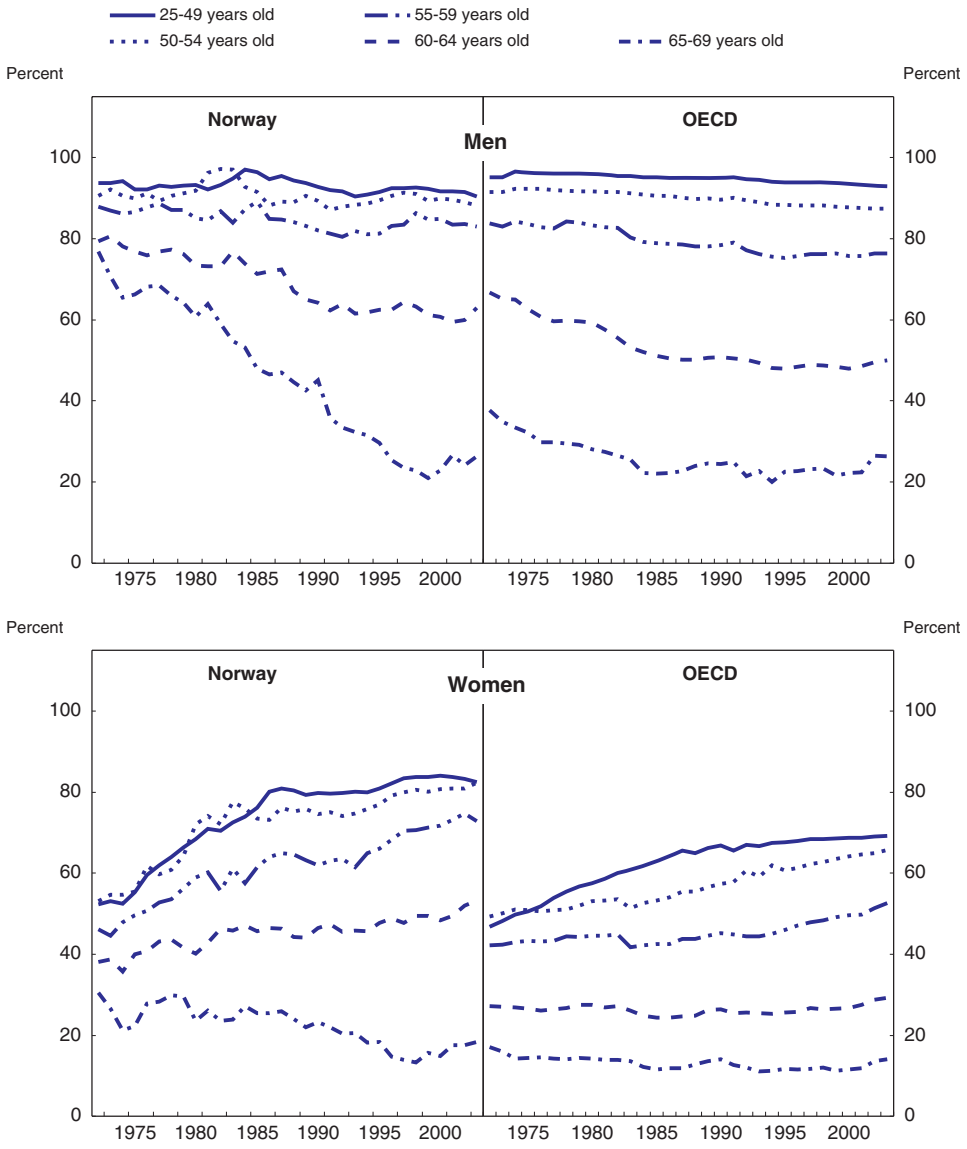
| | Total age-related spending | | Old-age pensions | | "Early retirement" programmes | | Health care and long-term care | | Child/family benefits and education | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Level 2000 (1) | Change 2000-50 (2) | Level 2000 (3) | Change 2000-50 (4) | Level 2000 (5) | Change 2000-50 (6) | Level 2000 (7) | Change 2000-50 (8) | Level 2000 (9) | Change 2000-50 (10) |
| Australia | 16.7 | 5.6 | 3 | 1.6 | 0.9 | 0.2 | 60.8 | 6.2 | 6.1 | –2.3 |
| Austria[2] | [10.4] | [2.3] | 9.5 | 2.2 | . . | . . | [5.1] | [3.1] | . . | . . |
| Belgium | 22.1 | 5.2 | 8.8 | 3.3 | 1.1 | 0.1 | 6.2 | 3 | 6 | –1.3 |
| Canada | 17.9 | 8.7 | 5.1 | 5.8 | . . | . . | 6.3 | 4.2 | 6.4 | –1.3 |
| Czech Republic | 23.1 | 6.9 | 7.8 | 6.8 | 1.8 | –0.7 | 7.5 | 2 | 6 | –1.2 |
| Denmark[3] | 29.3 | 5.7 | 6.1 | 2.7 | 4 | 0.2 | 6.6 | 2.7 | 6.3 | 0 |
| Finland | 19.4 | 8.5 | 8.1 | 4.8 | 3.1 | –0.1 | 8.1 | 3.8 | . . | . . |
| France[4] | [18.0] | [6.4] | 12.1 | 3.9 | . . | . . | [6.9] | [2.5] | . . | . . |
| Germany | [17.5] | [8.1] | 11.8 | 5 | . . | . . | [5.7] | [3.1] | . . | . . |
| Hungary[5] | 7.1 | 1.6 | 6 | 1.2 | 1.2 | 0.3 | . . | . . | . . | . . |
| Italy | [19.7] | [1.9] | 14.2 | –0.3 | . . | . . | [5.5] | [2.1] | . . | . . |
| Japan | 13.7 | 3 | 7.9 | 0.6 | . . | . . | 5.8 | 2.4 | . . | . . |
| Korea | 3.1 | 8.5 | 2.1 | 8 | 0.3 | 0 | 0.7 | 0.5 | . . | . . |
| Netherlands[6] | 19.1 | 9.9 | 5.2 | 4.8 | 1.2 | 0.4 | 7.2 | 4.8 | 5.4 | 0 |
| New Zealand | 18.7 | 8.4 | 4.8 | 5.7 | . . | . . | 6.7 | 4 | 7.2 | –1.3 |
| **Norway** | **17.9** | **13.4** | **4.9** | **8** | **2.4** | **1.6** | **5.2** | **3.2** | **5.5** | **0.5** |
| Poland[5] | 12.2 | –2.6 | 10.8 | –2.5 | 1.4 | –0.1 | . . | . . | . . | . . |
| Spain | [15.6] | [10.5] | 9.4 | 8 | | | [6.2] | [2.5] | . . | . . |
| Sweden | 29 | 3.2 | 9.2 | 1.6 | 1.9 | –0.4 | 8.1 | 3.2 | 9.8 | –1.2 |
| United Kingdom | 15.6 | 0.2 | 4.3 | –0.7 | . . | . . | 5.6 | 1.7 | 5.7 | –0.9 |
| United States | 11.2 | 5.5 | 4.4 | 1.8 | 0.2 | 0.3 | 2.6 | 4.4 | 3.9 | –1 |
| Average of countries above[7] | 21.2 | 5.8 | 7.4 | 3.4 | 1.6 | 0.2 | 5.9 | 3.1 | 6.2 | –0.9 |
| Portugal[8] | 15.6 | 4.3 | 8 | 4.5 | 2.5 | –0.4 | . . | . . | . . | . . |

1. Data for health care shown in parenthesis are drawn from EPC (2001). They are the result of an EC exercise using a common methodology for all countries. These health and long-term care projections assume that costs *per capita* rise in line with productivity/wages. They do not allow for technological change or other non-age-related factors.
2. Total pension spending for Austria includes other age-related spending which does not fall within the definitions in Cols. 3-10. This represents 0.9% of GDP in 2000 and rises by 0.1 percentage point in the period to 2050.
3. Total for Denmark includes other age-related spending not classifiable under other headings. This represents 6.3% of GDP in 2000 and increases by 0.2 percentage points from 2000 to 2050.
4. For France, the latest available year is 2040.
5. Total includes old-age pension spending and "early retirement" programmes only.
6. "Early retirement" programmes only include spending on persons 55+.
7. Sum of column averages. OECD average excludes countries where information is not available and Portugal where the data are less comparable than for other countries.
8. Portugal provided an estimate for total age-related spending but did not provide expenditure for all of the spending components.

*Source: Casey et al. (2003).*

is set to rise so steeply is that participation rates are comparatively high especially in the 60-64 age group and at all ages for women (see Figure 3.4). Combined with a still maturing system (the income-related supplementary pension was introduced in 1967) and the particular workings of the AFP, this means that most Norwegians of pensionable age in future decades will have the right to a full public pension at the age of 67 and life expectancy is both high and still rising. As seen above, Norway's public pension system is characterised by a relatively high statutory age of retirement and a requirement of 40 years of work history. Replacement rates are not particularly generous, except for low-income groups. Unlike in some other OECD countries therefore, major savings cannot be made by

Figure 3.4. **Participation rates by gender and age**




*Source:* OECD, *Labour Force Statistics*.

imposing more stringent conditions, except as regards indexation arrangements. Reforms need primarily to encourage a higher labour supply.

## Lower incentives for old-aged to work also arise from disability schemes

Following the introduction of the early retirement scheme (AFP) in 1989, the effective retirement age is now substantially lower compared with the early-1980's. It also reflects the rise in the number of disability pensioners thanks to an easily accessible scheme which has lowered the expected age of exit from the labour market. However, the effective age of labour market exit has increased somewhat in recent years (Table 3.3).


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Table 3.3. **Effective age of labour market exit in Norway**

| | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
|---|---|---|---|---|---|---|
| Age | 59.2 | 59.4 | 59.9 | 61.1 | 60.8 | 60.4 |

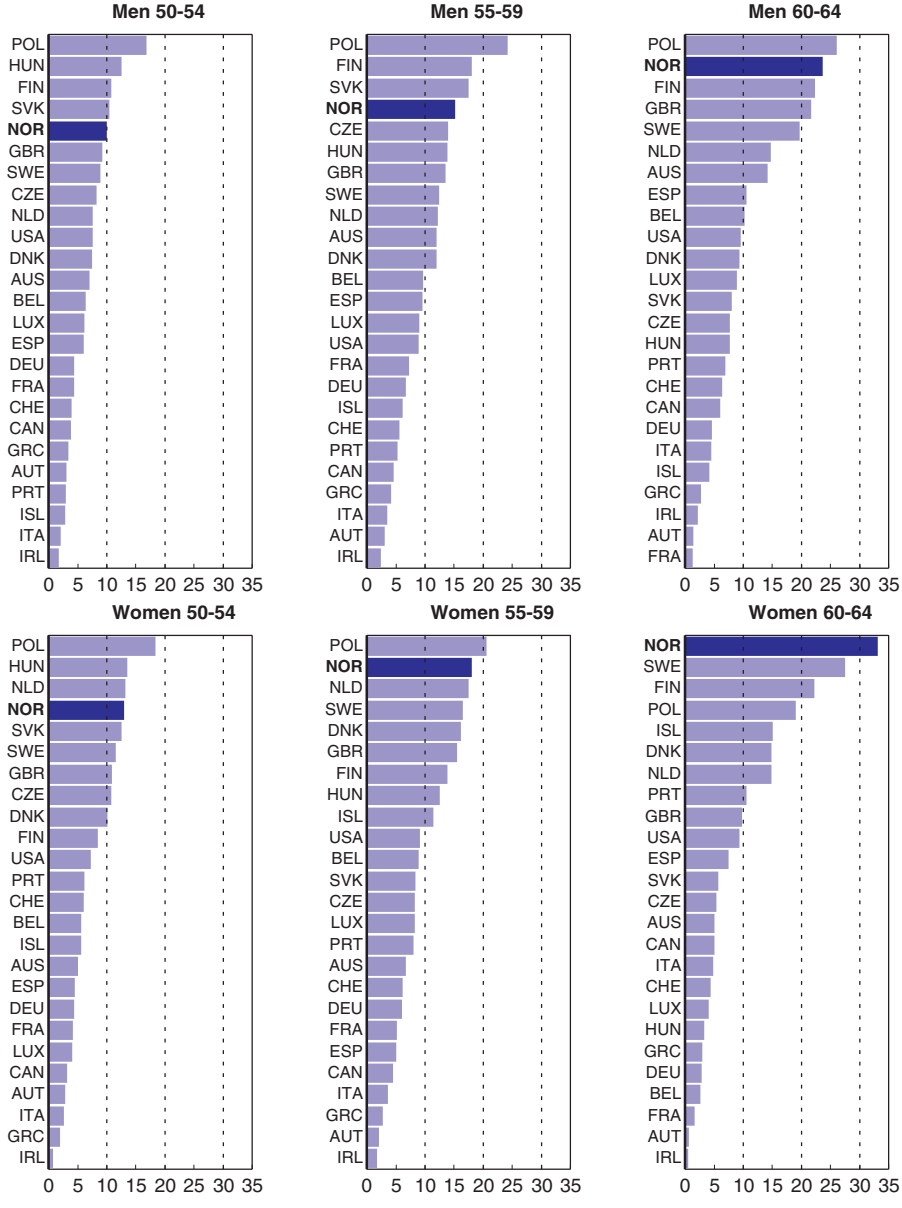
*Source:* Ministry of Finance.

### *A high proportion of disabled in Norway compared with other OECD countries*

Compared with other countries Norway has very high labour force participation rates, especially among older people. However, as shown in Figure 3.5, Norway has today one of the highest shares of older people (more than 15% of the 55-59 average group and more

Figure 3.5. **Inactivity because of illness or disability in selected OECD countries**

In 2003, as a percentage of population in each age group




*Source:* OECD estimates based on labour force surveys.

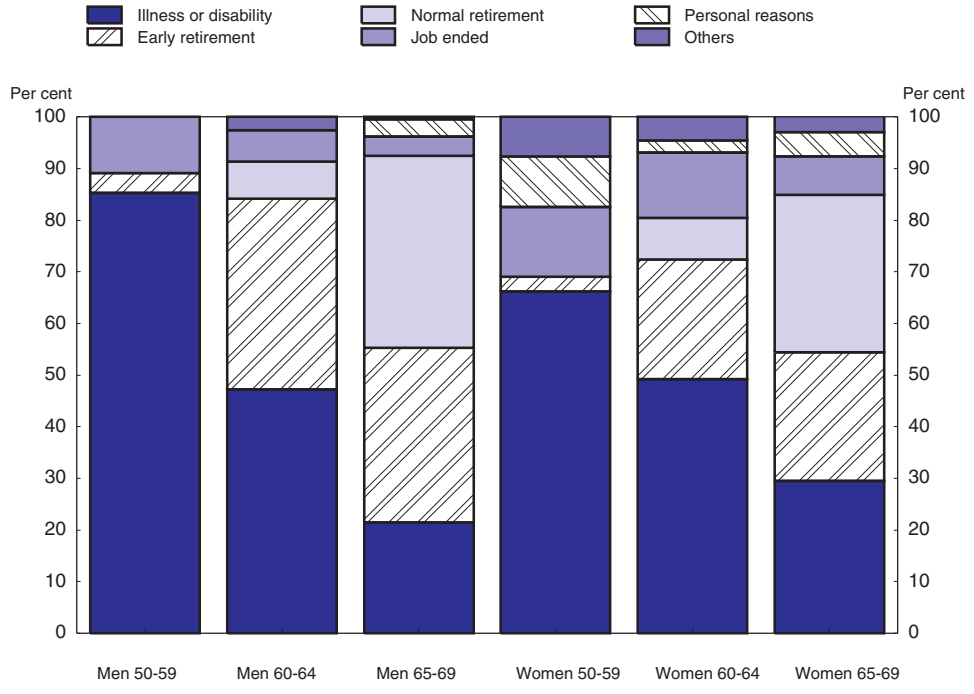
than 25% of the 60-64 age group) who are reported as ill or disabled. Few of these eventually re-enter the workforce. As shown in Figure 3.5, this share of disabled increases dramatically with age, especially for women.

Disability pensions in Norway consist of a basic pension, a supplementary pension and/or a special supplement. Ability to work must be permanently reduced by at least 50% to qualify for a disability pension. The level of the supplementary pension depends on the number of years with accrued pension rights. Forty years of contributions are required for a full disability pension. However, to calculate a person's disability pension, future insurance periods and future pension points are estimated based on historical working record. A person born disabled or becoming disabled before reaching the age of 26 is credited with a disability pension set at a rather high level. In 2004, 33 400 Norwegians had entered such a disability scheme, leading to a total number of disability pensioners projected at 320 000 in 2005 (about 13% of the labour force that year).

In 2000, more than 85% of the men and 66% of the women in the age group of 50-59 who left the labour market did so because of illness or disability. In fact, more than 70% of recipients are above 50 years, and 30% of the inactive above 55 years are recipients of this benefit. As shown in Figure 3.6, between ages 60 and 64, disability schemes are the main labour market exit route, outpacing early retirement. From 1993 to 2001, the inflow of new disabled kept rising. Recently, whereas new disability inflows among old-age workers have seemed to stabilise, they have been increasing strongly among younger cohorts

Figure 3.6. **Reasons for leaving last job in Norway, 2000**[1]

As a percentage of inactive in each age group




1. The category "job ended" consists of both dismissals and the ending of a temporary contract; the category "personal reasons" also covers training.

*Source:* OECD (2004), *Ageing and Employment Policies*.

between 30 and 50. It is hard to reconcile this picture of large numbers of infirm people compared with OECD countries, given the relatively high overall health status of Norwegians.

Since 2000, rehabilitation programmes have been expanded to attempt to reverse those trends. These programmes were implemented when the requirements of actual rehabilitation trials to qualify for disability pensions were considerably sharpened. These benefits include either medical rehabilitation programmes involving active treatment or vocational rehabilitation programmes involving training and qualification. In 2004, close to 65 000 people benefited from vocational rehabilitation and close to 50 000 persons were on medical rehabilitation, in all close to 4% of the labour force. These programmes aim to direct people from passive to active measures under the NIS by reducing the total length of time on national insurance schemes and preventing any exclusion from the labour market.

