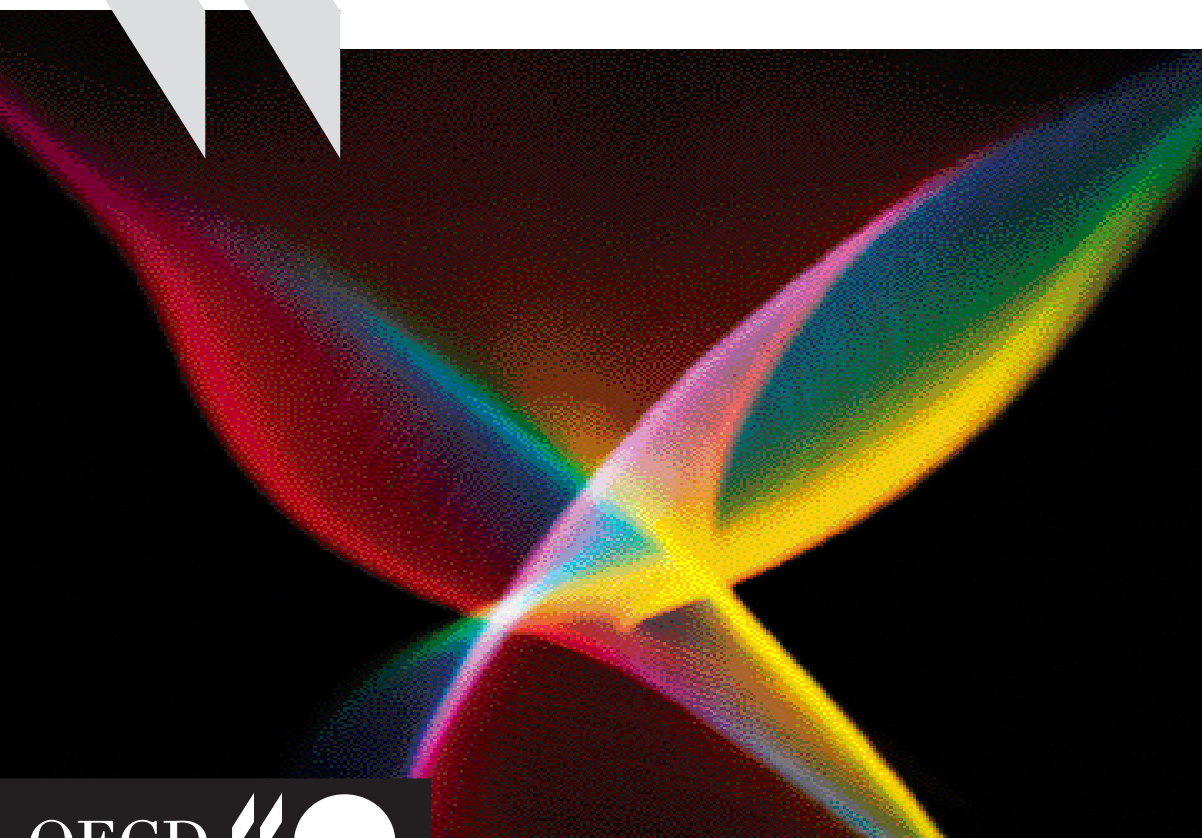
OECD Economic Surveys

Norway



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OECD ECONOMIC SURVEYS

2004

Norway

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

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Publié également en français.

Table of contents

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Boxes

Tables

Figures

BASIC STATISTICS OF NORWAY

THE LAND

Area (1 000 km^2) :		Major cities (thousand inhabitants, 1.1.2003):	
Total (2001)	385.2	Oslo	517.4
Mainland (2001)	323.8	Bergen	235.4
Agricultural (2001)	10.4	Trondheim	152.7
Productive forests (2002)	74.5		

THE PEOPLE

Population (thousands, 1.1.2003)	4 552.3	Total labour force (thousands)	2 354
Number of inhabitants per km^2 (1.1.2002)	11.8	Civilian employment (thousands)	2 249
Net natural increase (thousands, 1.1.2002)	10.7	Civilian employment (% of total):	
Net migration (thousands, 1.1.2002)	17.2	Agriculture, forestry and fishing	3.5
		Industry and construction	21.7
		Services	74.6

PRODUCTION

Gross domestic product:		Gross fixed capital investment	
NOK billion	1 520.7	% of GDP	17.0
Per head (USD)	41 833	Per head (USD)	7 132

THE GOVERNMENT

Public consumption (% of GDP)	21.9	Composition of Parliament (number of seats):	
General government (% of GDP)		Labour	43
Current and capital expenditure	47.5	Progressive	26
Current revenue	58.4	Christian Democrats	22
		Conservative	38
		Centre	10
		Social 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)	41.5	Imports of goods and services (% of GDP)	27.3
of which: Oil and gas	17.8		
Main commodity export (% of total):		Main commodity import (% of total):	
Fish and fish products	5.8	Ships	1.0
Base metals and producs	7.7	Raw materials (including fuel andchemicals)	10.4
Machinery and transport equipment		Base metals and products	8.4
(excluding ships)	8.3	Machinery and transport equipment	
Mineral fuels	60.7	(excluding ships)	34.1
Non-oil commodity exports by area (% of total)		Non-oil commodity imports by area (% of total)	
EU	67.8	EU	68.4
of which: Denmark and Sweden	21.0	*of which*: Denmark and Sweden	23.8
United States	7.6	United States	6.3
Rest of the world	24.6	Rest of the world	25.3

THE CURRENCY

Monetary unit: Krone		January 2004, average of daily rates:	
		NOK per USD	6.81
		NOK per euro	8.59

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.

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The economic situation and policies of Norway were reviewed by the Committee on 26 January 2004. The draft report was then revised in the light of the discussions and given final approval as the agreed report by the whole Committee on 27 February 2004.

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The Secretariat's draft report was prepared for the Committee by Alexandra Bibbee, Flavio Padrini, Simen Bjørnerud, Jens Hoj and Boris Cournède under the supervision of Nicholas Vanston.

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The previous Survey of Norway was issued in September 2002.

Assessment and recommendations

Norway has been a high performer…

In recent decades, Norway has been in the forefront of OECD growth performance, and has managed to boost growth in the mainland over the last decade. Mounting oil wealth has contributed to Norway's per capita income being on a par with that of the United States, but this good performance also owes much to other factors: stability-oriented macroeconomic policies that have prevented oil wealth from being frittered away; efficiency gains from past liberalisations in a number of service sectors; direct impacts and spill-overs from the capital intensive, technologically sophisticated, and booming oil sector; a strong work ethic, as reflected in unusually high participation rates for men and women, old and young alike; and a high-performing labour market, in which a brisk rise in employment has accompanied strong growth of productivity. Norway's traditionally high social cohesiveness and solidarity have also ensured that the utilisation of the oil wealth benefits people at all levels of society, and will continue to benefit future generations well after the oil itself is depleted. The challenge will be to maintain this good performance going forward.

… but continuing with strong performance presents challenges, especially maintaining sound macroeconomic policies and improving both labour utilisation and productivity

The first main challenge is to *manage monetary and fiscal policies*, and the balance between them, so as to strengthen policy credibility and thus provide a stable framework for growth. The second issue is the threat to long-term *fiscal sustainability* under current policies. A still-maturing yet demographically-challenged pension system faces a spending surge sharper than elsewhere in the OECD. The third major challenge is to arrest *declining labour utilisation* resulting from high and rising recourse to sick leave and disability pensions. The final issue, receiving special treatment in the Survey, is the *need to strengthen competition in product markets*. Despite its strong productivity performance, OECD indica-

tors suggest that Norway possesses substantial scope for further gains from pro-competitive reforms, which will be critical in moving towards a post-oil economy.

The new fiscal and monetary frameworks were a welcome development…

For at least the last decade, a central policy concern for Norway has been to manage its rising oil wealth in an effective way. During most of the 1990s, the policy emphasis – embodied in the "Solidarity alternative" – was to preserve the competitiveness of the mainland economy, using monetary policy to stabilise the nominal exchange rate, incomes policy to deliver nominal wage growth in line with trading partners, and fiscal policy to keep aggregate demand in line with potential. Around the turn of the century, spending pressures arising from the mounting oil wealth called for a redesign of the policy framework. In 2001 monetary policy was formally shifted to a flexible inflation-targeting framework and the inflation target was set at 2½ per cent. Fiscal policy was also redefined by stipulating that the annual transfer of oil revenues to the state budget, to finance a structural "non-oil" deficit, should over time equal the "real return" on the Petroleum Fund, estimated at 4 per cent of the Fund value. While this rule "locked-in" a modest degree of fiscal expansion at a time when for cyclical reasons a fiscal tightening might have been more appropriate, it had the substantial advantage of setting out clearly a prudent long-term basis for the use of mounting Petroleum Fund assets – something that was lacking in the previous policy regime – while establishing the right of future generations to a share of the oil wealth.

… but they got off to a rocky start

Partly reflecting international economic developments, but also domestic tensions, the implementation of the new framework faced challenges in its first two years. This was the case for both monetary and fiscal policy:

– The Central Bank was faced in early 2002 with wage increases that were clearly excessive relative to the inflation target and raised interest rates by ½ percentage point, thus maintaining a high differential with other countries. The krone appreciated further, reinforcing the cost competitiveness problems facing the exposed sector after several years of high wage growth, and subsequent job losses in manufacturing were high. Starting in mid 2002, falling import prices

brought inflation down quickly to below the target. Moreover, lower domestic growth and moderate wage settlements in early 2003 pointed in the direction of more moderate inflationary pressures in the medium term than earlier envisaged. Starting at end-2002, the central bank cut interest rates, by a total of 5 percentage points by early 2004, and the real exchange rate (in relative consumer price terms) fell back to its long-term trend. Inflation has remained well below target.

– As regards fiscal policy, the guidelines for the use of oil money did allow in a general way for year-to-year deviations to smooth the market based swings in the value of Fund assets, and to accommodate cyclical fluctuations. In the event, the combination of falling asset prices internationally, sluggish growth in the Norwegian economy, tax cuts and increased spending, resulted in the use of oil money over the past two years exceeding the expected real return of the Fund by an average of one per cent of GDP per year. Moreover, current budget plans entail no correction for 2004, a year of economic recovery. Ministry of Finance projections are that even if use of oil money is frozen in real terms from now on – hence contracting relative to GDP – a return to the 4 per cent path would occur only towards the end of the decade.

Macroeconomic policies need to be coherent, and flexible inflation targeting helps

To underpin a balanced and sustainable recovery, monetary and fiscal policies will need to be coherent. Implementing monetary and fiscal policies to allow the underlying policy anchors – the inflation target and the fiscal rule – to acquire strengthened credibility, while still allowing appropriate flexibility, would reduce the risk of large swings in real and financial variables. As regards monetary policy, the Central Bank follows a flexible inflation targeting regime, meaning that a sufficiently long time horizon in pursuing its inflation target allows some weight to be put also on the output gap. Over time, a stable development in both employment and inflation can best be ensured when the social partners internalise the long-run relationship between real wages and productivity, as well as the nominal anchor provided by the inflation target. Arguably, the very moderate wage settlements in 2003 may be an indication that this is already occurring, although the real test will

come with the next upturn. Monetary policy credibility will be critical. Regular hearings before Parliament with the Bank Governor have been introduced at end-2003, an essential step toward strengthened accountability, transparency and communication of the Bank's goals and strategies for achieving them. Recent moves to de-politicise the bank board selection process are also welcome.

Fiscal consolidation needs to be more ambitious

The key requirement for fiscal policy is to establish and maintain credibility of the fiscal rule, faced with spending pressures that will intensify during this decade and onwards, because of rising health spending and public pension commitments, even with reforms to the calculations of benefits as recently proposed. A faster return to the 4 per cent spending rule path than currently envisaged is thus desirable, especially because if markets see that pressures to overspend are irresistible, the currency will tend to appreciate. A further delay of the return to the original oil-rule path would undermine the credibility of the fiscal guidelines. The adoption of a multi-year budget anchor could be a means of achieving fiscal objectives.

Reforms to reduce spending on the public pension system are needed. ..

Even if adhered to, the fiscal policy guideline will provide little in the way of additional budgetary resources to meet longer-term spending pressures from an ageing population. The use of oil money under the rule would increase by only about 1 percentage point of GDP by 2030 relative to its present rate. Gross spending on public pensions, if no reforms are put in place, would rise by some 10 percentage points of GDP. Spending on health is also likely to rise as the population ages. Long-term fiscal sustainability should thus be given more priority in policy-making, and room for manoeuvre in current fiscal policy should be decided within those lines. Norway's unusually large prospective increase in public pension spending reflects generous benefits, a still-maturing system, and (especially) marked expected increases in future life expectancy. Reforms in the old-age pension system are currently under discussion, and three of the suggested measures – to introduce a life expectancy factor which automatically reduces the pension level for an age group if life expectancy increases, to make pensions more actuarially fair, and not to index pensions fully to wages –

would reduce the expected increase in spending by 4 percentage points of GDP. These changes should be phased in soon.

… even if there is a shift to a partially funded system

The Pension Commission also suggests replacing the Petroleum Fund and the National Insurance Fund with a new pension fund, supplementing the (reformed) pay-as-you-go (PAYGO) system. How such a fund would operate, and indeed what liabilities it would actually fund, are issues still to be clarified. In any event, 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. Reforms to curb future pension outlays of the sort described above are thus still imperative. One possible advantage to the course suggested by the Pension Commission is that it would be politically difficult to take resources out of a fund that was earmarked for pension payments and use them for other purposes. Pressures to increase public spending in other areas might then be easier to resist. It is important that if the new pension fund is adopted, revenues should be invested in line with the guidelines for the present Petroleum Fund. These would ensure that a large part of oil revenues are invested in foreign financial assets to neutralise pressure on the exchange rate. Safeguarding the capital value of the Fund over time would require fiscal policy to be conducted consistently with the fiscal rule.

Reform of non-pension social spending is also desirable…

Health and long-term care expenditures will also put pressure on (especially local) budgets as the population ages, highlighting the need for higher revenues and lower spending elsewhere. A "modernisation" programme for the public sector was launched when the government came to office in 2001. This programme aims at better use of resources, for example by encouraging market solutions in the public sector, but needs to be pursued further. In particular, all for-profit contestable services could be privatised, while ensuring a level playing field between public and private providers of public services. To this end, the introduction of VAT compensation for all municipal purchases from private companies is a welcome step. Central government should decentralise responsibility to local governments and

design appropriate incentives to encourage public entities to reach mutually-agreed performance targets. At the same time, the role of cost-benefit analysis in spending decisions should be strengthened.

Sickness benefits are rising disquietingly rapidly

While spending on old-age pensions will start accelerating in a decade, spending on sickness benefits and disability pensions is already mounting rapidly. The number of persons on long-term sickness and different disability schemes has increased dramatically since the mid-1990s. Measures to reduce the recourse to sick leave need to be taken. A 2001 agreement (without financial incentives) between the unions, employers and the government to cut the amount of sick leave by 20 per cent from mid-2001 to the end of 2005 will be difficult to fulfil as sick leave has already risen by more than 10 per cent since then. Hence, the authorities should explore other mechanisms to reduce absence rates, notably through a tightening of the sickness benefits or of their eligibility criteria. Furthermore, enhanced monitoring of the working capabilities of beneficiaries should be further strengthened by the National Insurance Authority.

… and numbers entering disability pensions need to be curtailed

Despite above-average life expectancy, Norway has a higher share and a higher inflow of people on disability pensions than most other OECD countries, and so far, few of these eventually re-enter the work force. There is also a substantial flow out of long-term sick-leave into disability schemes. As a result, 10 per cent of the working population and a third of those over 55 are now on disability pensions. The corresponding expenditures put severe pressure on public finances: about 5 per cent of GDP per year is now being spent on disability, rehabilitation and sickness benefits. This disquieting development can partially be explained by Norway's high participation rate, which means that people more prone to fall sick or into disability nevertheless join the work force. Still, it is plausible that important causes are the overall generosity of the benefit system and inadequate monitoring. To reduce the inflow into permanent disability, a temporary disability benefit is now granted (for a period of between one to four years) when future work-capacity of the individual in question is uncer-

tain; permanent disability pension will only be granted when the individual has no work-capacity. However, further efforts should be made to reduce attractiveness of the schemes and to counter abuses facilitated by complaisant doctors and weak controls. Moreover, independent audits of disability claims should be instituted.

Adverse trends in labour utilisation must be reversed

Norway has among the highest participation and employment ratios in the OECD, notably among women and older age groups, and one of the lowest structural unemployment rates. Yet, average hours worked are relatively low, probably reflecting the high participation rates among women, who typically demand part-time work. But average hours worked have also declined faster than in other OECD countries largely, but not only, because of rising recourse to sick leave, as noted above. Enhancing micro efficiency in the labour market is important in order for Norway to remain one of the best performing countries. Removing work disincentives from the benefit system, including those discussed above for sickness and disability, should remain the priority objective in this area. Recent measures reforming the unemployment benefit scheme – a reduction of the maximum duration and replacement rate for benefits, along with a tightening of eligibility requirements – are further steps in the right direction. Finally, a cash benefit – introduced in 1999 for parents not using the publicly-funded childcare centres – tends to reduce female participation in the labour force. Hence, the scheme could be substituted by a voucher system for families to be spent in formal private or public childcare centres, thereby reinforcing the current per-user public financing system.

Useful reforms are proposed to the tax system

A tax reform is in the pipeline. Tight labour supply and a bias toward housing consumption can be traced in part to tax disincentives. Furthermore, the tax system creates both incentives and opportunities for classifying labour income as lower-taxed capital income. The tax reform proposed by the Skauge Committee makes a good start to correcting these distortions. Closing tax planning loopholes and increasing property taxes while phasing out the wealth tax as proposed by the Committee should be considered. Carefully planned and progressive tax reductions should also be

envisaged, especially at the bottom and the top income brackets.

More flexible work contracts should be allowed

The generally good labour market performance in Norway suggests that the institutional framework in this area is in basically good shape, but improvements should still be sought to increase flexibility and improve work opportunities for marginal groups. A committee is currently reviewing the 1977 employment protection law and the regulations on overtime have recently been liberalised. It would be desirable to reconsider several aspects of issues concerning employment protection legislation, for example contract duration, and compensation for loss of employment that could be defined or modified by individual agreements – including in the public sector – rather than by law or collective agreements. Furthermore, public employment services and active labour market programme remain important features of the Norwegian labour market. The current programme of service liberalisation should be continued in order to further increase workers' search opportunities and ensure the cost-effectiveness of training programmes.

The traditional wage bargaining model may have to adapt

In the medium term, a modification of the centralised and co-ordinated system of wage negotiations, encouraging a more disaggregated approach taking into account sectoral, skill and local labour market conditions, would be desirable. Such factors are hardly reflected in current pay awards in the public sector, leading to labour market inflexibility and sub-optimal incentives to accumulate human capital or exert effort. Such a development need not preclude the continuation of some form of centralised bargaining, which has attractions for both employers and unions, as it reduces transaction costs and provides signals for more detailed negotiations elsewhere. A continued lead role by the exposed sector in the process of wage formation seems essential, as this sector has the strongest incentives to wage moderation. The ongoing expansion of the service sector and the increasing share of high-skill workers will probably result in market pressures for more flexibility in wage settlements at decentralised and individual levels, including in the public sector. This would increase returns from investing in human capital. At the same time, it is important that

reform of the labour market be accompanied, or even preceded, by that of the product market: if the wage discipline currently afforded by centralised wage bargaining fails to be replaced by robust internal competition, decentralisation might make matters worse.

Education quality is in need of improvement

Performance of Norwegian students in primary and secondary education has been disappointing compared with the high amount of spending per student. Measures recently put forward by the Ministry of Education are very comprehensive and would improve the quality of education, but all of them taken together would be very expensive. A priority list should accordingly be arranged, stating clearly the main objectives to be achieved, the costs of attaining them, and how each measure should be phased in. A systematic reform of tertiary education towards a performance-based financing system has been introduced, starting from the current academic year. The new system is likely to enhance teaching and research quality. The changes should be monitored in the coming years to make sure that the new financing system does not lead to an easing of requirements for students or an excessive attention by researchers to short-term results.

A pro-competition framework will improve living standards…

Competition is key to raising living standards by making firms search for better ways to meet consumer tastes and for better means of production and organisation. Available OECD indicators point to weak competitive pressures in a number of areas in Norway. As a consequence, productivity growth has been slow in some sectors and prices are higher than in most other countries in Europe. Important network sectors are dominated by large publicly-owned incumbents. Agriculture and food processing enjoy extensive protection from foreign competition. A wave of acquisitions and mergers in the past has led to economies of scale but also a highly concentrated and vertically-integrated retail sector, notably in food. Looking forward, broad-based and sustained reform efforts to strengthen competition are needed, to stimulate growth of potential output, as oil resources are exhausted. OECD estimates suggest that such reforms might boost the level of potential output by at least 4 per cent.

… and it should be promoted by reforms

The competition authority and the sector regulators should be given the necessary instruments and powers to prevent and deter anti-competitive behaviour, as has been proposed in the new competition law. Measures should be introduced to make enforcement more effective, such as increasing prosecution capacity, instituting powers to issue administrative fines, and making sanctions credible enough to deter. The introduction of leniency and whistleblower programmes would uncover and destabilise cartels. In addition, reform should include further strengthening the independence of sector regulators as well as establishing independent appellate bodies for both the competition authority and the sector regulators, which would separate more clearly the public sector's roles and functions as owner and regulator. Other measures to promote competitive markets would aim at increasing foreign competition by removing trade barriers, especially in agriculture, and remaining restrictions on inward FDI, especially in fisheries and power generation. Domestic competition should be enhanced through an expansion of the government's privatisation programme. Where there are demands for retaining public ownership, clear and transparent regulation should define and control acceptable public engagement in market activities. To prevent anti-competitive cross-subsidisation, a more rigorous approach to evaluating and financing the net cost of universal service obligations should be introduced. The current practice of only accounting separation between natural monopoly and contestable sectors of publicly-owned network companies should be replaced by formal separation requirements.

Sector-specific reforms and deregulation are also required

To underpin the effectiveness of such general measures, a number of sector specific measures are required, such as removing state monopolies and reviewing licence requirements for establishing large shopping centres outside densely populated areas to facilitate new entry in the retail sector. In the electricity sector, an expansion of national and international interconnection capacity could enhance competitive pressures. Private investment should be stimulated by removing the asymmetry in the concession rules that apply to private and public hydro-power plants. In telecommunication, the incumbent should divest its hold-

ings of alternative networks, while interconnection and termination charges need close monitoring with a view to lowering them where justified. In domestic air transport, recent liberalisation measures should be underpinned by lowering entry cost *via* the introduction of cost-based user charges for airport handling services. Intermodal competition in land based passenger transport should be increased by ownership separation between the railway company's rail and long-distance bus activities, as well as reviewing local restrictions on the latter. Liberalisation of postal services should be accelerated. In the market for public procurement, clear dispute settlement facilities and sanctions for non-compliance or annulment of contracts should be introduced. The cost of regional policy should be made more visible and transparent by instituting a regional policy framework strategy.

Norway has made notable efforts for sustainable development

Norway has committed itself to enlightened policies aimed at sustainable development for the welfare of present and future Norwegians with positive externalities in the rest of the world. Among these are: investment of government oil revenues to generate a steady income stream for Norwegian society for many years to come, as noted earlier; one of the highest OECD levels of carbon taxes to help curtail Norway's contribution to global warming; and one of the most generous OECD levels of overseas development aid to help address large and growing global income disparities. These policies display a willingness by Norwegian society to sacrifice near-term interests for the greater good. Yet, their effectiveness has often been undermined by inconsistencies, either within policy design itself or with other policy goals. Hence, a desirable next step would be to implement a higher degree of policy coherence, as in ways suggested below.

However policy interactions need to be more coherent

The carbon tax scheme has been inefficient because of high variability of tax rates across emission sources and exemptions. Its planned replacement by a broad emissions trading scheme to fulfil the Norwegian Kyoto obligations in 2008-2012 is welcome. The national scheme in fact goes beyond the EU counterpart because of its broader coverage of gases and sectors. The state of most commercially impor-

tant fish stocks in Norwegian waters is at sustainable levels given current quotas, which are set in line with long-term management plans. Nevertheless, a further increase in stocks would be desirable as it would give long-term rewards in the form of higher sustainable quotas. The internationally negotiated total allowable catches for North Sea cod have been set above the scientifically recommended levels, resulting in a sharp decline in the stock to below precautionary levels. Norway has one of the highest rates of agricultural protection in the OECD, something that conflicts with the goals of development assistance by denying developing countries outside the LDC group access to the Norwegian market, where they could be very competitive (thereby also raising Norwegian consumer welfare). From 1 July 2002 all products from the LDCs have been accorded full duty and quota free access to the Norwegian market according to the GSP-scheme. Norway should consider granting more generous market access also for developing countries outside the LDC group, and also enhance the transparency of the safeguard mechanism in its system of trade preferences. Preferably, the whole system of output-based regional support should be replaced by a well-targeted transfer scheme and an alternative regional development philosophy which facilitates movement of resources to human capital-intensive activities where Norway is more likely to display a comparative advantage.

Summary

The short-term outlook for Norway is good. Helped by global recovery, growth could proceed at above potential rates for a while, especially as inflation is well below target and there is some cyclical slack in the labour market. Interest rates are low, and fiscal stimulus needs to be withdrawn. Indeed, it will be important to rein back spending over the next few years in order to get back onto the self-imposed track of permissible spending of oil revenues that is consistent with notions of intergenerational fairness. In the longer term, the case for continuing fiscal restraint is even stronger. Reflecting both demographic factors and the maturing of the system, public spending on pensions will rise considerably over the next decades, even if the major reforms now under discussion are quickly implemented. In the future, growth of living standards will have to rely primarily on increases of

productivity and employment in the non-oil private business sector. To maintain vigour in the non-oil economy, reforms in both labour and product markets, and in social policies and transfer programmes are called for. There are important interdependencies among policies in these areas and it is unlikely that success will be achieved without advancing with comprehensive reforms. More flexibility is desirable in wage setting, particularly in the public sector. Proposed changes in the fields of education and training will raise skill levels, but value for money needs to be an important criterion when prioritising the programmes. Competition should be strengthened through regulatory reform and a more active policy stance: proposed amendments to strengthen the enforcement framework are an opportunity to make competition policy more central, and should include an independent appellate body. State ownership and subsidies to agriculture should be reduced. Norway's comprehensive social programmes ensure that poverty is virtually non-existent, and a strong work ethic and a high level of social trust led to comparatively little abuse in the past. However, the very rapid rises in numbers on disability pensions and on sick leave suggest that stricter controls are needed. Advancing the reform efforts suggested above will be necessary to harness the more efficient use of resources, thereby raising non-oil potential output and ensuring that Norway maintains a high standard of living in the years to come.

1. Economic trends and policy challenges

Introduction

Norway's per capita income is on a par with that of the United States, and far above the average of EU countries. This enviable performance owes much to oil wealth, but it is by no means the entire explanation. A strong work ethic as reflected in unusually high participation rates for men and women, old and young alike, and stability-oriented macroeconomic policies prevented oil wealth from being frittered away in recent decades. Aggregate flexibility of labour markets, and certain flexible features of product markets, allowed high productivity and rapid employment growth to co-exist, in contrast to much of the rest of Europe, where productivity growth was more likely to reflect substitutions of labour by capital. Norway's traditionally high social cohesiveness and solidarity have also ensured that the exploitation of oil assets benefits people at all levels of society, and will continue to benefit future generations long after they are depleted by the current generation. Successive governments have been able to deliver the sorts of social and environmental policies and outcomes that Norwegians want, without – so far – damaging growth prospects, and belief that the State can be trusted, by and large, to "get things right" remains strong.

But there are also less positive aspects of the development of the Norwegian economy. Past and prospective consumption of even part of the oil assets has had the side effect of reducing the competitiveness of the exposed non-oil sector. The 2001 fiscal guidelines importantly helped to contain such crowding out pressures by establishing clarity about the time path of oil money absorption. However, the new rule has proved as difficult to enforce in a period of economic slack as fiscal rules in many EU countries. In addition, Norway's population is ageing as in other OECD countries, and its public pension system has still to mature fully, implying very large increases in pension spending over the next few decades. Without reforms, either taxes would have to rise substantially or spending on other areas would have to be sharply cut back, to keep the deficit within the envelope allowed by the fiscal rule.

Increases in sick leave, disability pensions and rehabilitation have developed rapidly, to the point where they not only strain public finances but also

significantly reduce available labour resources. This trend affects young workers as well as older low-skill workers. Trust in the competence of the State also extends to allowing it to operate in many economic sectors. A preference for co-operative solutions sometimes obscures the longer-lasting and more fundamental benefits that can come from competitive solutions. It is therefore important that policies are put in place, or implemented more intensively, which will ensure that *i*) Petroleum Fund assets are not dissipated to finance current spending, in particular which may unintentionally introduce disincentives to work or subsidise non-viable economic activities, and *ii*) future living standards are safeguarded, against both tailing-off of oil production and ageing, by continuing high, or higher, levels of labour utilisation and continued strong growth of productivity in non-oil sectors.

This survey looks at the way in which undesirable trends in Norway's economic performance can be checked and suggests policies to generate outcomes that will be sustainable for the long-run. This chapter covers Norway's recent economic and policy record, near-term prospects, and the main identifiable future trends and policy challenges. The following chapters then elaborate in greater depth on the needs for reform in the fiscal, competition, labour, human capital, and sustainable development areas.

Fiscal and external sustainability issues

Implications of the ageing and oil depletion shocks

Intensive exploitation of the oil resource since around the mid-1970s has made Norway the third largestoil exporter in the world. The government's policy has been to capture as much of the oil rents as possible for the benefit of society as a whole and, since 1996, to invest net oil revenues in the Government Petroleum Fund. This is composed exclusively of foreign financial assets (with respective bond and equity shares of 60 and 40 per cent), thus building up the government and foreign net asset positions simultaneously. The objective was to provide a steady income stream to present and future generations alike, and to prevent a strong appreciation of the krone.

In 2001, a new fiscal rule formalised this concept by allowing "smoothed" fund income, *i.e.* applying an estimated long-run real rate of return of 4 per cent, to be transferred back to the budget each year. With net receipts from oil production about to peak in the next few years, the fund should attain a maximum level of 130 per cent of GDP by around 2030 and deliver roughly 5 per cent of that year's GDP in "permanent" income, allowing Norway to enjoy primary fiscal deficits in perpetuity, though gradually declining through time in relation to actual GDP. These policies compare favourably on both equity and efficiency grounds with those followed in most other major oil producers. It is also perhaps striking that the majority of OECD countries currently face the prospect of leaving substantial debts, rather than assets, to their progeny.