Some other measures were also passed in 2004. The disability scheme was divided into a permanent disability pension and a temporary disability benefit. The latter category will be granted for 1-4 years and may be reviewed. It is aimed at persons who otherwise stay for long periods in health and working ability programmes. The benefit is calculated on the model of the rehabilitation benefit, whereas permanent disability pension rules remain unchanged. From 2004, several other measures have also been introduced in order to reduce the total length of time the recipients can spend receiving such benefits:

- a maximum time-limit of 2 years on how long the beneficiaries may receive rehabilitation allowances;
- a statutory obligation to consider vocational rehabilitation as soon as possible and not later than within the expiration date of sick leave benefits;
- a time limit (maximum 3 years) for how long education may be used as vocational rehabilitation, and the age-limit increased from 22 to 26 years.

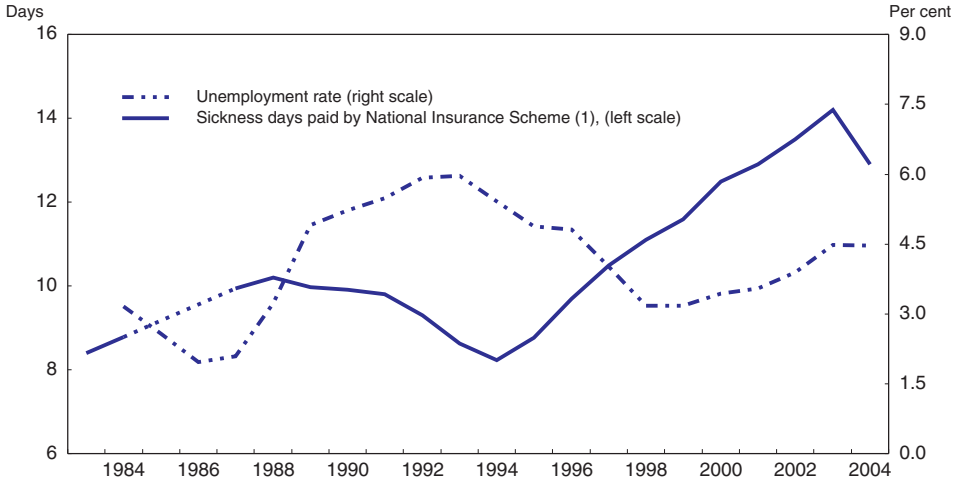
Recipients of vocational rehabilitation benefits have recently been growing because of those new regulations and also because of tightening of sick leave conditions (see further). However, the outflow was much below expectations. Introducing temporary disability benefits without strengthening eligibility criteria might be part of the problem. Some conditions may also be too generous and counter-productive: the 3 years time limit related to educational rehabilitation programmes is rather long and is not sufficiently controlled.[5] There are risks that such an extended period out of the labour market erodes human capital and contributes to low outflow rates. Lowering the generosity of sickness pay compared to the rehabilitation allowance should also be considered.[6]

### *Reversing long term sick-leaves: some encouraging results to be confirmed*

As long-term sick leave is often said to be the first step to disability, it is not surprising that Norway has one of the highest number of days lost due to sickness, twice the median OECD figure,[7] as well as the highest disability rate in the OECD. In Norway, sick leave has followed a rising trend since the mid 1980s (see Figure 3.7). Paid sick leave days by the NIS rose from 8 per worker per year in 1983 to a record of 14.2 days in 2003. Since the first quarter of 2004, this trend has reversed with a fall of about 10% between 2003 and 2004. These recent encouraging developments seem due to stricter control rules introduced in summer 2004 (see Box 3.3).

Looking at trends in Figure 3.7, a cyclical effect cannot be excluded, as it has also been observed in other countries such as the Netherlands (OECD, 2004c). Despite the current

Figure 3.7. **Number of sickness days per employee and unemployment in Norway**




1. Dotted line corresponds to interpolated years which are 1985 and 1986.

*Source:* Ministry of Labour and Social Affairs, OECD Analytical database.

### Box 3.3. **Did the 2001 agreement on sick leave really work, or are stricter controls responsible?**

A tri-lateral agreement, introduced in 2001, had three main objectives: a 20% reduction of the average absence per worker by the end of 2005 compared with the level in the second quarter of 2001, an increase of disabled persons' participation in the labour force, and an increase in the retirement age as a policy objective. It engaged the responsibility of both employees and employers who signed it. The interim results after two years were disappointing, with a continual increase of absence rates rather than a reduction. Since the second quarter of 2004, a spectacular trend reversal has been observed. It is likely that the tri-partite agreement had only minor effects, since sick leave reductions are observed today in firms both in and out of the agreement. The change in the regulation of July 1st 2004 is assumed to be the main explanation. Some restrictive amendments were indeed made to the sick pay scheme in which three measures seemed to have a major impact:

- an introduction of an activity requirement within eight weeks of granting the latest sickness certificate, unless medical reasons clearly exclude work-place attendance;
- an evaluation of functional capacity evaluation and documentation by a medical practitioner after eight weeks at the latest;
- stricter sanctions on medical practitioners who do not comply with the new rules for sickness absence certification.

Some progress has also been observed in medical rehabilitation programmes. The number of recipients decreased by 17% between 2003 and 2004, mainly due to stricter regulation:

- reduction of the period of rehabilitation benefit to one year;
- vocational rehabilitation should be considered as early as possible, and at the latest by the end of the period on sick leave and after 6 months on rehabilitation benefits.

robust recovery, unemployment has not yet fallen back to its natural rate, and might exert implicit pressure on established workers. Askildsen *et al.* (2005) show, through a comprehensive panel study on Norwegian sick leave, that unemployment has a quite clear negative effect on the probability of having a sickness spell lasting 15 days or longer in a given year. Pro-cyclical variations in sickness absences are caused by established workers and not by the composition of labour: fully insured workers under the Norwegian system will demand more frequent and longer sickness absences when the threat of becoming unemployed is low. Incentives definitely matter for the "insiders", in Norway.

As long periods of sick leave are the first step to disability and exit from the labour market, both the recent trend reversal and this recent research confirm that, in so far as absence fluctuations have their roots in employee moral hazard, stricter rules to reduce absenteeism should be pursued. A modification of the Sandman proposal of increased economic responsibility for employers (coverage of 10% of NIS sick leave pay), should have taken effect in the summer of 2005. This measure, if applied, should have reduced sick leaves further, as they still remain at very high levels by historical and cross-country standards. However, because of the success of the 2004 measures in reducing sick leave, it has been decided to suspend the proposal for the time being.[8]

Past experiences in some OECD countries suggest that such trend reversals are difficult to maintain in the long-run, without tighter administration and strong incentives. Measures enforcing employee's responsibility should thus be considered, such as incentives to reduce long-term sick leaves (excluding those relevant to disability) through partly flexible employers and employees' contribution rates close to experienced-rating programs, such as those introduced recently in the Netherlands, that proved successful. Lowering replacement rates at the employee's expense, by say 20%, starting from a waiting period, could have the required incentive effect.

## A major pension reform is needed

There is today a broad political consensus about the need for a pension reform that will reduce the growth of public spending. In January 2004, the Pension Commission, after three years of deliberations, delivered a diagnosis of the limits of the present Norwegian pension system. These proposals are well documented in OECD (2004a) and OECD (2004b). In December 2004, the Norwegian government issued a White Paper setting out a strategy for a reformed pension system. It comprises a public targeted minimum pension for all, and a public income related pension, that to a greater degree than today depends on individuals' life-time income and labour market participation. The government also proposed the introduction of a compulsory occupational pension. Since the AFP is based on agreements between employers and trade unions, it was not directly considered either by the Commission, or in the White Paper. However, the Pension Commission proposed to put an end to government subsidies to the AFP and concentrate its financial contribution towards a flexible pension system within the NIS. Thus, the Government proposed in the White Paper to review the public financial support in 2007.

Among the government's comprehensive set of proposals (see Box 3.4), there are two key innovations:

- The universal minimum pension would be replaced by a targeted minimum pension guarantee, tax financed and tested against benefits from the reformed income related pension.[9]

### Box 3.4. **The White Paper's proposals**

For most pensioners, benefits would not greatly differ from those in the present system. Savings would be achieved mainly by encouraging higher employment levels at old ages:

- *Calculation of benefits based on lifelong earnings, through the introduction of an individual account*. A fictitious capital is accumulated and converted into an annuity on retirement. The contribution period would have no upper limit, encouraging later retirement and penalising early retirement.
- *Introduction of a "life expectancy adjustment ratio"*. This ensures that pension benefits are adjusted according to the life expectancy of the population at large: pension benefits would be automatically reduced for each cohort in line with future increases in expected remaining life-span at 67.
- *Full wage indexation in the contribution period:* contributions are credited and accumulated in a virtual capital account, with an imputed rate of return based on economy-wide wage growth.
- *Pensions to be indexed on an average of wage-price indexation after retirement*. This would remove the indexing rule on wages passed in 2002.
- *A flexible retirement age under the National Insurance Scheme from the age of 62 years*. The annual pension is based on earned pension entitlements being allocated over the expected number of remaining years of life of the age cohort to which the pensioner belongs. Annual information will be provided to individuals as to their expected pension level based on different retirement dates. The possibility would exist of retiring early as from the age of 62 for those who have accumulated sufficient pension rights that is above the targeted minimum pension. The minimum pension can still be withdrawn from the age of 67. It is proposed to abolish the upper age limit of 70 years for accruing pension entitlements under the National Insurance Scheme.
- *Pension and labour income can be combined freely*, without means testing.
- *A targeted minimum guaranteed pension level for all*, equivalent to the present minimum state pension through the National Insurance Scheme. It would be reduced against the income-based pension. This enables the guaranteed pension to be targeted towards those who need it the most. The reduction is gradual, with the result that some people with low income will also receive a pension in excess of the guarantee level. It would be differentiated, as today, according to marital status (NOK 108 852 for singles and somewhat less per person for married people/cohabitants).
- *Improvement and development of the accumulation of pension rights for people who take unpaid leave to care for children below school age, and for sick, disabled or elderly people*. Pension entitlements from unpaid care work would be based on previous employment income, with an upper limit corresponding to the basis for calculating statutory maternity pay. Irrespective of previous income, recipients would be guaranteed higher minimum pension entitlements for years with unpaid care work than would be the case under the present rules. The Government will also propose retroactive pension entitlements for unpaid care work under the present National Insurance Scheme.
- *Introduction of a mandatory supplementary occupational pension* on top of the new National Insurance Scheme.
- *Creation of a Government Pension Fund*, based on the Government Petroleum Fund and the National Insurance Fund. The annual budget documents submitted to the Parliament ("Stortinget") will show how the Fund has developed relative to the amount of state pension obligations under the National Insurance Scheme.

- The public pension system would include a modified supplementary pension, moving from a traditional defined benefit formula to a Notional Defined-Contribution (NDC) formula similar to the Swedish (and other) notional account systems. Contributions would still be used to finance current benefits (pay-as-you-go financing), but each year's contribution would be credited to a notional account.

### *Actuarially fair schedules should be implemented to enhance incentives to work*

The government proposals stress the principles of actuarial neutrality and proportionality between contributions, life expectancy at retirement and pension benefits. Many features of the White Paper are in line with former OECD recommendations, and are shared with reforms in other countries. Under a pure notional defined contribution system (NDC), the total lifetime pension received would on average be the same for those who retire early as for those who do not. Each year, pension entitlements under the National Insurance Scheme would be credited[10] in a pension account, on the basis of a virtual yearly contribution rate of 17½ per cent[11] of the person's employment income and on the basis of unpaid care work. A contribution/pension accrual ceiling would be limited to an amount corresponding to NOK 485 600 (about € 59 150) in 2004.

A NDC-system can promote better incentives to work, while maintaining a minimum basic pension would ensure that retirees with low income-earning capacity and incomplete work histories will not run the risk of living in poverty.

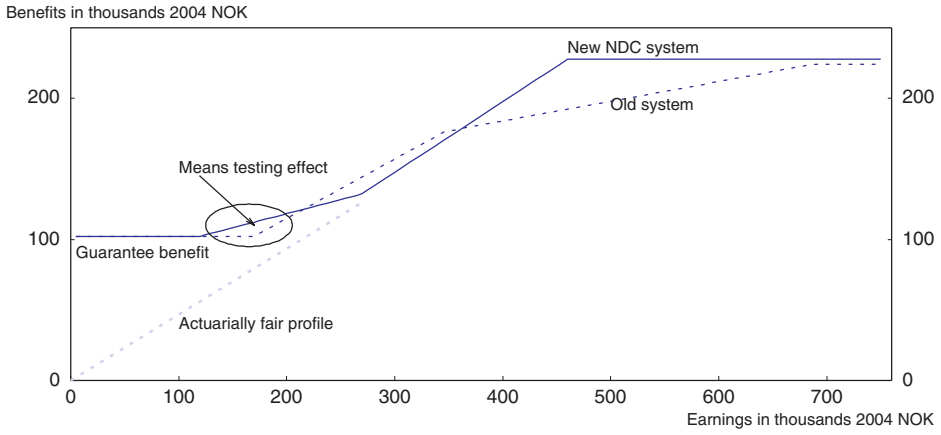
- The notional account should reinforce the individual's feeling of ownership in relation to the pension system.
- Early retirement would become less attractive (see Table 3.4). Retirement at age 62 would lead to a reduction of about 25% in pension payments compared with benefits on retirement at age 67. There would be no upper limit on retirement age.
- The new system would apply fully to people born after 1965 and partly to people born in the period 1951-1964. The actuarial schedules, if introduced, would apply from 2010 to pensions, both from the former and the new system.
- In Norway, as already mentioned in Fehr *et al.* (2003) the minimum benefit "trap" created by the special pension supplement has resulted in many (typically female) pensioners with a considerable work and contribution history receiving only minimum benefits. Although the proposed reform maintains the minimum benefit at the same level, it should be gradually reduced against the income based pension benefit. The reform should partially tackle this issue by reducing "threshold effects" (see Figure 3.8).
- Combining work and pension would be possible without a reduction in pension payments reducing the implicit tax on continued work.

Table 3.4. **Change in pension relative to retirement at 67 with a "flexible early retirement scheme"**

| Retirement age | Life expectancy | Change in yearly pension relative to retirement at 67 (in percentage) |
|---|---|---|
| 62 | 19.6 | –25 |
| 65 | 17.0 | –12 |
| 67 | 15.3 | 0 |
| 70 | 12.7 | 21 |

*Source:* Ministry of Finance.

Figure 3.8. **Relationship between earnings and retirement benefits**
Case of a single pensioner with stable earnings over a 40 year labour market career




*Source:* Pedersen (2004).

- The introduction of a "life expectancy divider" will moderate pension benefits in line with a future increase in life span, a necessary element in moving to a sustainable system.

However, the White Paper's proposed reform of the NIS pension scheme is less far-reaching and coherent than the 1998 Swedish reform, which to some extent served as a model:

- The new system would apply fully to people born since 1965 and partly to people between 1951 and 1964. The system would thus not be introduced retrospectively, mainly for constitutional reasons.[12] A better alternative would have been that the changes take effect as from 2010, with persons born in 1950 or earlier being granted their pension entitlements on the basis of the present system only, and all others fully on the new NDC scheme.
- Old-age pensions and contributions are not separated from the rest of the fiscal budget in an autonomous system, so it is not made clear that the pension system may well need to be heavily subsidised from the general state budget.
- There is no proposal for automatic changes to contribution rates in future, should pension spending outpace annual contribution payments.[13] The long term financial stability of the old-age pension system is thus not guaranteed, challenging the coherence of the notional account approach.

### *... with limited anti-redistributive effects*

As mentioned in Pedersen (2004), the provision of a minimum guarantee will inevitably produce tax wedges and interfere with the contribution-benefit link. Thus, the distribution of old-age income might be more unequal under the reformed system. However, as reported in Table 3.5, Pedersen (2004) shows that:

- although the gender gap in average benefits is likely to grow despite more generous contribution credits for unpaid care, the effect may be relatively modest;
- inequality would rise slightly, but to fairly low levels, and discrepancies in benefits should wider more among men than women.

Table 3.5. **Inequality in the distribution of old-age pension benefits**
Among male and female pensioners: prognosis for the year 2050

| | Gini-coefficient | | Gender gap (male/female) |
|---|---|---|---|
| | Men | Women | |
| Present system | 0.10 | 0.12 | 1.11 |
| Reformed system | 0.15 | 0.14 | 1.16 |

*Source:* Statistics Norway (MOSART) and Pedersen (2004).

### *... and could partially improve long term sustainability of public finances*

The government proposals may have ambiguous effects on the average age of retirement as all individuals get an option to retire at 62 whereas only 60% of them potentially benefited from the AFP. But the NDC greatly raises the individual cost of early retirement thanks to actuarially fairer schedules.[14] Making a pension system more actuarially fair does not in itself necessarily reduce its fiscal cost (unless it remains actuarially unfair for high income earners), and it has to be admitted that the estimates of the impact on work effort are subject to large margins of error. And as long as an unreformed AFP system remains in existence, incentives to early retirement on actuarially unfair terms for low to medium income earners will remain strong.

The White Paper's proposed pension reform also contains another way of reducing costs, namely indexing benefits after retirement to an average of developments in wages and prices, in contrast to the current more generous system of indexation to wages only. Other countries that are proposing to move away from wage indexation find that this greatly reduces the expected growth in spending. The socio-economic effects of no, or only partial, indexation on wage developments do not appear to be serious. Many OECD countries have only price indexation for pension benefits. In practice, retirees tend to compare their living standards with those of their same age-group: older retirees do not necessarily resent the fact that younger retirees, who will have made larger working-life contributions on average, also receive larger pensions.