Annex 1.A1 presents a simple analysis indicating that this benign long-run scenario still faces hurdles in the form of "twin" macroeconomic imbalances implying future claims on budgetary and foreign exchange resources that, in the absence of preventive actions, could overwhelm the permanent oil fund income flows:

i) Actuarial imbalance in the pension system implies by 2050 pension deficits more than double the permanent income from oil wealth. If left unchanged, they would consume the entire oil fund well before 2050, or else require gross debt exceeding oil fund assets – either way making Norway a net debtor country, in spite of the stipulation by the 2001 rule that the oil fund not be used to fund the pay-as-you-go system but to be a perpetual income to all future generations.

ii) A large estimated non-oil current account deficit also substantially exceeds the long-run real return from the oil fund. In the long run, if left unaltered, it could entail a similar depletion of net foreign assets (of which the oil fund is the greater part) once oil production declines and ceases, necessitating a substantial future exchange rate depreciation to restore external equilibrium.

Norway's challenge will be to act in a timely manner to enable pension and non-oil current account imbalances to adjust toward sustainable levels, *i.e.* commensurate with the constraints of potential growth and permanent oil income. Fiscal adjustment will be critical in this regard, both to make room for future pension spending and to reduce crowding out of the non-oil exposed sector. The Annex suggests that such an adjustment should be manageable, on the order of 5-6 per cent of GDP. But this analysis critically assumes that present slippage from the fiscal rule, largely reflecting adverse market and cyclical conditions since its inception, will be corrected quickly, *i.e.* as soon as a turnaround of such conditions permit. In the end, the "inter-temporal budget constraint" cannot be escaped: continuing to spend more now would entail less spending later as the oil money will be exhausted in the future, but crowd out other activities in the meanwhile, making the future adjustments even more difficult.

Averting a future fiscal crisis

Growing imbalance in Norway's pay-as-you-go pension scheme arises from several sources:

i) because of the introduction of supplementary pensions (on top of a minimum pension) less than 40 years ago, and massive labour market entry of women over the past decade – mainly into the public sector where pension benefits tend to be higher than in other sectors – the system is still maturing and the current low level of spending (9 per cent of GDP) is misleading;

ii) rising take-up of disability and early retirement schemes has not been on actuarially fair terms, as pension rights continue to be accumulated until official retirement age;

iii) passing into retirement of the baby boom generation, starting in the second half of this decade;

iv) their replacement over time by much smaller numbers of future workers; and

v) large estimated increases in life expectancy (by more than seven years for those born between 2002 and 2050), which means a dramatic increase in average time spent as pensioner.

Together, these influences imply an increase of pension spending by around 10 percentage points of GDP by 2050, and overall age-related spending rises substantially more than anywhere else in the OECD (Table 1.1). Most other OECD countries' pension systems face similar demographic pressures but have already reached full maturity and been reformed, at least partly, often from much more generous income replacement levels than Norwegians enjoy today. Thus, early and relatively straightforward actions to stem the future rise in pension spending can be quite effective in defusing the pension "time bomb" in Norway.[1]

The government has now put pension reform high on its agenda, and it will be important that this be soon implemented. The Norwegian Pension Commission in early 2004 introduced proposals that appear to fit in well with ongoing OECD-wide best practice reforms, along the following lines:

– I*ndexing pension benefits to prices* (at least partly), instead of wages as has been the case in Norway for the last couple of years, has been a common step, in recognition that preserving relativities on a per capita basis is very expensive for those still working, when the relative sizes of the working and retired cohorts change dramatically. Also, as pension benefits are more or less fixed in real terms, the country can more easily "grow out of" its problem via structural reforms in product, labour, and financial markets. With full indexing to nominal gross wages,[2] economic growth actually aggravates the pension imbalance. The Commission recommends that pensions, including also those of already retired people, be partly indexed to prices in Norway.[3]

– Most countries have pursued *actuarial fairness* by tying pension benefits to life expectancy at retirement and to contributions over entire working lives, rather than the best 20 years as in Norway. Placing costly early retirement and old-age pensions on an actuarially fair basis, and tightening access to the former schemes, may be difficult in view of strong opposing interests and the unexpected burden it puts on those who are approaching retirement, so that early rather than late action, allowing for a transition

Table 1.1. **Projections of age-related spending, 2000-2050**[1]
Levels in per cent 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[2] (8)	Level 2000 (9)	Change 2000-50 (10)
Australia	16.7	5.6	3.0	1.6	0.9	0.2	6.8	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	3.0	6.0	–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	2.0	6.0	–1.2
Denmark[3]	29.3	5.7	6.1	2.7	4.0	0.2	6.6	2.7	6.3	0.0
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	5.0	. .	. .	[5.7]	[3.1]	. .	. .
Hungary[5]	7.1	1.6	6.0	1.2	1.2	0.3	. .	. .	. .	. .
Italy	[19.7]	[1.9]	14.2	–0.3	. .	. .	[5.5]	[2.1]	. .	. .
Japan	13.7	3.0	7.9	0.6	. .	. .	5.8	2.4	. .	. .
Korea	3.1	8.5	2.1	8.0	0.3	0.0	0.7	0.5	. .	. .
Netherlands[6]	19.1	9.9	5.2	4.8	1.2	0.4	7.2	4.8	5.4	0.0
New Zealand	18.7	8.4	4.8	5.7	. .	. .	6.7	4.0	7.2	–1.3
Norway	**17.9**	**13.4**	**4.9**	**8.0**	**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	8.0			[6.2]	[2.5]	. .	. .
Sweden	29.0	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	–1.0
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	8.0	4.5	2.5	–0.4	. .	. .	. .	. .

1. Data for health care shown in square brackets are drawn from EPC (2001). They are the result of an EC exercise using a common methodology for all countries. The projections are based on the same macroeconomic assumptions as in the OECD (2001) Table 3.1. 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 per cent 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 per cent 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. OCDE 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).

period, is desirable. Disability schemes should go back to their old function which is to transfer benefits to the disabled independent of age. These types of reforms bring double benefits, by improving work incen-

tives and thereby simultaneously promoting growth.[4] The Pension Commission has proposed counting full-working-life contributions and, most importantly, introducing a life expectancy factor in the calculation of benefits. Altogether, the parametric reforms should reduce the level of pension expenditures by some 4 percentage points of GDP by 2050, significantly reducing the foreseen financing gap. The issue of rising disability pensions, not within the remit of the Commission, remains to be addressed.

– A further and ambitious step would be to *pre-fund future pension liabilities*, at which few countries have succeeded, because it is so costly for present workers to have to pay "twice", to support current retirees and build their own nest-eggs. Norway is virtually unique among OECD countries in having the option of being able to finance much of the transition without incurring debt, by using the assets of the oil fund.[5] This would have the virtue of putting the resources of the fund out of the reach of populist measures. The Commission, in fact, proposes combining the present Petroleum and National Insurance Funds into a "pension fund". It seems that the capital of the fund would not be earmarked to pension obligations, consistent with the present fiscal rule, and the bulk of the fund should continue to be accumulated abroad, as in the present Petroleum Fund, to prevent a strong appreciation of the krone. However, the Commission also recommends that there be no growth of unfunded liabilities henceforth. This further rule would likely require future worker contributions into the fund, which in turn could be invested in domestic assets to help reduce currency mismatch between pension assets and liabilities.[6] These issues remain to be clarified.

Strengthening the non-pension component of public finances ahead of ageing will also be necessary in pursuit of fiscal sustainability, especially as costs such as health and long-term care are expected to weigh more heavily as the population ages (Table 1.1).[7] As in the case of pension reform, these efforts should also go in the direction of favouring economic growth, so as to ease the long-run fiscal constraint by increasing the tax base. Tax cuts, tax reform, and generally less public involvement in the economy would be highly desirable in this respect.[8] Thus far, however, tax cuts have not been matched by sufficient spending restraint. Henceforth, any scope to boost the efficiency of public spending should be fully exploited. Government services which are normally private in other countries could be made so in Norway, and beyond that, market forces should be introduced (insofar as reasonable) into government activities, notably by enforcing competition between public and private providers of common services (*e.g.*, health, education, labour market services) and decentralising public wage formation. These processes are all underway, but need to be deepened.

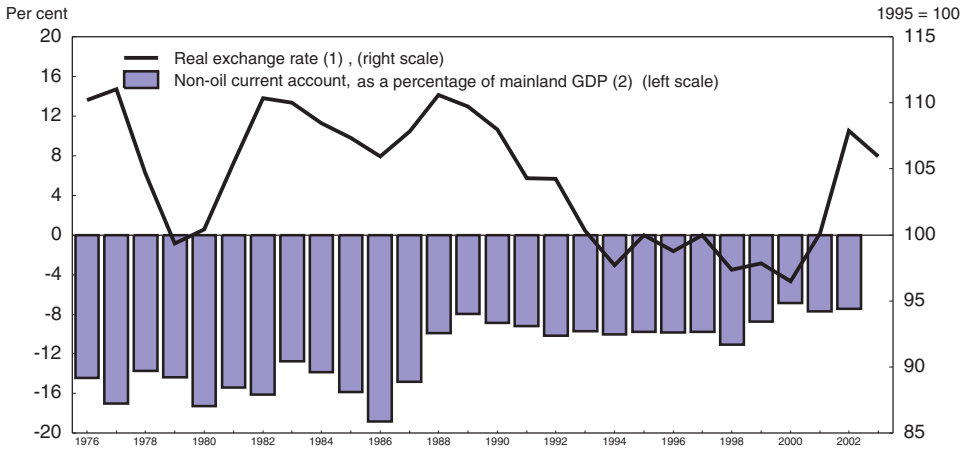
Containing the "Dutch disease"

The "Dutch disease" – the paradox whereby resource abundance lowers growth by crowding out the non-resource exposed sector (where productivity growth is normally high) via real exchange rate appreciation – has been well-documented for countries faced with sudden natural resource wealth, or similar positive supply shocks.[9] Since the mid-1990s, the Norwegian oil management policy can be seen as a strategy to minimise real-side disruptions coming from the oil shock. That is, investing oil export receipts abroad should neutralise their balance of payments, hence exchange rate, impacts. But arguably, even if the money were not spent, it could lead to upward pressure on the exchange rate because market participants believed it would be spent at some point. Thus, with oil receipts rising rapidly towards end century, policies needed to adjust further. The need for the economy to absorb oil resources, via the budget, was expected to necessitate an upward trending real exchange rate in order to avert inflation pressure,[10] and markets (and society) needed an anchor in how fast oil money was to be used in order to set the exchange rate appropriately.

The ushering in of a new macroeconomic policy regime in 2001 was a major landmark in steps to insulate the economy from Dutch disease. A 4 per cent of oil fund cap on the year-to-year budgetary use of oil money and 2½ per cent inflation targeting by the central bank were established. Such a long-run mix of expansionary fiscal and tight monetary policies ensured a sustainable phasing in of oil money and hence, only gradual upward pressure on the real exchange rate. Moreover, with the inflation target being set (for domestic reasons) slightly above that of trading partners, this by itself should provide the bulk of the expected real appreciation over time.

The real exchange rate, as measured by relative consumer prices in a common currency, has shown a marked tendency to move with the cycle, both before and after adoption of the new policy regime. In part, this has reflected sensitivity of the nominal exchange rate to variations in the oil price, as international portfolio investments tend to flow towards oil exporters when the oil price (hence expected economic growth) rises, and vice versa. However, contrary to earlier expectations, no clear long-run trend is apparent. A very large real appreciation between the trough and peak of the long 1992-2002 cycle essentially offset the real depreciation over the preceding cyclical peak-to-trough (a sharp appreciation during 2002 itself was mostly reversed in 2003), which itself had reversed the initial large real appreciation in the early period of oil exploitation (Figure 1.1). The non-oil current account deficit has likewise been generally stable as a share of GDP, apart from a sharp decline after 1986 when oil prices, hence terms of trade incomes, fell. On the other hand, the real exchange rate as measured by labour costs in a common currency remains substantially higher than the long run trend, pointing to a deteriorated profitability position of the exposed sector. As a result,

Figure 1.1. **Real exchange rate and non-oil current account**



1. Expressed as relative consumer prices in a common currency.
2. Excludes trade in oil and gas products and in oil-related investment goods and business services.
Sources: OECD and Statistics Norway.

sectoral employment losses have been quite large, and incentives for Norwegian industry to participate in the international trend toward outsourcing to low-cost countries have been enhanced.

A sectoral analysis shows a shift of resources out of manufacturing toward sheltered sectors, notably the public sector. However, the shift from agriculture has also been significant, despite the considerable resources devoted to the protection of agriculture and to agricultural communities (Table 1.2). To some extent, these have been OECD-wide trends reflecting common influences of technology and globalisation. However, in Norway the decline of manufacturing has been relatively sharp while the persistent rise of public services employment in the 1990s has been unique. In turn, this may reflect a relatively high and sustained level of pressure on domestic resources arising from the government budget, as a 4-5 per cent of GDP non-oil deficit has been sustained over the past 25 years thanks to financing from the oil account (Figure 1.2).[11] Seen in this perspective, the new fiscal rule does not signal a strong rupture with the past, when oil receipts were smaller but all being spent (they are now bigger but largely being saved). By constraining the long-run non-oil structural deficit to 4 per cent of oil fund capital, it implies (on the basis of updated oil fund value) a rise in the deficit from around 2½ per cent in 2001 to 5 per cent of GDP by around 2030 (then gradually decreasing), *i.e.*, initially restrictive given recent fiscal outturns, then temporarily

Table 1.2. **Sectoral shares of value added and employment**

	Value added				Employment			
	1975	1985	1995	2002[1]	1975	1985	1995	2002[1]
Oil and gas extraction[2]	1.8	12.1	9.4	12.9	0.1	0.9	1.0	1.1
Agriculture, mining and quarring[3]	4.7	3.7	3.4	2.4	10.3	7.5	5.2	3.9
Manufacturing	33.1	25.0	23.2	18.8	22.4	16.6	14.2	12.6
of which:								
Food, beverages and tobacco	6.6	5.5	5.4	4.3	3.2	2.8	2.6	2.3
Refined petroleum, chemicals and mineral products	3.9	3.6	2.4	2.5	1.9	1.4	1.1	1.0
Machinery and other equipement	6.4	4.6	4.5	4.0	5.7	4.3	3.5	3.3
Building of ships, oil platforms and moduls	3.8	1.7	2.0	2.0	2.4	1.5	1.6	1.5
Construction	8.5	7.6	6.8	6.5	7.3	6.9	5.4	6.0
Market services[4]	51.9	51.7	57.3	59.3	59.8	68.1	74.2	76.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Memorandum items:								
General government	11.3	11.9	14.3	14.3	20.6	25.5	31.1	31.2
Manufacturing in other countries								
United States	21.7	19.1	17.4	14.1	20.2	17.1	14.0	12.1
Germany	32.1	30.2	22.6	22.2	32.6	29.2	22.6	20.9

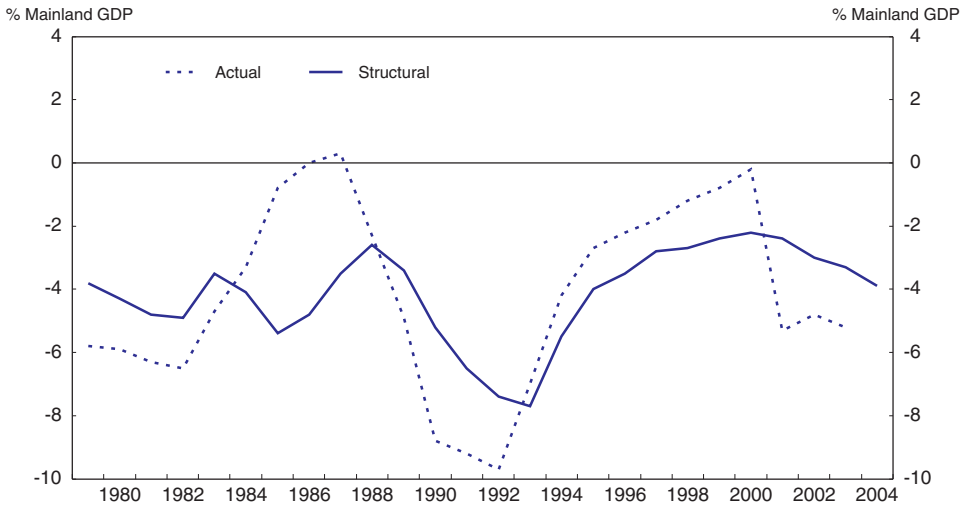
1. 2001 for United States, and Germany.
2. Including services.
3. Including forestry, fishing and hunting.
4. Excluding services to oil and gas extraction sector, and including electricity, gas and water supply.

Sources: Statistics Norway and OECD.

expansionary but ultimately stabilising. In the event, the deficit immediately overshot its baseline path and reached 4 per cent of GDP by 2003, its estimated level as late as in 2009. Hence, the major relative price movements should have taken place at a relatively early stage of oil exploitation, being then largely based on the anticipated absorption of the oil money.[12]

It must be concluded that oil money has left the exposed non-oil sector in a weakened state, though this has probably been inevitable, and that the main channel has been via public expenditure. On the other hand, the major adjustments have already been made, and these might have been much larger had it not been for the new policy mix. By the same token, the future containment of potential crowding out pressures will require continuing credibility of the new rules, notably a timely return to the fiscal guidelines following recent strains. Over time, moreover, it is likely that Norwegian firms will become less sensitive to short-term movements in the exchange rate, as seems to have happened in other countries that have adopted inflation targeting.[13] Nevertheless, the outsourcing route has become much easier since the opening of east Europe and could become even easier with the upcoming European enlargement. The challenge of

Figure 1.2. **Non-oil budget balance**



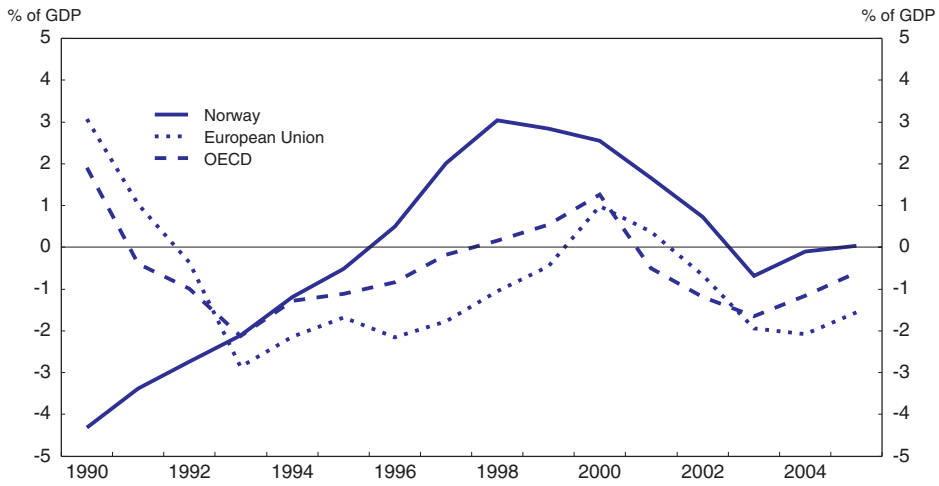
Source: Ministry of Finance.

developing less price-sensitive (higher productivity) production in response to outsourcing is a major one that is common to all OECD countries.

Macroeconomic policies: finding their bearings in the new regime

The central bank faced a severe test of its new inflation-targeting regime early in 2002, when wage increases were far higher than anticipated. Fearing sustained high cost-driven inflation, the bank tightened monetary policy. The krone appreciated strongly, exacerbating the downturn in manufacturing, which was also suffering from the bursting of the ICT bubble and global recession. Fiscal policy was expansionary, adding to pressures on wages and exchange rates. Sharp reductions in interest rates starting in late 2002, strong oil investments, much lower wage settlements influenced by rising unemployment, and continued fiscal expansion have set the stage for recovery, and the currency has weakened back toward its longer-term average. At this stage, it seems that macroeconomic policy has contributed to a soft landing (Figure 1.3). But there are risks. Inflation is now well under target, and there are no major internal or external inflationary pressures. Monetary policy could stay too lax too long, and fiscal policy is not set to tighten in 2004, even if such tightening is called for by longer term considerations. In the worst case, the economy could thus continue to cycle excessively, and the "two-track" economy – booming consumption, weak non-oil investment – could

Figure 1.3. **Output gap in Norway and among trading partners**
Annual figures



Source: OECD (2003b).

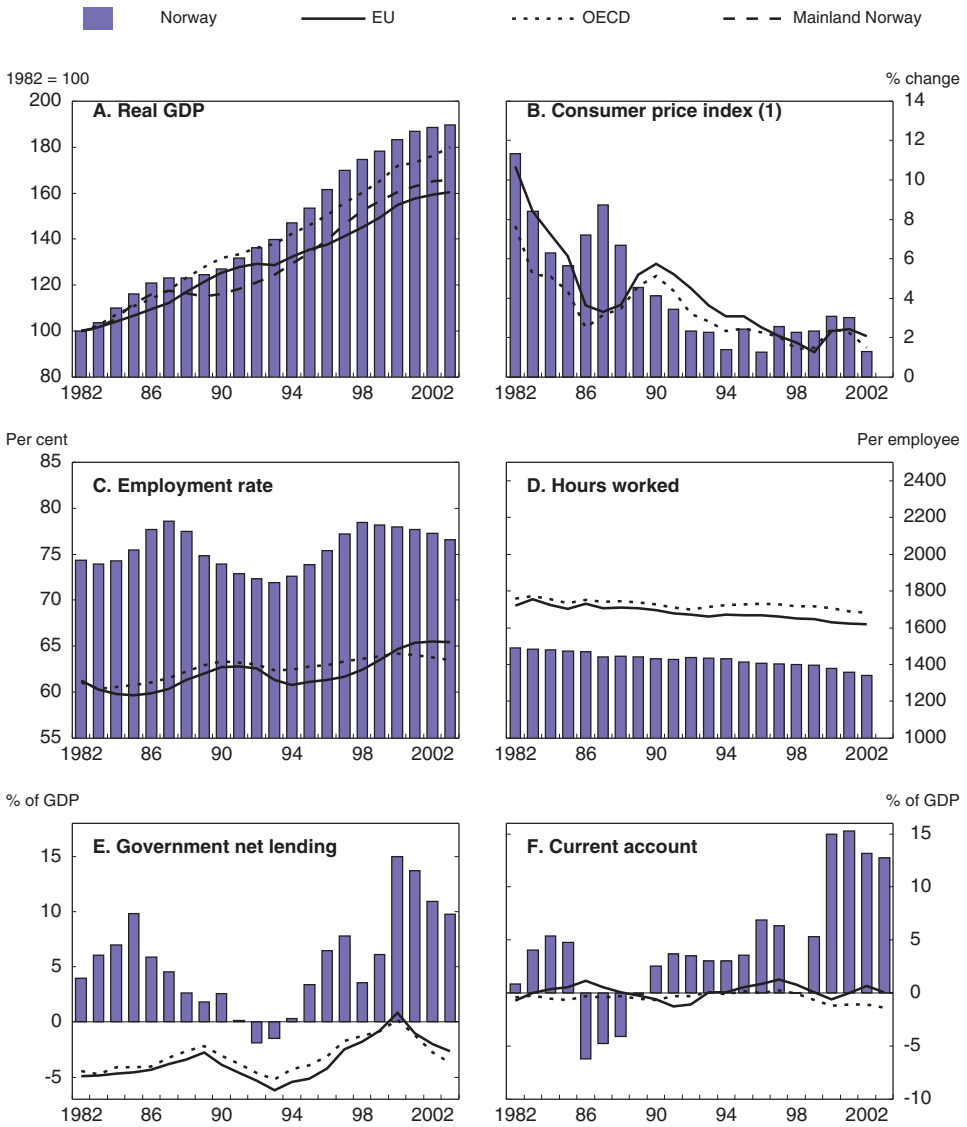
become ingrained, retarding the very structural changes that are needed to impart resilience to future macroeconomic performance.

Macroeconomic performance and the policy mix

Macroeconomic policy management in Norway has long been implemented against a background of centralised and outward-oriented process of wage formation that ensured overall wage moderation under a wide range of macroeconomic conditions. Up until the policy regime switch in 2001, monetary policy was geared to stabilising the exchange rate over time, while fiscal policy had a main responsibility for macroeconomic stabilisation. Together with an elastic labour force and relative ease of worker dismissals, supported by fiscal transfers, such an "incomes policy" arrangement imparted longer-term stability. Macro flexibility, coupled with a high recourse to active labour market policies, might have minimised damaging labour-market hysteresis effects to be found in more sluggishly adjusting economies, and indeed, structural unemployment is very low and employment rate very high in Norway compared with the rest of the OECD (Figure 1.4).

Even so, as in other small, open economies with a high dependence on resource-based industries, cyclical fluctuations have been relatively sharp, though as an oil producer Norway has been partly insulated from OECD-wide oil shocks.

Figure 1.4. **Key macroeconomic indicators**



1. OECD excludes high inflation countries.
2. Total employment as a percentage of working age population (aged 16-64).

Source: OECD.

As already seen, the real exchange rate has also fluctuated with the cycle, while showing a marked tendency to "mean reversion". Inflation and real interest rates have tended to be somewhat higher than among trading partners (Table 1.3) but price levels have been much higher (Chapter 3). High prices may be a puzzle, given the generally high-performing economy, and appear to reflect relatively high factor costs (and taxes) rather than excessive profit margins. Indeed, in 2002 wages for blue-collar workers in manufacturing were 35 per cent higher than among trading partners (in a common currency). Per capita real income moreover is one of the highest in the OECD, and excluding oil, it is above the OECD average. This reflects not only high employment rates, but also quite high productivity, despite muted product market competition (see last section below).

Table 1.3. **Inflation and real interest rates: Norway v. euro area**

	Average period		
	1982-1985	1985-1995	1995-2003
CPI inflation			
Norway	7.9	4.4	2.3
Euro area	8.1	4.0	2.0
Real short term interest rates			
Norway	5.6	6.4	3.4
Euro area	3.3	4.8	2.1

Source: OECD, Purchasing Power Parities.

The 1992 "Solidarity Alternative" among the social partners enshrined the important principle that wage setting in Norway should be geared to maintaining international competitiveness, as is appropriate for a small open economy. Practically, this required that the exposed sector move first in the wage negotiations, setting the pace for wage growth in other sectors.[14] The reinforcement of the consensus-based framework set the stage for strong growth throughout the latter half of the 1990s. However, labour market pressures became intense as labour shortages developed, and a strong pick-up in wages over the five-year period 1998 to 2002 led to a sharp shift in income shares. At first, a depreciating exchange rate helped to maintain profitability in the exposed sectors, but with an appreciating krone from mid-2000, exposed firms could not pass on the cost increases to prices to the same extent as could firms in the sheltered sectors. The wage boom, particularly in 2002, exceeded what could have been expected, even given the tight labour market. However, the 2002 downturn resulted in rising unemployment, with the exposed non-oil sector being particularly hard-hit, and led to renewed wage moderation in 2003, much as expected by the traditional model, while policy-led declines in inflation and real interest rates gave compensating support to real household incomes.

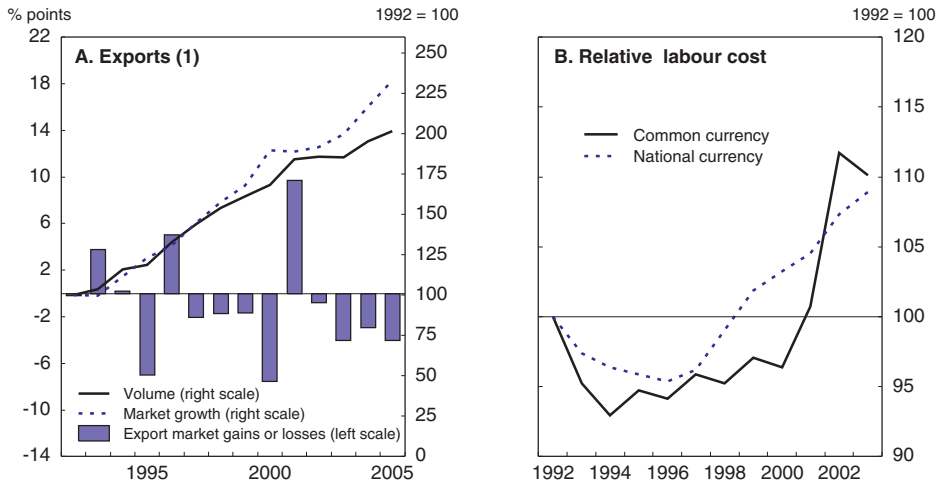
An important consideration is whether the 1998-2002 wage boom signalled the ending of the solidarity regime owing to a permanent shift in the balance of power between workers in exposed and sheltered sectors. If so, the issue may have been only partly settled by a reiteration by the social partners and government in the spring of 2003 of the joint commitment to a continued lead role by the exposed sector in centralised wage negotiations, which itself seemed to acknowledge the need for the wage bargaining model to adapt toward a greater degree of micro flexibility (see Chapter 4). An alternative explanation is that fiscal policy was not sufficiently tight to prevent overheating of the economy. Up to 2001, fiscal policy could not perform its traditional output stabilising role insofar as "oil euphoria", and bullish stock markets, created an exaggerated expectation of wealth and a reduced perception of economic limits. Subsequently, the switch to inflation targeting replaced theanchor provided by exchange rate targeting and assigned a greater stabilisation role to monetary policy, while the new fiscal rule was intended to manage the gradual phasing in of oil money. The wage negotiations of early 2002 featured large public sector wage awards, intending to catch up after falling behind since the launching of the "Solidarity alternative", and still tight labour markets contributed to substantial wage growth overall. Tax cuts, coming on top of the wage gains, added to demand pressure on labour resources.

Monetary policy

The adoption of inflation targeting in March 2001 was soon followed by the unexpectedly high wage settlements of the wage rounds for 2002. The central bank increased the interest rate by 0.5 per cent point to 7 per cent in July and held it there until December, thus maintaining the large gap *vis-à-vis* foreign rates that had already emerged in the previous year, and the krone appreciated sharply. The exposed sector consequently came under double strain (Figure 1.5). With relative labour costs climbing by a cumulative 17 per cent from 1998 to 2002, and relative unit labour costs probably by much more, 15 000 manufacturing jobs (5 per cent of the sector's labour force) were eliminated in 2002.[15] A discussion arose of whether the central bank should take greater account of the exchange rate in the future conduct of monetary policy.[16] A substantial undershooting of inflation became apparent by mid-2003, as the core inflation rate fell to well under the 1 per cent interval around the 2½ per cent central target (Figure 1.6).