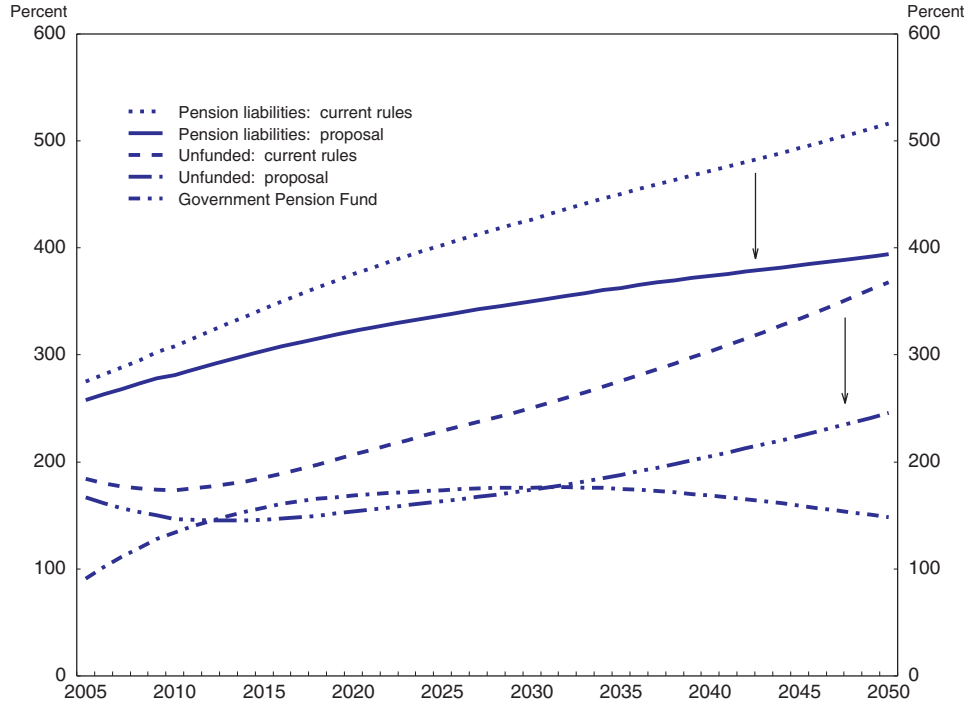
The pension commission estimated, using prudent assumptions, that the combination of enhanced work incentives, introducing a longevity factor, and the new indexation method would reduce old-age pension expenditures by 2-3% of mainland GDP in the long-term. The suggested reform could lead to a drop of about 5-6 percentage points in the contribution rates required to finance the system, corresponding to one third of the increase otherwise in the required contribution rate from 15% in 2000 to 30% in 2060.[15] This is an important step towards the sustainability of long-term public finances, but the proposed reform could by no means guarantee this. As shown in Figure 3.9, thanks to the reform, unfunded pension liabilities would be reduced from about 400% of mainland GDP to a still massive 250% in 2050.

## Reforms under discussion need a stronger focus on work incentives

Important elements of the Government proposals won the support of the Parliament in May 2005:

- the introduction of a life expectancy adjustment ratio;
- benefits based on lifelong earnings;
- pensions indexed on an average of prices and wages.

Figure 3.9. **Accrued pension liabilities and the Pension Fund**
% of mainland GDP




*Source:* Ministry of Finance.

### Box 3.5. **What kind of role would the Petroleum Fund play in the pension reform strategy?**

The Government followed the Pension Commission suggestion of replacing the Petroleum Fund and the National Insurance Fund by a new pension "fund", supplementing the (reformed) pay-as-you-go system, (funding by itself would not solve the pension problem as the present value of pension liabilities substantially exceeds the combined expected assets of the Petroleum Fund and the National Insurance Fund). Pressures to increase public spending in other areas might then be easier to resist. If the new pension fund is adopted, revenues would be invested in line with the guidelines for the present Petroleum Fund. This would ensure that a large part of oil revenues is invested in foreign financial assets to neutralise pressure on the exchange rate. Safeguarding the capital value of the Fund over time would also require fiscal policy to be conducted consistently with the fiscal rule. However, there are some outstanding questions. Should asset revenues finance retirement expenditures? How could Norway afford its welfare without oil and gas money? Is not that this solution can be associated with a strong preference to finance "leisure"? These questions should all the more be raised than in the case of Sweden or Finland, Nordic countries which tackled the sustainability issue without such assets. Then remains the question of uncertainty: what if oil and gas prices collapse in the coming decades, what if the real return of the fund is disappointing?

However, some crucial elements, related to work incentives, are still under discussion. No agreement was reached on the principle of a close link between contributions and pensions, nor on the design of a flexible retirement scheme. The Government is asked to redesign the way entitlements in the general scheme accrue, putting less emphasis on actuarial fairness and more on redistributing income from high to low income pensioners. Furthermore the Parliament's views on a flexible retirement system are difficult to assess regarding work incentives. On the one hand, the parliament agreement states that AFP should be included in a future flexible scheme; on the other hand the government is asked to propose a general flexible system in the NIS. The latter should promote work incentives for people over 62, would allow to combine a pension and earnings, and would remove the maximum age for earning pension rights. The government, aware of the risks of substitution effects, lack of coherency and distortions between schemes regarding the White Paper proposals, intends to appoint a commission to propose a reform of disability pension schemes.

An actuarially fair scheme from 62 associated with a life expectancy adjustment ratio proposed by the White Paper, were the core components of a reform stimulating labour supply and improving financial sustainability. The exact outcome of this reforming process will depend on new adjusted proposals from the government and further deliberations in the Parliament. But, if AFP and redistributive goals are given a too big priority, there are serious risks that both the positive incentive effects on labour supply and the favourable effects on public finances initially projected will be significantly weakened.

***Large eligibility to exit the labour market may counteract the effects of a pension reform***

Disability pension schemes are still projected to remain a very important labour market exit route: the related expenditures in the government baseline scenario would rise from 3% to 5% of Mainland GDP in 2050. According to micro-simulation models, by 2050, the disabled would represent more than 20% of the number of pensioners.

As already mentioned in OECD (2004b), introducing temporary disability benefits without strengthening eligibility criteria will probably not deter older workers from eventually jumping into this scheme. As the disability eligibility is not linked to new old-age pension entitlements, there will be stronger incentives to apply for disability rather than actuarially reduced old age benefits. The new commission will reconsider the disability scheme as the pension reform is discussed.

Risks remain that some forms of the AFP scheme may be maintained or re-established in a new guise. The social partners will still be free to conclude agreements on supplements to the reformed National Insurance Scheme, including a continuation of the payments currently being made in connection with AFP. Because of widespread welfare and safety nets in Norway, there are few justifications for early retirement schemes today that involve an element of public subsidy.

In order for the old-age pension proposals to have maximum impact, work disincentives should be removed to the extent possible from the disability pension and sick leave provisions. Public subsidies for early retirement, including in the public sector, should be suppressed and private early retirement schemes wholly financed by employers. To improve labour force participation, subsidised early retirement schemes could be strictly limited to workers with long contribution periods. They could also be gender biased to assist women with interrupted careers and lower wages due to childbearing and family

obligations.[16] Older workers laid off because of restructuring or seriously physically disabled low-skilled workers should be taken care of through training and rehabilitation plans rather than allowed into new AFP programs.

### *Is the new indexing rule a major improvement?*

After the pension system was established in 1967, Norway maintained a discretionary approach to indexation. The indexation of the basic amount has been below wage growth, but above consumer price inflation,[17] and *ex post* close to the present proposal of indexing pension on an average of prices and wages. In 2002, the Parliament (Stortinget) instructed the Government to propose annual indexation in line with wage growth for the future. This proposal would have entailed a sharp deterioration of the long term sustainability of public pension schemes. Moving to 50% price and 50% wage indexing will formalise almost four decades of the previous pragmatic approach.

### *Public and private occupational pension schemes need to join the reform at different paces*

In the 2004 White Paper, the government proposed an adjustment of the public sector occupational pension schemes to a modernised National Insurance pension scheme. Changes to the occupational pension scheme for the public sector so that it does not counteract the effects of the pension reform should be explored. The present occupational public schemes guarantee a total pension benefit equal to two thirds of previous earnings at age 65. This implies that any reduction in the public pension benefit is exactly compensated by an increase in the occupational benefit.[18] Coordination between the National Insurance Scheme and government occupational pension schemes is highly complex, and for many people it is difficult to understand how the pension is calculated. As long as private and government pension schemes differ, this may discourage mobility between the private and the public sector. Further proposals should thus be focused on:

- the coherence of public occupational schemes' eligibility and the new NDC pension schemes' incentives to raise the effective retirement age;
- the opportunity of a more general restructuring of occupational pension schemes.

Without any reform of the present system, the current proposal for new mandatory funded schemes in the private sector as of 2006 might increase the heterogeneity and the complexity of occupational pension schemes even further (see Annex 3.A2 for a discussion of the detailed proposals). This reform should be phased in gradually, to take into account interactions with the new pension schemes. Restrictive occupational rules deterring mobility for public sector workers should be removed. Introducing a general funded defined-contribution occupational scheme that would include public occupational pension schemes could also improve the sustainability of state occupational pensions.

## Some significant new reforms will be necessary

As underlined in Fredriksen, Heide Massey *et al.* (2005), the estimate of the baseline increase in future tax rates (or in the net financing gap) might be too optimistic, because it rests on the assumption that the standard of government services (including health) per user is kept constant in real terms over the whole simulation period. Such a development would imply a radical break with historical trends, including a much stronger growth in private than government consumption. It should also be noted that the scope for tax cuts

### Box 3.6. **Summary of recommendations**

**NIS old-age pension scheme**

*Promote actuarially fair retirement schemes:* implement actuarially fair early (and later) retirement schedules to enhance work incentives and raise the expected age of exit from the labour market, as proposed in the White Paper. Consideration should be given to more direct and transparent linkage between actual contributions and benefits.

*Do not index pension and minimum benefit guarantees to wages:* old-age pension could be indexed on prices, as in the majority of OECD countries. An alternative is to index them on the average of prices and wages.

**Non-NIS schemes**

***Early retirement***

*Remove subsidies to private early retirement schemes*: public subsidies to AFP schemes should be removed because they contradict a principal objective of the reform, namely to encourage people to retire on an actuarially fair pension centered around the age of 67. An exception could be made for those who have already accumulated long work histories in their early 60s.

*Align the public-sector early retirement conditions with the objectives of the NIS reforms, i.e. on actuarially fair terms.* Contractual early retirement rules should be made coherent with a reformed pension scheme.

***Occupational pension schemes***

*Reform public occupational pension schemes*: Phase out the guaranteed two-thirds replacement rate to be coherent with a flexible actuarially fair scheme. Consider switching from a pay-as-you-go system for central administration employees to a funded system, as for local government employees. Explore changes that would allow for portability to the private sector.

*Establish a phasing-in period in the implementation of mandatory occupational private schemes:* small firms should not be obliged to support administrative costs that could hurt competitiveness. Introducing a mandatory mutualized scheme based upon defined contributions should simplify an intricate occupational pension system, but might need a new regulatory framework in the Norwegian financial markets.

**Disability pensions**

*Separate disability benefits from old-age pensions*: the disability pension system should be fully separated from the old-age pension scheme and integrated with the sickness insurance scheme to get a clearer link between medical assessments and disability pension.

*Remove incentives to shift on to a disability pension rather than take up an actuarially fair notional defined contribution scheme (NDC) as proposed in the reforms*: the disability pension system should not provide higher replacement rates than the reformed NIS system for older workers.

*Enforce stricter rules of permanent disability entitlements and part-time work for the disabled*: disability pensions should be easier to review and not be granted permanently. As for sickness, an evaluation of functional capacity and documentation by an independent medical practitioner (different from the treating doctor) should be regularly reviewed. Unless people are severely handicapped, they should be able to occupy at least part-time jobs, according to their capabilities.

Box 3.6. **Summary of recommendations** *(cont.)*

**Sick leave**

*Reduce the generosity of long term sick-leave*: sickness benefits amount, in general, to 100% of the salary up to 6 basic amounts (G) without any waiting period, for as long as 12 months. Benefits should be made less generous by introducing a waiting time period and by lowering benefits after a three-month sickness period.

*Introduce new measures enhancing employers-employees' responsibility on sick-leave*: lowering replacement rates for the first 14 days and making the employer cover some portion of sick pay, say 20%, should be considered.

**Income taxation and incentives to work**

*Abolish distortions due to taxation*: pension and disability benefits are taxed at a lower rate than income from work, which skews the incentive to work. Taxing welfare income on the same base as labour income should be considered.

before 2020 rests on these assumptions, as well as on the presumption of a high degree of fiscal discipline. If the room for temporary tax cuts is instead used to improve the standards in the services directed towards the elderly, the need for raising tax rates after 2020 will thereby be increased.

Looking back on European countries' experience, reforming the pension system has generally started earlier, in the 1990s, but at different speeds. With few exceptions, no reform seems to be definitive, and there is still a long way to go in most cases to ensure the long term sustainability of their public finances. Norway has to be commended for beginning to tackle this issue with a sensible set of proposals. However, even if passed, the reform would save less than a third of the estimated financing gap due to pensions. Since gross pension replacement rates are not particularly generous, major additional savings via greatly increased stringency are unlikely. Non financed expenditures would be very large compared to other OECD countries, while much uncertainty will remain as regards the future impact of the proposed pension reforms on labour supply. Given also other large fiscal risks such as long term care and health care, this implies that more ambitious reforms, also in other areas, will almost certainly be necessary.

### *Notes*

1. The development of the welfare state may be strongly influenced by recent development of oil prices, when expressed as a share of GDP. Government expenditure stood at 30% of GDP in the 1960's, and increased gradually to over 50% at the beginning of the 1990s. It has later fallen to just over 40 percent because of strong growth in oil revenues and GDP in recent years.
2. Pension and many other benefits under the NIS are determined in relation to the basic amount "G" ("Grunnbeløpet") for social insurance and income tax purposes, set to NOK 58 139 (on average) in 2004. It should be compared to the Average Production Worker wage for Norway which is close to 6 "G". The basic pension and the special supplement together form the minimum pension. A minimum pension for a single person is 1.7933 G.
3. Old-age pensioners and disability pensioners with income exceeding the limits for which this special tax limitation provisions apply are notably entitled to a special deduction in the income.
4. The government should issue a White Paper in autumn 2005 on long term care with maybe some new proposals. Some preliminary estimates indicate that health and long-term care expenditures could add 1 to 4 percentage points of Mainland GDP to the long term net financing gap in 2050, an amount quite comparable to other European countries and to previous OECD estimates. Recent

projections of Statistics Norway have made the assumption that no changes take place in standards and coverage ratios of public services beyond already approved reforms. This implies that the growth in private consumption per capita involves privatisation of services traditionally provided by the government sector in Norway, including long term care.

5. According to officials, there is today a too large degree of freedom in choosing the educational subject related to this programme.
6. While sickness pay involves 100% of income up to six times the basic amount, about 350 000 NOK, for a maximum of one year, the rehabilitation allowance has a replacement rate of only 66% of earlier income.
7. According to the *OECD Employment Outlook* (2004), 24 working days per full time equivalent employee were estimated to be lost in Norway, 26 for Sweden and close to 19 for the Netherlands, whereas the median figure in the OECD was close to 12 days in 2002.
8. It was a condition of the initial agreement.
9. Occupational pensions or other source of income should not be taken into account for the means testing.
10. Those schedules are still under discussion after the Storting agreement in late May 2005.
11. The pension commission proposal was a gross compensation ratio from age 67 of 1.25% for each year of employment at today's life expectancy, corresponding to an accrual rate of pension credits of about 17 ½ percentage points of income. The ceiling for pension accrual should amount to 8 "G" (€ 56 650 in 2005).
12. The Swedish reform introduced gradually but retrospectively the NDC, such that individuals born after 1953 fully participate in the new schemes. Large cohorts of the Baby boom generations, mainly concentrated between 1947 and 1965 were thus fully included in the new scheme.
13. As indicated in Pedersen (2004) and in Appendix B about the Swedish system: "in case of financial deficit both accrued pension rights and running benefits will automatically be under-indexed until financial balance is restored."
14. Fredriksen and Stølen (2005) (using the micro-simulation model MOSART) estimate that the net effect on retirement age would be positive, with an increase by 0.6 years in 2015, 1.6 years in 2030 and 2.6 years in 2050. The reform could add 200 000 active workers to the labour force at that time. In 2050, employment would be more than 10% higher than in the baseline scenario, increasing potential mainland GDP.
15. More recently, Fredriksen, Heide and al (2005) estimated the future gain of the White Paper reform of 6% to be close to 3-4 percentage points of Mainland GDP in 2050, that is a 40% cut of the net financing gap. The results depend critically on labour supply responses and individual change in behaviour.
16. This solution raises a major issue: subsidized early retirement for women are strongly supported, because of shorter working lives and lower wages than men, yet they carry a higher actuarially risks for pension schemes because of a higher life expectancy.
17. As mentioned in Fredriksen, Heide, *et al.* (2005): "Wage indexation is the political intention, and this assumption underlies all Norwegian projections of government expenditure. Effectively, however, the historical indexation has been somewhat less generous."
18. National estimates have assumed that the pension reform does not affect this scheme, but any increase in the occupational benefits is financed by higher premiums. Thus, continuation of this scheme does not imply any additional need for raising taxes. Yet, this should weigh on wage growth through tariff bargaining.

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ANNEX 3.A1

# *Pension benefits provided by the National Insurance Scheme*

Old-age pension consists of a basic pension, a supplementary pension and/or a special supplement, and possible supplements for children and spouse (income-tested). Persons, who are insured for pension purposes and who have a total insurance period of three years between the age of 16 and the year they become 66, are entitled to a basic pension.

The *basic pens*ion is calculated on the basis of the insurance period, and is independent of previous income and contributions paid. A full basic pension requires an insurance period of minimum 40 years. If the insurance period is shorter, the basic pension will be proportionally reduced.

The full basic pension equals 100% of a basic amount, named G, which is NOK 60 699 on 1 May 2005 and NOK 60 059 on average for 2005. However, the full basic pension will be 85% of the G if the pensioner's spouse (or a cohabitant whom he/she previously was married to, has children together with or has been living with for at least 12 of the last 18 months) receives a pension or has a yearly income exceeding 2 times 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 pension 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. The special supplement is targeted against the earnings-related pension. For an unmarried pensioner or a pensioner whose spouse is not a National Insurance pensioner, the special supplement equals 79.33% of G. If the supported spouse is 60 years or older, the special supplement equals 158.66% of G. If both spouses receive a minimum pension, the special supplement is the same as for singles, *i.e.*, 79.33% of G each. For a pensioner married to a pensioner who has a supplementary pension which is higher than the special supplement, the special supplement equals 74% of G. However, the total supplementary pension and special supplement shall not represent a lower amount than twice the special supplement according to ordinary rate, *i.e.*, 158.66% of G. The same provisions apply to cohabitants that previously have been married to each other or have children together.

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% of all pensioners receive a supplementary pension but only 60% are above the minimum pension. A person is entitled to a supplementary pension if his/her annual income exceeded the average basic amount 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. The average pension points of the person's best twenty income years multiplied by the supplementary pension percentage, 42%, and the proportion of pension-earning years under 40 years, provides the supplementary pension in terms of basic amounts.

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. 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% of the basic amount. Incomes above the minimum pension for couples plus 25% of the basic amount are withdrawn at a rate of 50%.