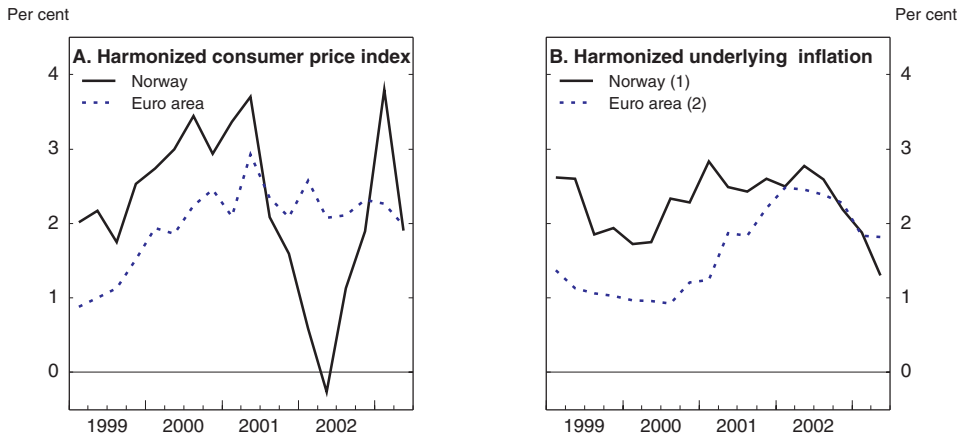
In retrospect, it would appear that monetary policy stayed too tight for too long. But it is hard to blame the central bank for tightening *ex ante*, as it was faced with an acute dilemma in response to a large wage shock,[17] with uncertainty heightened by an array of factors. F*irst*, the wage increase was clearly excessive and posed a major challenge to the central bank's first real test of its credibility as inflation fighter. Even though its mandate states that policy consideration should also be given to the output gap (Box 1.1), at the time it seemed prudent to err on

Figure 1.5. **Export performance and relative labour costs**



1. In a common currency.
Source: OECD (2003b) and Statistics Norway.

Figure 1.6. **Price developments in Norway and euro area**
Year-on-year percentage changes



1. Consumer price index adjusted for tax changes and excluding energy products (CPI-ATE).
2. Less food, energy, tobacco, alcohol.
Source: Statistics Norway and OECD.

Box 1.1. Flexible inflation targeting

Norges Bank follows a "flexible inflation targeting" regime, meaning that the output gap is in some sense included along with the inflation rate in the bank's objective function. The weight given to the output gap is directly related to the time horizon allowed for meeting the inflation objective. That is, trying to stabilise inflation over a relatively short period would require aggressive and frequent interest rate changes, which in turn would destabilise output, whereas a longer period permits greater stability of interest rates and output. Econometric analysis by the bank suggests that the lags in transmission from the short term interest rate (its instrument for monetary control) to inflation are long and the effect is strong. Thus, the bank has given itself a rather long period for meeting the inflation target, *viz.* two years, which is also long enough to permit adequate attention to be given to stabilisation of output. Furthermore, it has reserved the option to extend the period beyond two years in the event of unusual shocks, although these are not specified.

Supply shocks such as a wage push or terms-of-trade change – which tend to afflict Norway – pose a dilemma to central banks under flexible inflation targeting because the policies for stabilising output and inflation are usually in that case opposed, at least in the short run. Accurate forecasting tools are indispensable to steer this course, and Norges Bank's macroeconomic model seems to perform well, though it may still need to be adapted to the needs of inflation targeting, as it was developed for another purpose, *i.e.* exchange rate targeting as in the past. Another issue is the choice of exogenous assumptions. In the past, among the technical assumptions used to set its inflation forecast, the bank presented scenarios with constant interest and exchange rates as well as scenarios with market-implied interest and exchange rates, though the former was used to represent the baseline forecast. In its October 2003 *Inflation Report*, however, the bank indicated a shift to the assumption that interest rates shadow forward interest rates and that the krone moves in line with the forward exchange rate, which should be more internally consistent.*

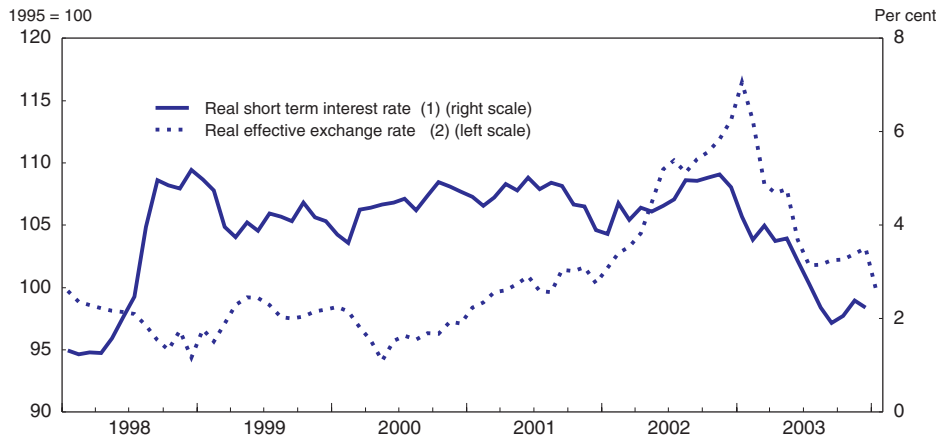
Operating a "flexible inflation targeting" regime can also help to stabilise the exchange rate over time. In the short run, where the international interest rate differential is a main determinant of the exchange rate, the lower variability of domestic interest rates resulting from inclusion of the output gap in the objective function should also imply lower variability of the exchange rate. In the long run, where "purchasing power parity" considerations are likely to dominate, stability of domestic inflation expectations deriving from a successful implementation of the regime should contribute to stability of expectations concerning the exchange rate. Indeed, the opening sentence of the bank's policy mandate apparently refers to the latter linkage, stating that "monetary policy should be aimed at stability in the internal and external value of krone, contributing to stable expectations concerning exchange rate developments" (New Regulation on Monetary Policy). The third sentence then makes clear that the operational target is inflation, and the bank has further clarified that it will react to the exchange rate only insofar as it affects inflation.

* The IMF (2000) maintained that since the use of a constant interest rate path is inconsistent with that of asset prices based on market information, it could actually take much longer than the target horizon to bring inflation back to target following a shock, and recommended that forecasts be produced on the basis of a time-varying interest rate forecast incorporating all relevant information.

the side of the inflation target, even if after mid-2002 a marked slowdown of the economy was becoming evident. *Second*, the extent of the exchange rate climb after policy tightening was greater than expected, probably reflecting the added influence of special factors related to oil and equity market effects,[18] although expectations-based overshooting, in reaction to the new policy mix, cannot be excluded. *Third*, the bank's initial reading of the monetary transmission mechanism may have been flawed, either because the bank interpreted an evidently slower than expected pass-through of the exchange rate appreciation into domestic prices as a weaker than expected one,[19] and/or because economic behaviour changed in response to the policy regime shift itself. Finally, a structural shift toward a higher share of imports from south-east Asia, following recent trade liberalisation, exerted exogenous deflationary pressure via import prices as elsewhere in the OECD ("China syndrome"), which in turn may have contributed to the eventual inflation undershooting.

Even though the bank acted in a way that is consistent with the building of its credibility, it suffered some loss of popular support that came from perceived anti-inflation "overkill" in the critical early period of the inflation targeting regime.[20] However, the bank proved nimble. From end-2002 until early 2004, it lowered the interest rate in frequent and large steps, by a total of as much as 500 basis points, bringing the exchange rate back to a more normal level – but at a much lower than normal nominal interest rate level of 2 per cent (Figure 1.7). Core

Figure 1.7. **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.

Sources: OECD, Statistics Norway.

inflation remained under ½ per cent in early 2004, and the bank announced that it was maintaining an easing bias,[21] while signs of economic recovery were becoming apparent.

Fiscal policy

Fiscal slippage has arguably made the job of monetary policy more difficult. The fiscal rule does, in fact, allow for budgetary smoothing in response to large swings in the economic cycle or in the market value of the petroleum fund, conditions that were fulfilled in the 2002 and 2003 budgets. However, a lack of clear limits (either within or across periods) on deviations from baseline, and political pressures from some quarters to spend more of the oil revenues, may have contributed to financial market uncertainty. The 2004 budget maintains the slippage, and with less justification given the economic recovery, implying a 0.6 per cent of GDP expansionary fiscal stance as conventionally measured by the change in the structural non-oil balance. However, according to a detailed analysis of the demand-impact of different spending and revenue components, the 2004 budget presents the fiscal stance as being in essence neutral, which may have helped to stabilise markets. The budget document also states that, in the absence of a reduction in spending of petroleum revenues, Norway will not get back into line with the fiscal rule until the end of the decade. Even a freeze of spending in real terms may face substantial challenges given that there will be a general election in 2005. Fiscal policy thus appears poised to serve as a source of ongoing tension in the policy mix.

Fiscal laxity may have further adversely affected monetary policy efficiency via the signalling effect of high public wage rises in 2002, mainly going to teachers employed at the local level as compensation for more class hours, though teachers were also demanding wage catch-up after a decade of substantial restraint.[22] The possibility of continuing wage-wage push, as other groups then tried to preserve previous wage relativities, certainly featured in the central bank's reasoning at the time.[23] Some observers hypothesised that the public sector might even be taking over the lead role in wage formation, given its growing size and influence, against the relentless shrinkage of the exposed sector. These concerns have for the moment subsided. Nevertheless, labour shortages in the health sectors may lead to higher wage growth than elsewhere in the economy.

Risks and challenges going forward

The recovery is expected to be stronger and quicker than in most of Europe, reflecting Norway's comparative macroeconomic resilience (Table 1.4).[24] Inflation should gradually come back up to target as the recent depreciation passes through into prices and as the output gap closes, presumably allowing monetary policy to remain relatively easy in the meantime. However, there are

Table 1.4. **Short-term outlook**
Percentage changes from previous period, at constant prices

	Current prices, NOK billion 1999	2000	2001	2002	2003[1]	2004[1]	2005[1]
Private consumption	584.3	3.9	2.6	3.6	3.2	4.0	3.0
Government consumption	263.7	1.3	2.7	3.2	1.0	2.0	2.0
Gross fixed capital formation	271.8	–3.6	–4.2	–3.6	1.9	3.7	–0.5
Public sector	42.3	–11.4	2.9	0.0	0.2	1.8	1.5
Petroleum activities[2]	68.2	–14.7	–9.5	6.8	20.8	10.0	–8.0
Residential	43.1	5.6	3.7	–4.2	–5.0	1.8	2.5
Other private	118.2	2.0	–7.0	–9.4	–4.5	0.9	2.9
Stockbuilding[3]	20.7	0.8	–0.5	0.2	–0.3	0.1	0.0
Total domestic demand	1 140.6	2.4	0.4	2.1	2.0	3.5	2.0
Exports of goods and services	486.2	4.0	4.1	–0.5	–0.8	2.2	3.2
Non-manufactured goods (including energy)	211.7	4.7	3.3	2.3	–0.4	0.9	1.5
Imports of goods and services	393.8	2.7	0.9	1.7	2.5	4.0	3.9
Foreign balance[3]	92.5	1.0	1.6	–0.8	–1.1	–0.2	0.3
Gross domestic product	1 233.0	2.8	1.9	1.0	0.6	2.8	2.0
Memorandum items							
Mainland GDP at market prices[4]	. .	2.5	1.7	1.3	0.3	2.7	2.2
Consumer price index	. .	3.1	3.0	1.3	2.5	1.2	2.5
Private consumption deflator	. .	3.0	2.4	0.7	2.0	1.1	2.3
Unemployment rate	. .	3.4	3.5	4.0	4.5	4.7	4.5
Household saving ratio[5]	. .	4.5	3.7	6.9	5.0	5.3	5.4
General government financial balance[6]	. .	15.0	13.7	10.9	9.8	9.7	8.4
Current account balance[6]	. .	15.0	15.3	31.2	12.7	12.4	12.3

1. November 2003 projections.
2. Includes platforms under construction, crude oil production, oil drilling and pipeline transport.
3. Contribution to GDP growth.
4. GDP excluding oil and shipping.
5. As a percentage of disposable income.
6. As a percentage of GDP.

Source: OECD (2003b).

risks to the sustainability of the recovery. Although unit labour cost growth has now come down, and will continue to do so as the recovery proceeds, its level is still quite high in international terms. Hence, the exposed sector remains fragile and requires a sustained period of wage moderation to restore profitability. The current expectations by the OECD and other forecasters of around 4½ per cent annual wage growth over the next two years is higher than in foreign partners, particularly as Norway's productivity growth advantage is not marked while producers' pricing power seems low (Table 1.5).

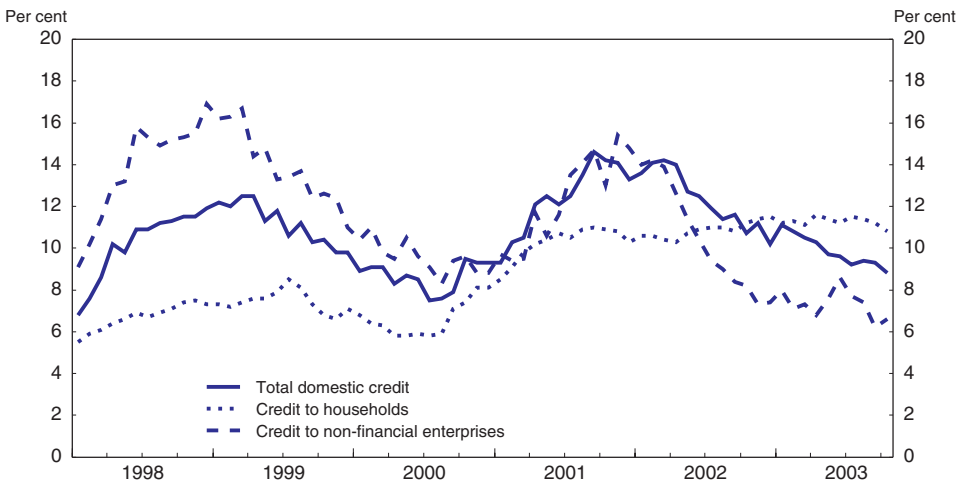
Table 1.5. **Productivity, wage, and price growth**
(2003-2005 annual averages)

	Productivity	Real wage[1]	Export price[2]
Norway	1.66	2.69	6.0
European Union	1.23	1.04	6.8
OECD	1.80	1.24	4.6

1. Measured by compensation per employee, deflated by private consumption deflator.
2. For goods and services, expressed in US dollar terms.
Source: OECD (2003b).

Until this situation is corrected, low interest rates may not do much to spur investment: most of the credit expansion in the economy is still going to households and the public sector (Figure 1.8). Moreover, household disposable income is quite sensitive to interest rates because of high mortgage indebtedness, the vast bulk of which is subject to variable rates, and robust house prices have added to perceptions of growing household wealth. An upside risk is that the economy could grow rapidly if consumption and housing investment boom in response to the unusually low level of real interest rates. But the downside is that consequent overheating (the economy already not being far from its potential)

Figure 1.8. **Credit growth by sector**
Year on year changes



Source: Norges Bank.

might lead to renewed wage pressures and monetary policy tightening. This downside risk would be aggravated by a lax fiscal policy. Once again, the exposed sector would be much harder hit in any subsequent recession than the sheltered sector. Thus, discipline in both fiscal policy and wage setting, the latter based on a continuing lead role for the exposed sector and a credible monetary policy threat, seems essential for a sustainable recovery.

It is important that macroeconomic policies establish the fundamental conditions for durable investment and growth. A tighter fiscal policy, sufficient to lead back soon to compliance with the long-run fiscal rule, seems primordial. Failure to achieve this objective could provoke adverse financial market reactions in interest and exchange rates, exacerbating the crowding out of non-oil investments. Well-informed market reactions to fiscal policy require a high degree of budget transparency. In this respect, the economic impacts of the budget could be made clearer, and credible medium term limits on permitted deviations from the fiscal rule should be established, while maintaining adequate scope for short term flexibility. Increased flexibility in public pay awards, which take into account regional differences in living costs, could furthermore help to maintain aggregate wage discipline and ease the task of monetary policy, while leaving more resources for real public services.

A key challenge is to manage the risk of future tensions in the policy mix. For this, it is important that monetary and fiscal policies be clear about their respective roles and targets, each pursuing its area of comparative advantage. Monetary policy should focus sharply on the inflation target, while giving scope to stabilisation of the output gap within the two-year horizon it has allowed itself for meeting the inflation target. Fiscal policy should avoid being asymmetric in its application (which tends to be the case not only in Norway, but almost everywhere in the OECD[25]), focusing rather on adherence to the fiscal rule, which already gives full play to automatic stabilisers. A higher level of fiscal ambition would ease the burden on monetary policy. If markets perceive that fiscal spending pressures are getting stronger, consequent upward pressure on the exchange rate would pose a policy dilemma for the central bank, as easing in order to meet its inflation target would add to macroeconomic policy stimulus, while tightening to offset the fiscal stimulus would put further upward pressure on the exchange rate.

Achieving a high level of monetary policy credibility will be essential to policy efficiency, hence overall macroeconomic stability, by helping to pre-empt potential wage pressures as social partners internalise the central bank's inflation target. The central bank should continue to refine its analytical tools to help strike the fine balance needed within the flexible inflation targeting regime. Prolonged reliance on very low real interest rates to sustain the recovery could lead to overheating, while a premature tightening could risk prolonged inflation undershooting, in either case compromising monetary policy credibility. It will also be important that the bank maintain open communications and independence in the

pursuit of its objectives. Indeed, it has provided timely information on its policies by regular publications and reporting to government. A welcome step has been the recent de-politicisation of board appointments.[26] Also, the central bank has recently been made subject to parliamentary oversight, strengthening its accountability and transparency.

Structural-macro tensions in the medium run

Per capita income growth has been substantially higher than the OECD average in the last decade even when disregarding the petroleum sector. Annex I.A2 shows that Norway's good growth track record is based on not only rapid employment growth but also robust multi-factor productivity growth, embodying the forces of innovation and rising efficiency. The latter has reflected liberalising service sectors, dynamism stemming from the oil-related sector, and reduced tax distortions thanks to significant oil revenue financing of public spending. Nonetheless, structural challenges await Norway in the medium term. *First*, declining oil activity, as oil reserves are about to peak and will gradually be exhausted, could imply a period of capital stock adjustment and diminishing MFP spill-overs from the oil sector. *Second*, declining labour supply, which has emerged in recent years probably as a consequence of high income itself and is certain to be aggravated later on by demographic ageing, could hamper growth so long as it persists. The process of European expansion, about to begin, will put added pressure on Norway's desirability as an investment and production location. The policy focus, accordingly, will need to be forward-looking. Prudent macroeconomic policies, as discussed above, are the optimal framework under which structural reforms could be quickly implemented in order to secure strong growth on a permanent basis. The structural policy response should involve reforms to boost internal competition, motivate continuing high work effort, stimulate human capital investments, and improve the flow of resources to more highly productive activities. These efforts would in part tap as yet major unexploited sources of growth potential in Norway.

Deteriorated international competitiveness and gradual decline of the oil sector

The deterioration in competitiveness in recent years leaves Norway more vulnerable to the gradual decline in the petroleum sector in the years to come. The above discussion of the outlook shows growth above or at potential until 2005, although it is questionable to what extent the exposed sector will be able to contribute, at current wage levels. However by 2006, Norwegian government estimates show a marked declining trend in oil investments, while oil production is approaching its peak. Although oil exports have little direct impact on the mainland economy (except via the non-oil budget deficit), demand arising from investment in the oil sector is important, representing about one-quarter of overall investment and being supplied to a large extent by mainland industries. The rate

of growth of demand toward the mainland arising from oil activity is due to decline from 8 per cent on average over the period 2003-05 to –27 per cent, on average, in 2006-07 (Table 1.6). Moreover, oil sector productivity is very high due *i.e.* to sophisticated technology, FDI inflows and spill-overs, whereas manufacturing productivity growth – traditionally the main source of productivity growth in OECD economies – is lower than average and the sector attracts relatively little foreign direct investment (Chapter 3).

Table 1.6. **Oil activity**

	2002	2003	2004	2007
Investments in oil activity (billions 2000 of NOK)	52.3	64.0	71.4	34.9
Demand toward mainland[1]	12.5	22.0	12.1	–36.2

1. Percentage change from previous period.
Source: Ministry of Finance.

All this implies that withdrawal of oil activities will impart a possibly substantial negative shock to the economy, both in terms of demand effects on mainland production and structural effects related to technological intensity of overall production. According to the OECD's macroeconomic model for Norway, during a transition period the impact could amount to as much as ½ per cent point of reduced annual growth (Annex 1.A2). Although some part of the oil-servicing industry (*e.g.* platform building and deep sea drilling) can turn its attention to foreign markets, and indeed major efforts are now being made to gain a foothold in emerging production around the Caspian Sea area, the growth of demand in these markets may be limited. Stepped-up non-oil investments will be needed in order to replace the part of the capital stock becoming obsolete. The needs of external sustainability imply that the capital-intensive exposed sector will still be very important. To maintain the growth of living standards, while preserving external balance, the export sector will have to both expand its relative size and improve its competitiveness, including via productivity gains.

These considerations reinforce the importance of containing the deterioration in wage competitiveness. But a further response must be a more dynamic economic structure allowing resources to flow into areas of Norwegian comparative advantage, and finding Norwegian "niches" in the international distribution of production. In other words, because of high wages, cultivating new markets will depend on forms of competition based on higher productivity and human capital-intensive activities. This will require education reforms, and greater attention to R&D, and indeed these should command a greater share of the use of oil money, underpinned by tax cuts and tax reform to improve the incentives to build human capital, to invest in productive activities, and to innovate. A rethinking of the

regional support policies, whereby large sums of money are directed to the conservation of traditional labour-intensive activities (and may actually accelerate the flow of young educated people out of the regions) seems in order as well. The financial sector may also have major unfulfilled potential in steering resources to internationally competitive activities (Annex I.A3). Innovation, however, may be best done through more intense domestic rivalry.

Weak domestic competition and dynamic losses

Competitive forces are by no means absent in Norway. Clear and large benefits of past liberalisation in network industries such as energy and telecoms have improved welfare for the population by keeping prices lower than they would otherwise be. Rationalisation and market opening in sectors such as retail trade and finance has likewise delivered undeniable consumer benefits. Innovation and entry in response to deregulation have been helped by a comparatively low level of administrative barriers in Norway. Such liberalising service sectors have contributed to productivity growth in the mainland economy and, along with oil investment supplying sectors, helped to offset the drag from manufacturing. Nevertheless, a number of indicators suggest that the past liberalisation gains could go further and that overall, competition needs to be strengthened. The gradual reversal and decline of oil activity highlights the importance of capturing the dynamic gains that can arise from more vigorous competition. If the next few years bring the expected strong growth, this may be the best time to enact competition reforms to boost economic performance.

A key problem seems to be the large size of the public sector, which has steadily expanded over the past decade, currently employing almost one-third of the workforce (close to 27 per cent in terms of hours worked) – a greater share than in any other OECD country and going against the general OECD trend. This expansion may have been beneficial in the sense that it absorbed rising labour market participation of women, who tend to work in public sector jobs (civil service, nursing, teaching, child and elderly care), and helped to supply desired public services. However, the provision of public services is comparable with that in other Nordic countries, so the high public sector employment in Norway suggests that production of these services could take place more efficiently. Also, an apparently growing insufficiency of highly educated labour resources for the private sector (see Chapter 4), may pose a challenge to the adjustment of the non-oil sector.

Public ownership of economic enterprises is also remarkably high in international comparison. In the business sector, public production may be guided by non-economic as well as economic objectives, and could create a non-level playing field *vis-à-vis* private firms. Output in the public sector is difficult to measure, but its large size may push down average economic productivity.[27] The government has, in fact, drawn up a plan for privatisation and recognised its importance,

but implementation has been delayed by political opposition as well as practical difficulties. It should also be noted that budgetary difficulties and debt problems – absent in Norway – have provided incentives to privatisation reforms in other countries, particularly in Europe, independently of their putative economic benefits.

Heavy subsidies to protected sectors, notably agriculture, prevent major consumer benefits in Norway together with potential export receipts in developing countries from occurring. Domestic public ownership requirements in some industries, may block the international transmission of technological and management know-how that could importantly help Norway to compete globally. Finally, weak enforcement powers by the Competition Authority suggest that there is a need to strengthen broad consumer interests. The government recognises the importance of stronger competition, however. It has recently proposed a new competition law, believed to be the strongest in Europe in the field of anti-cartel policies, and its passage is important. Further strengthening to the level of best practice in all areas, in particular regarding the need for an independent appellate body, is also important.

Strengthening competitive forces can bring large gains for the economy. The direct and indirect cost of regional support alone may be as high as the permanent income from oil wealth, although these calculations are very tentative (Chapter 3). It will thus be vital to *first*, identify the exact objectives of the regional policy, and *second*, to weigh the costs – both static and dynamic – against the success in achieving these objectives. Agricultural price levels are 50 per cent higher in Norway than in the EU on average, so that large scope for the capturing of further static gains exists. Bringing service sectors up to the level of OECD best practices could raise productive capacity and reduce prices by 3-4 and 3-5 per cent, respectively (Chapter 3).[28] Potential dynamic losses may be a more serious concern, as these cumulate over time. Productivity growth could slow as oil activities wane (above) and one-off effects of past service sector liberalisations wear off. Moreover, reforms to raise labour utilisation may put downward pressure on hourly productivity unless they are accompanied by product market reforms. A programme of intensive privatisation and other pro-competition reforms could add as much as 1 percentage point to potential growth as long as it continues, which in a matter of 10 years would cumulate to a real GDP gap outweighing the whole of the oil wealth (Annex 1.A2).[29] Hence, postponing the more difficult structural reforms on the expectation of a comfortable oil cushion is a costly strategy.

Declining labour utilisation and population ageing

Norway enjoys a remarkably high labour market participation rate, and rising female participation has been a source of growth in the last decade. Its high official retirement age (67) is also a model for the rest of the OECD. It might seem that, unlike in most other European countries, there is limited scope for boosting

GDP growth rates and solving the pension problem by raising labour inputs. However, labour utilisation is around the OECD average because of relatively low average working hours, while also declining in response to strong recent inflows into disability and early retirement schemes, increasing recourse to sick leave and part-time, and four extra paid holidays negotiated in the last wage agreements. The situation becomes more worrisome when juxtaposed against the looming rise in the old-age dependency ratio that is due solely to demographic changes, even though these may be milder than in many other OECD countries because of cohort effects stemming from recent high labour market entry by women. So Norway's significant head start in combating the future ageing burden – ensuring long and full working lives by all members of society – must by all means be preserved through policy efforts. Calculations by the OECD show that pension reforms encouraging longer working lives, as discussed above, could boost Norway's potential labour supply by up to 8 percentage points over the next two decades, as compared with the no-reform baseline, raising annual growth rates by ¼ to ½ per cent point over the same period (Annex 1.A2).

The above adverse trends in part reflect government policies meant to assist working-age citizens who are apparently unable to work. There is a difficult question of incentives here: experience in other countries, as well as in Norway, shows that if the rewards for not working are not too small, then "rational" individuals will take advantage of them. If access to early retirement becomes too difficult, numbers exiting via the disability route tend to increase. Furthermore, the markedly progressive tax schedule, in conjunction with severe wage compression, penalises the market production of household services, in turn necessitating more do-it-yourself and low average working hours (by women). These problems will to some extent be mitigated by cohort effects: the new generation of working women tend to work at full-time and professional-track jobs, unlike many of their mothers. Also, economic progress will entail the expansion of knowledge-based jobs where work might be viewed more in terms of personal fulfilment than drudgery. However, these are slow processes and a careful tightening of access to, and the level of, social benefits together with better monitoring seems essential. It also seems important to provide better transition mechanisms than early retirement for (mainly male) workers being made redundant by the shrinkage of traditional industries. This includes better support to life-long learning and work re-training. There also seems little rationale for early retirement and "pay for no work" schemes in the government, as the problem of obsolete skills should, again, be solved by retraining rather than redundancy.

That said, the growing demand for new skills is usually highly specialised, as in the health sector or in ICT applications in the business sector, and the required training must start early in life. This would be supplied by allowing more returns from human capital and, eventually, a more pro-active educational policy that emphasises basic math, science, and reasoning skills (Norway's educational

outcomes have been disappointing; see Chapter 4). The incomes policy model has been very successful in the past, and a key element in Norway's good macroeconomic performance, but may be declining in relevance as traditional manufacturing is under growing pressure from global competition and new skills are needed for new types of activities. It is important to preserve the best elements of the old model, in particular the lead role of the exposed sector (at least until competition is stronger), while allowing greater scope to wage differentiation based on education and productivity, better complementing technological progress. Greater product market competition, in turn, would reduce rents shared by workers and firms in sheltered industries while reducing prices for all consumers, eventually lessening the need for co-ordination to underpin wage moderation.[30]

Summary: the main challenges

The discussion above suggests four main policy challenges that will need to be addressed in order to secure a stable and high long run growth path:

- The first main challenge is to *manage monetary and fiscal policies*, and the balance between them, to strengthen and avoid destabilisation of the economy. The weakening of cost competitiveness over recent years has left the exposed sector in a vulnerable state, especially as increased competitive pressures are likely to follow enlargement of the European Economic Area. The policy response should include a period of cautious and focused monetary policy and tight fiscal policy to build macro policy credibility, and thereby, impose discipline on wage formation and better anchor market expectations of exchange rates. This would buy time to allow structural reforms to lower costs and improve the flow of resources to areas of Norway's comparative advantage and higher productivity activities.
- The second issue is the threat to long-term *fiscal sustainability* under current policies. A still-maturing yet demographically-disadvantaged pension system faces a spending surge sharper than elsewhere in the OECD. The main answer must be substantial pension reform that would damp the increase in the burden on future generations of workers. Getting back into line with, or even exceeding, the fiscal rule would be another important step, in turn requiring tighter controls on entitlements and enhanced efficiency of all forms of public spending. Binding medium-term limits on deviations from the rule could help to set the right priorities and to balance overall costs and benefits of spending policies.
- The third major challenge is to arrest *declining labour utilisation*, resulting from a declining effective retirement age and falling average hours worked. High growth of government transfers (in opposition to the trend in the rest of the OECD), highly progressive taxation and a compressed wage structure may have distorted the work-leisure and human capital

investment choices. The responses should be better oversight of social support programmes to prevent abuses while tilting their orientation towards work incentives, along with tax and labour regulation reforms to further improve incentives.

– The final issue, receiving special treatment in the Survey, is the *weakness of domestic competitive forces*. Still-pervasive public ownership, an ambitious regional policy, and the sheltering of agriculture has hampered the flow of resources toward activities needed to compete on the global stage and diminished the efficiency and scope of local production. A greater role for the private sector along with the removal of the various forms of protection is probably the quickest way to compensate for the sharp slowdown in the growth of living standards that, *ceteris paribus*, may result from the future loss of oil activities and population ageing.

Finally, it would be hard to overemphasise the importance of interdependencies among policies. That is, it is unlikely that success could be achieved in one area while neglecting others. For example, policies for stepped-up product market competition would permit a relaxation of rigidities in centralised wage bargaining, by establishing another avenue for inflation control, and for improved international competitiveness based on higher productivity activities, by stimulating innovation. Labour market reforms, in turn, could facilitate product market reforms by enabling a swifter and more flexible reallocation of labour among activities and increasing the returns to investing in human capital. Privatisation will be less costly to the budget if flexible product and labour markets allow quicker absorption of superfluous labour. Tax reform to eliminate the distortions hampering labour supply and human capital investments would underpin long-run fiscal performance and economic growth. Policies to arrest the decline in labour utilisation also strengthen public finances via lower social spending. Higher growth from labour and product market reforms would ease the long-run fiscal constraint. Better wage and spending control in the public sector will ease the trade-offs facing monetary policy. Solving the pension problem quickly, while adhering to the fiscal rule, will establish fiscal credibility and underpin private sector confidence that is critical to successful pursuit of macroeconomic policy. Policies to achieve fiscal sustainability would, moreover, help to restore international competitiveness of the non-oil sector, insofar as upward pressure on resources and the exchange rate would be thereby mitigated. A robust non-oil sector would help to maintain the real value of external net assets after oil receipts dwindle, leaving sufficient income for the budget and contributing to fiscal sustainability, in a virtuous circle. The challenges are therefore clear to see and what is required is a sustained and comprehensive programme to deal with them and thereby provide for a much more robust and prosperous economy in the post-oil era.

Notes

1. As the tax burden is already high and progressive, implying dead-weight losses, a higher tax solution to fill the pension financing gap is not realistic.
2. Germany indexes pensions to wages net of social security contributions, reducing the imbalance.
3. Italy has also applied the switch to price indexing to already-retired as well as not-yet-retired worker, and this allowed for a significant decrease of expected future spending.
4. Such reforms are also welfare-enhancing. Actuarially non-neutral retirement schemes bias the retirement decision towards excessive leisure and insufficient consumption, reducing welfare (Duval, 2003).
5. See proposal made in the special ageing chapter in OECD (2001).
6. The OECD (1998), has recommended a broad-based approach to dealing with the population ageing problem, involving a mixture of self-sustaining pay-as-you-go and funded pillars, the latter mandatory or voluntary, to diversify risks, along with an emphasis on policies that preserve work incentives, increase aggregate savings, and strengthen financial market infrastructure, in order to raise potential output. Norway is also one of the five countries where the OECD has recommended policies to raise private savings for retirement, where they are not well developed (see Casey *et al.*, 2003).
7. Annex I suggests that perhaps a 4 per cent of GDP reduction in non-pension spending would be needed to make room for expected increases in age-related health spending and planned further tax cuts.
8. There seems to be a negative correlation between the tax burden and growth in the OECD area. A reduction of the tax level by 10 percentage points of GDP increases the growth rate by ½ percentage point, *ceteris paribus* (see OECD 2003a).
9. See, *e.g.* Krugman (1987) and van Wijnbergen (1984).
10. Another way of viewing this was that the "internal terms of trade" (under certain conditions equal to the real exchange rate) would need to change in favour of non-tradeables sectors, so as to enable a shift of factors of production from manufacturing to service industries in parallel to the demand patterns likely to arise from increased fiscal spending. In the longer run, however, the exchange rate response will be determined by relative productivity developments in the traded and non-traded sectors: if, for example, the shift of employment to the non-traded sector also shifts productivity developments in its favour ("learning by doing"), the real exchange rate would ultimately depreciate (see Torvik, 2001).
11. The non-oil deficit is difficult to compare with other countries, as it reflects a number of adjustments besides oil (Chapter 2), but comes closest to the concept of the primary balance (*i.e.* net of interest payments on the government debt), *i.e.* a measure of govern-

ment's net withdrawal from, or contribution to, domestic demand. The ensemble of OECD countries showed an average primary deficit of 0.3 per cent of GDP over the period 1985 to 1995 and a primary surplus of 1.3 per cent from 1996 to 2002.

12. Between 1970, around the time when oil was first discovered, and 1976, when oil receipts started to flow, the effective exchange rate appreciated by over 14 per cent.

13. This seems to be the experience with other countries that have adopted inflation targeting regimes, *e.g.* Mexico.

14. A trusted empirical regularity was that wage claims responded strongly to the level of unemployment, so that the policy strictly speaking only worked in downturns, but this still had a taming effect in subsequent upturns due to strong persistence effects (see Statistics Norway, 2003).

15. In a letter dated 13 January 2003, the Ministry of Finance asked Norges Bank to provide a review of monetary policy in 2002 and the first eight months of 2003. The 2004 National Budget also suggested that the central bank needed to be more flexible about the time period for meeting its inflation target.

16. OECD calculations show that unit labour costs rose by a cumulative 32 per cent between 1998 and 2002, although underlying estimates of sectoral value added, and hence productivity, may be subject to a high degree of uncertainty (see Table 3.1, which shows low productivity growth in Norwegian manufacturing).

17. A wage shock is commonly viewed as a "supply shock", posing a dilemma to central banks by having opposite effects on prices and output (see Box 1.1). However, in Norway's case, the wage shock could have had upward effects on both prices and output in the short term, as the boost to private consumption could have outweighed the negative impact on exports and investment, so that, at least initially, there may have been no dilemma and the case for a quick monetary tightening would have been even clearer.

18. Norges Bank (2003a) laid stress on the fact that foreign central banks cut their interest rates sharply as Norway raised interest rates, which pushed up the exchange rate via capital flows. In addition, the global collapse of equity markets left investors looking for returns on fixed-interest securities or the money markets, which were comparatively high in Norway, thus magnifying the portfolio shift that would be normally expected in response to international interest rate differentials. Growing tensions in the Middle East also added to market expectations that oil prices would remain high.

19. See Norges Bank (2003a).

20. Inflation targeting in most countries has been following a period of high inflation and slowing economic growth. Monetary policy is then seen as contributing to economic growth, helping to build popular support for the new regime (see Soikkeli, 2002).

21. With the interest rate cut in late autumn 2003, the bank had announced a switch to neutral bias, which surprised markets and the exchange rate began to appreciate later in the year.

22. Wage growth in the public sector was ¼ percentage point lower than in the rest of the economy from 1992 to 2001, as part of the government's commitment to the "Solidarity alternative". This tension caused the observed "explosion" in pent-up public sector wage demands.

23. See Norges Bank (2003a).

24. See OECD (2003b) for a fuller discussion of the outlook for Norway.

25. See "Fiscal stance over the cycle: the role of debt, institutions, and budget constraints", in OECD (2003b).
26. Two well-known academics were appointed as independent experts: Øystein Thøgersen, associate professor at the Norwegian School of Economics and Business Administration, and Asbjørn Rødseth, professor at the University of Oslo. Previously, board appointments were directly made by the political parties.
27. In the Norwegian national accounts, there is a productivity increase of ½ per cent per year in the government sector.
28. The part of the overall price gap owing to agricultural protection certainly points to potential gains. The parts owing to a higher wage level and higher indirect taxes (on cars, alcohol, tobacco, etc.) however do not.
29. It has been calculated that in a situation where structural reforms are not forthcoming, and assuming that as a consequence potential growth is reduced from 2 to 1½ per cent, then after a decade the level of GDP would be similar to a scenario where Norway has no oil but maintain potential growth at 2 per cent. See Isachsen, A-J "Hva gjør oljepengene med oss" in Aftenposten 01.11.2001.
30. A well-known body of literature shows that wage moderation is usually associated with the two extremes of highly centralised co-ordination or full competition; in-between models tend to perform worse. Thus, the old model should not be dismantled too hastily, especially before competitive forces are strengthened.

Bibliography

Burniaux, J-M, R.Duval and F. Jaumotte (2003), "Coping with ageing: a dynamic approach to quantify the impact of alternative policy options on future labour supply in OECD countries" *Economics Department Working Paper* No. 371.

Casey, B., H. Oxley, E. Whitehouse, P. Antolin, R. Duvall, and W. Leibfritz (2003), "Policies for an ageing society: recent measures and areas for further reform", *Economics Department Working Paper* No. 369.

Duval, R. (2003), "The retirement effects of old-age pension and early retirement schemes in OECD countries", *Economics Department Working Paper* No. 370.

IMF (2000), "Norway: Selected issues", IMF *Country Report* No. 00/35.

Krugman, P. (1987), "The narrowing band, the Dutch disease, and the competitive consequences of Mrs. Thatcher: notes on trade in the presence of dynamic scale economies", *Journal of Development Economics* 37.

Norges Bank (2003a), *Report on Monetary Policy in* 2003 – *The First Eight Months*, Oslo.

Norges Bank (2003b), *Inflation Report* 3/03, Oslo.

Norwegian Ministry of Finance (2003), *National Budget for* 2004, Oslo.

OECD (1998), *Maintaining Prosperity in an Ageing Society*, Paris.

OECD (2001), *Economic Survey of Norway*, Paris.

OECD (2002), *Economic Survey of Norway*, Paris.

OECD (2003a), *The Sources of Economic Growth*, Paris.

OECD (2003b), *Economic Outlook* 74, Paris.

Soikkeli, J. (2002), "The inflation targeting framework in Norway", IMF *Working Paper* WP/02/184.

Statistics Norway (2003), *Economic Analysis* 4/2003, Oslo.

Torvik, R. (2001), "Learning by doing and Dutch disease", *European Economic Review* 45, pp. 285-306.

Van Wijnbergen, S. (1984), "The 'Dutch disease': A disease after all?", *Economic Journal* 94, pp. 41-55.

Annex 1.A1

Long-run adjustments in macroeconomic balances

Table 1.A1.1 shows the close relationship between the fiscal and external balances, which in the absence of major private savings-investment imbalances,[1] are to a large degree mirror images of each other. The long-run calculations in the table, mainly intending to provide rough orders of magnitude for possible adjustments in macro balances in the post-oil economy, assume that time preference in the private sector does not change dramatically in the future, in particular that it would want to avoid a large future build-up of net external debt, so that developments in the government and external net asset positions are approximately equivalent.

Table 1.A1.1. **Sectoral balances and net asset positions**
As percentage of mainland GDP

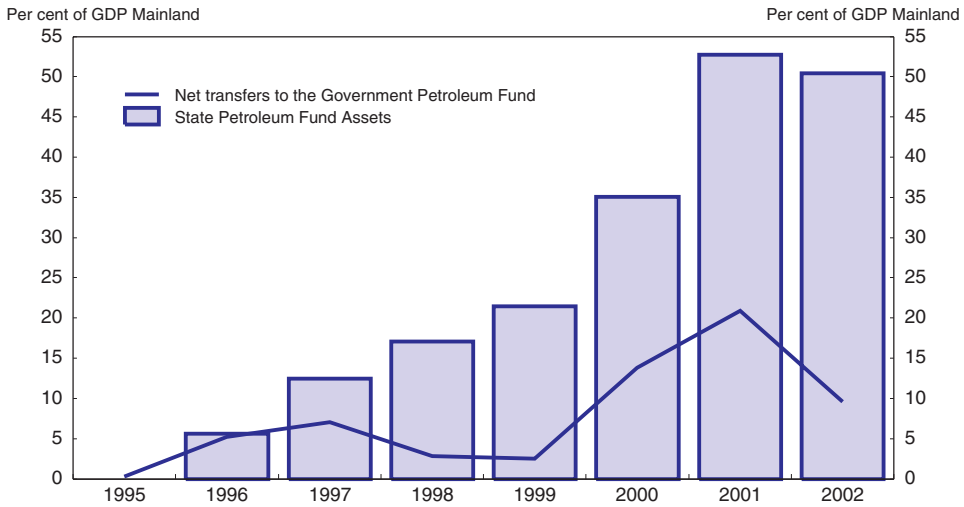
	Current balances		Net asset positions	
	1992-2002	2050[1]	2001	2050[1]
External	12.3	0	41.1	130.0
Oil	21.4	3.5	40.2[2]	130.0[2]
Non-oil[3]	–9.0	–3.5	0.9	0.0
Fiscal	9.2	0	71.9	160.0
Oil	13.2	4.5	40.2[2]	130.0[1]
Non-oil	–4.0	–4.5	31.7[4]	30.0[4]
Pension	–6.3	–13.5	. .	. .
Other	2.3	9.0	. .	. .
Private[5]	3.1	0	–30.8	–30.0

1. Current balances in 2050 calculated as "steady state" values needed to ensure stabilisation of the net asset positions shown for 2050.
2. Assets in Government Petroleum Fund.
3. Excludes trade in oil and gas products and in oil-related investment goods and business services.
4. Other government net assets, assumed to be invested domestically.
5. Calculated as residual but in principal equal to the savings - investment balance between households and business sectors.

Source: OECD (2003), *Economic Outlook* No. 74; Statistics Norway; Ministry of Finance.

Oil production in Norway has just begun a long gradual decline, and along with it, government net oil receipts (Figure 1.A1.1). Under certain conditions oil receipts could vanish before 2050, but are more likely to stabilise at very low levels.[2] According to government estimates, the size of the Petroleum Fund should peak around the year 2030 at a level of about

Figure 1.A1.1. **Petroleum revenues**



Source: Statistics Norway.

130 per cent of GDP, which would also represent the peak level of national net foreign assets if there are no significant changes in other (currently negligible) forms of net external asset holdings. Table 1.A1.1 indicates that in order to preserve this level farther into the future, the non-oil current account balance would need to improve from an estimated underlying deficit of 9 per cent of GDP currently to one of around 3½ per cent on a more permanent basis. This reflects that the non-oil current account would continue to benefit from a estimated gross 4 per cent long-run real return on the accumulated oil fund, but in the absence of a fresh flow of oil export receipts, a portion of this return would have to be steadily reinvested abroad in order to preserve the capital value of foreign assets in relation to real domestic GDP, itself assumed to be growing at a rate of 1¼ to 1½ per cent in the long-run (see Annex 1.A2).

The current account adjustment would presumably occur mainly through the channel of "expenditure switching" induced by some combination of wage-price moderation, quality improvements in domestic products, and, finally, effective exchange rate depreciation. The option of "expenditure reduction" via fiscal consolidation is precluded by the long-run fiscal rule. However, exchange rate depreciation would be likely to involve also some measure of household real income and expenditure reduction.[3] Conversely, the early period of oil exploitation, *i.e.* up until the reverse oil price shock of 1986, saw terms of trade gains supplementing robust productivity growth as a source of rising living standards.

Similarly, in order that the government's net asset position stabilise, the "steady-state" value of the fiscal non-oil deficit can be no higher than about 4½ per cent of GDP, reflecting the yield from the Petroleum Fund as well as some revenue from domestic net assets (assumed to remain stable as a percentage of GDP from today's level), with an offset for the declining value of total public sector assets in relation to a growing domestic GDP.[4] On the face of it, the fiscal adjustment seems trivial, even expansionary, since the structural non-oil

deficit is currently about 4 per cent of GDP. However, the pension sub-balance is set to deteriorate by around 7 percentage points of GDP (from –6½ to –13½ per cent), owing to projected growth of spending of around 10 per cent of GDP, net of higher pensioner tax payments at an assumed rate of roughly 30 per cent, until 2050.[5] Therefore, as the table suggests, fiscal sustainability would *ex ante* require around a 6 per cent of GDP upward adjustment in the non-pension primary balance, from a 2½ per cent of GDP surplus currently to 9 per cent in the long run.

The implied reduction in discretionary spending, or rise in the general tax burden, is daunting. Only reforms to prevent the pension deficit from rising significantly would allow the non-pension primary balance to remain more or less stable. This would not completely avoid the need for other fiscal adjustments, however, because non-pension ageing-related items, *viz.* health and long-term care, are themselves expected to rise by around 3¼ per cent points of GDP over the long run (Table 1.1). There is also an outstanding political commitment to pursue further tax cuts, amounting to some 11 billion NOK or around ¾ per cent of GDP (Chapter 2), to that extent necessitating even more spending restraint.

These long-run projections are of course highly approximate and subject to major uncertainties, many of which are on the downside but there are also those on the upside that are subject to a degree of control:

- The fiscal guidelines have not been observed until now, because of cyclical and market circumstances, with recent annual slippage reaching 1 per cent of GDP. A failure to get back on track would imply a lower future value of the petroleum fund than officially projected, and hence, a lower long-run level of the sustainable fiscal primary deficit, making the ulterior adjustments all the more difficult.
- The real return to foreign assets has actually averaged 2½ per cent since the fiscal rule was introduced (see Chapter 5), instead of 4 per cent as assumed, and could be less than 4 per cent in the future if the ageing process in other OECD countries lowers potential growth and equilibrium returns there. This risk may be mitigated by allocating part of the portfolio to emerging markets, albeit at the cost of exposure to other risks which must be well managed.
- Unexpected future movements in the exchange rate or in foreign equity prices could provoke swings in the value of the fund, as indeed they already have. Over time, real equity prices swings should even out (except for the foregoing risk), and the real exchange rate should remain stable if fiscal policy is prudent and the non-oil current account adjusts via productivity improvements. The challenge may be to better insulate fiscal outturns from short-run asset price swings.
- The long run growth rate will matter. If Norway succeeds in neutralising the negative growth impact of ageing – by higher retirement ages, working hours, immigration, or productivity growth (Annex 1.A2) – then the pension deficit would be smaller than assumed as the taxable base would be larger.
- The private sector is a "wild card". Large business investments in medical and care facilities and household dissaving in response to ageing could increase non-government claims on foreign savings, jeopardising external sustainability and expanding the required external adjustment.

In summary, the non-oil current account and the non-pension fiscal primary balance may need to improve over time by some 5 and 6 percentage points of GDP, respectively, from their recent average values, although the former estimate is subject to a particularly high degree of uncertainty stemming from future developments in the private savings-investment balance (and, hence, is meant only to be suggestive). These orders of magnitude of adjust-

ment would appear to be manageable by preventive policy actions, notably boosting productivity in the non-oil tradeables sector via structural reforms and reforming the pension system. Furthermore, perhaps a 4 per cent of GDP long-run reduction in discretionary non-pension spending, to make room for the projected increase in health and long-term care spending and further tax cuts, appears to be warranted and could occur in the context of an accelerated public sector "modernisation" programme. Even greater non-age-related spending cuts would be required insofar as the planned pension reform does not seem to prevent pension spending rising relative to GDP (see Chapter 2).

Notes

1. A body of literature demonstrates that savings and investment tend to be highly correlated within countries, evidence of "home bias". (See, *e.g.*, Feldstein, M. S. and C. Harioka, 1980, "Domestic saving and international capital flows", *Economic Journal*, Vol. 90.)
2. The estimates of proven oil reserves and timing of peak production have been often revised in the past; however, the chance of new discoveries has by the same token rapidly diminished and the latest estimates seem firm.
3. It would also affect the domestic value of the external assets, affecting the calculations of steady state balances themselves.
4. This assumes, purely for purposes of the analysis, a slightly amended fiscal rule, whereby the government would reinvest a part of the oil fund revenue to keep the value of the fund constant as a share of GDP. No such policy is currently foreseen, implying that the fund's value would decline slowly as a share of GDP.
5. Though only a part of pensioner tax payments are in the form of direct social security contributions, for purposes of the analysis the rise in general tax payments stemming from the pension benefit increase is all allocated to reducing the pension imbalance.

Annex 1.A2

Potential growth in the medium to long run

Introduction

In recent decades, Norway has been in the forefront of OECD growth performance, and has managed to boost growth in the mainland over the last decade. To a significant degree this reflects high-performing labour markets, a factor shared by a select group of countries including the United States, Australia, Ireland, and Canada, where labour productivity has been driven by a combination of employment-friendly capital deepening, and growth in multi-factor productivity, in contrast to most European countries where productivity has been driven by the substitution of (high-priced) labour by capital.[1] It also reflects efficiency gains from past liberalisations in a number of service sectors, as well as direct impacts and spill-overs from the capital intensive, technologically sophisticated, and booming oil sector. The challenge will be to maintain this good growth performance going forward.

This annex attempts to attach some broad orders of magnitude to likely growth impacts of some looming shocks – oil depletion, possible continuation of adverse labour market trends, and future ageing – and of the policies to counter them, notably product market, labour, and pension reforms.

Recent growth patterns

Mainland Norwegian real per capita GDP has accelerated over the past decade.[2] A significant rise in labour force participation (mainly female), cyclical employment gains, and a pick-up in labour productivity growth outweighed a strong decline in average hours worked. The productivity improvement most likely reflected technological progress, as business sector multi-factor productivity (MFP) accelerated over the 1990s, while capital deepening declined slightly (Table 1.A2.1). A process of service sector liberalisation may be a significant factor explaining MFP growth, with high overall productivity growth being registered in trade, communication and financial services sectors (see Table 3.1). A generally low level of administrative "red tape" could have played a role as well, insofar as it allowed firm creation and thereby the entry of new technologies into liberalising service sectors.[3] But manufacturing productivity growth stayed unusually weak, both *vis-à-vis* domestic service sectors and manufacturing in other countries, which is perhaps surprising given the robust oil-servicing subsector, and suggests an even weaker traditional manufacturing sector.

Looking at Norway's trend growth rates at a higher frequency, the picture has deteriorated somewhat over the last 5 years (Figure 1.A2.1.). There has been a notable decline in labour utilisation, due to intensification of the trend to declining average hours worked along with decelerating participation rates. Also, capital deepening appears to have increased, perhaps in reaction to strong wage growth over this period, including via the relocation of labour intensive production to low-wage countries. MFP growth seems to have slowed,

Table 1.A2.1. **Labour productivity growth in the business sector**

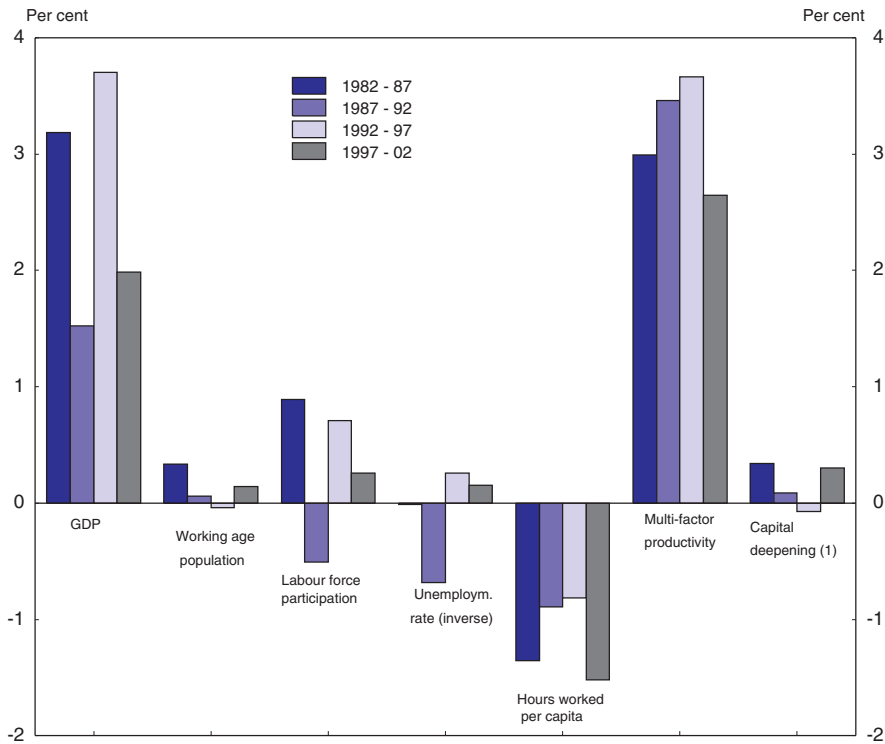
Percentage change at annual rate, trend series[1]

	Labour productivity			Capital deepening			MFP		
	1980-1990[2]	1990-2000[3]	1996-2000[4]	1980-1990[5]	1990-2000[6]	1996-2000[7]	1980-1990[5]	1990-2000[6]	1996-2000[7]
United States	1.3	1.4	1.6	2.9	2.5	3.0	0.9	1.1	1.3
Japan	3.3	2.3	1.9	6.5	5.1	4.3	2.2	1.0	0.7
Germany	2.5	1.9	1.6	3.7	3.2	3.0	1.5	0.9	0.8
France	3.2	2.0	1.8	4.0	3.1	2.7	1.9	1.0	1.1
Italy	2.4	2.0	1.6	3.2	3.0	3.0	1.5	1.0	0.7
United Kingdom	2.3	1.4	1.5	2.8	2.8	2.8	1.0	0.7	1.0
Canada	1.2	1.5	1.6	3.5	1.4	0.9	0.6	1.3	1.7
Australia	1.4	2.1	2.2	4.4	4.1	4.5	0.6	1.3	1.4
Austria	2.7	2.6	2.7	4.4	4.4	4.3	1.8	1.6	1.5
Belgium	2.6	2.3	2.2	3.4	3.8	3.8	1.7	1.2	1.2
Denmark	1.9	2.3	2.1	3.8	2.5	2.4	1.0	1.5	1.4
Finland	3.7	3.7	3.3	3.2	0.8	0.7	2.4	3.2	3.6
Greece	0.6	1.4	2.0	0.4	2.2	3.5	0.6	0.8	0.9
Ireland	4.3	4.5	4.4	2.7	3.3	..	3.6	4.4	. .
Netherlands	3.3	2.1	1.6	3.6	3.4	3.5	2.3	1.6	1.2
New Zealand	1.4	0.7	0.9	3.1	2.2	2.5	0.2	0.8	0.9
Norway[8]	**1.9**	**2.2**	**1.8**	**2.7**	**2.1**	**2.9**	**1.2**	**1.7**	**1.3**
Portugal	3.0	2.5	. .	. .	. .	. .	. .	. .	. .
Spain	3.5	1.8	1.1	4.4	4.2	3.9	2.1	0.7	0.5
Sweden	1.6	2.2	1.9	2.0	1.5	. .	1.0	1.4	. .
Switzerland	. .	0.3	. .	. .	2.7	. .	. .	. .	. .
Korea	7.0	5.0	3.8	. .	. .	. .	. .	. .	. .
Weighted average:									
EU 15[9]	2.7	1.9	1.6	3.4	3.1	2.9	1.5	1.0	0.9
OECD 24[10]	2.1	1.7	1.7	3.7	3.1	3.1	1.3	1.1	1.1
Standard deviation:									
EU 15[9]	0.93	0.84	0.89	1.09	1.01	0.96	0.77	1.07	0.82
OECD 24[10]	0.99	0.89	0.79	1.21	1.08	1.06	0.81	0.90	0.68

1. The series are cyclically-adjusted series to control for cross-country differences in business conditions, which were largely un-synchronized across OECD countries over the 1990s. Cyclical adjustment applies an extended version of the Hodrick-Prescott filter where the well-known end-of-sample problem is minimised by prolonging the time-series out of sample using OECD medium term projections. See Scarpetta *et al.* (2000) for a sensitivity analysis using different smoothing procedures.
2. 1983-1990 for Belgium, Denmark, Greece and Ireland, 1985-1990 for Austria and New Zealand, 1986-1990 for Portugal.
3. 1991-1996 for Switzerland, 1990-1997 for Austria, Belgium, New Zealand, 1990-1998 for Ireland, Korea and Netherlands, 1990-1999 for Denmark, Greece, Japan and United Kingdom.
4. 1996-1997 for Austria, Belgium, New Zealand, 1996-1998 for Ireland, Korea and Netherlands, 1996-1999 for Denmark, Greece, Japan, and United Kingdom.
5. 1983-1990 for Belgium, Denmark, Greece and Ireland, 1985-1990 for Austria and New Zealand, 1987-1990 for United Kingdom.
6. 1991-1996 for Switzerland, 1990-1996 for Ireland and Sweden, 1990-1997 for Austria, Belgium, New Zealand and United Kingdom,1990-1998 for Netherlands, 1990-1999 for Australia, Denmark, France, Greece, Italy and Japan.
7. 1996-1997 for Austria, Belgium, New Zealand and United Kingdom, 1996-1998 for Netherlands, 1996-1999 for Australia, Denmark, France, Greece, Italy and Japan.
8. Mainland only.
9. Excluding Luxembourg.
10. Excluding Czech Republic, Hungary, Iceland, Korea, Luxembourg, Mexico, Poland, Slovak Republic and Turkey.

Source: Nicoletti and Scarpetta (2003).

Figure 1.A2.1. **Per capita real GDP growth and its components**
Total economy, annual average percentage changes



1. Weighted by income shares.
Source: OECD, Analytical Data Base.

possibly reflecting some waning of the fruits of initial service sector liberalisations, with overall productivity growth on balance falling (see also Table 1.A2.1).

Potential growth over the medium term

OECD *baseline*

The OECD's medium-term baseline (MTB) shows projections for actual and potential GDP up to 2009, referring to the mainland economy. It suggests a decelerating real GDP as the output gap closes, and a modest fall-off in potential growth, from 2.5 per cent on average over the period 1997-2005 to 2.1 per cent during 2006-2009 (Table 1.A2.2).[4] The latter slow-down partly results from lower potential employment growth, reflecting discontinuation of previous gains from rising female participation (having reached its natural limit), and a slight

Table 1.A2.2. **Medium-term baseline GDP growth for Norway**
Mainland; annual growth rates

	Real GDP	Working age population (a)	Participation rate (b)	Unemployment rate (inverse) (c)	Average hours worked (d)	Labour utilisation (a + b + c + d)	Productivity
2003	0.5	0.2	–0.3	–0.6	–0.5	–1.1	1.6
2004	2.5	0.3	0.0	–0.2	–0.6	–0.5	2.9
2005	1.7	0.4	–0.3	0.2	–0.6	–0.4	2.1
2006	1.9	0.4	–0.1	0.3	–0.6	–0.0	1.9
2007	1.6	0.4	–0.1	0.3	–0.6	0.1	1.4
2008	1.6	0.5	–0.1	0.2	–0.5	0.1	1.5
2009	1.6	0.5	–0.0	0.1	–0.6	–0.0	1.6
Average	1.6	0.4	–0.1	0.1	–0.6	–0.2	1.9
Memorandum item:							
Potential GDP (annual averages)[1]							
1997-2005	2.5	0.6	0.1	0.1	..	0.8	1.7
2006-2009	2.1	0.5	0.0	0.0	..	0.5	1.5

1. Labour force participation rates are productivity (per employee) in terms of potential values, and unemployment in structural terms.

Source: Downes *et al.*, (2003).

decline in working age population growth given incipient retirement of the baby boom generation. Labour productivity also decelerates slightly, in part because spill-overs from the oil sector begin to decline. This outlook points to no serious disturbances to growth dynamics over the medium term. It could be taken, therefore, as a "normative" baseline against which less sanguine outcomes could be foreseen.