*Child supplement*: a pensioner is entitled to a supplement of up to 30% 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% of the basic amount for each child.

*Survivors' benefits*: a surviving spouse is entitled to a pension that amounts to 1 G plus 55% 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% 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% 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.

*Taxation of pensions*: there is a separate "tax-limitation rule" for pensioners. Around half of people receiving benefits and/or pensions either pay no tax or do so under a limitation rule.* The additional allowance cannot be use along with the tax-limitation rule. Old-age pensioners and disability pensioners with income exceeding the limits for which this special tax limitation provisions apply are entitled to a special deduction in the income.

*Social security contributions paid by pensioners*: pension income is liable for social security at a lower rate (3%) than employees' wage earnings (7.8%). The social security contribution is not a part of the tax-limitation rule. As a result of the tax-limitation rule, pensions below NOK 121 000 in 2005 are not subject to income tax and social security contributions.

* The age deduction provided an additional allowance of NOK 19 368 in 2005.

## ANNEX 3.A2

# *Mandatory occupational pension schemes reforms*

In the January 2004 Pension Reform Green Paper from the Pension Commission, occupational pension schemes, including mandatory ones, were discussed but no recommendation put forward. Following the Prime Minister's letter to the social partners, the Government recommends making private second tier pensions compulsory in its December 2004 White Paper on Pension Reform, with a likely minimum level of contributions, maybe rather low. The Paper proposed two main models:

The first version is similar to the Swedish Premium Pension Scheme, so called "Premiepensionen". A new government pension agency would administer the plan and act as a clearing house. An individual account, earmarked for old age pension, would be created with a private financial institution and participants would select how to invest their funds on a defined contribution scheme to come on top of a modernised National Insurance Scheme. The individual could select the financial manager in charge of their account or follow a government-operated investment alternative. Contributions would be withheld by employers and the tax authorities would be responsible for the collection of contributions. The scheme would apply to everyone under the same rules. The accrual of pension entitlements would be based on each person's overall wage income from all of his or her employers during the course of the year, up to a maximum amount, and not on his or her income from each employment.

The second version would be based on the existing tax-favored schemes and related legislation. It introduces a statutory obligation for individual enterprises to establish a supplementary old-age pension scheme. The firm could choose between establishing a defined benefit or a defined contribution scheme, and also the degree of individual choice in the defined contribution schemes. Some restrictions on overall choices (*inter alia*, a minimum contribution rate and a corresponding minimum compensation ratio) would have to be introduced in the legislation. It is assumed that it would, generally speaking, be sufficient to let employees themselves make sure that employers comply with the requirement for a minimum scheme. Employers and employees would through negotiations be able to design their pension schemes within the limits defined by the legislation, with each individual enterprise being endowed with the right to administer its pension scheme.

Both models could entail higher non-wage costs for companies that have not yet established such schemes, with some risks to weaken small-sized firms. As the government would like to pass this reform, so that new schemes are operational on January 2006, there are some major risks that firms might not be ready to absorb such a regulatory shock. The first model seems to be attractive from many points of view. First, a defined contribution scheme that is related directly to each individual person, and not to the employer, seems well suited for

a more flexible labour market characterised by more frequent changes of employer. Second, it makes possible an easier shift of defined benefits schemes towards funded defined contribution occupational pension schemes, which may be more sustainable and adapted to more flexible labour market.[1] Third, such a scheme might reduce management costs for small firms[2] and enhance the regulators' capability of control.[3] If extended to the public sector, it could even set the roots for a unified funded occupational pension schemes framework. The second model offers the big advantages of continuity, flexibility and devolution. Of course, it has the drawbacks that could be solved by the first model. It will also lead to a myriad of scattered occupational schemes, with maybe high fixed management fees and operating costs for small-sized firms and possible regulatory problems.

In May 2005, the Parliament (Stortinget) preferred to base the mandatory system on the existing voluntary tax-favoured schemes and related legislation (Model 2). Thus, the firm will be able to choose between establishing a defined benefit or a defined contribution scheme, including the degree of individual investment choice in defined contribution schemes. Restrictions on choices in the form of a minimum contribution rate and a corresponding minimum compensation ratio will have to be introduced in separate legislation.

The decision in the Parliament (Stortinget) includes the requirement that compulsion should be effective from January 1, 2006. The Minister of Finance immediately instructed the standing Banking Law Commission (Banklovkommisjonen) to produce a report on minimum requirements for occupational pension schemes, with a deadline of 1 July 2005. Following this, the report will be put up for public comment. During the early autumn, the Ministry will put forward a proposal built on the report and comments received for the Stortinget to vote upon during the autumn sitting.

However, this is a very challenging deadline on all counts. Piling up new mandatory occupational schemes before passing a complete reform of the Norwegian public pension system might give rise to an over-generous and too intricate system.

Life insurance companies and investment managers face some regulatory constraints to smooth their balance sheets over years. They are required for instance to guarantee a fixed return (3%) each year, and cannot afford to invest on long horizons (proportion of stocks is less than 15%, but rising, in most companies' portfolios). Besides, life insurance companies suffer from a thin bond market with no long duration risk-free bonds, which are a prerequisite to conduct a long-term asset / liability management. Because of those potential regulatory constraints and the tiny size of the Norwegian bond market, financial institutions might not be ready to face such a major development of occupational funds. Delaying the creation of these new schemes or adopting a long transition period of implementation might avoid any deterioration of the competitiveness of small-sized firms and allow a higher coherence with the NIS pension scheme.

### *Notes*

1. Difficult transfers of defined benefit plans might be an obstacle to frequent changes of jobs that is feature of a more flexible labour market.
2. There should be some economies of scale due to a reduction of management costs at the firm level, because of mutualisation taken in charge by the State through the Pension Premium Scheme.
3. There are today 20 000 schemes in private sector firms, most of them are defined benefits. Because of this scattered landscape, adding 40 000 new schemes, would add challenging regulatory and management constraints. On the contrary, a centralized clearing house such as the Premium Pension Scheme, may allow an easier access to financial and accountancy information.

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*Chapter 4*

# The performance of the Norwegian health care sector

*Since the mid-1990's, Norway has implemented a series of reforms with the objective of improving health care quality and responsiveness. Reforms have increased the quantity of services supplied and improved their quality in both primary and specialised care. Waiting times are being reduced. Efficiency of public hospitals has improved. The availability of pharmacies has risen. Human resource shortages are not a major matter of concern anymore. The cost of health services delivery, however, has risen faster than expected. The current financing system falls short of aligning incentives of health care providers and patients with social objectives. Downward pressure on prices and costs from greater competition is a missed opportunity in the hospital and pharmaceutical sectors.*

## Overview

The Norwegian health authorities face the same drivers as in other countries, namely that both the demand for, and the potential to supply medical treatments and services rise with income, newer medical technologies are not necessarily cost-saving, and lengthening life expectancy is likely to put continuing upward pressure on demand. The 1998 *OECD Economic Survey of Norway* identified three major challenges for the Norwegian health care sector: *i)* capacity shortages as suggested by long waiting lists, and human resource shortages in the health professions; *ii)* balancing the need for cost-effectiveness and the ambition of maintaining comprehensive health care services countrywide; *iii)* risk of expenditure rise in the future. This chapter describes the main reform measures, attempts to identify their impact on the Norwegian health care sector focusing on developments since the mid-1990s and makes recommendations for further improvements.

### *Reforms*

Since the late 1990s, the Norwegian authorities have implemented an impressive amount of reforms aimed at greater efficiency of delivery of medical services, in part by allowing a greater role for market focus, while maintaining and where possible strengthening, quality and equity. They include:

- Measures to strengthen the gatekeeper role of general practitioners as well as to improve their services have been introduced in primary care.
- In specialised care, activity-based financing is being expanded. A major organisational reform of the hospital sector has also been implemented.
- Ambitious objectives have been set centrally for long-term care and municipalities are currently making major efforts to achieve them.
- Liberalisation has been unfolding in the pharmaceutical sector and measures to contain public expenditure on drugs have been enforced.
- Programmes have been devised to relieve shortages of human resources in the health professions.

### *Results*

Both supply of services and responsiveness have improved following the implementation of the reforms:

- Activity of both hospitals and private physicians has increased.
- The technical efficiency of public hospitals seems to have improved. Waiting times have been reduced both in primary and specialised care.
- More pharmacies are available in urban areas without impairing supply in remote areas, and they stay open longer hours.
- Human resource shortages are not a major matter of concern anymore, at least in highly populated areas.

- The majority of the population seems satisfied with the way their health care sector is run.

### *Unfinished business*

The measures implemented, however, have not fully solved some long-standing problems and might have increased the urgency to solve others.

- Spending – especially public spending – has continued to rise despite the reforms, resulting in *per capita* health care expenditure which is one of the highest in the OECD.
- Questions are arising as to whether activity-based financing is providing the right incentives for a socially optimal allocation of financial resources, and whether more budgetary discipline needs to be imposed.
- *Ex post* expenditures are almost invariably higher than what is considered socially desirable *ex ante*, especially in specialised care.
- The cost-effectiveness of many treatments is uncertain, thus hardly justifying their rising supply, whereas activity in other areas prioritised by the central government – like psychiatric care – has been lower than expected.
- Despite higher spending, geographical variability in the quantity and quality of services is still a matter of concern for the authorities.
- Competition in the hospital sector as well as in the retail and wholesale pharmaceutical market is proving difficult to augment. As a result, one important incentive to greater efficiency is missing.

## The Norwegian health care sector in the OECD context

### *Objectives, achievements and their costs*

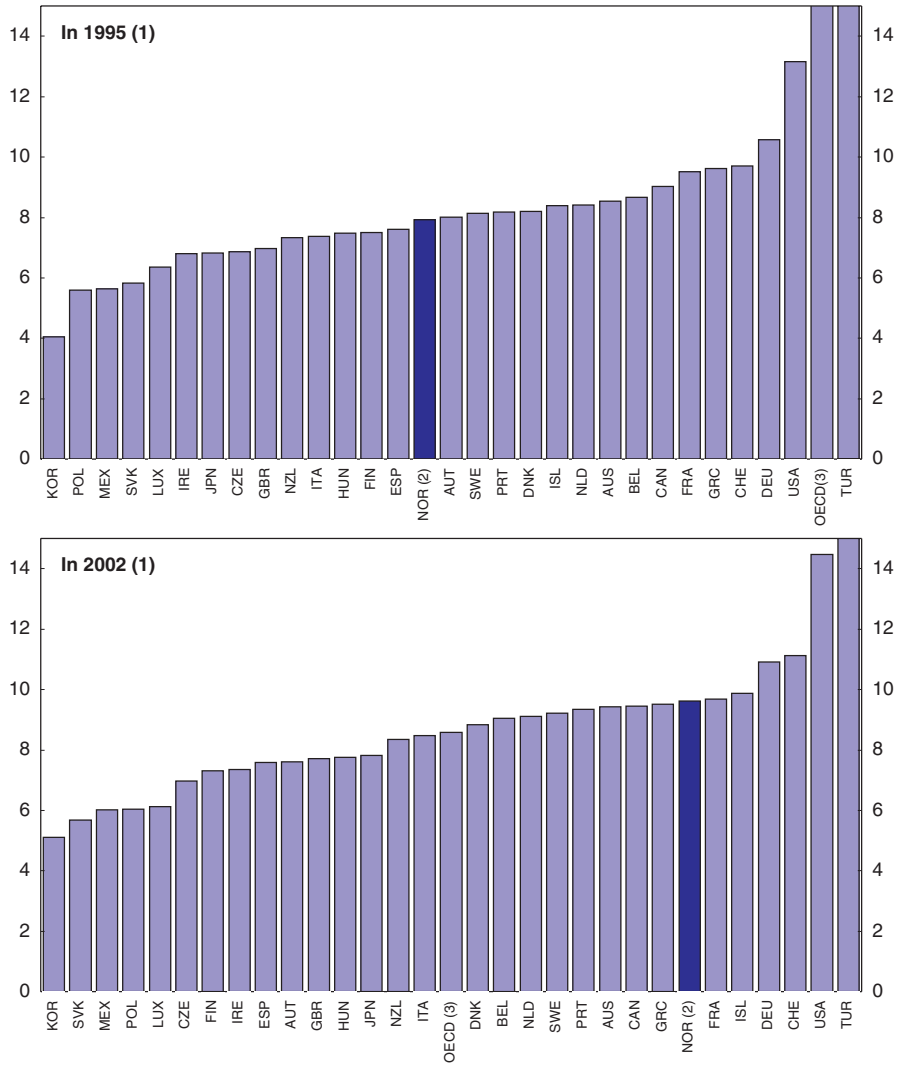
Norway has sweeping objectives for its health care sector. Health care provision is based on the universal principle. All residents in Norway are publicly insured. No major health risk is excluded from the public insurance scheme and all treatments that are scientifically documented to provide effective results are covered.[1]

The 1999 Act on Patient Rights and the 2001 Act on Health Enterprises reinstated equity principles in the health care sector implying an equal use of health care services for individuals with equal needs regardless of income, age, education, gender, ethnic background and place of residence. Dispersion of the population makes this last condition hard to attain. This is particularly the case for services provided by self-employed medical practitioners – general practitioners (GPs), specialised physicians with private ambulatory patients and dentists – for whom working in low-density areas is less profitable than in urban areas. Nonetheless, the Norwegian population is broadly satisfied with its health care sector. Indeed, a 2003 survey from Statistics Norway (2004a) shows that around 60% of the interviewed persons were satisfied with the way health care is run in Norway.[2]

And in fact, the health status of Norwegians is good, though not outstandingly so. Life expectancy at birth and at age 65 is above average, infant mortality is the sixth lowest among OECD countries, the incidence of obesity is very low, and Norway scores well on other measures – though not disproportionately so, given the level of spending. Annex 4.A1 gives details of health parameters, with emphasis on international comparisons.

Health care expenditure as a share of GDP remained broadly stable until the end of the 1990s but started to grow thereafter and was 9½ per cent in 2002, one percentage point higher than the OECD average (Figure 4.1).[3] In *per capita* terms, health care spending in Norway is the third highest in the OECD, after the United States and Switzerland. To some extent, this could reflect the empirical relationship between *per capita* GDP and *per capita* health spending, the Baumol effect, resulting from a high relative price of health expenditure (Figure 4.2). Nevertheless, *per capita* expenditure is more than 50% above the OECD average, and also well above levels in other Nordic countries.[4]

Figure 4.1. **Total health care expenditure in OECD countries**
As a percentage of GDP




1. Or nearest year available.
2. As a percentage of total GDP. Considering mainland GDP, the ratio was 9.3 and 12.0 respectively in 1995 and 2002.
3. Unweighted average. Includes all available countries at the relevant point in time.

*Source:* OECD Health Data, 2004; OECD Economic Outlook 76 database.


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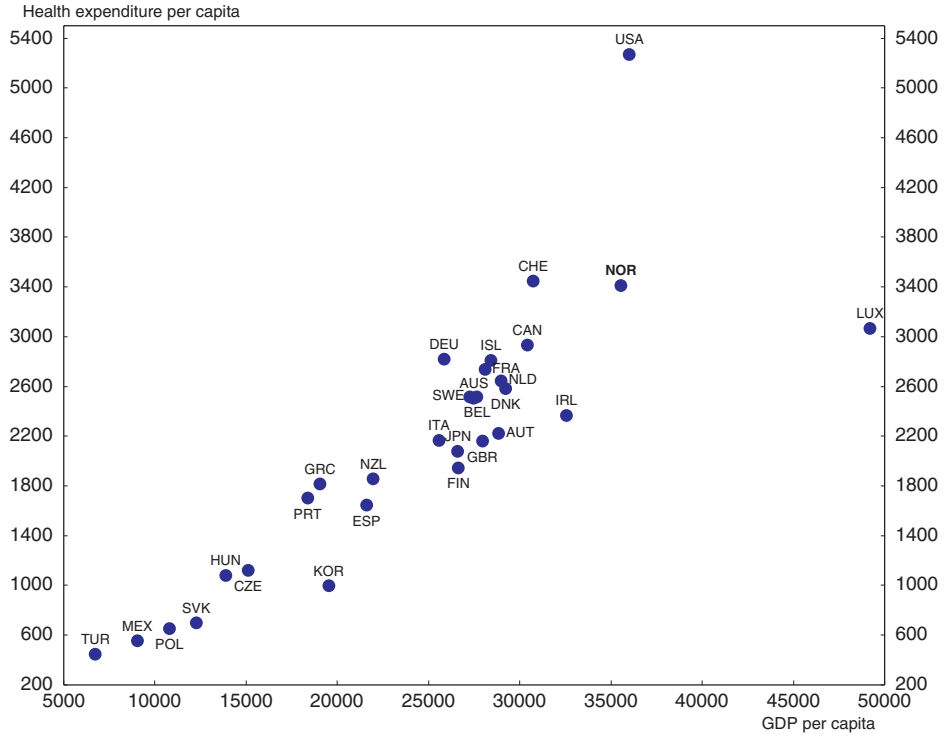
Figure 4.2. **Per capita health expenditure and per capita GDP**
In USD PPP, 2002[1]




1. 2001 for Australia and Japan; 2000 for Turkey.
*Source:* OECD Health Data, 2004.

As off-shore GDP is expected to shrink and the share of the elderly to rise during the next decades, maintaining far-reaching objectives for the health care sector will prove increasingly burdensome in the medium-to-long term. A projection exercise, carried out by national experts and co-ordinated by the OECD, shows that health care expenditure as a share of total GDP could grow by up to 5¼ percentage points in Norway during the first half of the current century. This compares with the rise of 3¼ percentage points of GDP expected on average by countries (OECD, 2003b).[5]

### *Financing*

The public sector finances around 85% of health care (Table 4.1) mainly through general taxation, compared with an OECD average of 74%. Health spending by local governments is mostly financed via central government block grants. Moreover, the final responsibility regarding health policy, public health and the provision of health care services rests with the Ministry of Health (see Ministry of Health and Social affaires, n.d. undated, for the fields of responsibility of the Ministry). During the past few years, the direct financial involvement of the central government rose as the state took over hospital ownership from counties (see section on specialised care below) and made increased use of earmarked grants for municipalities, for example in to implementing the psychiatric-health-care-strengthening plan launched in 1999.