Impact of withdrawal of oil investments

A sharp cut-back in oil investment activity is expected from 2006 onwards (see Table 1.6), but is not accounted for in the MTB. Simulations of the OECD's macroeconomic model for Norway suggest that the magnitude of this shock may be quite strong, given that oil investments account for one-quarter of total investment and are largely supplied by the mainland (Table 1.A2.3). Both supply and demand effects are at work. The fall in demand resulting from lower investment reduces investment further, incorporating multiplier effects stemming from the profit accelerator mechanism. (This negatively affects prices, which raises real disposable incomes and consumption, partly offsetting the demand effect in the short run.) Capital stock is reduced, and potential growth is lowered by 0.6 per cent in the third year following the shock. No effects on TFP have been factored into the simulation, which could lower potential growth further. On the other hand, any diversion of mainland oil investment goods production to foreign markets would reduce the size of the shock.

Impact of recommended product market reforms

Despite Norway's good productivity performance in the past, and high current levels overall, its unfavourable international ranking in some product market policy areas still leaves room for improvement if such policies were brought up to the OECD average, or

Table 1.A2.3. **Norwegian oil investment is reduced by NOK 35 billion**

	2006	2007	2008
Deviation from the baseline (level)			
Capital stock	–0.9	–3.0	–5.6
Business investment	–11.0	–26.0	–33.0
Potential growth	–0.1	–0.5	–1.1
Deviation from the baseline (growth rate)			
Capital stock	–0.9	–2.1	–2.6
Business investment	–11.0	–15.0	–7.0
Potential growth	–0.1	–0.4	–0.6

Source: Downes *et al.*, (2003).

better yet, best practice. Indeed, OECD empirical estimates of the growth impacts of product market reforms,[5] discussed in Chapter 3, suggest that a gradual (over 10 years) move to the OECD-wide average share of state-owned firms in total value added could boost annual MFP growth by as much as 1 percentage point in Norway, reflecting the very high share of business activities in public hands (the highest in the OECD). Furthermore, lifting barriers to trade and competition, and removing state control, could further raise MFP growth for an extended period. Although estimates for the overall growth impact of this latter set of measures are not available for Norway, they could be significant, especially in the area of eliminating barriers to trade and FDI.[6]

Impact of failure to curb recent labour market trends

Though remaining high (around the OECD average), labour utilisation has been deteriorating in recent years. Total hours worked fell by 1 per cent per annum on average over 1997-2002, a period of cyclical peaking, suggesting in turn adverse structural factors operating in the labour market, notably the rising take-up of publicly-financed exit schemes. Over the 2003-2009 period, however, the MTB assumes that the average rate of decline in labour utilisation drops to just 0.2 per cent. This implicitly assumes that policy actions are taken to curb the foregoing adverse structural trends. If these were instead to persist because of a failure to take actions, then annual growth might be reduced by up to ½ percentage point *vis-à-vis* the baseline (assuming conservatively that the structural labour supply effect would be only about half as large as recently even without policy changes[7]), exacerbating the oil investment shock.

Population ageing, pension reform, and long-run potential growth

A recent OECD study[8] has attempted to quantify the impacts of demographic ageing on labour supply over the long run, both without and with further policy reforms to address the problem. For Norway, the results of this analysis are reflected in Table 1.A2.4, which also extends the MTB assumptions about hours worked (assuming that the declining trend attenuates over time) and productivity growth in order to complete the growth picture up to 2050. It shows the following:

– In the base case, which assumes no pension or labour market reforms, population ageing by itself implies a drop in participation rates – as applied for purposes of this analysis to *total* adult population – due to a rising share of older people of around 0.2 per

Table 1.A2.4. **Long run growth rates based on alternative assumptions about future pension reforms**
(annual average percentage changes)

	Total population (over 15)	Participation rate			Labour supply			Average hours worked	Productivity per hour	Real GDP		
		Baseline (a)	Low case policy reform (b)	High case policy reform (c)	Baseline (a)	Low case policy reform (b)	High case policy reform (c)			Baseline (a)	Low (b)	High (c)
2000-2025	0.54	–0.15	0.05	0.12	0.39	0.59	0.66	–0.50	1.50	1.39	1.59	1.66
2025-2050	0.17	–0.07	–0.05	–0.05	0.10	0.12	0.12	–0.30	1.50	1.30	1.32	1.32
2000-2050	0.36	–0.11	0.00	0.04	0.24	0.35	0.39	–0.40	1.50	1.34	1.45	1.49

Source: Burniaux *et al.*, (2003).

cent per year over the coming 25 years. This is among the more moderate demographic effects in the OECD, with Finland, Sweden, and Denmark showing negative effects of ageing three to four times bigger.[9] Norway's advantage to a large extent reflects higher female participation in younger cohorts.

– In the policy reform scenarios, Norway implements reforms to increase the future participation rate. "Low case" reforms include additional work incentives for older workers and women and for youths to combine work and education. These would be sufficient to broadly offset the negative participation impacts of ageing. However, reforms with the largest potential effects on future participation concern the pension system, particularly those achieving actuarial neutrality. Such "high case" reforms could boost annual participation growth to +0.1 per cent (*i.e.* 0.3 per cent better than base case) over the coming 25 years, in turn boosting average growth over this period from 1.4 per cent in the absence of reforms to 1.7 per cent with pension reforms.

Conclusion

In summary, empirical analysis suggests that robust growth rates into the future could be assured, in the face of several adverse structural shocks, through the following near-term measures:

– Norway's annual growth rate might be raised by perhaps 1 percentage point or more over a sustained period (10 years) of intensive privatisation and other product market reforms to boost competition. This could more than compensate for the negative impacts of a declining oil sector.

– Norway still has substantial scope to raise labour supply via reforms to ensure longer and fuller working lives. These might boost annual growth by up to ½ percentage point compared with a scenario where no action is taken, reversing recent adverse trends and more than compensating for future impacts of population ageing. This would mean not only enacting the pension reform, but also overhauling the disability benefit system (along with sickness and rehabilitation), a major channel of actuarial "unfairness" and hence, distortion of the work-leisure choice.

Reforms will also need to be pursued tandem in all sectors, and should not be seen as piecemeal. A key problem currently may be the high numbers of educated people employed in the public sector, implying a potential difficulty by higher technology firms to gain access to qualified labour. A more flexible allocation of labour, based on the recommendations for labour market reforms discussed in Chapter 4, would allow labour resources to flow to areas at the forefront of productivity growth. Product market reforms themselves could evoke higher labour supply, by reducing prices and raising real wages. Financial market reforms could also provide crucial support to growth. Steps to more fully privatise the banking sector and further develop non-bank savings instruments could help to channel finance to firms wishing to start up and to innovate in the more dynamic product market environment (see Annex 1.A3).

Notes

1. See Nicoletti and Scarpetta (2003).
2. Per capita GDP growth rates are preferable in order to correct for population growth that could vary widely across countries owing, for example, to differences in immigration policies and fertility rates.
3. See Nicoletti and Scarpetta, *op. cit.*, Figure 2, where Norway's relatively low level of administrative regulation (as opposed to other types) and pro-competitive regulatory reform over the period 1975 to 1998 (around the average of other countries) seems to be associated with the MFP pick-up over the 1990s. On the other hand, the acceleration in MFP seems less consistent with the general level of product market rigidity, which on these indicators is the third highest in the OECD (after Italy and Greece) and could be explained in part by the "special factor" of oil sector investments.
4. See Downes *et al.*, (2003).
5. See Nicoletti and Scarpetta, *op. cit.*
6. These could help to close the technology gap in the manufacturing sector Trade barriers refer mainly to the agricultural sector. The main inward FDI barriers are *first*, a high and variable (depending on country of origin of the investment) marginal tax rate on capital income, reflecting the absence of appropriate tax treaties with some countries, and *second*, Norwegian public ownership requirements in many sectors.
7. In particular, the granting of four extra days of paid holiday in the 2001-02 wage negotiations was a significant factor which is estimated to have accounted for almost ¼ of the total structural labour supply decline over the five years to 2002, but is also largely non-repeatable.
8. See Burniaux *et al.*, (2003).
9. This may appear to be at odds with the fact that Norway sees the largest rise in age-related spending in the OECD (Table 1.1); however, the latter development reflects not only ageing but also actuarial unfairness in the present pension system.

Bibliography

Burniaux, J.M., R. Duval and F. Jaumotte (2003), "Coping with ageing: a dynamic approach to quantify the impact of alternative policy options on future labour supply in OECD countries", *Economics Department Working Papers*, No. 371.

Downes, P., A. Drew and P. Ollivaud (2003), "The OECD medium-term reference scenario: Economic outlook No. 74", *Economics Department Working Papers*, No. 372.

Nicoletti, G. and S. Scarpetta (2003), "Regulation, productivity and growth: OECD evidence", *Economics Department Working Papers*, No. 347.

Annex 1.A3

Competition and stability in the Norwegian financial market

An efficient and stable financial system can contribute to higher growth and macroeconomic stability by mobilising and directing saving towards the most profitable projects, diversifying risk, and monitoring companies' investments and management.[1] At the same time, appropriate financial framework conditions protecting investors – notably through ensuring adequate shareholder and creditor rights, efficient enforcement of contracts and appropriate disclosure – can enhance savers' confidence in the financial market and contribute to its development.[2]

Competition-enhancing reforms in the Norwegian financial services started to be implemented in the mid-1980s. Liberalisation together with an economic expansion pushed by low interest rates eventually translated in a lending boom.[3] As bank managers and supervisors had not previous experience with working in this more competitive framework, risk exposure was at first underestimated. The following sharp fall in export prices of oil and gas and rising interest rates to counter rampant inflation led to a recession in the late 1980s. These developments gave rise first to many bank losses and, eventually, to a more generalised financial crisis at the beginning of the 1990s. The response of the authorities contributed to restore confidence in the sector (see below), and since then financial stability has been re-established although banks' profits have deteriorated in recent years.[4] A series of mergers and restructuring during the 1990s allowed to exploit economies of scale resulting in significant lower costs for financial institutions.[5] But the number of relevant players in all segments of the market is now quite limited, ranging from two to four. In the process, some banks have focused in specialised services while others have expanded to provide new ones, notably non-life insurance.[6] The presence of foreign-owned firms has progressively increased and today their share in financial institutions' ownership is substantial.[7] The use of Internet banking has increased significantly in the past few years and the resulting easier access to information on prices and conditions might have contributed to the observed rise in customers' mobility.[8] Technological innovation has also allowed sizeable cost reductions especially for medium-size banks that have made a greater use of new technologies.[9]

At the beginning of the 1990s, a number of initiatives were implemented as a response to the financial crisis.[10] In early 1991, a Government Bank Insurance Fund was established in order to help failing banks conditional on a number of requirements. Moreover, a Government Bank Investment Fund was set up in order to provide equity capital to solvent banks. These measures were initially supposed to be temporary. In fact, contrary to experiences in other OECD countries the role of the State in the financial sector is still pervasive. Despite a gradual divestiture programme started in 1994, the Government Bank Investment Fund has long retained a 48 per cent stake in the largest commercial bank, *Den Norske Bank*. The explicit objective of government direct control of the largest Norwegian bank is the establishment of a relevant Norwegian financial group domestically-based and able to compete internation-

ally. This may reflect a commonly held view in Norway that: *a*) a large domestically-based financial group generates positive externalities through the on-the-job training of its employees that eventually move to other financial institutions; *b*) a domestically-based bank can more efficiently use local information; *c*) foreign ownership of the major bank group would more likely exacerbate a credit squeeze during a recession or when the bank is facing problems outside Norway.

Recent moves have further increased the presence of the State in the Norwegian banking system while reducing the number of competitors. In December 2003, *Den Norske Bank* merged with the second largest commercial bank, *Gjensidige* NOR to form *DnB* NOR.[11] The Government Bank Investment Fund's 48 per cent share in *Den Norske Bank* corresponded to a stake of 28 per cent in the new bank. However, the Fund has declared the intention – in line with a previous decision by the parliament – to increase its stake in the new bank to 34 per cent in order to gain minority control, and has started to do so in December 2003. The process will be completed by end-2004 through acquisition of shares in the secondary market.[12]

The responsibility for ensuring competition in the banking sector is shared between the Competition Authority and the Banking, Insurance and Securities Commission, the latter being responsible also for financial stability together with Norges Bank. The Competition Authority and the Banking, Insurance and Securities Commission have agreed to formal co-operation, although they handle cases independently.[13] Nonetheless, the Ministry of Finance retains the authority of granting licences for bank mergers or acquisitions. For example, the Ministry granted the licence to the above mentioned merger between *Den Norske Bank* and *Gjensidige* NOR – after approval under 13 conditions by the Competition Authority – despite the State being the main owner of the former. The role of the State as both supervisor and owner – combined with the low number of relevant players in the market – could hinder a level playing field in the banking sector and create uncertainty as to the actual degree of competition.

A recent step for increasing competition and efficiency in the financial market is represented by the cutback of holding rules entered into force starting from the beginning of 2004. According to the new rules, authorisation can be granted for holdings between 10 and 100 per cent of the financial institutions' value. With the previous rules, holdings of financial institutions could be either less than 10 per cent or above 90 per cent. The new rules should indirectly facilitate takeovers as previously for the takeover to be successful the acquiring company was obliged to buy at least 90 per cent of the target company either from a relevant competitor (holding more than 90 per cent of the target company) or from many dispersed investors (each holding less than 10 per cent of the company). Nevertheless, for acquisitions involving more than 25 per cent of the target company the State retains the power of granting authorisation conditional on a list of criteria ensuring that the acquisitions would not have "undesired consequences" on the functioning of the Norwegian capital and credit market.

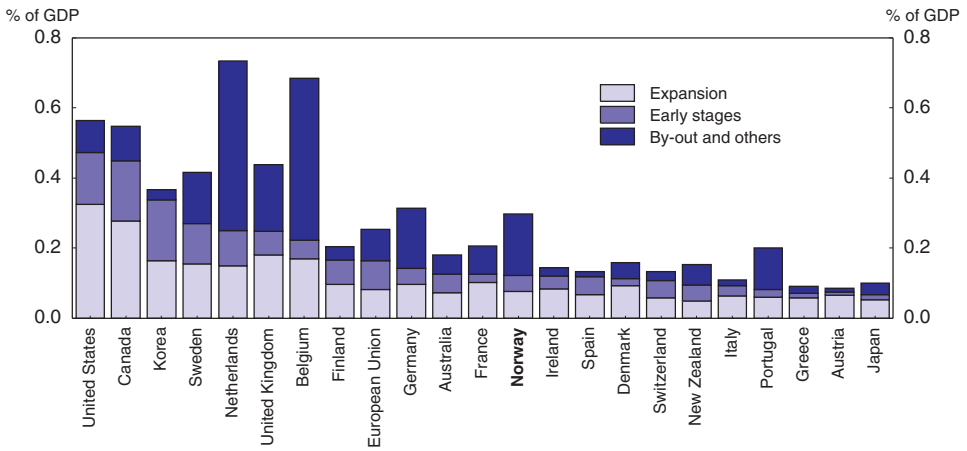
In May 2001, the Oslo Stock Exchange (*Oslo Børs*) became a public limited company. The role of *Oslo Børs* is increasing in the Norwegian economy. The increasing allocation of saving in shares could partly be linked to adequate protection of shareholder rights that is ensured by Norway's Civil Law.[14] This could also contribute to the relatively low ownership concentration in Norwegian listed firms.[15] However, the presence of the government in the stock market is remarkably high as it owns one sixth of the assets' value of the *Oslo Børs*, even if a level playing field should be ensured by the fact that companies with State participation follow the same governance principles as set up in the Company Law as all the other privately-held companies.[16]

On the other hand, according to the Norges Bank Governor, the Norwegian bond market is relatively small due to its late liberalisation – started at the end of the 1980s.[17] The limited

corporate debt issues could also be explained by the thin market for government bonds, the latter usually representing a benchmark for the private bonds. However, a greater participation of the wider public in the securities market would be promoted by more and better investment information available for savers. Indeed, according to the Competition Authority (2003) competition in the investment funds market could be enhanced through improving the information on the price and quality of the products supplied. Greater competition is also hampered by high charges when moving among investment managers.

In 2001, a secondary equity market (SMB L*ist*) was also created with less restrictive entry requirements for companies with the main objective of establishing exit opportunities for venture capitalists through initial public offerings of small firms.[18] Nevertheless, the size of venture capital market is relatively low (Figure 1.A3.1). The funds are mainly directed towards the expansion of existing companies in traditional sectors rather than to the financing of early-stage firms. The major player in this market is SND I*nvest*, which is government-owned. The government plans to privatise ownership and management of the fund but it could still contribute to its financing. The government also finances a number of dispersed regional funds that attempt to tap private sources of financing. However, the limited presence of private insurance and pension institutions and of risk-taking wealthy individuals ("business angels") explains the low level of private risk capital. Moreover, regulation imposing restrictions on risk-taking by institutional investors and the wealth tax on individuals further limit the availability of private equity capital.

Figure 1.A3.1. **OECD venture capital investment by stages**[1]
1999-2002, as a percentage of GDP



1. 1998-2001 for Australia, Japan, Korea and New Zealand.
Source: OECD venture capital database, 2003.

Notes

1. Leahy *et al.* (2001).
2. See OECD (1999) and Leahy *et al.* (2001) for a description of the main principles on good corporate governance.
3. Bergo (2003).
4. The deterioration of banks' profits is mainly due to falling net interest income. Banks' loan losses were around 0.5 per cent of average total assets in the first three quarters of 2003, which is double the figure one year earlier. This is mainly due to weak developments in the fishery sector. An element of risk is linked to the property management sector due to the high exposure of the three largest banks (30 per cent of total corporate loans at the end of the third quarter 2003). Nevertheless, most banks maintain a Tier 1 capital ratio significantly above the minimum required 4 per cent. See Norges Bank (2003).
5. Humphrey and Vale (2003) estimate that the average cost reduction was around 2.8 per cent for the 26 mergers analysed in their study.
6. Competition Authority (2003).
7. Foreign-owned firms account for 27.3 and 5.3 per cent of banking and life-insurance assets, respectively, and 49 per cent of non-life insurance gross premiums.
8. However, the Competition Authority (2003) points out that, unlike banking services, information on non-life insurance prices and conditions is limited on the Internet.
9. Norges Bank (2003). Humphrey and Vale (2003) estimate that the switch from paper to electronic payments led to a cost reduction of 13 per cent for the industry as a whole in the period 1987-1998. See also Lindquist (2002).
10. Bergo (2003).
11. In January 2003, *Den Norske Bank* had already taken full control of the troubled Norwegian bank *Nordlandsbanken*.
12. The State also runs three lending institutions collecting funds from the bond market and providing housing and education loans to households as well as credit to municipalities and corporations fulfilling regional objectives. See OECD (2003a).
13. OECD (2003b).
14. Børhen and Odegaard (2003).
15. Børhen and Odegaard (2003) show that on average the largest owner holds 29 per cent in their sample of Norwegian listed companies, the two largest are a minority able to block changes to the statute, the three largest form a simple majority and the four largest a supermajority.

16. However, for companies entirely owned by the State the government can overrule the decisions of the board regarding changes in the company's activities and payment of dividends.
17. Gjedrem (2002).
18. Baygan (2003).

Bibliography

Baygan G. (2003), "Venture capital policy review: Norway", OECD STI *Working Paper*, 2003/17.

Bergo J. (2003), *Crisis resolution and financial stability in Norway*, Speech delivered by the Deputy Governor of Norges Bank at the 50th Anniversary of Bank Indonesia, 10th December 2003.

Børhen O. and B.A. Odegaard (2003), "Governance and performance revisited", ECGI *Finance Working Paper*, 28/2003.

Competition Authority (2003), *Annual Report* 2002, Oslo.

Gjedrem S. (2002), *Monetary Policy, Securities Market and Municipalities*, Address by the Norges Bank Governor at the anniversary seminar of Kommunalbanken, 30th August 2002.

Humphrey D.B. and B. Vale (2003), "Scale economies, bank mergers, and electronic payments: A spline function approach", *Norges Bank Research Department Working Paper*, 2003/5.

Leahy M., S. Schich, G. Wehinger, F. Pelgrin and T. Thorgeirsson (2001), "Contributions of financial systems to growth in OECD countries", OECD *Economics Department Working Papers*, 280.

Lindquist K. (2002), "The effect of new technology in payment services on banks' intermediation", *Norges Bank Research Department Working Paper*, 2002/6.

Norges Bank (2003), "Financial stability", *Reports from the Central Bank of Norway*, 6/2003.

OECD (1999), OECD *Principles of Corporate Governance*, Paris.

OECD (2003a), *Bank Profitability*, Paris.

OECD (2003b), *Regulatory Reform Review of Norway*, Paris.

2. Fiscal reform

Introduction

Norway's considerable oil wealth is both a boon and a challenge for fiscal policy. A boon in that the annual cash flow from petroleum activities is both a significant share of GDP (approximately 10 per cent on average in the past three years) and, unlike taxes, has no significant distorting impact on work/leisure or consumption/savings choices. A challenge also, because inter-generational equity and economic sensibility demand that the whole of the oil wealth should not be consumed only by the generation alive between the beginning of oil production in the early 1970s and the exhaustion of recoverable reserves.[1] To meet this challenge, a "Petroleum Fund" was created in 1990.[2] Oil revenue is used to acquire financial assets from countries outside Norway. The fiscal policy guideline, established in 2001, lays down that the permissible use of oil money in government budgets, to finance the non-oil structural deficit, should equal the projected long-run real return on the Petroleum Fund estimated at 4 per cent of the Fund's value at the beginning of the year.

The guidelines have the advantage of being simple and easily understood. If broadly adhered to, and based on current projections of oil production and prices, the spending of oil revenues would gradually rise from 2.4 per cent of mainland GDP in 2001 to around 5 per cent by the mid-2020s and then remain stable in constant price terms. Thus, oil revenues would continue to support living standards many decades after the oil reserves have been exhausted. The guidelines permit deviations from the 4 per cent rule. The nominal value of the Fund will fluctuate as markets go up and down, and so thus would the "real return" of 4 per cent of this value, in ways that would complicate fiscal policy for no good reason. Also, conjunctural considerations in Norway itself could justify deviations from the guidelines in either direction. But if the ultimate rationale of the Fund is to be preserved, then overspending in bad years should be compensated by underspending in good ones. There is no automatic binding constraint to do so – and recent experience in the euro area suggests that such constraints are easier to devise than to implement. It is unfortunate that the first years under the new regime have coincided with both a global equity crash and domestic recession,

but the degree of overspending of oil-revenues relative to the guidelines since 2002 has been disquietingly large. It is disquieting also that on current medium-term scenarios, it would take nearly until the end of the decade to get back on track – and that would entail mildly restrictive fiscal policies during this period. Thereafter, public pension spending will have started its decades-long surge as the baby-boom generation moves into retirement.

The main issues discussed in this chapter are as follows:

i) As almost every other OECD country, Norway faces great challenges concerning fiscal sustainability because of ageing of the population. The looming problems may prove even more severe in Norway, both since the calculated ratio of pension spending to GDP by 2050 is higher than in the average OECD country and because the path toward that level will be among the steepest, considering that pension spending is currently relatively low. Moreover, adequate reforms to cope with this matter are lagging Norway's peers.

ii) Obviously, the oil wealth puts Norway in a special situation, but the perception that the oil wealth can solve the pension problem is wrong. Indeed, it is also a dangerous misunderstanding since it can lead to postponements of necessary reforms. It is therefore imperative that the newly proposed recommendations from the Pension Committee are implemented without being watered down first.

iii) The substantial longer term challenges should imply prudence in current fiscal policy. Even allowing for the global recession, fiscal overspending compared with the 4 per cent rule still appears to be on the high side. A quick return to the initial path is necessary to maintain legitimacy. Medium-term measures to bridge the short and long horizons could contribute to prevent asymmetrical fiscal policy. Generally, efficiency gains in public spending should continually be sought after to liberate resources as public finances get increasingly strained.

This chapter starts by evaluating the current short-term implementation of fiscal policy. The probable asymmetric feature of public spending in the context of a minority government situation and a budget constraint that may be perceived as *de facto* soft is raised as a concern. The following section discusses ways to provide additional and more binding medium-term anchors. The longer term challenges of an ageing population that have too big a fiscal impact for the Petroleum Fund to handle alone, are discussed in the last section. There are reforms in the pipeline addressing these issues, and these are discussed accordingly.

Fiscal policy in the current conjuncture

Fiscal developments in 2003

According to the most recent National Budget, the structural, non-oil deficit in 2003 is estimated at about NOK 40 billion, 3.3 per cent of trend mainland GDP (Table 2.1). This is some NOK 10 billion more than originally estimated in the budget one year earlier. A major downward revision to estimated tax receipts and an upward revision to estimated unemployment benefits were not offset by tightening in other parts of the budgets.[3] Based on these figures, the stance of fiscal policy – as measured by the change in the structural non-oil deficit – is estimated to have been mildly expansionary (Table 2.1). Real underlying central government spending did not grow,[4] though, possibly reducing the expansionary impact on the real economy from fiscal policy.[5]

Table 2.1. **Structural, non-oil budget balance**
In NOK millions

	2001	2002	2003	2004
Non-oil surplus on the Fiscal Budget	–1 640	–62 392	–58 980	–67 752
– Transfers from Norges Bank above estimated trend level	6 012	–4 492	–4 685	–4 878
– Net interest income above estimated trend level	–1 184	–1 667	–2 840	–6 230
– Extraordinary accounting factors	2 586	–21 779	–4 829	–668
– Cyclical adjustments	18 012	1 039	–6 270	–5 265
= Structural, non-oil surplus	–27 066	–35 493	–40 356	–50 711
Measured as a percentage of trend mainland GDP	–2.4	–3.0	–3.3	–3.9
Change on previous year (budget indicator)	–0.2	–0.6	–0.2	–0.6

Source: Ministry of Finance and Statistics Norway. See OECD (2002a) for a discussion of the concept of the structural, non-oil budget balance.

The surplus in the Government Petroleum Fund is estimated at NOK 136.4 billion in 2003 (Table 2.2),[6] thus constituting the bigger part of the NOK 151.4 billion (positive) central government net lending.[7] On the other hand, local governments were running deficits causing a net borrowing of NOK 6 billion. Consequently, general government net lending amounted to NOK 145.4 billion or 9.2 per cent of GDP, about the same as in 2002 (Table 2.3). Favourable developments in financial and exchange rate markets during 2003 have caused upward revisions to the estimated value of the capital in the Petroleum Fund, which should amount to some NOK 850 billion by the end of 2003 (Table 2.4).

A central plank of the Government's economic policy platform, as stated in the 2001 "Sem declaration", is to reduce the level of taxes and duties by a cumulative NOK 31 billion by 2005.[8] Taxes and duties are estimated to have declined in cyclically-adjusted terms by NOK 8.6 billion in 2003, following a

Table 2.2. **Key figures for the fiscal budget (including social security) and the government petroleum fund before loan transactions**
NOK billion

	2002	2003	2004
1. Fiscal budget			
Total revenues	691.1	695.0	696.2
Revenues from petroleum activities	185.3	185.9	164.5
Revenues excl. petroleum activities	505.8	509.1	531.7
Total expenditures	584.2	588.1	620.5
Expenditures on petroleum activities	16.1	20.0	21.1
Expenditures excl. petroleum activities	568.2	568.0	599.4
Surplus before transfers to the Petroleum Fund	106.8	106.9	75.7
– Revenues from petroleum activities	169.2	165.9	143.5
= Non-oil budget surplus	–62.4	–59.0	–67.8
+ Transfers from the Petroleum Fund	53.4	59.0	67.8
= Fiscal budget surplus	–9.0	0.0	0.0
2. Government Petroleum Fund			
Revenues from petroleum activities	169.2	165.9	143.5
– Transfers to the fiscal budget	53.4	59.0	67.8
+ Dividends and interest on the Petroleum Fund	22.6	29.5	30.2
= Surplus in the Petroleum Fund	138.4	136.4	105.9
3. Fiscal Budget and Petroleum Fund Surplus	129.4	136.4	105.9

Source: Ministry of Finance.

Table 2.3. **General government net lending**
NOK billion

	2002	2003	2004
Fiscal budget surplus	–9.0	0.0	0.0
+ surplus in Government Petroleum Fund	138.4	136.4	105.9
+ surplus in other central government and social security accounts	8.2	6.6	9.1
+ definitional differences between fiscal budget and national accounts	6.7	5.4	–4.7
+ direct investments in state enterprise	–8.8	3.1	4.0
= Central government net lending	135.4	151.4	114.3
+ Local government surplus, accrued value	5.1	–6.0	–7.4
= General government net lending	140.6	145.4	106.9
In per cent of GDP	9.2	9.2	6.7

Source: Ministry of Finance.

NOK 10.8 billion reduction in 2002, *i.e.* already going two-thirds of the way toward the final objective. The main part of the 2003 tax relief comes as a consequence of resolutions passed in 2002.[9] This especially applies to the abolition of the invest-

Table 2.4. **The development in the Petroleum Fund and the structural, non-oil balance 2001-2010**

	Current prices (NOK billion)			Fixed 2004-prices (NOK billion)			
	The Petroleum Fund at the start of the year	Estimated return with 4 per cent rule	Structural, non-oil deficit	Estimated return with 4 per cent rule	Structural, non-oil deficit	Deviation from the 4 per cent rule	Structural, non-oil deficit, per cent of mainland trend GDP
2001	386.6	–	27.1	–	30.2	–	2.4
2002	619.3	24.8	35.5	26.6	38.1	11.5	3.0
2003	604.6	24.2	40.4	25.0	41.7	16.7	3.3
2004	857.0	34.0	51.0	34.3	50.7	16.4	3.9
2005	996.0	40.0	53.0	38.4	50.7	12.3	3.9
2006	1 133.0	45.0	55.0	42.1	50.7	8.7	3.8
2007	1 268.0	51.0	57.0	45.3	50.7	5.4	3.8
2008	1 396.0	56.0	59.0	48.1	50.7	2.6	3.7
2009	1 527.0	61.0	61.0	50.7	50.7	0.0	3.7
2010	1 665.0	67.0	67.0	53.2	53.2	0.0	3.9

Source: Ministry of Finance.

ment tax in October 2002, implying that three quarters (NOK 4.5 billion) of the tax relief accrued in 2003. Moreover, increasing the rates of depreciation stripped the budget of another NOK 1.5 billion.