Table 4.1. **Financing sources of health care expenditure**
As share of total health expenditure, in 2002

| | Total public | Private health insurance | Out-of pocket spending | Other private spending | Total private |
|---|---|---|---|---|---|
| Australia | . . | . . | . . | . . | . . |
| Austria | 69.9 | 7.4 | 17.5 | 5.2 | 30.1 |
| Belgium | 71.2 | . . | . . | . . | 28.8 |
| Canada | 69.9 | 12.7 | 15.2 | 2.3 | 30.1 |
| Czech Republic | 91.4 | . . | 8.6 | . . | 8.6 |
| Denmark | 82.9 | 1.6 | 15.3 | 0.0 | 17.1 |
| Finland | 75.7 | 2.4 | 20.0 | 1.9 | 24.3 |
| France | 76.0 | 13.2 | 9.8 | 1.0 | 24.0 |
| Germany | 78.5 | 8.6 | 10.4 | 2.6 | 21.5 |
| Greece | 52.9 | . . | . . | . . | 47.1 |
| Hungary | 70.2 | 0.4 | 26.3 | 3.1 | 29.8 |
| Iceland | 84.0 | . . | 16.0 | . . | 16.0 |
| Ireland | 75.2 | 5.4 | 13.2 | 6.3 | 24.8 |
| Italy | 75.6 | 0.9 | 20.3 | 3.2 | 24.4 |
| Japan | . . | . . | . . | . . | . . |
| Korea | 52.1 | 2.0 | 39.6 | 6.3 | 47.9 |
| Luxembourg | 85.4 | 1.4 | 11.9 | 1.4 | 14.6 |
| Mexico | 44.9 | 3.0 | 52.1 | 0.0 | 55.1 |
| Netherlands | . . | . . | . . | . . | . . |
| New Zealand | 77.9 | 5.7 | 16.1 | 0.3 | 22.1 |
| **Norway** | **83.5** | **. .** | **16.1** | **0.5** | **16.5** |
| Poland | 72.4 | . . | 27.6 | . . | 27.6 |
| Portugal | 70.6 | . . | . . | . . | 29.4 |
| Slovak Republic | 89.1 | . . | 10.9 | . . | 10.9 |
| Spain | 71.4 | 4.1 | 23.6 | 0.9 | 28.6 |
| Sweden | 85.3 | . . | . . | . . | 14.7 |
| Switzerland | 57.9 | 9.6 | 31.5 | 1.0 | 42.1 |
| Turkey | . . | . . | . . | . . | . . |
| United Kingdom | 83.4 | . . | . . | . . | 16.6 |
| United States | 44.9 | 36.2 | 14.0 | 4.9 | 55.1 |
| OECD[1] | 72.8 | 7.2 | 19.8 | 2.4 | 27.2 |

1. Unweighted average.

*Source:* OECD Health Data 2004.

Out-of-pocket payments represent around 16% of total health care expenditure while the role of private insurance is negligible. Two annual ceilings are established every year by the parliament and they are quite low. In 2005, the first ceiling was to NOK 1,585 (around EUR 195) including *inter alia* prescription drugs, hospital outpatient care, primary and secondary ambulatory care, and transport costs to health facilities. Almost a quarter of Norwegians reach the ceiling. The second ceiling amounts to NOK 3 500 in 2005 (around EUR 425) and comprises physiotherapy treatments, participations in programmes for treatments abroad, some dental treatment and stays at rehabilitation institutions. A number of exemptions for selected services within the ceiling are in place for example for the elderly with a minimum pension, some important drugs and medical equipment. Hospital inpatient care – including same-day treatments – is free for the patients.[6]

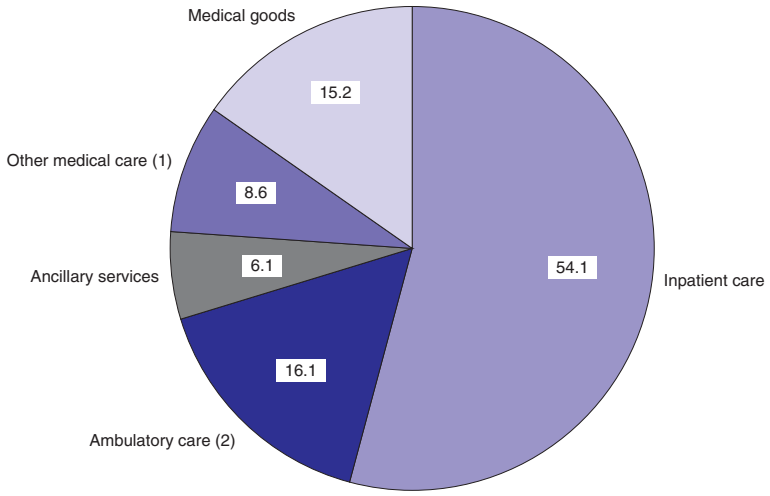
Since the mid-1990s, the input mix in the health care sector has changed considerably. The number of nurses has risen faster than that of physicians (Figure 4.A1.2), to become one of the highest in the OECD *per capita*. The level of *per capita* acute beds remains below the OECD median while long-term-care beds *per capita* are among the highest in the OECD

(Figure 4.A1.3). Finally, despite remaining low *as a percentage of GDP* relative to other OECD countries, pharmaceutical expenditure has visibly increased *in per capita terms* since the mid-1990s and is now around the OECD median (Figure 4.A1.4). These changes have tended to raise costs, *ceteris paribus*.

## The Norwegian health care sector after the recent reforms

Since the mid-1990's Norway has undertaken a series of reforms ranging across all fields of the health care sector. This section focuses on how they have affected performances.[7] Special attention is devoted to the hospital sector whose activities represent more than half of total spending on personal health care (including spending on nursing homes, accounting for about one-third of "in-patient expenditure") (Figure 4.3).[8]

Figure 4.3. **Total expenditure on personal health care by function**
As a percentage of total expenditure in 2001




1. Includes day treatments and home care.
2. Includes medical services delivered to patients in physician private offices, hospital out-patient centres or ambulatory care centres.

*Source:* OECD Health Data 2004.

### *Specialised care – the role of hospitals*

The bulk of specialised health care, especially inpatient care, is performed by public hospitals.[9] A few private clinics offering outpatient and inpatient care are operating, and specialised ambulatory care can also be supplied by self-employed physicians.[10]

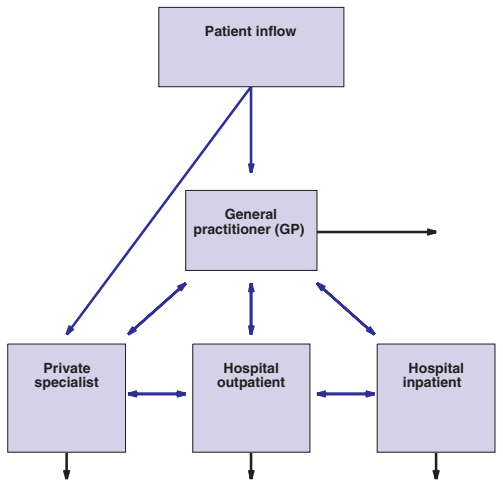
### *Recent wide-ranging reforms*

In July 1997, the government substituted part of the block-grant financing system for general hospitals with a new system based on activity. Reimbursement to general hospitals for inpatient care encompasses a block grant and an activity-based component, the latter being calculated on the basis of the number of patients treated and of the Diagnosis Related Group (DRG) reference system (Hagen and Kaarboe, 2003). The reimbursement is based on average rather than marginal costs; the latter may be lower because of scale economies.

The activity-based component of inpatient care financing has risen erratically over time, passing from 30% of the total initially to 60%, in the 2005 Budget. No out-of-pocket payment is required. For hospital outpatient care, activity-based financing – which remains at 40% – is based on a fee-for-service method and part of this component is paid out-of-pocket by patients while the rest is reimbursed by the National Insurance Scheme (NIS). Psychiatric and geriatrics rehabilitation hospitals continue to be financed through block grants.

In 1999, the Act on Patient Rights introduced free choice of all public hospitals by the patients. This right has been progressively extended to include services from the private sector and now patients can freely choose either a private specialist physician or any hospital (outpatient or inpatient, public or private) through a GP referral (Figure 4.4). The only limitation is that the hospital has a contract with the Regional Health Enterprise (below). Patients also have the right to receive specialist medical assessments within thirty days after GP referral, and to receive an individual estimated time limit within which diagnosis and, eventually, treatments have to take place. If the time limit is exceeded, then the NIS is given the responsibility to provide treatment either through the private sector or abroad with costs financed by the regional health enterprise (see below). This could increase expenditure for hospitals by as much as 30% for each patient with unfulfilled treatment. On the other hand, by complying hospitals can get a higher transfer through the activity-based component.

Figure 4.4. **Patient flows in primary and secondary care**




*Source:* Iversen and Kopperud (2003).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The Health Enterprise Act, a major reform of ownership and organisation of specialised health care services, was implemented in January 2002 (so-called "hospital reform", see Ministry of Health and Social Affairs, undated). Hospital ownership was transferred from the Norwegian counties to the central government, to centralise political responsibility over the hospital sector in only one institution, *i.e.*, the Ministry of Health and Care Services,[11] to counteract the tendency of counties to want to have all types of hospitals. This resulted in wasteful duplication, increasing micro management of the hospitals to the detriment of quality and cost containment. Finally, shared responsibility between counties and the state over hospital care had often resulted in reduced accountability.

The hospital reform has established five geographically-based "Regional Health Enterprises" (RHE) each reporting to the Ministry of Health and responsible for delivering health services in their regions. The RHEs own the 33 local "health trusts" and are responsible for monitoring their costs and quality of services.[12, 13] The central government still defines their main health policy objectives as well as their financial means. The eastern health enterprise along with its trusts is the largest one covering 40% of the Norwegian population.

The executive board members of RHEs are appointed by the Minister of Health. Each board appoints its own chief executive officer (CEO) as well as the members of executive boards of each health trust in its region. Finally, the health trusts are managed by a CEO appointed by the trust board. The health trust CEOs also report informally to the CEO of the RHE.[14] Thus, RHEs can exert significant influence on the management of the health trusts. As all trust guidelines derive from the RHE, mainly via the CEO of the enterprise, the management role of the trust boards is not clear. They are responsible for their budget, and in case of deficits, they can use short term financing and carry the deficits forward in the following year. Therefore, the state is not obliged to balance the budget *ex post*. However, hospital trusts are not allowed to go bankrupt.

When the reform was introduced, RHEs could choose a "competition model" where a large number of local hospitals would compete for clients or, at the other extreme, a "cooperation model" where local hospitals would be centralised in few big ones. Organisational choices have mainly favoured a system close to the "cooperation model". Accordingly, most health trusts currently centralise administrative functions of many hospitals, each of them specialising in specific treatments, though there is some scope for competition. Indeed, RHEs devote 2-3% of their budget to tendering services to private clinics. Furthermore, health trusts can in principle compete with each other for clients. Finally, for specialised ambulatory care patients can also choose self-employed physicians rather than hospital outpatient care.

### *The positive effects of the reforms*

In principle, the combination of patient choice and DRG financing should introduce more incentives for hospitals to offer more, better and timelier services to attract clients. Moreover, the transformation of public hospitals from administrative units into enterprises should have hardened their budget constraint. This should have helped to contain costs as well as levelling the playing field between the public and private sector. Measures of activity in general hospitals indicate that the reforms have had a positive effect (Table 4.2). Geographical variability also increased, especially concerning day treatments after 1999. Kjerstad (2003) shows that the new financing system has had a significant effect on both the number of patients treated as well as on the DRG points produced.[15]

Table 4.2. **Activity of general hospitals**

| | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
|---|---|---|---|---|---|---|
| **Norway** | | | | | | |
| Discharges per 1 000 inhab. | 155.9 | 158.1 | 155.5 | 160.5 | 162.4 | 168.9 |
| Day treatments per 1 000 inhab. | 21.8 | 35.9 | 38.1 | 72.3 | 78.7 | 90.8 |
| Outpatient consults per 1 000 inhab. | 754.2 | 773.3 | 802.9 | 798.2 | 689.7 | 724.9 |
| 24 h beds per 1 000 inhab. | 3.3 | 3.2 | 3.2 | 3.1 | 3.2 | 3.2 |
| ALOS[1] | 6.3 | 6.2 | 6.1 | 5.9 | 5.8 | 5.6 |
| **Coefficient of variation across regions** | | | | | | |
| Discharges per 1 000 inhab. | 0.14 | 0.15 | 0.14 | 0.15 | 0.16 | 0.16 |
| Day treatments per 1 000 inhab. | 0.45 | 0.08 | 0.12 | 0.23 | 0.24 | 0.28 |
| Out patient consult per 1 000 inhab. | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 |
| 24 h beds per 1 000 inhab. | 0.17 | 0.17 | 0.18 | 0.17 | 0.17 | 0.18 |
| ALOS[1] | 0.05 | 0.06 | 0.05 | 0.05 | 0.05 | 0.06 |

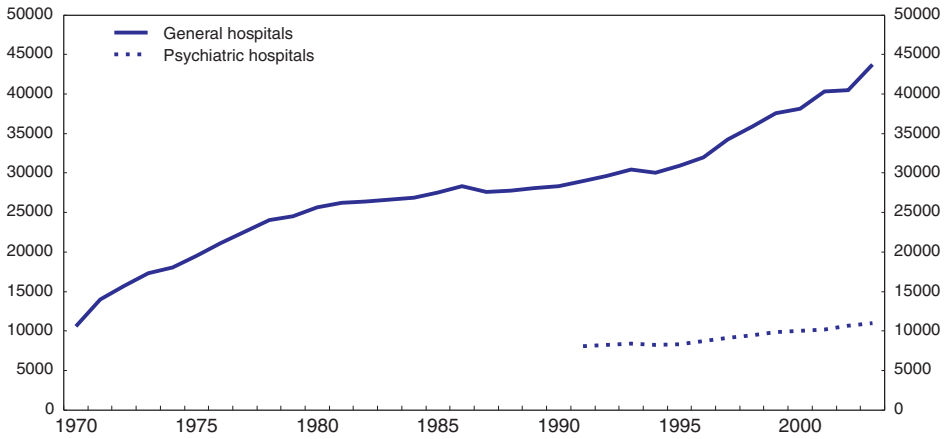
1. Average length of stays. It excludes day treatments.

*Source:* Ministry of Health.

Improvements in terms of input rationalisation are harder to detect. Since 1998, the number of beds per inhabitant has remained broadly stable whereas the average length of stays – excluding day treatments – has decreased considerably in all regions. Otherwise, inputs have surged since the introduction of the DRG mechanism after a period of relative stability during the 1990s when hospital services were financed only through block grants (Figure 4.5).[16] Expenditures on inputs accelerated after the introduction of the hospital reform. Statistics Norway estimates that in 2002 hospital expenditures increased by 22% in nominal terms and by 13% in real terms compared with the previous year, from already high growth rates of 12 and 9%, respectively, in 2001. A major reason for this cost surge was the very large pay increases granted to hospital doctors in 2002-2003. Subsequent wage increases have been much more modest.

Figure 4.5. **Costs in somatic and psychiatric specialist services 1970-2003**[1]

In thousand NOK at 2003 prices




1. Excluding capital costs.

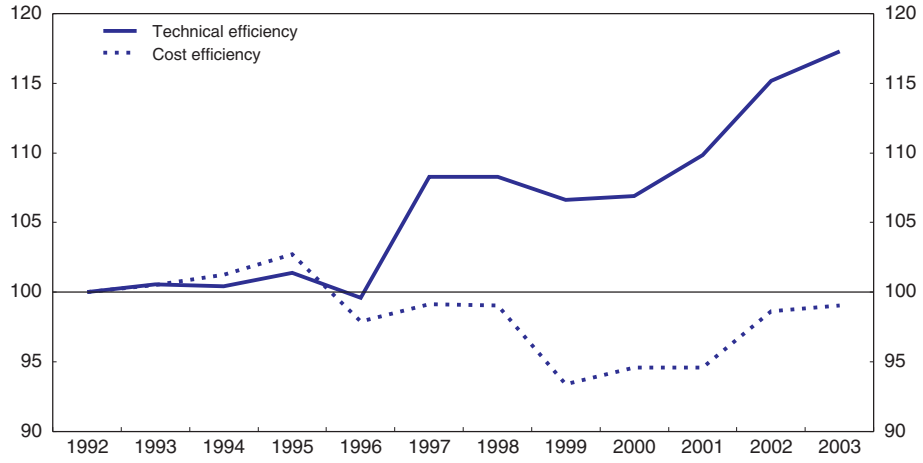
*Source:* SINTEF Health Research.

An analysis based on a comprehensive definition of output and inputs by Biorn *et al.* (2003) estimates that reforms led to an improvement of hospital "technical efficiency".[17] A

recent update carried out by the SINTEF research centre shows that the bulk of the improvement took place in 1997 when the DRG mechanism was introduced (Figure 4.6), and has started to rise again only after the implementation of the 2001 hospital reform.[18] Moreover, the average waiting time has been reduced since 2000.[19] After the hospital reform, the path of reduction was even more marked and waiting times in mid-2004 were around 40% lower than at the beginning of 2002.

Figure 4.6. **Hospital efficiency 1992-2003**

1992 = 100




*Source:* SINTEF Health Research.

### *But outstanding issues remain on costs and deficits*

Since their establishment in 2002, all RHEs except the eastern one have constantly run deficits, reaching around NOK 2 billion in 2003 and 2004 (around EUR 250 million), reflecting higher production than originally expected (Table 4.3). Hospital sector deficits are not included in the Norwegian measure of public sector deficits. If health enterprises treat more patients than budgeted for initially, then in principle the state should reimburse only 60% of the average costs through the activity-based component while the block-grant component should be left unchanged. As 60% of average costs is probably lower than total marginal costs, treating more patients than budgeted for should not be remunerative for health enterprises.

Table 4.3. **Activity growth in general hospitals**

Percentage points

| | Growth in DRG points | Targets for growth[1] |
|---|---|---|
| 1992-1996 | 2.0[2] | . . |
| 1997-2000 | 3.2[2] | . . |
| 2000-2001 | 4.5 | 2.0 |
| 2001-2002 | 2.6 | 1.5 |
| 2002-2003 | 7.0[3] | 0.0 |
| 2003-2004 | 1.5[3] | 0.0 |

1. National budget.
2. Average yearly increase.
3. Estimates.

*Source:* Hagen (2004).

The expectation of *ex post* financing by the central government is probably the reason behind this increased activity. In principle, the block-grant component should be determined on the basis of objective criteria related to demographics. In reality, the parliament has often topped up initial allocations with general additional allocations.[20] Other budgetary funds based on discretion rather than on objective criteria are also being granted to hospitals in more remote areas where lack of scale economies could increase costs, to hospitals with highly specialised functions, *e.g.,* dealing with rare diseases, and to hospitals treating patients from other regions ("patient flows"). The government is currently attempting to find objective criteria for funding related to highly specialised services or to patient flows.

In 2003 the parliament decided that health enterprises should reach balance by 2005 and maintain it afterwards.[21] In 2004, the parliament decided that the Southern RHE need reach balance only after 2005. In 2005, the parliament decided that all the RHEs should reach balance by 2006. This more favourable treatment for enterprises with the highest deficits could be a disincentive to implementing more ambitious cost-cutting or efficiency measures.

Before the hospital reform, the owners of the hospitals (the counties) used an annual average of NOK 3 billion each year in the 1990s on investments. Subsequently, investments are still financed through block grants from the central government but with no earmarking, and health enterprises have been required to include capital depreciation in their budget.[22] Nevertheless, a sharp increase in hospital investments has occurred since 2002, with their level 80% higher than the average of the 1990s in 2004.[23] This is likely to put pressure on RHE budgets in the next few years because of increasing debt payments as well as capital depreciation.

This investment surge was unexpected especially because higher efficiency had generated over-capacity in many health trusts. RHEs had accordingly started to close down some small local hospitals or departments while others have been merged. However, restructuring has met with local opposition and, in some cases, the Ministry of Health has intervened. Restructuring has been less than optimal and overcapacity remains an issue exacerbated by the hospital investment boom. Some public hospitals have started to look for clients through advertising.

### *… undesired shifts of activity and financial resources…*

Despite the existence of a disease-priority system,[24] in many instances activity has been directed rather towards more remunerative disease groups ("cherry picking"). However, these activities do not necessarily represent priorities from a social point of view. A clear example of the negative effects of "cherry picking" has been the doubling of surgery for reducing snoring from 1999 to 2003 because of profitable reimbursements (Christensen *et al.*, 2004). As a result, the Ministry of Health reduced the reimbursement for snoring surgery by two thirds in 2004. Another problem is that the DRG compensation system could take two years before adjusting to new technologies so that the cost of treatments could be over or under-estimated by the system thus leading to over or under-supply of treatments.[25]

Another drawback of the current financing system is that out-of-pocket payments are absent for same-day treatments but they are required for outpatient care. At the same time, same-day treatments are remunerated by the government more generously than

outpatient care. Therefore, in order to attract patients as well as to increase revenues hospitals might have shifted some activity from outpatient care to same-day treatments, which is not cost-effective (Table 4.2).

An example of misusing the system ("DRG-creep") has emerged, like unnecessarily adding secondary diagnoses or claiming for treatment more than once. This underscores the inadequacy of hospitals' internal control systems and the need to improve governance of the current institutional structure. More control of this phenomenon has now been introduced by the Ministry of Health under the advice of a national board mainly composed of doctors.

Finally, there is mounting concern that putting too much emphasis on activity-based financing takes away resources from activities that are less profitable for hospitals but could be socially desirable, like the treatment of rare diseases, or that are left outside the activity-based mechanism, like mental health. Activity levels in psychiatric hospitals have been lower than in general hospitals, contrary to national priorities. The Norwegian authorities are also considering introducing the DRG system in psychiatric health care, at least for priority patients.

### *... and competition in the hospital sector*

The hospital reform has raised some concerns regarding competition.[26] The re-organisation of hospital trusts under five RHEs has led to high concentration in the sector, and each health trust is effectively a local quasi-monopolist, especially for some specific treatments (Brekke, 2002). Indeed, despite a recent increase of private provision of health services,[27] the scale of for-profit private hospitals with a currently less than 5% market share is small. Private clinics usually have to specialise in order to become more efficient and profitable, and their activity is often limited to same-day treatments. Furthermore, regional health enterprises are both purchasers of health services, as they have to ensure that demand for health care services is fulfilled by adequate supply, from either public or private hospitals, but they are also providers of health care services. This dual role could be an obstacle to a level playing field between public and private institutions. According to the Antitrust Authority, the common practice is to prioritise the request for services from the public sector with the private sector relegated to a residual role.[28, 29, 30] Overcapacity in public hospitals could exacerbate this problem.

Finally, few patients move from their region or area of residence to be treated, perhaps because the "money-follows-the-patient" principle has not been fully applied. Reimbursement is not automatic but depends on the agreement between the two health regions. Therefore, a health region does not necessarily have incentives to attract patients from outside its own region, while less efficient RHEs could have an incentive to refuse an agreement with more efficient ones in attempt to protect its own hospitals from more competition.[31] To improve cross-regional competition, the government has required enterprises to pay 80% of the DRG price for patients deciding to be treated in hospitals outside their region of residence.

### *Self-employed specialised physicians*

Self-employed specialists account for around 17% of the total specialists. They can establish throughout the country, sign agreements with regional health authorities for the delivery of services to patients, and they are financed in a similar way to that for hospital outpatient care. Their geographical distribution is far from uniform, because they might

not find it profitable to establish in remote areas. At the same time, regional authorities in such areas could have a preference to rely on hospital outpatient care to provide specialised services. The unequal distribution makes the authorities' equality objectives in the use of specialised care more difficult to reach. Indeed, Iversen and Kopperud (2003) and (2004) find that, controlling for patient characteristics, capacity and greater distance from specialist physician ambulatories reduces the probability of patients' visit, whereas this is not an issue for hospital outpatient care.

### *Primary care*

Municipalities are responsible for the provision of primary care, which is mostly performed by self-employed GPs signing a contract with the municipalities (90% of the total). The rest is accomplished by GPs working as municipal employees on a fixed salary.

#### *The new "patient-list" system*

In June 2001, the government introduced major changes in primary care through the so-called "patient-list" system. The objective of the reform is to improve GP access for patients and to strengthen the relationship between patients and doctors. Patients are asked (but not obliged) to state their preferences for registering in the list of their "regular" GP, who becomes a "gatekeeper" for further medical services, with the responsibility to co-ordinate these services. Patients on a GP list should be able to get an appointment with their GPs in a reasonable period of time as well as to be able to contact the GP by telephone for advice and enquiries. They have the right to request a second opinion from another GP. Broadly 70% of GP earnings continues to be financed through a fee-for-service mechanism reimbursed by the National Insurance System (NIS) and a consultation fee paid out-of-pocket by patients. The remaining 30% is based on the number of patients on the GP's lists and financed by municipalities via block grants from the state. This capitation component has substituted the previous input-based allowance and is meant to prevent "cream-skimming" behaviour. Small municipalities (less than 5 000 residents) can top up self-employed GP earnings with additional income to compensate for short patient lists.[32]

#### *The benefits of the reforms*

As a result of the patient-list reform, 98% of the population is now registered with a GP. According to surveys by the Ministry of Health (2004), patients and GPs seem to share a broad appreciation of the reform: patients find that accessibility has improved, while GPs consider it more important now to keep patients satisfied and provide them with better services (Carlsen and Norheim, 2003). Because of greater commitment by GPs, patients have established longer-term relationships with them.

#### *Some outstanding concerns*

All the above benefits have to be balanced with the higher costs induced by the reforms, with payments to GPs paid by the municipalities having exceeded initial allocations from the central government. The government feels that the activity-based component might have increased because of greater efforts by GPs to satisfy patients.

Concerns are also rising on the increasing financial burden for small municipalities. Half of the GPs in municipalities with fewer than 2 000 residents are paid on a fixed wage basis. As for the self-employed GPs, both the capitation and the activity-based components might not be as attractive as in more populated areas. This does not necessarily translate

into lower quality but it does translate into higher costs for small municipalities in order to attract GPs (Table 4.4). Moreover, patients in municipalities with a high turnover of GPs are less satisfied with the access to the services.[33]

Table 4.4. **Municipal expenditure for primary care per inhabitant**
By size of municipalities
Share of total expenditure

| | 1999 | 2002 |
|---|---|---|
| Less than 1999 inhabitants | 66.0 | 83.0 |
| 2 000-4 999 inhabitants | 64.0 | 72.0 |
| 5 000-9 999 inhabitants | 58.0 | 61.0 |
| 10 000-19 999 inhabitants | 57.0 | 56.0 |
| 20 000-29 999 inhabitants | 55.0 | 51.0 |
| 30 000-49 999 inhabitants | 55.0 | 51.0 |
| More than 50 000 inhabitants | 49.0 | 50.0 |
| All | 58.0 | 56.0 |
| Coefficient of variation | 0.10 | 0.21 |

*Source:* Statistics Norway, Primary physician service, municipal expenses, 2002.

The objective of strengthening the role of the GP as "gatekeeper" is not being fulfilled as expected, and after the reform this role might actually have declined. Iversen and Kopperud (2004) estimate that patients having a personal GP show a higher probability of at least one visit to a specialised physician or to hospital outpatient care per year. Indeed, the number of referrals and of drug prescriptions has increased after the introduction of reform.[34] No convincing explanation of this unexpected finding is available.

Finally, increasing GP commitment towards patients might also have had an impact on the involvement of GPs in public general medical duties, as co-ordination between primary and secondary care needs to be improved. In autumn 2003 the government therefore established a commission to analyse and propose measures to enhance co-operation among primary and secondary care. The recommendations from the commission are expected in late winter 2005.[35]

### *Mixed evidence on "supplier-induced demand"*

GPs often experience patient shortage, *i.e.,* the number of patients in their lists is lower than the stated preferred one. Indeed, despite improvements, two years after the patient-list reform almost a quarter of GPs – all of them in urban areas – still experienced patient shortage. This could be a problem if GPs with short lists provide more services than socially desirable either to compensate lower earnings from the capitation component or to attract and retain new patients in a context of asymmetric information.[36] Empirical evidence indeed shows that Norwegian GPs with patient shortages have higher service intensity and, hence, income per listed person than the other GPs. The evidence suggests that referrals to neighbouring hospitals are also higher following the reform. Available evidence does not reveal whether these additional services are optimal from the patients' (or society's) point of view so that the presence of "physician-induced demand" is uncertain.[37]

### *Long-term care*

Municipalities are also responsible for ensuring long-term care to the elderly through either public or private institutions. The central government establishes minimum

standards to be provided by municipalities, which finance it mainly through discretionary allocations of block grants received from the central government and partially via fees from patients living in public facilities or receiving home care.[38]

Because of lack of resources, municipalities are frequently unable to provide enough assistance to the elderly so that hospitals have to provide assistance for dependent persons not having an acute medical need. Such hospital assistance is much more costly than nursing home or community-based care. As a response, a national objective has been set to reach enough nursing home capacity so as to accommodate at least 25% of people aged 80 years and older. A number of municipalities are currently carrying out a major restructuring of nursing homes in order to attain national standards and to contain costs (see Box 4.1 for an example of restructuring in the Bergen municipality).

### Box 4.1. **Long-term care in the Bergen municipality**

Bergen municipality total revenues amounted to around NOK 10 billion (around EUR 1.2 billion) in 2004. Almost 30% of revenues are allocated for services to the elderly and handicapped. Purchase of elderly care by the municipality is carried out through competitive tendering open to private institutions. Contracts generally last two years and specify *ex ante* quality objectives, which are monitored *ex post* by the municipality.

In 2002, the number of people aged 67-79 were 8.8% of the total population; aged 80-90 were 3.9% and aged more than 90 were 0.6%. In 2020, these shares are expected to be 10.6, 3.7 and 0.9%. A restructuring of the facilities for the elderly is currently taking place to tackle the expected increase in long-term care demand because of population ageing. After restructuring, the Bergen municipality will be responsible for around 110 "units", mainly nursing homes. Each unit is being made responsible for its own budget with the objective of better controlling costs and increasing transparency.

The restructuring of buildings is carried out with the objective of tripling the share of short-term facilities over the total, now reaching around 10%. This is mainly attained by renovation of existing buildings aiming at a more efficient division of space. New facilities are also being built. A greater stress on short-term facilities rather than long-term ones should allow more people to be treated or taken care of in their homes. This could both increase the likelihood for the elderly to recover after a surgery or an accident and reduce costs for the municipality. In fact, the municipality estimates that unchecked admittance to long-term institutions both increases costs and reduces recovery rates. Furthermore, community-based care could allow a decrease of elderly stays in the Bergen hospital thus freeing capacity for other activities. Nevertheless, the shift to community-based care sometimes finds resistance among traditional nursing home employees, citizens at large and local politicians.

Despite *ad hoc* transfers from the central government to build new nursing homes, the restructuring has contributed – alongside lower revenues than initially estimated because of lower-than-expected growth, and other spending overruns – to increasing deficits for the municipality especially starting from 2002. The cumulated debt has reached a significant NOK 85 billion, *i.e.,* almost 9 times the municipality annual revenues, and the objective is now to reduce it also through personnel cuts.

### *Human resources in the health sector*

The Ministry of Health controls the number of posts in the medical profession nationwide. Problems in recruiting or retaining health care staff emerged at the end of the 1990s, especially for nurses and GPs. The shortage problem was concentrated in remote areas even though the number of health professionals per inhabitant in these regions was already higher than average (Table 4.5).

Table 4.5. **Number of health professionals**[1]

| | 1999 | 2003 |
|---|---|---|
| Physicians per 10 000 inhabitants | 7.9 | 8.5 |
| Remote municipalities | 10.2 | 11.3 |
| Fairly remote municipalities | 8.0 | 9.2 |
| Fairly central municipalities | 7.6 | 8.1 |
| Central municipalities | 7.4 | 7.8 |
| Physiotherapists per 10 000 inhabitants | 7.6 | 8.3 |
| Remote municipalities | 7.1 | 8 |
| Fairly remote municipalities | 7.1 | 7.9 |
| Fairly central municipalities | 7.6 | 8.3 |
| Central municipalities | 7.9 | 8.4 |
| Midwives per 10 000 born | 45.3 | 50.6 |
| Remote municipalities | 1 22.2 | 1 27.4 |
| Fairly remote municipalities | 65.7 | 79.1 |
| Fairly central municipalities | 32.3 | 38.4 |
| Central municipalities | 30.1 | 36.2 |
| Public health nurses per 10 000 children 0-4 years | 54.6 | 64.1 |
| Remote municipalities | 63.4 | 84.0 |
| Fairly remote municipalities | 58.7 | 69.9 |
| Fairly central municipalities | 56.1 | 65.5 |
| Central municipalities | 51.2 | 58.4 |

1. Excludes personnel working in institutions for the aged and home-based services.

*Source:* Statistics Norway, Municipal health and care services, final figures, 2003.

The main reasons for the shortage were an insufficient number of training programmes linked to the health profession, and working conditions that were considered unsatisfactory either because of relatively low wages or a high share of unconventional work (*i.e.,* shift work) not adequately remunerated. This has led to a significant number of staff – especially nurses – either to leave or to work part-time.[39]

The problem now seems less serious mainly thanks to the Ministry of Health strategy to open positions mostly where shortage problems are most pressing. Other measures to reduce shortages have included *ad hoc* training, higher compensation for medical trainees and increased wages. In particular, in the period 2002-2003 hospital doctors benefited from a substantial 16½ per cent wage increase, around 6% higher than the average wage increase in Norway. Hospital doctor wages remained broadly stable in 2004. The wage surge for hospital physicians as well as for other personnel contributes to explaining the rise in unit labour costs ("cost efficiency") despite a rise of production per personnel ("technical efficiency") induced by reforms (Biorn *et al.*, 2003, and Figure 4.6). These wage rises have also been one of the reasons for persisting financial deficits at RHEs.

Thanks to wage rises, working conditions for the health profession in Norway have generally improved to the point where any serious shortage could in theory be solved by

recruiting abroad. Indeed, in 2001, foreign-trained physicians were 12½ per cent of the total, and this could have been even higher but for the need to learn a new language. According to the authorities, some skill shortages indeed persist in some specific areas like mental and psychiatric health, especially for children, for which fluency in Norwegian is probably more important. Shortage is also a problem for dentists and long-term-care nurses, and in general in the most remote areas.

Finally, the variability of physician skills across the country is considered unacceptably high by the authorities, despite a very similar initial training for young doctors nationwide. This could be because doctors in more remote areas miss the opportunity of knowledge spillover and do not or cannot compensate for this through individual skill updating. The National Centre for Health Service Research, a government agency, is now in charge of spreading best practices nationwide (see below).

For the medium-term (by 2020), the forecasting model at Statistics Norway foresees that thanks to the recently implemented measures, shortages of nurses (holding tertiary education degrees) and physicians is likely to be avoided despite population ageing (Stolen and Texmon, 2002). Nevertheless, supply shortages are predicted for dentists, auxiliary nurses (holding secondary education degrees), health visitors and occupational therapists.

### *The pharmaceutical sector*

Pharmaceutical expenditure as a percentage of GDP is lower than in many other OECD countries, but in the past six years public expenses related to pharmaceuticals have increased by an average of approximately 8% per year. The variety and availability of products is not as broad as in other OECD countries and the time for launching a new product is quite long.[40] The Norwegian Medicines Agency (NoMa) decides on the new drugs to be given market authorisation. If companies apply for reimbursement of the new drug, the application is assessed and decided upon by NoMa. Cost effectiveness considerations play an important role in this assessment. If reimbursement of a new pharmaceutical product is associated with a substantial cost increase, this has to be handled by the Ministry of Health and Parliament through prioritisation decisions in the yearly budget process. The resulting waiting period for putting new drugs on the list for reimbursement could reach up to 2-3 years. Nevertheless, the final decision is often made on the basis of effectiveness of the drug's benefits independently of its costs, reflecting pressures from both users and producers of pharmaceuticals.

The market for pharmaceuticals underwent a major change with the 2001 Pharmaceutical Act. This removed the requirement that pharmacy owners hold a tertiary degree without at first necessarily lifting location restrictions. This induced three retail chains – integrated with the wholesale counterparts – to buy up most of the small pharmacies, thinking that there would still be monopoly rents deriving from location restrictions. However, the ceiling on the number of pharmacies was finally removed, their number being increased by around one third from 2001 to 2005, and they are now open longer hours. Nevertheless, the market is now highly concentrated and dominated by the three retail/wholesale chains, enjoying preferential relationships with producers which act as a barrier to entry. An initiative has been introduced more recently to increase drugs' availability, and reduce concentration of the market by permitting petrol stations and other retailers to sell a selection of non-prescription drugs, and around the clock.