T*he* 2004 *budget*

The 2004 budget, which was adopted in November 2003 after an agreement with the Labour party, implies a structural, non-oil budget deficit of NOK 50.7 billion – a real increase of NOK 9 billion from the estimated 2003 outturn, itself a NOK 10 billion increase on the original 2003 budget proposal. Accordingly, the projected structural deficit amounts to 3.9 per cent of mainland GDP in 2004 against the estimated outcome of 3.3 per cent in 2003 (Table 2.1). The fiscal stance measured as the change in the structural deficit from 2003 to 2004 is thus expansionary. The impact on the economy, however, may largely be offset by changes in the composition of receipts and outlays. In particular, the income side will suffer from losses of extraordinary receipts which are not likely to have much impact on activity.[10] Central government real underlying spending is projected to grow by some 2 per cent, compared with an estimated 2.6 per cent growth in real mainland GDP.[11]

Although still very high, central government net lending is set to fall by nearly NOK 40 billion in 2004, to around NOK 114 billion. The decline is chiefly caused by an anticipated decline in the Government Petroleum Fund surplus because of lower income from petroleum activities and an increasing non-oil deficit.

Local governments are projected to continue to run deficits, causing NOK 7.4 billion to be deducted from general government net lending, expected to amount to 6.7 per cent of GDP, a 2½ percentage points decline from the levels in 2002 and 2003, but still somewhat higher than the average over the last 20 years (Table 2.3). The value of the capital in the Government Petroleum Fund is estimated to reach NOK 1 trillion in 2004 or 62.2 per cent of GDP.

After two years of quite substantial tax relief, amounting to some NOK 19 billion, the 2004 budget suggests a virtually unchanged real level of taxes and duties between 2003 and 2004. Given the now very limited room for manœuvre in fiscal policy if the guidelines are to be respected, it seems unlikely that the government will be able to fulfil its goal of cutting taxes by NOK 31 billion by 2005. Developments in taxes and duties after 2004 will also be influenced by the ongoing work on tax reform, planned to be presented to the parliament in early 2004. The tax reform is described later in this chapter and more extensively in Annex 2.A1.

The fiscal policy rule

The rule has been substantially overshot ever since it came into effect as of 2002. The slippage in 2003 and 2004, *i.e.* the structural, non-oil deficit exceeding the estimated real return on the Petroleum Fund, is estimated at about NOK 16½ billion each year (or 1¼ per cent of mainland GDP), following a NOK 11.5 billion overshooting in 2002. Acknowledging the cyclical downturn, the slippages also reflect discretionary tax cuts not matched by spending cuts. There may be no strong case for tightening fiscal policy sharply at present, given remaining cyclical weakness, just in order to secure a rapid return to the fiscal policy rule. To preserve the guideline's legitimacy, however, the fiscal stance should permit a return to the rule that is consistent with a closing of the output gap. This could entail a mildly restrictive stance for a number of years to come.

Calculations by the Norwegian Ministry of Finance show that the central government balance will be in conformity with the 4 per cent target towards the end of the decade only if a policy of zero real growth in the non-oil structural deficit is followed. To improve the credibility of the fiscal rule, and because pension spending pressures will start to build up later this decade, a quicker return to the 4 per cent guideline is desirable, and should be feasible once the economy has reached potential and is expanding at a sustainable rate.

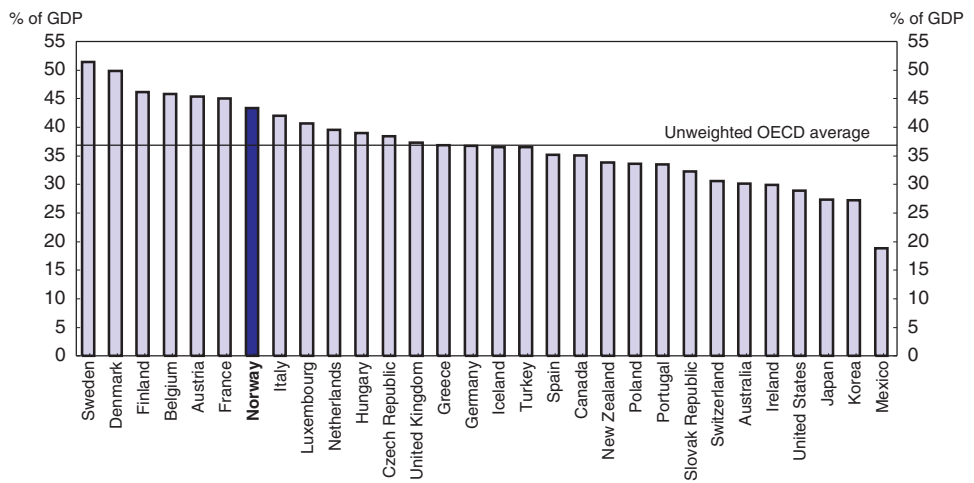
The fiscal guideline allows all generations to benefit from the oil wealth primarily by permitting a "top-up" of 4-5 per cent of mainland GDP in the current budgets. Still, if it is decided to establish a strong link between the petroleum fund and future pension liabilities, this would have consequences for the guideline. Obviously, it would no longer make sense to run a permanent (non-pension) budget deficit if the oil money formerly covering that deficit became earmarked to pensions. This is discussed more at length in the last section of this chapter.

Fiscal policy in the medium term

While the average OECD public spending as a share of GDP has declined slightly since its peak in 1993, the trend in Norway turned upwards yet again from the mid 1990s.[12] Pressures in public spending are likely to intensify further in the medium-term, in particular as a consequence of ageing populations. The level of public spending in Norway is already far above other European countries, and like other Nordic countries, tax levels are among the highest in the OECD area (Figure 2.1).[13] The current government has cut taxes by NOK 20 billion but it has failed to cut spending accordingly. Rather, social security spending on disability pensions, early retirement, rehabilitation and sick leave has strongly accelerated.

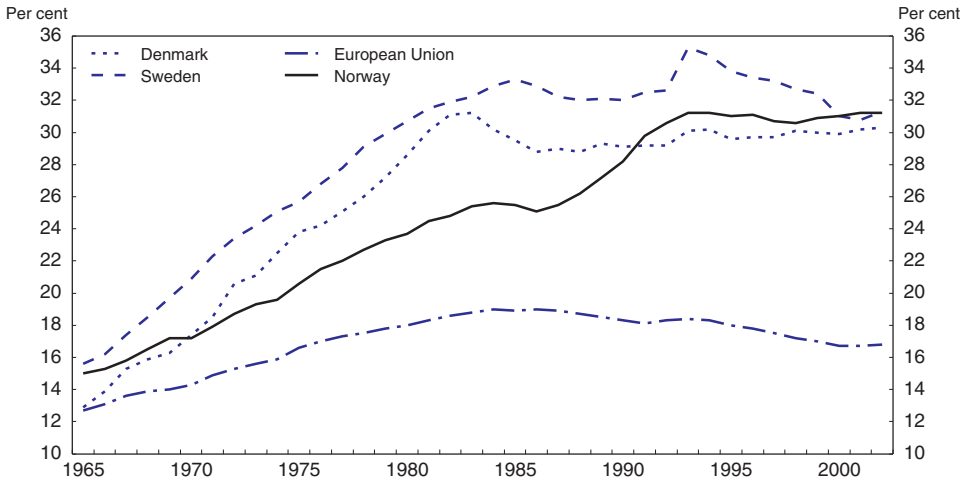
These general features of high taxes and high public expenditure raise some concerns. First, although necessary to finance the welfare state, taxes distort choices at the margin, worsen resource allocation and thus create dead weight losses. The current Norwegian tax system is also characterised by heavier taxes on labour income than on capital income, creating incentives to reclassify labour income as capital income wherever possible. Furthermore, the large and growing share of people working in the public sector will leave fewer for the private sector (Figure 2.2). This might be especially true for highly educated workers since it tends to be a high concentration of such workers in the public sector. If not reversed, such a trend could worsen the exposed sector's economic prospects.

Figure 2.1. **Total tax revenues in OECD countries**
As a percentage of GDP, 2001



Source: OECD.

Figure 2.2. **Public employment**
As a percentage of total employees



Source: OECD, Statistics Norway and the Ministry of Finance.

A drawback with the fiscal policy guideline is that there is no binding legal constraint to support it. It would be desirable if the 4 per cent rule were respected more symmetrically over the cycle, something which could be achieved more easily in a multi-budgetary framework. Efforts to improve efficiency in spending and tax collection and to raise economic potential are also important, considering the increasing demands for higher public spending.

Budget reform

Anchoring the budget process in a medium-term perspective can contribute significantly to a more efficient allocation of spending and hence to fiscal sustainability. Efforts to control the growth of public spending over too-short a budget horizon may have adverse allocative effects. Failure to look far enough ahead entails the risk that adjustments will be made without accounting properly for the economy's position in the cycle, that spending whose benefits take time to materialise will be squeezed (in particular investment) and that structural reforms to control spending will not be promoted. Many countries, including Norway, focus on cyclically adjusted fiscal rules to avoid these potential pitfalls in theory, though measuring cyclically adjusted budget positions can admittedly be problematic. By permitting deficits during recessions, while requiring that surpluses be achieved during upswings, such rules may help to avoid *ad hoc* and sub-optimal spending adjustment.

In order to support the guideline, strategies to raise awareness of longer-term trade-offs implicit in the annual budget process should be implemented, thereby promoting fiscal discipline. Currently, Norway presents key macroeconomic projections for the medium term, and generational accounts and long-term projections of public spending on pensions. Several countries have gone further by introducing mechanisms to avoid arbitrary short-term spending adjustments.[14] These include *inter alia* multi-year budgeting, currently under discussion also in Norway.

The State budget committee

The State budget committee presented its proposal in January 2003. Two recommendations were put forward, one on each of the issues the committee was mandated to assess; first, the state budget should substitute cash-based accounting with accrual accounting, and second, multi-year budget projections should be introduced and these should serve as binding resolutions for a selection of projects and activities. According to the 2004 State budget, the Ministry of Finance will advise the parliament not to implement the recommendations as they now stand. Rather, the Ministry recommends a gradual implementation of accrual accounting, starting with the preparation of standards and trial implementation in a small sample of agencies. Based on these experiences, implementation of accrual accounting in the Government budget and accounts would be addressed at a later stage. As regards multi-year budgets, the Ministry of Finance has agreed on presenting three-year budget projections on an aggregate level starting in autumn 2004,[15] but has rejected the recommendation that these should be binding in any way.

The Norwegian Government Agency for Financial Management was established 1 January 2004, under the administration of the Ministry of Finance. The new agency will have an important role in initiating, promoting and coordinating reforms within performance management and financial management. The Ministry of Finance and the new Agency will work in tandem on the gradual implementation of accrual accounting within government agencies and state enterprises. As regards accrual accounting in government budgets, the opinions of the Ministry of Finance seem to be in line with general international views (see Box 2.1). The Ministry emphasises that implementation of accrual accounting would involve substantial administrative costs and that these costs might outweigh the potential benefits. Moreover, the authorities stress that accrual and cash based accounting need not be mutually exclusive. The Ministry view is that full implementation of accrual accounting is not necessary in order to provide desirable information on costs, assets and obligations where this is of particular significance as a basis of decision. As an example, actuarial calculations showing the total pension obligations of public employees is possible without shifting the whole accounting system to an accrual basis.

Box 2.1. Accruals versus cash-based accounting

Lately, there has been an international discussion on suitable principles underlying budgeting and accounting in the public sector. The cash-based principle has long been considered a simple and manageable method of accounting, and advocates stress superiority in demand management, which of course is a high priority in public governance. Cash-based and accrual accounting, differ in that in the latter receipts and outlays are recorded the year they are incurred rather than the year the cash flows in or out. The main benefit to this system is that it makes the true cost of government activities more transparent. This applies especially to costs connected to real capital, such as buildings and machineries, and pension obligations for state employees. An increasing number of countries have adopted accruals for their financial reporting, though often only partially, while few use accruals for their budgeting process. Accounting is also used extensively in the private sector.

Countries applying accruals for both budgeting and accounting (Australia, New Zealand and United Kingdom) have also been at the forefront of public management reforms aiming at making managers responsible for the outcomes and/or outputs while reducing control on inputs. Managers need to be responsible for all costs associated with the outcomes and/or output produced, not just the immediate cash outlays. It should however be recognised that a full and consistent application of the accrual principle is not an easy task as it may rely on a certain element of judgement. It would, for instance, imply attributing the pension costs of government employees to the time period when they are employed, rather than having this as an unrelated expenditure once they have retired. Evaluating these implicit liabilities is fraught with serious conceptual and technical difficulties. A similar problem arises with infrastructure assets where, in the absence of a transparent and verifiable framework, the selection of valuation methods (historic *versus* current value) and depreciation approaches will significantly affect the picture.

The discussion seems to be inconclusive, and may be prudently so. However, it remains sensible that managers are made responsible for annual accrual costs, rather than for annual cash expenditures. A tentative conclusion could be that instances of divergence between cash expenditures and accrual costs (pensions, investments, etc.) should be judged on a case by case basis. It is certainly recommendable that managers be made responsible (and should pay) for the pensions of their personnel. It may also be sensible that managers pay annual capital costs for certain durable goods rather than the full investment sum upfront, especially when these investments are irregular. However, for neither of these changes is it necessary for the government to move to a system of accruals budgeting. For example it is possible to provide actuarial calculations that show total state employee entitlements without fully implementing accrual accounting.

Sources: OECD (2002b, 2003c) and Norwegian Ministry of Finance (2004 State Budget).

Multi-year budgeting is less controversial and more widespread than accrual accounting. Neighbouring countries of Norway all have some kind of multi-year framework. In Sweden, while the ordinary state budget is adopted each year, the parliament also makes a resolution on expenditure growth over the next three years. In Denmark, a large part of the budget is *de facto* tied up for four years at a time. Iceland presents three year forecasts on the government's receipts and outlays, and although not binding, they serve as a strict guide on future budgets. The Norwegian Ministry of Finance also supports the general idea of multi-year budget projections, and will include such projections in the 2005-budget. The Ministry does not recommend binding multi-annual budget decisions, arguing that the share of entitlement spending (*i.e.* social security spending) to total spending is so substantial that additional commitments would further reduce an already limited room for manoeuvre. Moreover, the Ministry stresses that binding expenditure rules restricted to only some areas would increase the burden on other budget items. Nevertheless, the possibility of introducing binding medium term expenditure ceilings should be explored.

It is true that binding expenditure rules would reduce the room for manoeuvre, when this is defined as increasing spending without offsetting measures in other parts of the budget, which is in fact actually the objective of the framework. The point is to establish strong and robust budget limits that are voted by the parliament. As mentioned above, a potential problem with the current fiscal policy guideline is that it is only self-imposed and indeed is a guideline, not a binding rule. Nevertheless, public spending on average in the last three years has not been on the whole excessive, and the government's self-imposed policy is to hold back public spending. Still, combining the perverse incentive effects of the huge oil wealth, future financial challenges due to ageing and a government without a majority in the parliament, there is a risk that the present fiscal policy framework could prove unsatisfactory, with a bias toward slippage. Introducing binding spending ceilings would reduce the degree of discretionary spending and supplement the current guideline in providing fiscal prudence.

Public management

With a view to improving public spending outcomes, many countries have reassessed public sector management practices. The main focus has shifted from the amount of resources used by a programme or ministry to the services delivered or outcomes achieved. This has entailed more emphasis on user-orientation, while entrusting the managers of spending agencies with more flexibility in their day-to-day operations.

To this end, international comparisons suggest that it is important to design appropriate incentives to encourage public entities to reach their performance targets,[16] which should themselves be well-anchored in the context of a

medium-term expenditure envelope as just discussed. For specific services, there is an increasing recourse to activity-based funding which directly acts as a reward and sanction system. Prospective payment systems and fee-for-services in the health care sector are current examples. In the education sector also, several countries, including Norway, have made institutions' resources conditional on the number of students or degrees passed. One major difficulty, however, lies in defining what should happen if the approved performance or activity level is not achieved. In the case of essential goods and services, it is doubtful whether poor performers could be sanctioned, especially if there is no alternative supplier, as this could lead to further cutbacks in service provision.

Relaxing input controls in favour of result-based financing may spur efficiency gains but may also put spending control at risk. In the presence of pent-up demand (*e.g.* waiting lists for health care services) the surge in public spending may be only temporary. In the longer run there are several necessary conditions for result-based financing to deliver efficiency gains while controlling total spending. These include, in particular, setting appropriate prices for publicly funded goods in order to contain excessive demand pressures, while ensuring adequate and fair competition across providers. Even under such circumstances, designing payment systems that limit incentives to oversupply has been difficult, especially in the health care sector where providers are typically better informed than patients and insurers about the true need and scope for medical treatment. Setting an overall envelope for a given publicly funded service and allowing providers to compete for market shares within this envelope could mitigate the risk of supply-induced rise in demand.

Furthermore, decentralisation, which often goes together with an increasing results-based approach, poses several challenges for macroeconomic management, most notably that of securing fiscal discipline. Cross-country studies suggest that expectations of financial assistance by sub-national jurisdictions, as well as outright bailouts, have created disincentives for prudent fiscal management and have been at the root of several episodes of general government deficit slippage.[17] Overlapping responsibilities, open-ended grants and weak accountability can create an upward bias in sub-national spending, with consequences for the overall budget position.

To deal with this issue, more comprehensive fiscal rules have been implemented through government-imposed constraints on the local government operating balance (*i.e.* excluding investments). In Norway, if a municipality runs a deficit one year, it has two years to get back in balance. If not, the municipality's finances are put under supervision. Specifically, this means that the local government cannot raise loans or enter long-term rent contracts without approval from either the County Governor or the Ministry. Currently over 100 municipalities are in the "Register for state review and approval of financial obligations", amounting

to about 25 per cent of the local governments.[18] This high number is disquieting. First, since so many are on the list, the perceived unpleasantness of being put on it is being marginalised. Second, the extensive list implies that the degree of autonomy in local governments is generally not very high.

Work on modernising the public sector

In his statement before the parliament on January 2002, the Minister of Labour and Government Administration presented the government's modernising programme for the public sector. Efforts have also been made in the past to renew and reorganise the public sector, and the present government intends to continue the structural changes initiated by previous governments in this area. To this end it will continue to work along the lines of the central principles of the programme:

- Less complex public sector.
- Provide public services that are adapted to individual needs.
- Make the public sector more efficient and ensure that it contributes to efficiency in the rest of the economy.
- Develop a human resource policy for public employees.
- Modernisation of the division of labour between central and local government authorities in which the State provides appropriate operating parameters for local government, and ensures that the locally elected representatives have a decisive say in what goes on in their own sphere of responsibility.

Most commonly, public services are today produced in public monopolies. In several areas it would be appropriate to leave production to private enterprises or allow for competition between private and public producers. The government also argues that in some instances it would be suitable to establish a competitive and efficient market dominated by public producers. The extensiveness of private participants varies substantially between different services. The authorities aim to offer greater freedom of choice where this is possible, *inter alia* through equal treatment of public and private nursery schools and municipal and independent schools, competition among employment agencies and laying the framework for increased competition in municipalities. An important element regarding competition in municipalities is the proposed change to the value-added tax (VAT) put forward in the 2004 National budget and adopted by the Storting. The new system implies neutrality with respect to the municipality's decision on whether to produce services themselves or buy from private providers. Box 2.2 provides a summary of ongoing reform work.

Sub-national spending as a share of general government spending has increased in the last decade and is high relative to the OECD average, but lower than in other Nordic countries.[19] Sub-national income, on the other hand, has

Box 2.2. Important reforms to raise efficiency of government

Area of reform (Ministry involved)	Type of reform	Status of implementation
Ministry of Labour and Government Administration	A*etat*, the Public Employment Service, and external suppliers of labour market services are subject to performance based financing	Attempts with new financing schemes are to be continued and developed further in 2004
Ministry of Children and Family Affairs	Central Government taking over county municipal family and child care	New directorate established 01.01.2004
Ministry of Defence	New structure with organisational changes, reductions of personnel and buildings	To be implemented in 2002-2005 On schedule
Ministry of Finance (FIN)	Reducing the number of custom regions and custom places	To be implemented in 2004
FIN	Strengthening tax collection	Committee's proposals are due by spring 2004
Ministry of Health (HD)	Transferring financing responsibility concerning ambulance service from State to the regional health enterprises	Implemented 01.01.2004
HD	Experimental scheme involving tender for medicines on blue prescription (free/discount)	Presented to the parliament in autumn 2003
Ministry of Justice and the Police (JD)	A more efficient organisation and division of labour between operating units	A proposal is planned to be presented to the parliament in 2005
JD	Fewer and more cost efficient courts	A new structure for courts to be established in 2007
JD	Responsibility of judicial registration transfers from courts to the Norwegian Mapping Authority	Adopted. Aiming at implementing simultaneously with the new structure in courts
JD	Fewer mediation boards, enhanced utilisation of resources	Implemented 01.01.2004
JD	Simplifying the local administration of justice	A new law was proposed by the government in autumn 2003
Ministry of Local Government and Regional Development	Reducing the costs of integration of immigrants	Gradual implementation adopted. Voluntarily at the municipality level as of 1.9.2003. Compulsory from 1.9.2004

Box 2.2. **Important reforms to raise efficiency of government** (*cont.*)

Area of reform (Ministry involved)	Type of reform	Status of implementation
Ministry of Transport and Communication	Expose personal transport services on the Norwegian railway network to competition	Gradual implementation adopted
Ministry of Social Affairs	Improve quality of social care. Adjusted to the individual need of the consumer. Freedom of choice	White paper presented in 2003. The program shall go on until 2006
Ministry of Education and Research (UFD)	Modernising basic education National system to increase quality in basic education	Introduction starts spring 2004
UFD	In higher education, several different measures to improve quality, flexibility, financing and equality between public and private schools	Adopted or planned introduced during 2004
UFD	Assessing strategies to improve quality and increase efficiency of the Loan Fund	White paper published in autumn 2003

Source: Ministry of Finance.

fallen gradually. The degree of autonomy is questionable. Although three quarters of local government income is in the form of taxes or block grants, *i.e* not earmarked, discretionary powers in tax, expenditure and regulatory matters are limited.[20] Looking forward, sub-national budgets will be subject to significant spending pressures. In particular, population ageing is exerting upward pressure on spending and may affect sub-national governments more adversely than the central government since elderly care is the municipality's responsibility.[21]

In recent years, extensive reforms in primary, secondary and upper secondary schools have been implemented, causing activity in local governments to increase substantially. Moreover, making the care of the elderly and mentally disabled an area of commitment has claimed substantial resources. The years 2003 and 2004 will also see a hike in appropriations to kindergartens. On the other hand, the responsibility of special health services was transferred to the State in 2002. Increasing discretionary incomes should set the stage for local decision making that is more in line with the population's needs and local costs. Accordingly,

efforts should be made in order to develop new types of interactions between state and municipalities that are less based on statutory arrangements, earmarking and monitoring. Rather, goal oriented management should be emphasised, without a detailed path to the goals' achievement.

The greater part of public sector activity is already being financed through block appropriations. Cost efficiency is pursued through targets on profits or other goals. In contrast to performance based budgeting, discussed above, this system does not provide an automatic link between achieving the goal and the following year's budget allocation. Performance-based budgeting is, however, being introduced in hospitals and higher education. The goal is to enhance efficiency through strengthening supply side competition and increasing the user's choice. The hospital reform in Norway has led to a strong increase in reported production, and has caused considerable strain on overall public finances. The system of performance based financing implies less central management of the activity level. This makes it all the more important to introduce sufficiently effective mechanisms to contain demand, for example by making municipalities responsible for financing hospital care services. Moreover, incentives to oversupply must be dealt with. Some of the reported increase in hospital production may be attributed to better reporting techniques and more focus on "profitable" diagnosis. As noted earlier, allowing providers to compete for market shares within a fixed budget framework, as recently introduced in universities' research activities, could mitigate the risk of supply-induced rise in demand.[22]

Currently a committee is reviewing the governmental supervision of municipalities in order to secure quality while not interfering with local governance. The aim is to develop a system where the municipalities and the counties end up with a substantially degree of overall responsibility for their activities. The committee's report is due in September 2004.

New tax reform

The 1992 tax reform was a fundamental one to income taxes, in particular regarding corporate and capital tax. However, many important aspects remained unchanged, notably net wealth and real estate taxes. Since 1992, the tax system has been changed on several occasions, partly compromising the original principles. Moreover, several substantial changes have been adopted only to be reversed shortly thereafter,[23] thereby weakening the predictability of the tax system. The introduction of dual income tax systems, with lower tax rates on capital income than on labour income, was a Nordic phenomenon in the international tax reform trend in the early 1990s.[24] Problems of splitting taxable income into labour and capital income in the case of proprietorships, partnerships and "active-owners" of small businesses, and problems created by significant differences in marginal tax rates on labour and capital income, have created pressures to revise the dual

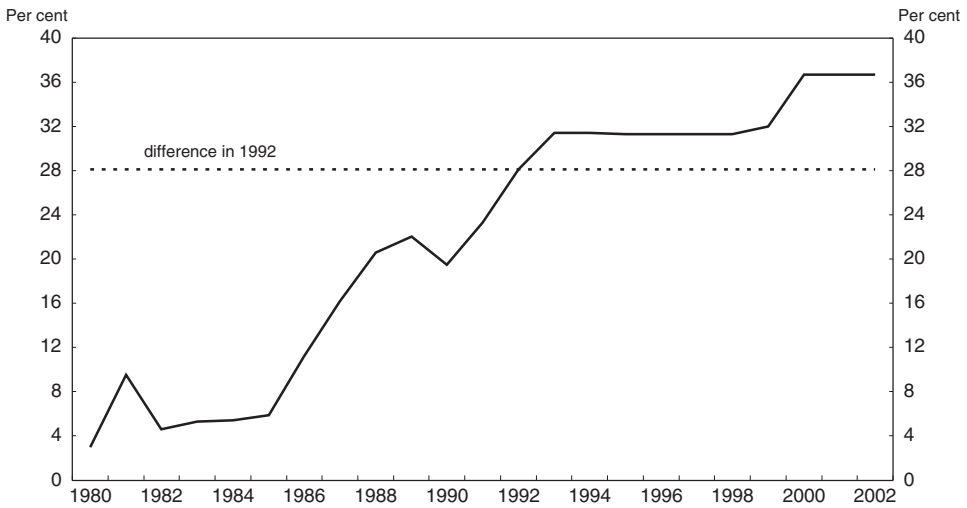
income tax and split rate model (Figure 2.3). Presently, both motives and possibilities for adjusting to the "split model" are high, driven by the taxpayer incentive to classify as much income as possible in the more lightly taxed class of capital income. This tendency conflicts with the principle of fairness in the tax system, weakens the system's capacity of income equalisation, and wastes resources.

A government-appointed Tax Committee presented reform proposals in February 2003.[25] The mandate for the Committee was to evaluate the objectives and principles applicable to the tax system, and to propose changes within the scope of a further NOK 8-10 billion tax cut. In particular, the Committee was to focus on the need to reduce the tax rate differential between labour and capital income, and the scope for fully or partly abolishing the split model. The Committee was also requested to evaluate the role of the net wealth tax. Finally, the mandate required that any changes should be based on the main principles in the 1992 tax reform, *e.g.* emphasising broad tax bases and relatively low tax rates.

The Tax Committee proposed a solution to the dual income tax problem based on two main changes in the tax system:

– A reduction in the marginal tax rates on labour income, by reducing the central government surtax within both tax brackets and removing the supplementary employer's social security contribution on labour income in excess of 16 times the "G" ("G" is the basic amount in the National

Figure 2.3. **Difference in top marginal tax between capital and labour income**



Source: Ministry of Finance.

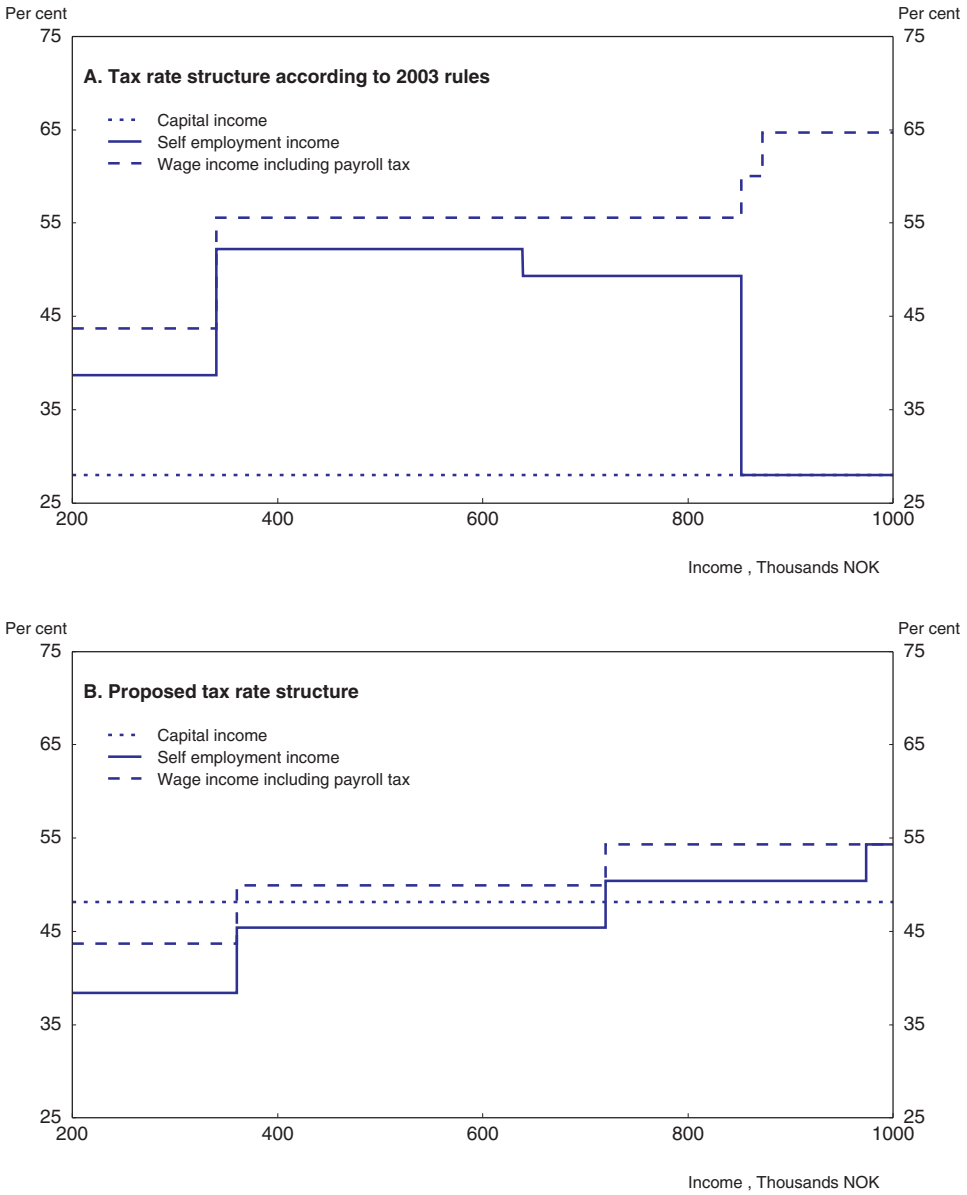
Insurance Scheme, and was NOK 55 964 in 2003). These changes would imply a reduction in the top marginal tax rates on labour income from 64.7 to 54.3 per cent including employer's social security contributions (Figure 2.4), and from 55.3 to 46.8 per cent when employer's social security contributions are left out.