The prices of patented drugs are heavily regulated. Their maximum price is linked to the average of the three lowest prices in a basket of nine EU-15 countries. This system is designed to constrain costs. There is a political wish to keep the co-payment for patients low. Patients will as a result not face budget constraints when using drugs, and the price mechanism will not work in the medicines market. Hence, price regulation is necessary. A more market friendly solution would reduce or eliminate altogether price regulations while increasing patient co-payments for the non-poor. This kind of policy change would likely increase prices for patented drugs, but lower prices for generic drugs.

No longer patented brand drugs in principle compete with patented drugs as well as generic versions. Nevertheless, the prices of both no-longer-patented drugs and generics are high in Norway compared with those in other northern European countries, themselves already high in international terms. This reflects, first, that the reimbursement for generics is based on the (high) price of the originally patented product. Second, weak competition in the wholesale and retail segments of the pharmaceutical chain prevents generics being sold more widely and at a lower price. Finally, the state reimburses prescription drugs almost to the full so that consumers do not search hard for lower prices, and may believe that branded drugs signal high quality. As a result, in terms of volume the share of generics drugs over total sales remains at 28%.

As a response, in March 2003 the government introduced an "index-pricing" system such that when selling no-longer-patented drugs prescribed by GPs, pharmacies could share with the government the savings from offering generics, and incidentally putting downward pressure on branded drug prices. In reality, this measure led to only limited public saving as well as to insignificant price effects. A new "step-price" model was introduced in the 2005 budget bill to increase the share of generics. With this model, the maximum reimbursement price for no-longer-patented drugs is fixed as a percentage of the price of the originally patented product on a sliding scale varying with time of patent expiration.[41] If the patient refuses the proposed substitution, the difference between the actual and the step-price has to be paid by the patient and is not included in the ceiling of out-of-pocket payments. The pharmacies are obliged to offer at least one product in each pharmaceutical category at the "step-price". At the same time, pharmacists selling less expensive products than the "step price" can keep the difference as profits. This model is expected to produce saving of NOK 450 million (around EUR 55 million) for the state and NOK 70 million (around EUR 8.5 million) for households already in 2005.

### *The role of government agencies*

#### *Norwegian Board of Health*

The Norwegian Board of Health has surveillance and control responsibilities on whether health care services are provided in accordance with existing legislation. It reports directly to the Ministry of Health but it is autonomous in its surveillance role. Its main task is to handle individual cases of deviations from rules or from professional norms, either initiating investigations autonomously or after complaints from patients. The latter seem to have increased significantly in recent years. Another important task is surveillance of the performance of the health care sector, working in cooperation with other institutions like the Ministry of Health and Statistics Norway to provide data and material to be used by the policymakers for their decisions. Finally, the Board performs audits on topics chosen on the basis of risk assessment. The criteria for choosing such topics are the number of people involved, even if the problem *per se* could be minor, or the size of the damage inflicted to

patients, even if the number of patients involved is small. A share of the topics (around 10%) is chosen by the Ministry of Health.

Activities of the local boards of health mainly involve working in the field. One general problem that they have identified across all counties is the scarcity of assessment, by both municipalities and health trusts, of the expected demand for services even though regulations require them to perform this regularly for their populations. Hence the supply of health services might not adequately match demand, and this might partly explain observed differences in the quality of service provision across the counties. Local boards have the role to encourage health institutions to perform risk assessments upon which they should build their activities so as to enhance both quality and efficiency. Moreover, health care institutions are increasingly asked to improve self-assessment capacity.

### *Norwegian Knowledge Centre for Health Services*

The Norwegian Knowledge Centre for Health Services is a new institution consolidating the activities of several former centres.[42] It assesses the cost effectiveness of new treatments and technologies and monitors existing treatments and patients' satisfaction. The cost-effectiveness analysis of the Centre – which also internalises ethical considerations – should in principle be taken into account by the authorities when deciding on the reimbursement of treatments. But the link between cost effectiveness and the political decision to reimburse is not systematic. Indeed, this decision is more likely to be linked to the benefits of the treatments *per se*, independently from their costs**.**

## Agenda for future health care reforms

Ensuring the continuation of high-quality health care to the whole population is a commendable objective to which the Norwegian authorities have devoted considerable efforts especially since the second half of the 1990s. If high quality and equitable access is valued highly by households, a rise in total health care expenditure faster than GDP is acceptable, even desirable. However, this choice should be based on adequate information of the benefits and costs of health services as well as on appropriate awareness on its sustainability over the medium-to-long-term. The appropriate split between public provision and out-of-pocket financing also needs to be taken into account, and could change over time. Hence although the growth of provision of health services may be socially optional, the total level of spending on health – and within that public spending – may well be too high.

Reform experience in Norway shows that introducing incentives for more responsive service provision can be very successful in increasing and improving supply in the health care sector. Nevertheless, if these incentives are not appropriately designed, the resulting *ex post* costs could be constantly higher than what had been considered socially desirable *ex ante*. Pressure on the government is mounting to devote more public resources to health care. Insofar as medical costs rise because of lower than average productivity growth in the sector, then higher spending is to some extent eventually inevitable, even if reforms succeed in raising productivity levels in the shorter term. The question arises as to how much of any increase in costs arising from a rising volume of consumption of drugs and medical services should be publicly financed automatically. Arguably, as *per capita* income rises, the share of out-of-pocket payments could also rise, especially because Norway is a high-income country with a very low incidence of poverty, and especially for services which are ancillary, *e.g.*, hotel-like services in hospitals. In some cases where out-of-pocket

payments are absent, they could be introduced. At the same time, to continue ensuring an equitable access to health services, full or partial exemptions from payments should be devised for those who can not afford necessary treatments, either because they have unusually low discretionary incomes, or chronic health problems, or because the available treatments are very expensive.

There have been some cases where budget deficits of health trusts have not been reflected in health trusts' accounts, but instead have been transferred to the RHE's accounts. This has led to confusion about the origins of deficits. Imposing more financial responsibility on health trusts could help to reduce deficits, as they are more insulated from political influence than are the RHEs. For example, the eastern health enterprise has imposed budget responsibility downstream to its health trusts, possibly explaining why health trusts there have increased activity only to a limited extent compared with health trusts in other regions.[43] Health trusts should also be given more independence in the restructuring of their hospitals to tackle overcapacity.

The financing mechanism should be modified to impose more financial discipline on hospitals. One option could be to reimburse only partially, and then up to a ceiling, spending over and above the levels previously identified by the parliament, as proposed by the Hagen commission (see Box 4.2). It is thus welcome that the negotiations for the 2005 budget asked the government to find cost control mechanisms by spring 2005 also taking into consideration the recommendations by the Hagen commission. Downward adjustment of DRG rates should be introduced if volumes rise faster than foreseen, while budgets were respected, as in Austria and Germany (OECD, 2003a). In this context, it is very regrettable that DRG rates have been raised from 40% to 60% in order to get agreement on

### Box 4.2. **The Hagen commission**

An *ad hoc* commission (the so-called Hagen Commission)* was set up in February 2003 with the objective of delivering a report analysing financing issues in specialised health care. The Commission delivered the report in December 2003.

One of the main conclusions of the commission was that since the reimbursement system for specialised care had not changed after the hospital reform, the ownership structure *per se* could not be expected to change incentives for deficit control. The majority of the commission thus suggested changing the funding model along the following lines: *a)* the parliament decides on the total budget allocation for specialised health care; *b)* the total allocation is then distributed among RHEs according to a need-based capitation mechanism; *c)* RHEs and the central government agree on the level of activity that each RHE can achieve given assigned resources and also on the basis of cost estimates provided by an independent expert group; *d)* if, despite negotiations, activity is higher than agreed *ex ante*, then the central government would finance 50-60% of any excess activity of 2% while the rest would be entirely financed by RHEs. Moreover, RHEs would be given more freedom on their management activity and in particular on the choice of the financing method for health care providers.

The government and the parliament did not endorse this proposal for fear that it would be cumbersome to define regional activity levels and that RHEs would rely excessively on block grants for hospital care financing.

* The commission owes its name to its chairman Prof. Terje P. Hagen.

*Source:* Hagen and Kaarboe (2004).

other aspects of the national budget. A lowering should be implemented as soon as possible. Moreover, RHEs or local health trusts should be made responsible for finding additional revenues should deficits arise, for example by introducing out-of-pocket payments by patients on top of those already enforced at the central level. In particularly egregious cases, the management of failing regional health trusts should be taken over for a limited time by the Ministry of Health.

The DRG system is based on resources and costs in some benchmark Norwegian hospitals and is therefore beneficial for strengthening yardstick competition, thereby enhancing incentives to run hospitals efficiently and with lower costs compared to the benchmark ones. However, if costs go down in all hospitals, the successive revisions of the system would result in continuously decreasing prices, which would hurt all hospitals. Collusion among them could thus arise and prevent costs from falling.[44] This is more likely to happen now that the hospital sector is more concentrated. Therefore, benchmarks should be chosen also by looking at experience at the international level.

In primary care, the financing system has many benefits but has led to unexpected increases in costs. The patient-list system has not enhanced the gatekeeper role of GPs to adequate levels. To rectify this, an option could be to introduce a "practice profile" for GPs, based on best practice guidelines, themselves evidence-based. If the profile is very different from these, physicians should then be held accountable for their diverging practice. Moreover, the authorities could consider introducing financial responsibility for GPs on the use of private specialists, hospital care and prescription drugs by their patients, along the lines of what is being attempted in the United Kingdom (OECD, 2003a). This could also contribute towards improving co-ordination between primary and secondary care. In more populated areas there could also be scope for municipalities to group together for providing joint primary care services. This could free resources to be used in less populated areas where higher levels of GPs *per capita* and expenses are more difficult to avoid.

It is too early to assess whether the introduction of the step-price model for pharmaceuticals – a praiseworthy initiative in itself – will succeed in lowering the prices of no-longer-patented products. It does raise incentives for consumers to demand lower-price products rather than relying on pharmacies to supply them, which failed to bring saving in the past. However, the low ceiling on overall out-of-pocket payments by patients means that the incentive to ask for lower-price products disappears quickly. Moreover, no incentive has been introduced for GPs to prescribe lower-price products. Consideration should be given to raising the ceiling.

Reducing economic rents in the retail and wholesale pharmaceutical sector could also be an option for further saving. Nevertheless, fiercer competition from new entrants may have only limited effects: price competition is limited because reimbursement from the state is generous. Competition might thus be confined to quality, location and opening hours; and entry costs for new companies are high as they need to establish themselves also in the wholesale segment. It is hard in practice to get direct relationships with producers as the experience with resistance to selling drugs in non-conventional stores has shown.

Increasing the share of out-of-pocket payments could thus represent a means for achieving both higher saving and higher competition in the pharmaceutical sector. The increase could be attained through a rise in the ceiling of out-of-pocket payments. The authorities could also introduce more drastic measures to tackle the roots of the problem, namely the strong vertical integration and concentration in the wholesale and retail

segments of the pharmaceutical market and the absence of incentives for physicians to prescribe generics rather than brand-name drugs.

Although in principle, new drugs and treatments are allowed only if cost benefit analysis indicates that this is worthwhile, in practice some expensive new drugs have been put on the list of reimbursable treatments at the request of Parliament, or members of Parliament, following pressure from voters. Such "fast-track" approvals should be followed by the standard, time-consuming, but objective analysis, to see if their continued presence is justified.

### Box 4.3. **Summary of recommendations**

**Long term sustainability of health services**

*Raise means tested out-of-pocket payments for ancillary services:* At the same time, to continue ensuring an equitable access to health services, introduce full or partial exemptions from payments for those who cannot afford necessary treatments, because they have unusually low discretionary incomes, or chronic health problems, or because the available treatments are very expensive.

*Give health trusts more financial responsibility and independence*: because they are more insulated from political influence than are the RHEs, this could help reduce the deficits. Health trusts should also be given more independence in the restructuring of their hospitals to tackle overcapacity.

*Impose stronger cost control on hospitals in line with the Hagen commission proposals*: Reimbursements should only be partial, and DRG rates should be adjusted downward if the supply of related services rises faster than expected, while total costs remain within the budgetary envelope.

*Benchmark the DRG system at an international level:* to avoid continuously decreasing prices, which would hurt all hospitals and possibly lead to collusive behaviour between them.

**Primary and secondary care**

*Introduce a "practice profile" based on best practice guidelines and enhance responsibility for GP's*: This should prevent divergent practice, introducing financial responsibility for GPs on the use of private specialists, hospital care and prescription drugs by their patients, and could also contribute towards improving co-ordination between primary and secondary care.

*Consider raising the ceiling on overall out-of-pocket payments by patients and promote incentives to prescribe generics*: the low ceiling on overall out-of-pocket payments by patients means that the incentive to ask for lower-price products disappears quickly. No incentive has been introduced for GPs to prescribe lower-price products.

**Drug prescriptions**

*Carefully monitor the wholesale and retail pharmaceutical markets and intervene forcefully in cases of overt or tacit anti-competitive behaviour*.

*Implement cost-benefit analysis on expensive new drugs, reimbursed on "fast-track" approvals*: this should contribute to a more objective analysis, to see if their continued presence is justified.

## *Notes*

1. The Department of Health and Social Affairs is responsible for coordinating the process leading to the identification of treatments to be covered. Very few treatments are excluded from the public insurance scheme, examples being cosmetic surgery, acupuncture and homeopathy, and

sterilisation for non-medical reasons. However, for the latter two a recent act establishes a register of practitioners. The majority of the population needs to pay for dental care.

2. A 1999 European Commission Eurobarometer survey suggested that 53% of the EU-15 population were satisfied with their health care systems (OECD, 2003a), lower than in Norway. However, comparison of the surveys' results needs to be treated with care as the survey methods used by Statistics Norway and the European Commission might not be comparable. Moreover, the year of the two surveys is different. Finally, the results could be affected by different expectations of the population regarding health care services.
3. Health care expenditure was 12% in of Mainland GDP 2002, the second highest in the OECD. It should be noted that health spending jumped significantly in 2001 when additional care on long-term care by local governments was for the first time included in health spending.
4. Total expenditure on health includes curative, preventive, long term, nursing, and hospice care as well as public health programmes.
5. Besides Norway, health care projections are available for Austria, Belgium, the Czech Republic, Denmark, Finland, France, Ireland, Italy, Japan, the Netherlands, New Zealand, Sweden and the United Kingdom. For Norway, future health care expenses per capita were indexed to labour productivity in Mainland GDP and on the inflation rate rather than on total GDP per capita as in the other OECD countries. Since projections by country did not share identical assumptions, the international comparisons should be treated with care.
6. A plan to explore whether a system of out-of-pocket payments could be established according to treatment priority, has been set aside as a survey of physician practices revealed that there is no broad consensus on illness and treatment priorities.
7. For a description and analysis of the Norwegian health care sector in the second half of the 1990s, see OECD (1998) and European Observatory on Health Care Systems (2000).
8. The Norwegian authorities are also putting increasing emphasis on preventive care of non-communicable diseases, *e.g.* smoking prevention, nutrition awareness campaigns and incentives for participation in sports. The authorities recognise that identifying expected costs and benefits of these measures is difficult in practice. There is nonetheless a plan to use health impact assessments, including also an economic assessment, as a tool to evaluate the usefulness of preventive measures.
9. Specialised health care in Norway is expected to perform a number of tasks. The main ones are to provide specialised treatments to patients, make sure that their rights are fulfilled as laid out in legislation, involve patients in their own treatment and co-operate with primary care. Other tasks are to educate towards good health practice patients and their relatives, to train health professionals and to perform research, treatment evaluation and introduce innovation.
10. Both public and private hospitals need permission from the Ministry of Health to start their operations.
11. Hereafter referred to as "Ministry of Health".
12. In the Norwegian documentation, health trusts are often called local health enterprises.
13. For example, *Helse Vest* (the western Regional Health Authority) is responsible for 4 health trusts mainly comprising hospitals and for one health trust comprising hospital pharmacies. This authority owns 95% of the hospital capacity, the rest being owned by the private sector (both for-profit and not-for-profit).
14. The medical profession often holds top management positions in health trusts but this is not predominant in all health regions. The share of physicians at top management positions in health trusts range from around 15% in the western health region to 50% in the eastern one.
15. For his estimations, Kjerstad (2003) exploits the fact that when the reform was introduced some counties financed hospitals with the partial activity-based system whereas others continued financing them only with block grants. However, all counties received activity-based financing from the state.
16. Before the 1980s, hospital financing was based on the number of beds and this explains the significant rise of inputs during the 1970s in Figure 4.5.
17. Technical efficiency is defined as output per unit of inputs whereas cost efficiency is defined as output per unit of NOK. For a discussion of cost efficiency see the section on human resources below.

18. Nevertheless, the calculations in Figure 4.6 are based on the development of reported DRG points, and presupposes that these numbers reflect actual activity. The existence of DRG "creep", that is changes in the way treatement is reported (*e.g.* more complete registrations) is not taken into account in this figure, leading to an overestimation of the development of efficiency in the period.

19. Waiting times have especially decreased for patients with unfulfilled waiting-time guarantees, *i.e.* whose waiting times are higher than the maximum time initially guaranteed by the hospital.

20. In 2002, additional grants because of higher activity amounted to NOK 730 million, in 2003 to NOK 2.2 billion and in 2004 to NOK 0.5 billion. In 2002, an additional NOK 1.0 billion was granted to finance higher wage expenditures and emerging deficits, and NOK 500 million in 2004 to finance emerging deficits.

21. For example, Bergen Hospital – the largest in the western health region – has cut human resources and has introduced budget responsibility at decentralised level. This has led to wage moderation as well as to a reduction of investments in new technology. This reduction could be beneficial for the hospital as equipment is not used at full capacity. In contrast, building overcapacity does not seem to be a problem for Bergen Hospital.

22. Health enterprises can borrow from the state to finance their investments. In 2004, 40% of investments were financed through loans from the state. A few large hospitals have been given special grants from the state.

23. The increase in real terms is calculated by the OECD assuming that the increase of the hospital investment deflator in 2004 compared to the average in the 1990s is the same as for the deflator of total public investment.

24. The Act on Specialised Health Care identifies the main criteria for prioritisation of specialised treatments: *a)* that the patient will suffer a certain loss of length or quality of life if treatment is not given; *b)* that the treatment is thought to bring benefits to the patients; *c)* that the costs to provide the treatment are reasonable in relation to the benefits.