– For personal shareholders, returns to shareholdings that exceed a calculated opportunity rate of return on the investment, are to be taxed as ordinary capital income (the so called shareholder model). The marginal tax rate on above-normal returns on shares would then increase from 28 to 48.16 per cent[26] (Figure 2.4), while staying at 28 per cent for returns at or lower than the calculated opportunity rate of return. As the marginal tax rates on labour income and income from personal shareholdings are almost equal, the scope for tax planning is reduced and the shareholder model can replace the split model for active owners in limited companies. The RISK system for avoiding double taxation of retained earnings, and the imputation system for avoiding double taxation of distributed earnings can also be replaced by the shareholder model for personal tax payers (Annex 2.A1).

The Tax Committee also proposes to phase out the net wealth tax, while increasing the taxation of real property and, to some extent, inheritance. The Committee argues that taxation of real property is better targeted than the wealth tax in terms of taxing immobile capital, and that such a reform would reduce the risk of undesired capital flight as well as improving the use of overall resources. It would also bring Norway more in line with other OECD countries, which generally have a substantially higher tax on real property and inheritance, while Norway is one of relatively few countries that still have a wealth tax. It is generally suggested that increasing the tax burden on less mobile tax bases, such as housing, combined with a lower tax burden on mobile or elastic tax bases will have positive allocative effects. The lenient taxation of housing capital in Norway may have caused excessive investment in housing, yielding an efficiency loss for the economy. Bye and Åvitsland (2003) show that increased housing taxation may have a positive welfare effect. The condition is that revenues from higher real estate taxes should be used either to reduce the marginal tax on labour income to address the decline in real wage rates caused by the higher price on housing services, or to reduce the marginal tax on capital income.

Increasing the real estate tax, while phasing out net wealth tax and generally reducing marginal tax on labour, is in line with earlier OECD recommendations. As regards the shareholder model, the neutrality properties should be appreciated as the model implies that only dividends and capital gains attributable to above-normal returns are more heavily taxed at the margin. Moreover, the fact that the shareholder model makes it possible to scrap the flawed split model

Figure 2.4. **Current and proposed tax rate structure**



Source: Ministry of Finance.

for active shareholders is an improvement. Still, an important consideration is whether the theoretical attractiveness of the shareholder model is offset by the practical difficulties of applying it. The government will present a separate White Paper to the parliament on changes in the tax system, based on the Tax Committee's report and the hearing. Based on the parliamentary deliberations, the government will present law proposals during autumn 2004, probably in connection with the budget proposal for 2005.

Medium term challenges

On average in the past 30 years, for every person who went into retirement, three others joined the labour force, so it was easy to raise the living standards of retirees without putting an undue burden on those still working. But in the next 30 years, for every two persons who go into retirement, only one additional person will join the labour force.[27] Maintaining equitable living standards for everybody in that environment will entail reforms that both encourage people to work longer and scale back the growth of the claims by retirees on society's output that is inherent in the current pension system. Projections from the Norwegian Ministry of Finance show that public spending on pensions will start to accelerate rapidly in about a decade. The window of opportunity for implementing reforms is thus limited, as it would be inequitable to "move the goal posts" for those who will retire in the immediate future. The present section will analyse the following medium-term challenges for Norway:

1. On current trends and policies, public spending on old age and disability pensions will increase from some 9 per cent of mainland GDP in 2002 to nearly 20 per cent in 2050. Not only does this mean that the level of Norwegian pension spending will be above the OECD average, but the path toward that level will also be among the steepest.
2. The Petroleum Fund cannot negate the need for serious reforms to the pension system. To be sure, adhering to the fiscal policy guideline implies that only a limited share of the oil money will actually be dedicated to pensions. Even if all the oil money suggested by the guideline was earmarked for pension spending,[28] this would be insufficient to cover the financing gap even today, let alone in ten years when pension spending really start to accelerate.[29] Alternatively, scrapping the fiscal guideline and letting the Petroleum fund alone pay for the increase in unreformed pensions would be a temporary solution, since it would completely exhaustthe fund by the mid 2020s.
3. Thus, reforms are imperative. If no measures are implemented, a substantial negative financing gap will emerge, which would necessitate either a considerable reduction of pensions and/or other public spending, or greatly increase the tax burden. Short of greatly reducing the level of

pension benefits, the most effective reform would be to increase the effective retirement age, for example, by enhancing the actuarial fairness of the pension system. When people work longer, society has more output to be shared between those retired and those still working, and the pressure either to raise contribution rates or cut benefits, or both, is lessened.

Pension spending will increase sharply

Other OECD countries face the same challenge of an ageing population. Public spending on old age pensions is expected to increase in the OECD area as a whole in the years up to 2050.[30] Cross-country comparisons show, however, that while public expenditures on old age pensions were relatively low in Norway in 2000, this will clearly not be the situation in 2050. The particularly strong growth in Norway is connected to the phasing in of supplementary pensions and longer contribution among women, on top of demographic ageing.[31] Equally important though, is that many of the OECD countries have already implemented reforms that significantly pull down pension spending in future. Such reforms include increased official retirement ages, abolishing wage indexation, introducing actuarially fair methods of benefit calculations and greater stress on funded pension schemes. In addition to lagging behind on reforms, the potential for increased employment would seem to be relatively limited since the unemployment rate is low and female participation rates are high. On the other hand, scope for improvement stems from the fact that the effective retirement age is well below the official one and that average hours worked are relatively low.[32]

Along with the rising spending on old age pensions, the general trend of social security benefits is disquieting. In fact, the number of people on different social security schemes besides old – age pensions (*e.g.* disability pension, rehabilitation and early retirement) has increased by 170 000 since 1995. Ten per cent of the working age population, and 33½ per cent of those over 55, are now on disability pension.[33] On top of this, sick leave has risen sharply. Obviously, this has a negative effect on labour supply, as comprehensively described in Chapter 4. Accordingly, public transfers to such social security schemes have by far been the fastest growing public spending component and are making it harder to attain a more sustainable path of public finances.

A substantial negative finance gap will surface

The notion that the oil wealth will solve the problems of increased social security spending is clearly wrong. First, the fiscal policy guideline implies that it has been decided that the capital of the Petroleum Fund shall not be tapped and that all future generations shall benefit from the corresponding "permanent income". Once this choice was made, Norway is basically on the same terms as

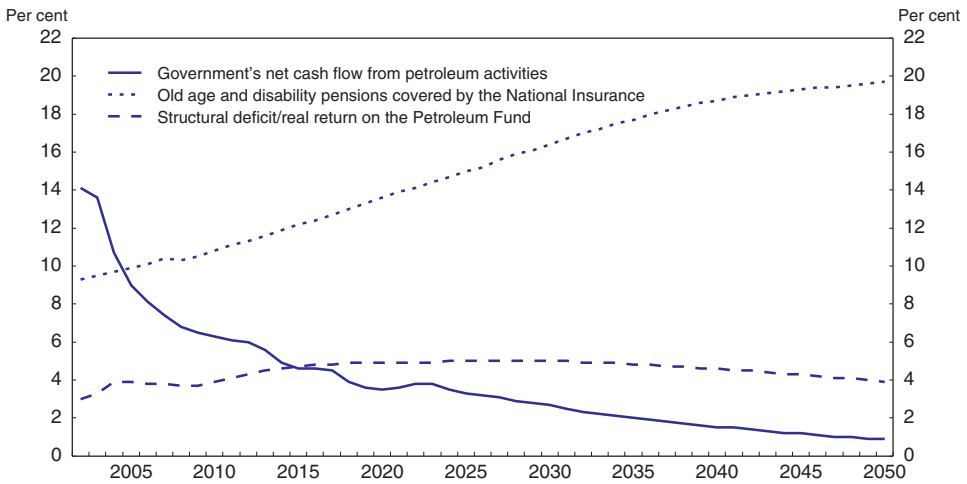
other countries.[34] Second, even if it was decided to abandon the fiscal guideline and create a more direct link between the oil fund and pensions, this extra buffer would be insufficient to cope with the hike in pension spending.[35] Indeed, oil revenues are about to peak (Figure 2.5).This issue is discussed in more detail later in this chapter.

Increased pension outlays will also result in increased receipts from pension beneficiaries. Still, according to the Ministry of Finance, the projections point to a negative financing gap that requires reduced spending or increased tax receipts of about 5 per cent of mainland GDP in 2050.[36] If the future tightening takes the form of curbing pension outlays, revenues from taxes and duties will also drop. Consequently, the required reduction in gross pension expenditures by 2050 would exceed 5 per cent of GDP.

Reforming the National Insurance *scheme*

Box 2.3 provides an overview on how the National Insurances Scheme (NIS) is constructed and what are the main proposals of the Pension commission reported in January 2004. As mentioned at the outset, the Norwegian scheme – along with other pay – as – you go schemes – will encounter heavy strains in the not too distant future as the share of pensioners increases sharply relative to the

Figure 2.5. **Long-term developments in pensions and oil revenues**
Per cent of mainland GDP



Source: Ministry of Finance.

Box 2.3. The National Insurance Scheme and the pension reform proposals

A thorough discussion of the Norwegian pension system was conducted in the 2001 OECD *Economic Survey of Norway*. The backbone of the Norwegian welfare system is the National Insurance Scheme (NIS) providing among other things old-age, disability and survivor's pension. All individuals resident or working in Norway are compulsory members of the NIS. The scheme is fully integrated in the central government budget. Employers, employees and pensioners pay contributions to the NIS but the contribution rates are not related to the outlays of the scheme. The difference between NIS incomes (chiefly employer and worker social security contributions) and outlays is in 2004 estimated to be about minus NOK 73.5 billion, or some 6 per cent of mainland GDP. NOK 14.5 billion of this financing gap will be covered by direct transfers from central government, while the rest must be covered in other parts of the budget (by general tax receipts or other spending cuts).

Benefits in the NIS are determined in relation to a "basic amount", which is generally referred to as the letter "G". At present, G is about a sixth of the average full-time wage. The parliament adjusts this amount once a year, broadly in line with nominal income. 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 NIS. The basic amount and the maximum special supplement together form the *minimum pension*.A full special supplement is paid, if the insurance period is at least 40 years and it is reduced proportionally for shorter periods. Supplementary pensions received are deducted from the maximum special supplement.The amount of supplementary pensions depends on three parameters: the number of pension earning years, the supplementary pension percentage and the computed pension points. There is an upper limit on yearly pension points and only the average pension points for the person's best twenty income years are considered when calculating pension benefits. Years in the workforce above 40 years are disregarded.

With minimum old-age pensions providing a floor and with upper limits on pension points providing a ceiling, old-age pension replacements rates fall the higher the previous income was and range from above 100 per cent for workers with previous incomes below 2 to 3 G to less than a third for high income workers.* The relatively low replacement rate has made occupational pension schemes essential for higher-income workers to have a pension close to their previous wage. Public sector occupational pensions guarantee a total pension, including NIS, of two thirds of the previous wage. Comparably, private sector occupational pensions aim at a replacement rate between 60 and 70 per cent. While all public employees receive occupational pensions, more than half of the private employees have no occupational pension at all.

A commission with representatives from all (but one) parties in the parliament and four independent experts has studied possible reforms to the Norwegian pension scheme since spring 2001 and reported their proposals in January 2004.

Box 2.3. **The National Insurance Scheme and the pension reform proposals** (*cont.*)

The proposals aim at increasing the robustness of the system by stressing proportionality and actuarially neutral principles. The overall goal is to reduce pension expenditures by 3-4 per cent of mainland GDP in the long term. The main features are:

- Calculation of benefits based on lifelong earnings, with no upper limits in the contribution period. Today there is an upper limit of 40 years, and the reference period is the "best" 20 years.
- Proportionality between pension benefits and contributions, while supplementing a minimum pension to everybody from the age of 67.
- An automatic reduction in pension benefit levels in line with future increases in life expectancy at 67.
- Introduction of a flexible retirement age in the National Insurance Scheme based on close to actuarially neutral principles, in order to reduce the disincentives to continuing working implied by the current early retirement schemes.
- Full wage indexation in the contribution period as today, but only partial wage indexation during the pension period.
- The introduction of a new public Pension Fund based on the present Petroleum Fund and the National Insurance Fund, with a stronger emphasis on the relationship between the Pension Fund and the magnitude of pension liabilities in the National Insurance System.

The new system would apply fully to people born after 1965 and partly to people born between 1951 and 1964.

* According to Duval (2003) the average replacement rate at age 65 is 35 per cent.

working force. Moreover, the tendency that people spend increasingly more time as pensioners, because of both early retirement and increased life expectancy, lays even more pressure on the current pension system. When looking at what can be done, decisions have to be taken as to how the costs shall be spread across generations. Pensioners and soon to be pensioners will argue that they have paid their fair contributions and deserve their earned benefits even though their contributions have in fact been used to pay the lower pensions of the smaller, preceding cohort of pensioners. Thus, cutting benefits is hard to accomplish from a political point of view and may admittedly have unfortunate social effects. Still, not doing anything to reform the pension scheme is probably the least fair alternative since it would entail sharply increasing taxes levied on the future working population, including those with low income. Any solution that includes running

down all or part of the capital of the Petroleum fund raises the basic question of why current pensioners should receive all the benefits from this common wealth at the expense of future generations. The bottom line is that as in many other countries, the current design has turned out to be too generous faced with the demographic development.

As described in Box 2.3, a direct link between contributions and benefits in the NIS is absent. The combined NIS contribution rate of employers, employees and pensioners is about 25 per cent of gross wages. Considering that the NIS covers everything from health, pregnancy, birth, death, loss of provider in addition to old age and disability pension, the contribution rate does not appear high. NIS runs substantial deficits, though, requiring general taxes to finance the gap between incomes and outlays. The average old age pension replacement rate is not particularly high relative to other countries (Box 2.3). Top up private occupational schemes aim at a replacement rate between 60-70 per cent, but currently 900 000 workers in the private sector (more than half of all private employees) have no occupational pension at all. The low average NIS replacement rate makes it uncomfortable to cut basic benefits further and suggests rather that the generosity of the public sector occupational pension should be reconsidered, for new entrants at least (recalling that one third of all employees work in the public sector). Still, measures to get people to work more and longer to qualify for a full pension will eventually have a negative impact on the benefits of those who have a more sporadic attachment to the working life. If not participating in the work force is a choice based on preference towards leisure or household production, this should not raise any questions of fairness. If the absence is due to child raising, it does.

The Pension Commission's proposals are promising in addressing some of the above issues. Importantly, several of the proposals aim at preventing the effective retirement age from falling further – and hopefully to increase. To this end it is important to get the pension system on an actuarially fair footing while avoiding poverty for older people, generally attained by the recommendation to establish a stronger link between contributions and benefits, although supplementing a minimum pension to everyone from the age of 67. In fact, the pension commission suggests introducing a life expectancy factor, as in the reformed Swedish, Finnish and Italian pension systems. Such a factor will automatically result in longer life expectancy leading to lower pension benefits, ceteris paribus. The Norwegian Pension Commission has estimated that such a change will contribute to a reduction in the level of pension expenditures by 17-18 per cent in 2050. This is by far the most important step to ensure a sustainable pension system. Likewise, introducing a flexible retirement age based on close to actuarially neutral principles would discourage early retirement. This latter proposal would in practice imply that the controversial early retirement scheme (AFP) be abolished. Lastly, calculating benefits based on lifetime earnings (not the best twenty) with

no upper limit on the contribution period gives incentives to stay more closely attached to the work force. It also reduces the financial incentive to retire before 67.

During the 1990's many OECD countries removed wage indexing of pension benefits when overhauling their pension systems, resulting in significantly lower future pension outlays. For example, in Sweden pensions are indexed to the price index, while the notional pension credits accumulated during the working life are indexed to wages. Such a system may also have built in an incentive to work longer since over time the pension gap between people working full time and people with a more sporadic attachment to the labour market would widen. The committee proposal of indexing pensions to wages during the contribution period and a combination of wages and prices during the pension period is welcome, but would have benefited from being bolder and more in line with the above mentioned reform designs of other OECD countries. Specifically, eliminating the wage component of indexation would be desirable.

Finally, the Commission also proposes to introduce a new public pension fund based on the Petroleum Fund and the National Insurance Fund. They recommend that the investment guidelines for the Petroleum Fund, *i.e.* investing mainly in foreign financial assets, be applied also to the new pension fund, to avoid upward pressure on the krone (in future decades, when inflows to the fund come from contributions by workers and employers, rather than foreign exchange earnings, this investment guideline will need to be modified). There is also the consideration that domestic capital market, dominated by several large, publicly owned firms, is not deep enough to absorb the sudden large influx of funds efficiently. The Commission also recommends that long term guidelines be but in place to ensure that unfunded NIS pension liabilities do not increase over time relative to Mainland Norway GDP. Before such a fund becomes operational, many other details will have to be settled. The following considerations are relevant in that context:

- Both pay-as-you-go (PAYGO) and fully funded pension systems have their own advantages and disadvantages. A mix of both is likely over time to be less risky and possibly less expensive (for society and individuals) than either on its own.
- Even a partial shift from a PAYGO pension system to a (partly) funded one entails in principle a "double burden" on one generation of workers, who have to continue to pay the PAYGO contributions to finance pensions for those already retired, as well as accumulating their own contributions in a pension fund.
- In theory, this "double burden" could be reduced in the particular case of Norway, by using the resources of the Petroleum Fund to finance the transition (thereafter, the return on the fund and the contributions of the workers and employers to a suitable designed pension fund would maintain its capital value).

- Income from the Petroleum Fund can be spent indefinitely, but its capital only once.
- The real return from the Petroleum Fund is already being spent to the full, and this will continue in the future, to finance the non oil, structural fiscal deficit.
- Even with reforms to reduce the growth of pension benefits, as recommended by the Commission, there will very likely continue to be a shortfall, and a growing one, between NIS contributions and benefits, including pension benefits, at current rates.

This implies that unless NIS contribution rates are raised over time, old pension benefits (or other public expenditure) are reduced from the current proposed levels, or both, the using the Petroleum Fund to finance a transition to anything but a very small funded pension system would ultimately entail spending Petroleum Fund capital, thus going against the present fiscal rule, and reducing income for future generations (but avoiding also a double burden for the current generation of workers). Therefore, the portion of pension liabilities that is to be covered by the new pension fund remains to be clarified.

Further measures which should be discussed

While the Pension Commission proposes several important measures that will contribute to curb future public spending compared with current projections, there are still areas that need further attention. Firstly, the rising trend in social security spending on disability, sickness and rehabilitation is disquieting. Norway has a higher share and a higher inflow of people on such social security schemes than almost every other OECD country. This has a major impact on public finances and reduces the level of output via the reduced labour supply. It seems reasonable to assume that this development is partly caused by the overall generosity of the schemes and the lack of adequate monitoring. Disability pensions will be discussed in the follow-up of the Pension commission and the authorities then will have to face the challenge of designing a system that better copes with the delicate balancing between welfare and abuse. Secondly, the occupational pension system in the public sector should be put up for review. This pension guarantees two thirds of wages to public sector employees retiring between ages 64 and 67. Thus, the scheme is both more generous than that available to the private sector and enhances the incentive to retire early. The pension commission discussed necessary reforms of the public occupational system, but did not present detailed proposals. Finally, pension income is taxed favourably in Norway. Pensioners get a higher basic deduction and under certain circumstances they can benefit from special limitations on tax.[37] These favourable tax rules make retirement more convenient, thus strengthening the incentives to retire early, and should be abolished.

Notes

1. According to the Ministry of Petroleum and Energy (2002), the remaining recoverable resources could provide the basis for another 50 years of oil production and a century of gas output.
2. The first net deposit (NOK 2 billion) was not made before 1996, however.
3. According to the revised Budget 2002, estimates of taxes and duties for 2002 increased by NOK 6.9 billion compared to the original budget. The "extra money" was used almost immediately. However, subsequent estimates in the central government accounts showed that the higher receipts have been reversed (the upward revision proved to be wrong). This new information consequently led to similar downward revisions in the 2003 estimates on taxes and duties. At the same time the estimated outlays on unemployment benefits were raised. It was decided not to cover the budget overshoot, and thus the structural deficit increased by NOK 6.9 billion.
4. The underlying growth in central government spending is generally calculated by subtracting spending on petroleum activities, unemployment benefits and interest payments from total outlays. There are, however, several other minor adjustments being made in an attempt to track the core outlays.
5. The close to zero-growth in real underlying central government spending in 2003 should be seen in connection with the strong growth of 3¼ per cent in 2002.
6. That is incomes (net cash flow + interests and dividends) minus outlays (transfers to state treasury).
7. The remainder includes the surplus in other state and social security accounts (NOK 6.6 billion), differences in definitions between state accounts and national accounts (NOK 5.4 billion), and capital deposits in business activities (NOK 3.1 billion).
8. Including abolishing the investment tax proposed by the former government.
9. The main tax reliefs in 2002 include: increasing the threshold on the income surtax (with an estimated reduction in revenues of NOK 1.9 billion in 2002, 0.5 billion in 2003), abolishing double taxation of dividends (NOK 1.5 billion in 2002), increasing the rate of depreciation (NOK 1.5 billion in both 2002 and 2003), abolishing the investment tax (NOK 1.5 billion in 2002, NOK 4.5 billion in 2003), reducing electricity taxes (NOK 1.2 billion in 2002) and abolishing passenger's airline tax (NOK 1.2 billion in 2002, 0.4 billion in 2003).
10. Including extraordinary deposits to the central government pension fund.
11. To avoid that nominal public spending increase as a share of mainland GDP, real public expenditures should grow by less than real mainland GDP since the high wage share in public spending involves a higher deflator.

12. As a share of mainland GDP. As a share of total GDP public spending has increased relatively strong since the turn of the millennium.
13. OECD (2003a).
14. Canada, Netherlands, Sweden and United Kingdom (OECD, 2003b).
15. It is currently not decided on the level of detail. The committee proposed a fairly detailed level, similar to that presented in the annual State budget. The government does not support this proposal.
16. OECD (2003b).
17. OECD (2003d).
18. For more information about the register and the updated list, see: *www.odin.dep.no/krd/engelsk/p10002454/p10002455/p10002456/index-b-n-a.html*.
19. Sub-national spending as a share of mainland general government spending was 38.8 per cent in 2001, against 32.2 per cent for the OECD-average. Denmark and Sweden are higher with 57.8 per cent and 43.4 per cent respectively (OECD, 2003d).
20. See N*ational budget* 2004.
21. OECD (2001).
22. OECD (2003b).
23. I*nter alia* rates of depreciation, tax on dividends and taxes on buildings dependent on the business cycle.
24. For an extensive discussion of the Norwegian tax system, see OECD (2000).
25. The Tax Committee had been appointed in 2002 in order to evaluate the tax system and propose changes. The proposals for tax reform with focus on the proposed "shareholder model" are discussed comprehensively in the annex.
26. For dividends exceeding the normal return, 28 per cent tax is levied on the receiver, resulting in double taxation on this margin. Total tax will be $(1 - 0.28) \times 0.28$ (tax on distributed dividend – distributed after tax) + 0.28 (company tax) = 48.16 per cent.
27. Statistics Norway (2002).
28. Currently this money is being used to finance the non-oil budget, which also includes pension spending.
29. Spending on old age and disability pensions is currently about 9 per cent of mainland GDP and the current pension financing gap is 6 per cent of mainland GDP. The real return on the Petroleum fund, though, is just under 4 per cent. Pension spending will increase to almost 20 per cent of mainland GDP in 2050, while the real return on the Petroleum fund will more or less stabilise at 5 per cent of mainland GDP from 2030.
30. Casey *et al.* (2003).
31. Statistics Norway's demographic projections up to 2050 show a considerable increase in the number of persons at the age of 67 and above. The ratio of this group to that between 19 and 67 will almost double. This implies a corresponding rise in pension expenditures relative to value added in the Norwegian economy. Moreover, outlays will climb since most pensioners will have earned a bigger supplementary pension. Also the share of disability pensioners is estimated to increase heavily, *inter alia* due to the ageing of the workforce.
32. Burniaux, J.-M. *et al.* (2003) show that despite Norway's high participation rate, there is scope for increased work contribution if reforms are implemented.

33. Rikstrygdeverket, *Folketrygden Nøkkeltall* 06/2003.
34. Clearly, the oil money will provide a "top-up" in the general budget in the amount of 4-5 per cent of GDP, but this is only partly being used to finance pension spending since pension spending is only one part of the non-oil budget deficit.
35. The projected present value of the total oil wealth was in the national budget 2004 estimated at NOK 2 600 billion, compared with the present (pre-tax) value of the national insurance pension commitments at about NOK 3 700 billion.
36. Spending on old age and disability pensions, as a share of mainland GDP, will increase by about 10 percentage points towards 2050 while the use of oil money will increase just moderately. However, increased spending on pensions has its counterpart in increased taxes from social security recipients, which is assumed to reduce the gap to 5 per cent. Obviously, these are rough estimates.
37. See OECD (2000) and Van den Noord (2000) for a description of the Norwegian tax system.

Bibliography

Blondal, S. and S. Scarpetta (1998), "The retirement decision in OECD countries", OECD, *Economic Department Working Papers* No. 202, Paris.

Bratberg, E., T.H. Homås and Ø. Thøgersen (2000), "Asserting the effects of early retirement programs", SNF *rapport* 10/2000, Bergen.

Burniaux, J.-M., R. Duval and F. Jaumotte (2003), "Coping with ageing: a dynamic approach to quantify the impact of alternative policy options on future labour supply in OECD-countries", OECD *Economics Department Working Paper* No. 371, Paris.

Bye, B. and T. Åvitsland (2003), "The welfare effects of housing taxation in a distorted economy: a general equilibrium analysis", reprint from *Economic Modelling* Vol. 20, Oslo.

Casey, B., H. Oxley, E. Whitehouse, P. Antolin, R. Duval and W. Leibfritz (2003), "Policies for an ageing society: recent measures and areas for reform", OECD *Economics Department Working Paper* No. 369, Paris.

Duval, R. (2003), "The retirement effects of old-age pension systems and other social transfers programmes in OECD countries", OECD *Economics Department Working Paper* No. 370, Paris.

Hernæs, E., M. Sollie and S. Strøm (2000), "Early retirement and economic incentives", *The Scandinavian Journal of Economics*, Vol. 102, No. 3, Oslo.

Ministry of Petroleum and Energy (2002), *The Fact Sheet 2002 Norwegian Petroleum Activity*, Oslo.

OECD (2000), *Economic Survey of Norway*, Paris.

OECD (2001), *Economic Survey of Norway*, Paris.

OECD (2002a), *Economic Survey of Norway*, Paris.

OECD (2002b), *Accrual Accounting and Budgeting*, PUMA/SBO/(2002)10, Paris.

OECD (2003a), *Revenue Statistics*, Paris.

OECD (2003b), *Enhancing the Cost Effectiveness of Public Spending*, ECO/CPE(2003)17, Paris.

OECD (2003c), *Surveillance of Public Expenditure: Synthesis of Findings in* EDRC *Country Reviews*, ECO/CPE/WP1(2003)9, Paris.

OECD (2003d), *Fiscal Relations Across Levels of Government*, ECO/CPE(2003)16, Paris.

Statistics Norway (2002), *Population Projections*, Oslo.

Statistics Norway (2003), *National Accounts*, Oslo.

Tysse, T.I. (2001), *Effects of Enterprise Characteristics on Early Retirement*, Rapporter 2001/26, Statistisk Sentralbyrå, Oslo.

Van den Noord, P. (2000), "The tax system in Norway: past reforms and future challenges" OECD, *Economics Department Working Papers* No. 244, Paris.

Annex 2.A1

Tax reform and the shareholder model

The introduction of dual income tax systems with lower tax rates on capital income than on labour income was a Nordic phenomenon in the international tax reform trend in the early 1990s.[1] Problems connected to dividing income from self-employment into labour and capital income and the present large difference in the marginal tax rates on labour and capital income have created a need to revise the dual income tax and the split model.[2] The Norwegian government thus appointed an expert tax committee in 2002 in order to evaluate the tax system and propose changes.

The dual rate structure is meant to balance efficiency and distribution concerns. In the flat taxation of capital most weight is put on efficiency, maintaining neutrality towards investments and financing sources, as well as keeping the tax rate relatively low (28 per cent) to avoid capital flight. Redistribution is obtained by a progressive taxation of labour income and the net wealth tax.

Norway has gone further than most other countries in securing, in principle, consistent and neutral capital income taxation:

- The corporate taxation is based on the principle that taxable income reflects actual economic income. In line with this, Norway has few special deductions in the corporate tax base. Depreciation rates are set according to the principle of approximately reflecting actual economic depreciation.
- Norway has a *full imputation system* to avoid double taxation of dividends. The company surplus is taxed at the company level as ordinary income at a rate of 28 per cent. The dividend income is also formally taxed as ordinary income at the shareholder level, but the shareholder receives a credit for the tax already paid by the company. As long as the company and the shareholder face the same tax rate, this implies full credit, and the total tax on dividends remains at 28 per cent.
- The RISK-*system* is developed to avoid double taxation of capital gains and to ensure equal taxation of capital gains and dividends. The idea is to adjust the share's purchase price for retained earnings, which are already taxed at the corporate level. Each company calculates the increase in share value due to retained earnings at the end of each tax year. This is called the RISK amount and it will be positive if retained earnings are positive and negative whenever retained earnings are negative. The RISK amount is added to the share's purchase price and the taxable gain is then calculated as the sale's price net of the RISK adjusted price.
- The *split model* divides income from self-employment into labour income and capital income. The model applies for self-employed as well as so called active owners in limited companies (*i.e.* persons working in their own company and controlling at least two-thirds of the voting rights, being able to influence the distribution of dividends).

The capital income is calculated first, by multiplying the capital stock with an imputed rate of return on capital including a risk premium (the rate is currently set at 10 per cent). The active owner may also deduct a fraction of total wages paid. Calculated income from labour is the total income net of imputed capital income and the wage deduction. The calculated labour income is liable to employees' Social Security Contributions and central government income surtax, as other wage income (the SSC rate is slightly higher for the self-employed, but on the other hand they do not pay employers' Social Security Contributions on the calculated labour income).

Although formal tax rules imply that all types of labour income should be taxed equally, this is not always the case in practice. This is mainly due to the many changes in the split model, which have increased the scope for shifting income towards capital income. The profitability of such tax planning has increased as the difference between the marginal tax rates on capital and labour income has steadily increased since the tax reform in 1992. The increase in the marginal tax rates on labour income is mainly due to the introduction of a supplementary employer's social security contribution on top wage earners in 1993 and a second bracket in the surtax in 2000. In 2003 the rate differential was 36.7 percentage points, compared with 27.6 percentage points in 1992.