25. Other adverse incentives could be present in a DRG system. Remunerations of DRG points are defined by taking costs in a sample of hospitals as a benchmark. If hospitals are successful in reducing their unit costs, net revenues increase as remuneration remains unchanged. However, this could also introduce disincentives for efficient hospitals to cooperate with inefficient ones. In addition, there could be some free riding on decisions regarding machinery investments as these purchases can affect the remuneration of DRG points for the whole system but costs rise only in the hospitals that have actually undertaken them.

26. As most of specialised health care is reimbursed by the state, competition among hospitals should be based on quality and availability of services rather than price.

27. After the hospital reform, the Ministry of Health has granted permission to 8 new private hospitals to operate. These signed a contract with one or more regional health authorities. However, with an average of only 5 beds per hospital their capacity is small.

28. In laboratory services, there have even been some steps backward after the hospital reform. Indeed, private laboratory services were previously reimbursed with activity-based financing but from September 2005 half of the transfers will be given to the regional health authorities that can use them at their discretion, *i.e.* they can choose the providers without tender.

29. The Antitrust Authority has started analysing whether hospitals also should comply with the provisions of the Competition Act. Even if this is found infeasible under current legislation, the Authority will still retain its advocacy role in this sector.

30. Another feature preventing a level playing field is that the public sector does not pay VAT on outsourced services contrary to what happens for the private sector. However, this difference will probably be removed, starting from 2006. For example, hospitals will have to pay VAT on outsourced cleaning.

31. Generally speaking, however, the Ministry of Health considers the level of co-operation among regional health authorities more satisfactory than that among counties before the reform.

32. According to the Ministry of Health, some municipalities have also had to pay fixed-wage GPs more than stated in regular tariffs in order to retain them.

33. See Lian (2003).

34. According to Grytten and Sorensen (2004), there is a very weak tendency of increasing number of referrals. A survey among GPs in 1998 and 2002 showed an increase in the actual number of referrals of 11 per year among the GPs who were earlier on a fixed salary and of 15 per year among

those who were self-employed before the reform. A study from Statistics Norway (2003) shows a weak decrease in the referral rate for patients having been listed with a GP for a longer period of time, indicating that continuing in doctor-patient relationships led to changes in referral practices.

35. See NOU 2005.

36. It could also be the case that GPs with no patient shortage are actually rationing services as they have reached the desirable number of clients. In this case, the amount of services provided by GPs with patient shortage could actually represent the desirable one from the patient's point of view. In this case, the issue is whether the public sector should pay for these additional services or should these be paid through private sources of financing.

37. See Iversen, 2004a and 2004b, and Grytten and Sorensen (2004).

38. Such fees are low, for example, patients can be asked to pay only the equivalent of 4 hours a month for the time auxiliary nurses spend in their home providing home care. The actual time spent is usually higher. Medical assistance at home is free of charge, while there is some cost sharing of help with practical tasks at home. How much is paid varies across municipalities and is often means-tested.

39. Askildsen, Baltagi and Holmas (2003) show that working conditions and shift work are important determinants of labour supply by nurses. They also show that substitution effects seem to slightly dominate income effects so that an increase in wages has a positive but small impact on labour supply. Holmas (2002) also shows that better working conditions —especially reduced shift work — and higher wages have a negative impact on nurses' decisions to quit the health profession. Baltagi, Bratberg and Holmas (2003) show that hospital physicians are quite responsive to wage changes.

40. See Table 8 in Farmindustria (2004).

41. For drugs with sales above NOK 100 million (around EUR 12 million), the maximum reimbursement price (the "step price") is 70% of the price of the originally patented product in the first 6 months after the patent expiration, 50% after the sixth month and before one year, and 30% afterwards. For drugs with sales below NOK 100 million, the maximum reimbursement price is 70% of the price of the originally patented product in the first 6 months after the patent expiration, 60% after the sixth month and before one year, and 50% afterwards.

42. The Centre Medical Methodology, the Foundation for Health Services Research and the Division of Health Services Research of the Health and Social Service Directorate at the Ministry of Health.

43. Another possible explanation is that the chief executive officer (CEO) of the eastern health enterprise had previous experience with the hospital sector at the county level before the reform. CEOs of the other RHEs had experiences in different sectors. If this is the main explanation, current deficits could just be a transitional phenomenon which should fade away as the new CEOs accumulate experience on the health care sector.

44. Cooperation and coordination of RHEs and health trusts could also help reduce costs, for example by centralising the purchase and use of equipment allowing equipment to be exploited more continuously.

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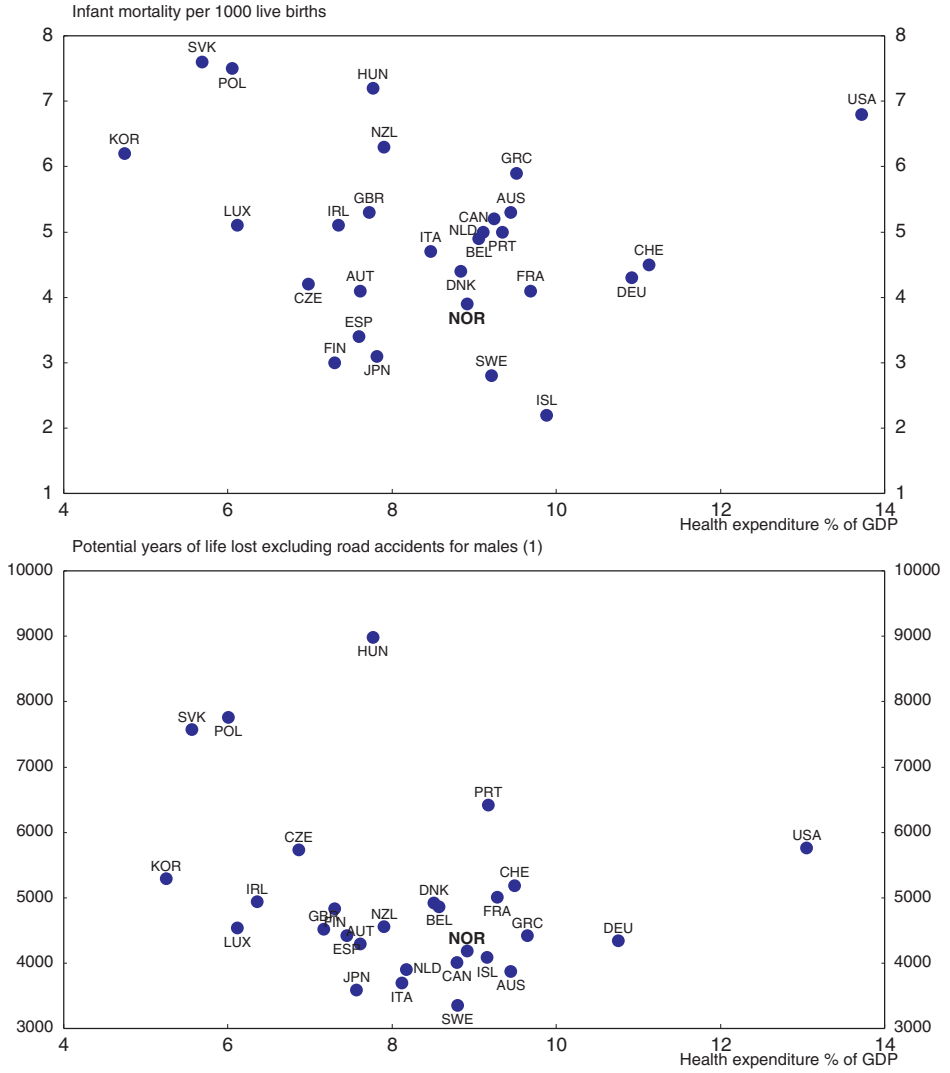
ANNEX 4.A1

# *International health statistics: background information*

Figure 4.A1.1. **Expenditure and health status in OECD countries**

In 2002 or nearest year available




*Note:* No data available for Mexico and Turkey.

1. Males aged less than 70. The Potential Years of Life Lost is a summary measure of premature mortality which provides an explicit way of weighting deaths occuring at younger ages (before 70 years), which are *a priori* preventable. Rate per 100 000.

*Source:* OECD Health Data, 2004.



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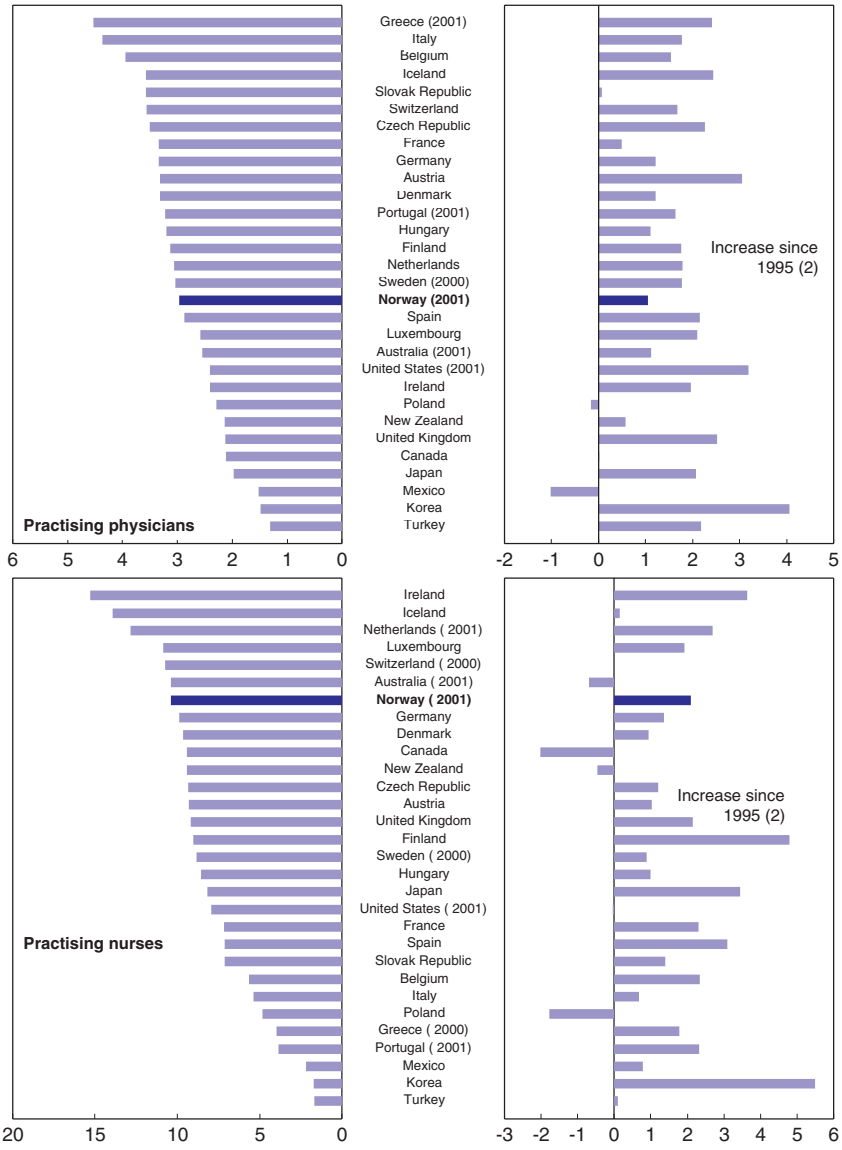
## Figure 4.A1.2. **Health care personal**

Per 1 000 population
In 2002 or latest year available[1]

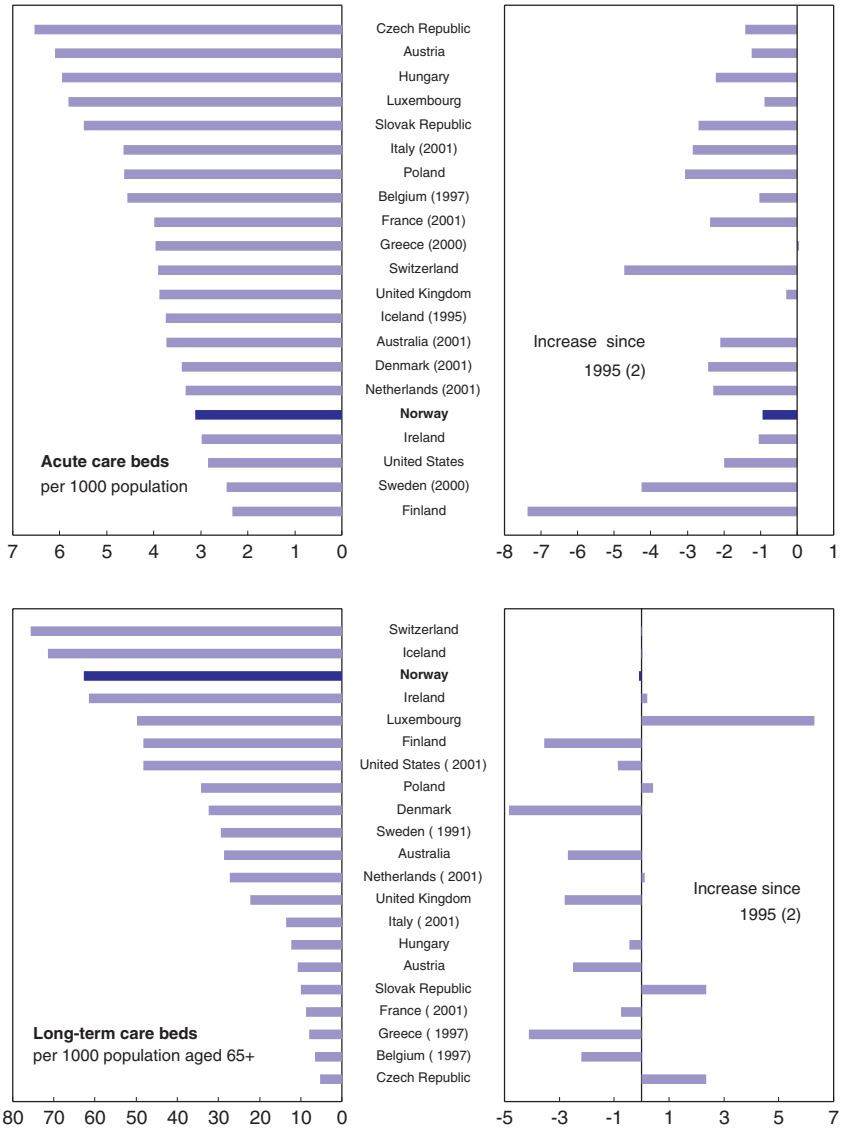



1. Shown into parenthesis.
2. Average annual percentage change since 1995 or nearest year available. For practising nurses, since 1997 for Norway, the Netherlands and Germany.

*Source:* OECD, Health Data 2004.

## Figure 4.A1.3. **Acute-care and long-term-care beds**

In 2002 or latest year available[1]




1. Shown into parenthesis.
2. Average annual percentage change (when available) since 1995 or nearest year available. Data available only from 1996 for the Slovak Republic. Only one observation in 2001 for Italy.

*Source:* OECD Health Data, 2004.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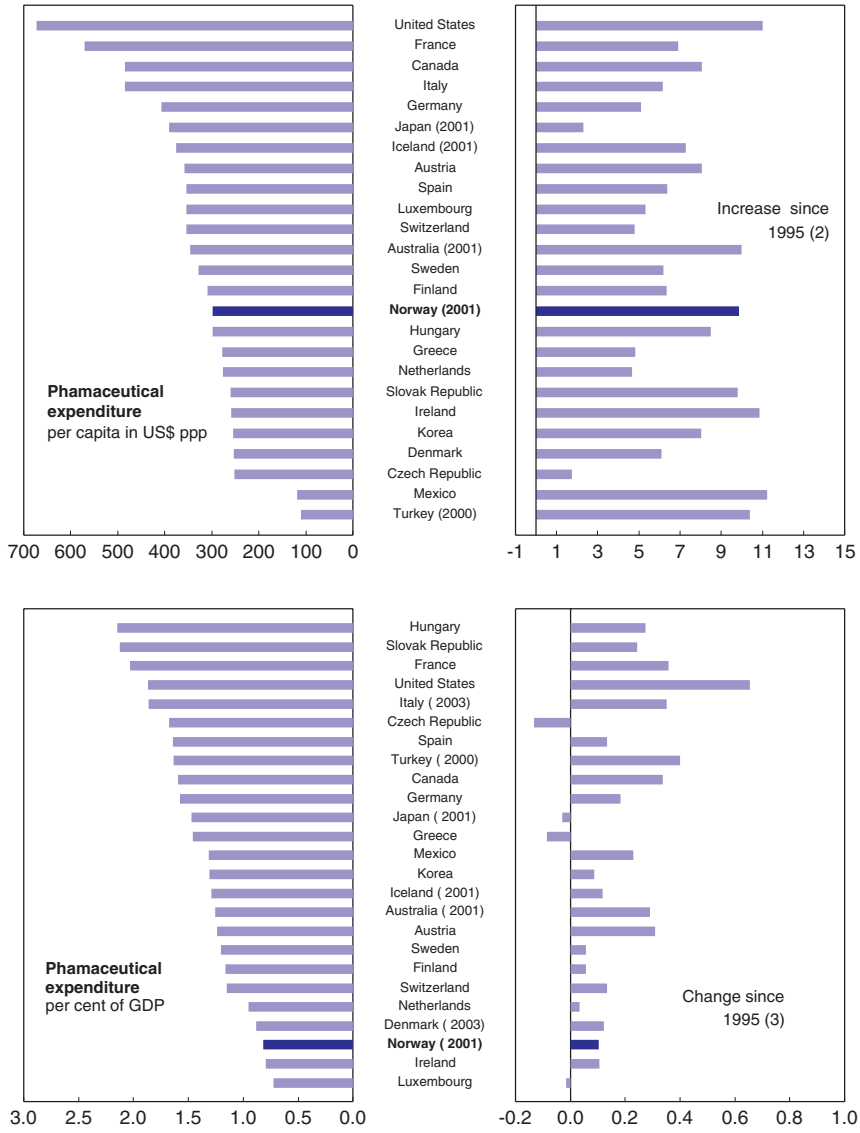
## Figure 4.A1.4. **Pharmaceutical expenditure**

In 2002 or latest year available[1]




1. Shown in parenthesis.
2. Average annual percentage change (when available) since 1995 or nearest year available.
3. Change in level.

*Source:* OECD Health Data, 2004.

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