Thus the possibilities, as well as the taxpayer incentives, to have labour income taxed as capital income have increased. The resulting unequal treatment of the same type of income impairs the distributional effects as well as the legitimacy of the tax system.

The principles of broad tax bases and investment neutrality that underpinned the 1992 reform have not been carried out to the same extent as far as the net wealth taxation is concerned. The present net wealth tax may lead to distortions in the composition of savings. Assessment rules and practice favour especially savings in property and non-listed shares at the expense of other savings vehicles, such as listed shares and bank savings. The favourable tax treatment of housing is reinforced by the rules on income taxation, as the imputed rent from owner-occupied dwellings is set far below the real return (on average 25 per cent of market based rental values), while there are no limits on interest deductibility.

The Government-appointed Tax Committee presented their reform proposals in February 2003. The mandate for the Committee was to evaluate the objectives and principles applicable to the tax system, and to propose changes within the scope of a NOK 8-10 billion tax cut. In particular the Committee was to focus on the need to reduce the tax rate differential between labour and capital income, and the scope for fully or partly abolishing the split model. The Committee was also requested to evaluate the role of the net wealth tax. Finally, the mandate required that any changes should be based on the main principles in the 1992 tax reform, *e.g.* emphasising broad tax bases and relatively low tax rates.

The Tax Committee proposed a solution to the dual income tax problem based on two main changes in the tax system:

1. A reduction in the marginal tax rates on labour income, by reducing the central government surtax within both tax brackets and removing the supplementary employer's social security contribution on labour income in excess of 16 times the "G" ("G" is the basic amount in the National Insurance scheme, and is on average NOK 55 964 – equivalent to EUR 6 500 – in 2003). These changes would imply a reduction in the top marginal tax rates on labour income from 64.7 to 54.3 per cent including employer's social security contributions, and from 55.3 to 46.8 per cent when employer's social security contributions are left out.
2. For personal shareholders, returns to share holdings that exceed a calculated opportunity rate of return on the investment, are to be taxed as ordinary income (the so-called shareholder model). The marginal tax rate on above-normal returns on

investments in shares would then increase from 28 per cent to 48.16 per cent, while staying at 28 per cent for returns at or lower than the calculated opportunity rate of return.[3] As the marginal tax rates on labour income and income from personal sharholdings are almost equal, the scope for tax planning is reduced and the shareholder model can replace the split model for active owners in limited companies. The RISK system for avoiding double taxation of retained earnings, and the imputation system for avoiding double taxation of distributed earnings can also be replaced by the shareholder model for personal tax payers.

The shareholder model has, in principle, good neutrality properties:

– As long as the opportunity rate of return is exempt from the extra tax on the share income, which means that only dividends and capital gains attributable to above-normal returns are more heavily taxed at the margin, the model ensures neutrality between investments and sources of finance.

– The opportunity cost allowance the present year is the product of the after-tax interest rate and the stepped-up basis of the share at the start of the year. The stepped-up basis is the sum of the original acquisition price of the share and all the opportunity cost allowances not utilized in previous years. Hence, the taxable gains will be the sales price less the cost price of the share and accumulated, unused opportunity cost allowances. The shareholder can however not end up with a net loss merely due to the opportunity cost allowance. Any unused allowance after realisation can be carried forward and can be deducted from other share income (dividends or gains) in the future. These rules imply that the taxation of share income is approximately symmetrical.[4]

However, the Tax Committee left some important problems unresolved:

– The Committee does not make any specific proposals for the taxation of partnerships (where taxation is effected on the individual partners) and for sole proprietorships. The Committee states that a corresponding profit-extraction model also should be considered for these types of companies. The reason why the Committee does not propose to apply the shareholder model to a wider range of companies is mainly due to the problems related to defining and controlling what part of a company's surplus should be regarded as an equivalent to dividends.

– The Committee does not suggest any specific changes in the taxation of the corporate sector. The Committee proposes that the current RISK and imputation systems are continued for companies until the shareholder model or other alternatives are considered.

– The shareholder model gives rise to tax planning in terms of extracting surplus as interest on a subordinated loan instead of as dividends. To avoid this, the Committee proposes an extra tax on individual shareholders on interest from loans in companies that exceed a calculated opportunity cost including a risk premium, but without the possibility to carry forward any unused opportunity cost allowances. Such a rule was not elaborated in detail.

In addition it is necessary to consider the administrative aspects of the model. The shareholder model poses administrative challenges, because the cost price of shares and any unused opportunity cost allowances will have to be registered and controlled for each individual share. The Ministry of Finance is currently considering the shareholder model, and possible solutions to the unresolved issues.

The Tax Committee also proposes to phase out the net wealth tax, while increasing the taxation of real property and, to some extent, inheritance. The Committee argues that taxation of real property is better targeted than the wealth tax in terms of taxing immobile capital, and that such a reform would reduce the risk of undesired capital flight as well as improving

the use of overall resources. It would also bring Norway more in line with other OECD countries, which generally have a substantially higher tax on real property and inheritance, while Norway is one of relatively few countries that still have a wealth tax.

The Committee takes the view that the most logical approach would be to increase the taxation of property by increasing the taxation of imputed rent from housing, thus increasing symmetry compared with the unlimited deduction for interest payments. However, in the absence of a political commitment to raise the income taxation of imputed rents from housing, the Committee recommends that a mandatory (municipal or central government) property tax should be introduced.

The public hearing in February-May on the Committee's report left no clear recommendations. The hearing round gave some support for the shareholder model, at least if it is combined with an abolishment of the net wealth tax. The Tax Directorate was however very sceptical to the shareholder model, claiming that the model is difficult for the tax payers to understand and for the tax authorities to administer.[5] Some commented that they would prefer to keep the present dual income tax, while others pointed out the virtues of flat income taxation.

The Government will present a separate White Paper for the Parliament on changes in the tax system, based on the Tax Committee's report and the hearing. Based on the Parliamentary deliberations, the Government aims at presenting their law proposals during the autumn 2004, probably in connection with the Budget Proposal for 2005.

Notes

1. For an extensive discussion of the Norwegian tax system, see OECD (2000), Economic Surveys: Norway.
2. The split model divides income from self-employment into labour income and capital income. The tax rate levied on capital income, 28 per cent, is substantial lower than the average marginal tax on regular income (see also paragraph 30, bullet point four).
3. For dividends exceeding the normal return, 28 per cent tax is levied on the receiver, *i.e.* double taxation on the margin. Total tax will be (1-0.28) × 0.28 (tax on distributed dividend – distributed after tax) + 0.28 (company tax) = 48.16 per cent.
4. Illustrative example: Opportunity cost allowance = share cost price x after tax interest rate (*e.g.* with a cost price of 100 and an interest rate of 5 per cent, the opportunity cost allowance is 5). If a person receives a dividend of 5, there will be no tax on the received dividends. If the person receives more than 5 (*e.g.* 8), taxes will be levied on the excess amount – *i.e.* (8-5) × 0.28. If the person takes out less than 5 in dividend (*e.g.* 3), then 2 (5-3) can be carried forward to the next year. Moreover, the cost price will be adjusted from 100 to 102. This implies that the person can receive tax free dividends amounting to 0.05 × 102 + 2 = 7.1 in the next year (which is equivalent to 2 × 1.05 + 5 = 7.1). Assume further that the person bought a share for 100 and sold it for 100 the following year without having received any dividends. She will then have an unused opportunity cost allowance of 5. But this is not lost as she can carry this claim forward, with interest, thereby reducing future positive capital income. Consider a cost price of 100, an opportunity cost allowance of 5 and dividends of 10. This should in principle lead to a taxable share premium of 10 – 5 = 5. But by also subtracting the unused claim of 5, no taxes will be levied. This mechanism secures that taxation of share income is basically symmetrical on incomes above or below the opportunity cost level.
5. Former head of Directorate for Tax Collection, The Norwegian Tax Administration, The Taxpayer's Organisation and the Norwegian Institute of Public Accounts all seem to view the shareholder model as good in theory but too complex to implement in practice.

3. Product market competition and economic performance in Norway

Introduction

A strong macroeconomic performance over the past decade – supported by exploitation of oil wealth – has left Norway as one of the richest countries in the OECD area and with low unemployment and surpluses on the current account and the government balance. However, the importance of the large off-shore sector is set to decline over the coming years as oil reserves are being depleted. As a consequence, growth will have to rely on the mainland economy. An important factor in this respect is a well-functioning labour market, which is analysed in Chapter 4. The aim of this chapter is to focus on product market competition, which in the OECD Growth Study and other empirical work has been shown to play an important role in the process of economic growth. In Norway, the promotion of competition has often conflicted with other policy objectives, such as maintaining a regionally dispersed population. Also the government ownership of firms competing alongside private companies gives raise to competition issues. As a consequence, competition is weak in a number of sectors – notably in some network industries, agriculture and food processing – leading to relatively high prices, weak innovative activity and inefficient resource allocation to these markets. Recognising the benefits of regulatory reform, the government has made the promotion of competitive markets a key policy in stimulating economic growth as elaborated in the recent budget and in the ongoing reforms of the regulatory framework for competition.

The chapter starts out with a short review of Norway's growth performance over the past decade. Attention is then turned to indicators of product market competition in order to gauge the strength of competitive pressures as well as the implications of barriers to trade and foreign direct investments. This is followed by an assessment of the general competition policy framework and its role in promoting competition. The competition issues associated with public ownership are then analysed. The chapter next examines a number of sectors where regulatory policies can be expected to have particularly large impacts, including retail distribution, professional services and network industries. Subsequently, public pro-

curement and possible macroeconomic effects of regulatory reform are discussed. The chapter concludes with a set of policy recommendations.

Macroeconomic performance and indicators of competition

Overall good economic performance over the past decade conceals sectoral problems

Over the past decade, economic growth has equalled that of the OECD and has been much faster than the EU average. However, the slowing of growth in the mainland economy since 2000 has led some observers to point to the problem of insufficient structural reforms (Klovland *et al.*, 2003 and Table 3.1). During the 1992-2002 period, average employment growth has been twice as fast as in the EU and faster than the increases in labour force participation, leading to a fall in unemployment. Together with relatively rapid productivity growth and the wealth originating from the off-shore economy, this has allowed Norway to attain one of the highest levels of GDP per capita in the OECD. Focusing solely on mainland GDP per capita, Norway still compares favourably with other EU countries. This reflects, on the one hand, high labour force participation and high average hourly productivity, while on the other hand average hours worked are relatively low and declining. The high level of hourly productivity is partly reflecting the low average working time, which would indicate that reforms to increase labour supply may put downward pressure on hourly productivity unless they are accompanied by product market reforms.

Productivity growth at the sectoral level shows the opposite picture of what is normally observed internationally, although as elsewhere the variation across sectors seems related to competition issues. Not only is productivity growth in the manufacturing sector much lower than in other OECD countries, but it is also much lower than in the Norwegian service sectors. This can partly be explained by some parts of the manufacturing sector being protected from foreign competition. The food processing industry (protected by agricultural barriers extending to processed food) and the publishing industry (protected from foreign competition by the market's need for timely deliveries and domestically by an exemption from the competition law) account together for about a quarter of the sector.[1] The better productivity performance in the electricity and communication sectors can be related to the opening of both markets during the 1990s. In the latter sector, the performance is lagging somewhat relative to a number of other countries, which may be related to a slower liberalisation process.[2] Indeed, the OECD's indicator for economy-wide regulation suggests a stricter stance than in most other OECD countries, as the result of high trade and FDI barriers and widespread public ownership in many network sectors, such as telecommunication, postal services and railways (Figure 3.1). The relatively high productivity growth in the distribution and financial sectors is the result of restructuring of the food retailing sector (from consisting of small independent shops to a

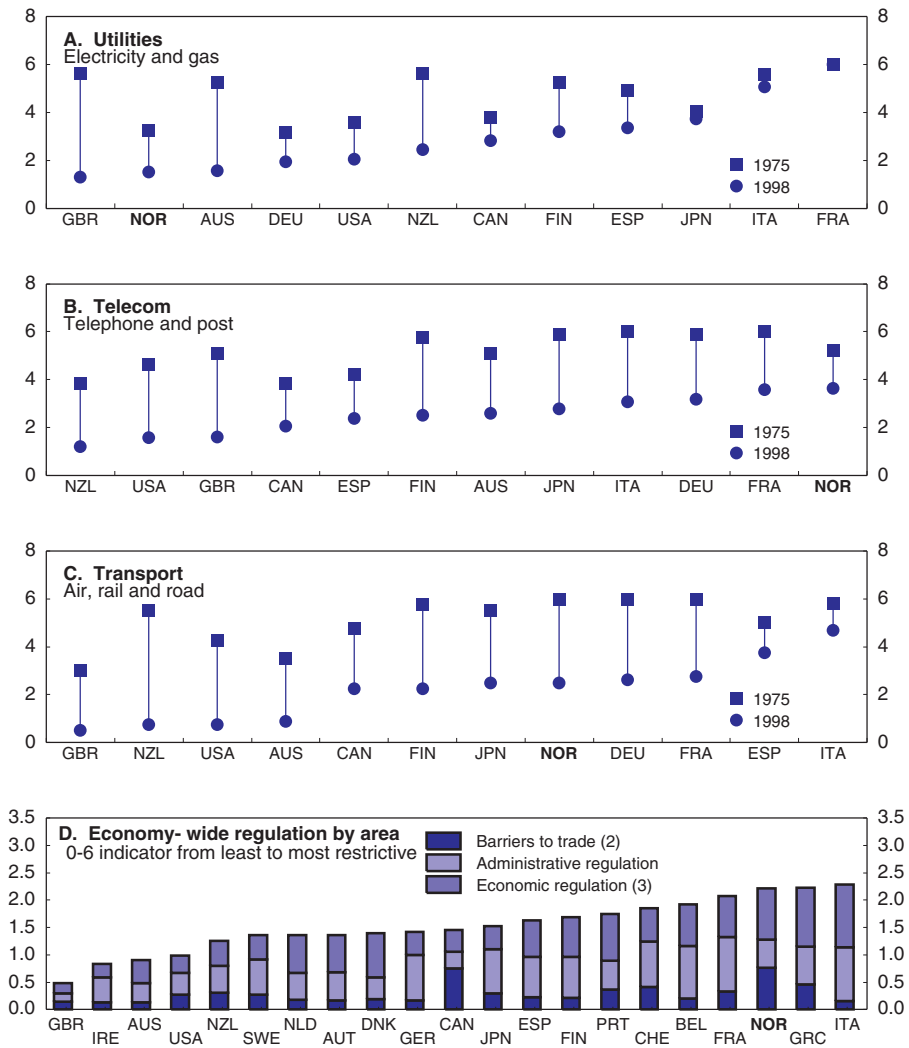
Table 3.1. **Output, employment and productivity**

	Norway	Mainland	Sweden	Finland	France	Germany	Italy	Japan	United States
A. Growth decomposition, 1992-2002									
Average GDP growth	3.3	3.1	2.2	2.6	1.9	1.4	1.5	1.1	3.2
of which:									
Productivity	2.1	1.9	2.5	2.6	1.2	1.3	1.3	1.1	1.8
Employment	1.2	1.2	–0.3	–0.0	0.8	0.1	0.2	–0.1	1.4
of which:									
Unemployment[1]	0.1		–0.1	–0.2	0.0	–0.3	–0.1	–0.3	0.1
Labour force	1.0		–0.2	0.2	0.7	0.3	0.2	0.3	1.3
B. Labour productivity growth, 1992-2001[2]									
Agriculture and forestry[3]	4.8		2.8	6.5	2.9	5.4	4.6	0.2	1.5
Total manufacturing	0.7		7.0	5.5	3.1	2.1	2.0	3.0	3.9
Food products, beverages[4, 5]	1.2		2.8	4.2	–0.7	1.3	1.1	–0.2	–1.7
Printing and publishing[5]	–1.6		5.1	4.4	0.9	1.4	1.2	–0.1	–1.8
Electricity, gas and water	1.5		1.0	6.5	1.6	5.7	4.8	2.4	1.2
Construction	–0.2		1.3	–0.3	–0.9	–0.3	0.0	–2.8	–0.2
Total services	2.0		2.1	1.8	0.2	1.1	1.0	0.9	1.6
Wholesale and retail trade[5]	5.6		3.7	2.8	0.6	–0.9	1.2	0.6	3.8
Communication[5]	3.5		4.1	5.0	2.5	7.9	3.6	1.4	2.3
Financial services	4.8		6.7	8.2	–0.1	4.0	3.2	4.8	4.1
Non-financial services	1.9		1.8	1.6	0.2	0.9	0.9	0.7	1.4
Memorandum items:									
GDP per capita[6]	103.7	80.0	73.9	75.3	76.6	74.9	75.2	75.6	100.0
GDP per hour worked[6]	131.2	102.2	84.2	84.1	105.4	99.1	108.0	72.3	100.0

1. A positive sign indicates that unemployment has declined and contributed to boost output growth.
2. 1992-2000 for France.
3. Including hunting and fishing.
4. Including tobacco.
5. 1993-2001 for Sweden.
6. 2001 levels, PPP-based. United States = 100.

Source: OECD.

Figure 3.1. **Progress in liberalisation of service sectors in OECD countries**[1]



1. In each year and sector, the indicators have a 0-6 scale ranging from least to most restrictive of competition. They cover public ownership, barriers to entry, market structure, vertical integration and price controls. See Nicoletti and Scarpetta (2003) for details.
2. Includes trade and FDI restrictions.
3. Includes barriers to competition and state control.

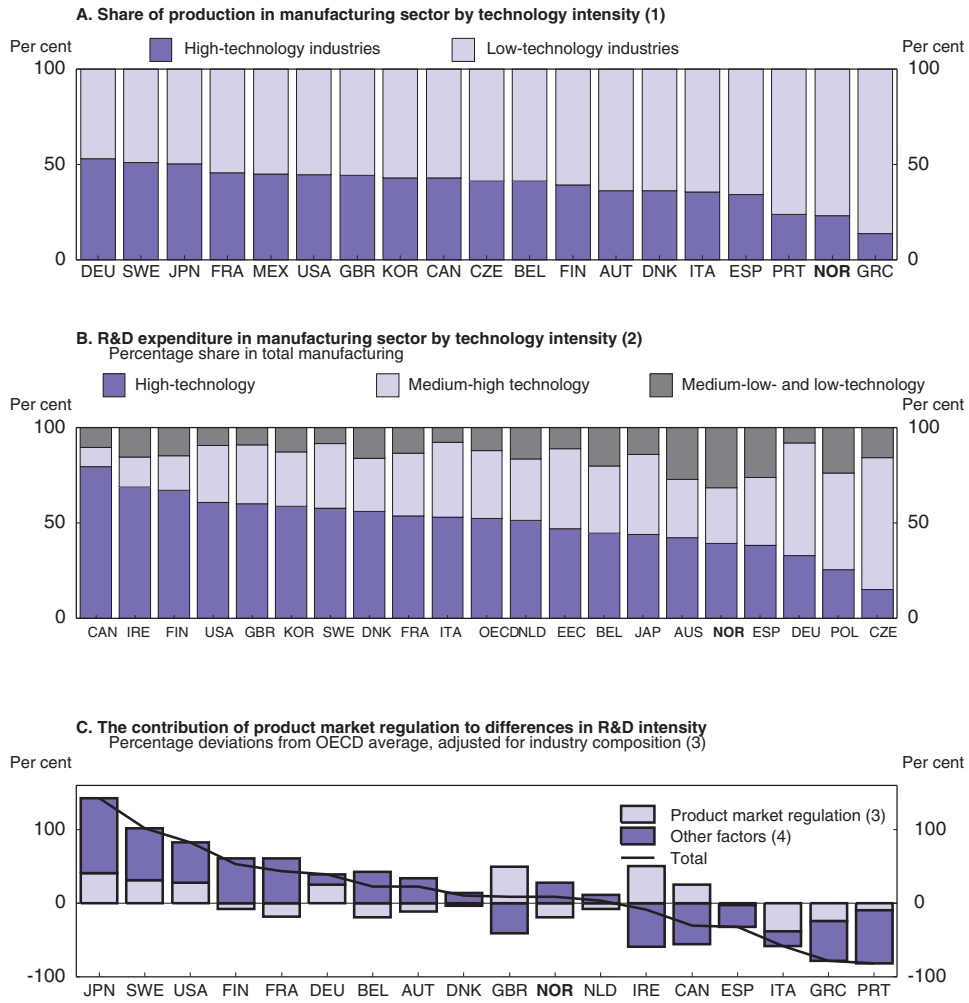
Source: OECD Regulatory Database.

highly concentrated and vertically integrated sector) and of the banking sector following the banking crisis in the early-1990s.[3]

The relatively poor performance of the manufacturing sector may be related to low R&D spending, which at about 1½ per cent of GDP is below that of many other OECD countries. One of the explanations for the modest spending on R&D is the relatively small manufacturing sector and the relatively low share of manufacturing production that is taking place in sectors with a high intensity of technology (Figure 3.2, panels A and B). Recognising the importance of R&D in the economy's growth performance, the government has formulated an objective of reaching the average OECD spending share on R&D by 2005 (implying something like a doubling of the current R&D spending share) which is to be reached through policy measures in such areas as education, public research, infrastructure, and a better climate for entrepreneurs. However, the modest spending on R&D may also be related to the lack of competition, as an important stimulus to innovative activity is intense product market competition, which forces market participants to exploit product and process innovations to maintain or improve market positions. Empirical work indeed suggests that a lack of product market competition in Norway has been a factor holding back R&D spending (OECD, 2001 and Figure 3.2, panel C). More intense rivalry in domestic markets might therefore stimulate R&D spending and shift resources to higher value-added sectors.

As in other smaller countries, *concentration* tends to be fairly high at the disaggregated level, although in sectors with no trade barriers the potential market power associated with high concentration is countered by foreign competition. However, the openness of the economy could be improved and concentration in some of the sheltered sectors is worryingly high. Concentration in the primary production of food is very high (with a near monopoly in dairy products), particularly when taking into account the prevalence of co-operatives in this sector, which increases horizontal integration. Co-operatives and franchising in the food wholesale and retailing lead to high degree of horizontal and – to a lesser extent – vertical integration within the four chains that dominate the industry, an unusually small number even for a small country. These types of integration may improve efficiency gains, but reduce competition. The high concentration in passenger land and air transport (excluding taxis) can be explained by the near monopoly status of the (fully or partially) government-owned incumbents and relatively few companies offering long-distance bus transport. Also, other service sectors with a significant degree of government ownership, such as telecommunications and financial services, exhibit high concentration. Furthermore, *mark-ups* in most industries are either *at par* or below those in other OECD countries. When relatively low mark-ups are observed in protected sectors with low productivity growth, such as in the food processing industry, this could be an indication of low pressures for improving profitability (Figure 3.3).

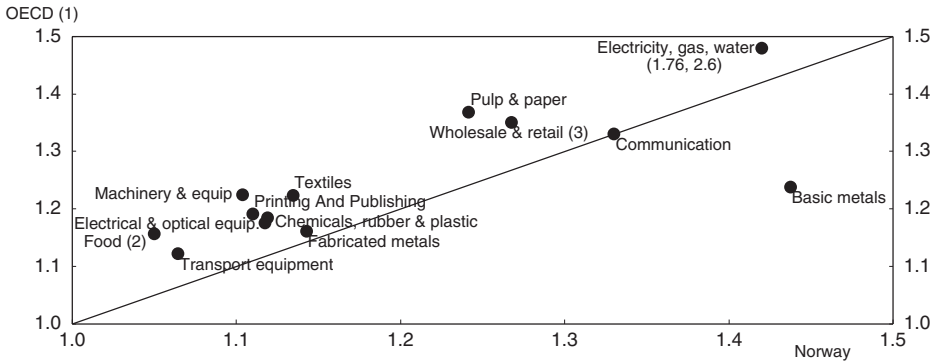
Figure 3.2. **R&D spending and industry structure**



1. Latest available year: Denmark and United States: 2001, Belgium, Czech Republic, France, Mexico, and United Kingdom: 2000, Canada, Finland, Germany, Greece, Italy, Norway, Portugal, Spain and Sweden: 1999, Japan and Korea: 1997.
2. 1998 for OECD and Norway, 1999 for Ireland, Denmark, France, Netherlands and EU.
3. Includes administrative and economic regulations.
4. Includes EPL, other controls, country-specific effects.

Source: OECD, STAN Database, ANBERD.

Figure 3.3. **Industry-level mark-ups in Norway and other OECD countries**
From 1981 to the latest available year



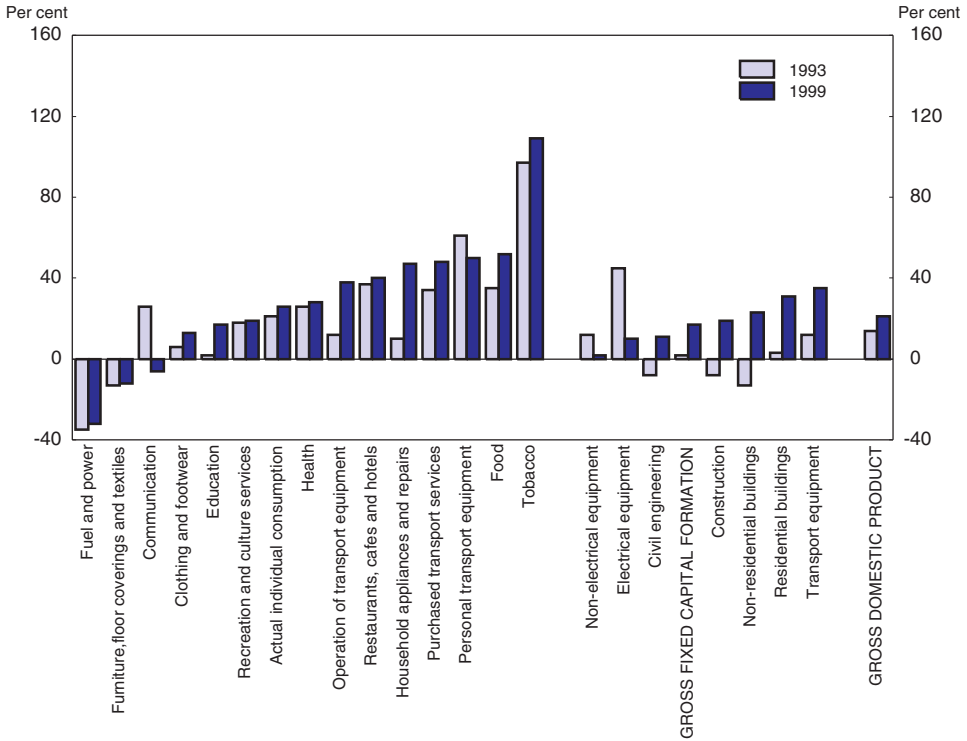
1. Average of Austria, Belgium, Canada, Finland, France, Germany, Italy, Japan, Netherlands, United Kingdom and United States. OECD estimates based on the Roeger method.
2. Including beverages and tobacco.
3. Including restaurants and hotels.

Source: OECD, STAN database.

The overall *price* level is higher than in the EU countries and seems to have widened in many cases during the 1990s, although direct comparisons are imprecise due to definitional changes (Figure 3.4).[4] The relatively high price level is partly related to such factors as a higher income level in Norway,[5] high indirect taxes, and the cost effects of low population concentration in a relatively large country. On the other hand, a substantial part of the higher price level can be explained by high prices for products and services originating in sectors with little competition, such as the heavily protected agricultural sector. Equally, the high prices for transport sector services are likely to be related to the lack of competitive pressures in passenger transport sectors, which are often dominated by publicly owned companies and with little intermodal competition. Even in cases where high indirect taxes might explain the higher prices, such as for tobacco,[6] it turns out that pre-tax prices are higher than in other northern European countries. More generally, for many internationally traded and standardised goods, such as gasoline, prices in Norway are relatively high, which is difficult to explain except by a lack of competition (see below). On the other hand, in sectors that have been liberalised, such as the telecommunication sector, prices have decreased, pointing to the benefits of regulatory reform.

High prices can also reflect market power. The food distribution sector appears to have some power to pursue a pricing-to-market strategy. The VAT rate

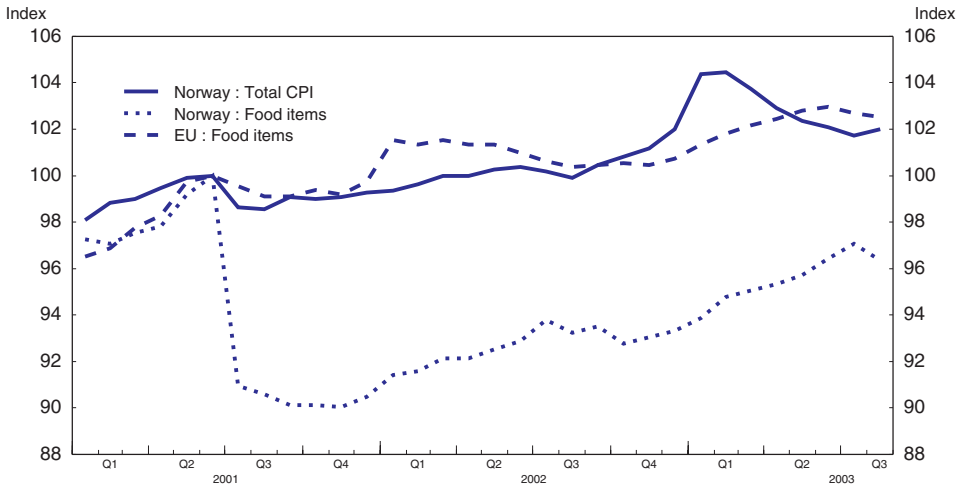
Figure 3.4. **Price difference between Norway and the EU**[1]



1. Percentage differences between price levels in Norway and the weighted average of EU15 countries.
Source: OECD, *Purchasing Power Parities.*

on food and non-alcoholic beverages was halved on 1 July 2001 under substantial media attention, which led to a roughly 10 per cent fall in the retail prices for these items – equivalent to consumers enjoying the full benefits of the VAT reduction (Larvik, 2003). However, over the following two years retail prices for food and non-alcoholic beverages increased twice as fast as the total consumer price index and the comparable EU area index (Figure 3.5). A bit less than a third of the rebound can be explained by increases in prices for food and non-alcoholic beverages, where producer target prices for Norwegian products are negotiated between the Ministry of Agriculture and the sector. By mid-2003 the consumer price index for food and non-alcoholic beverages was still a bit below its level prevailing prior to the VAT reduction, although prices for most of the items in the index had returned

Figure 3.5. **Food prices in Norway and the EU area**
June 2001 = 100



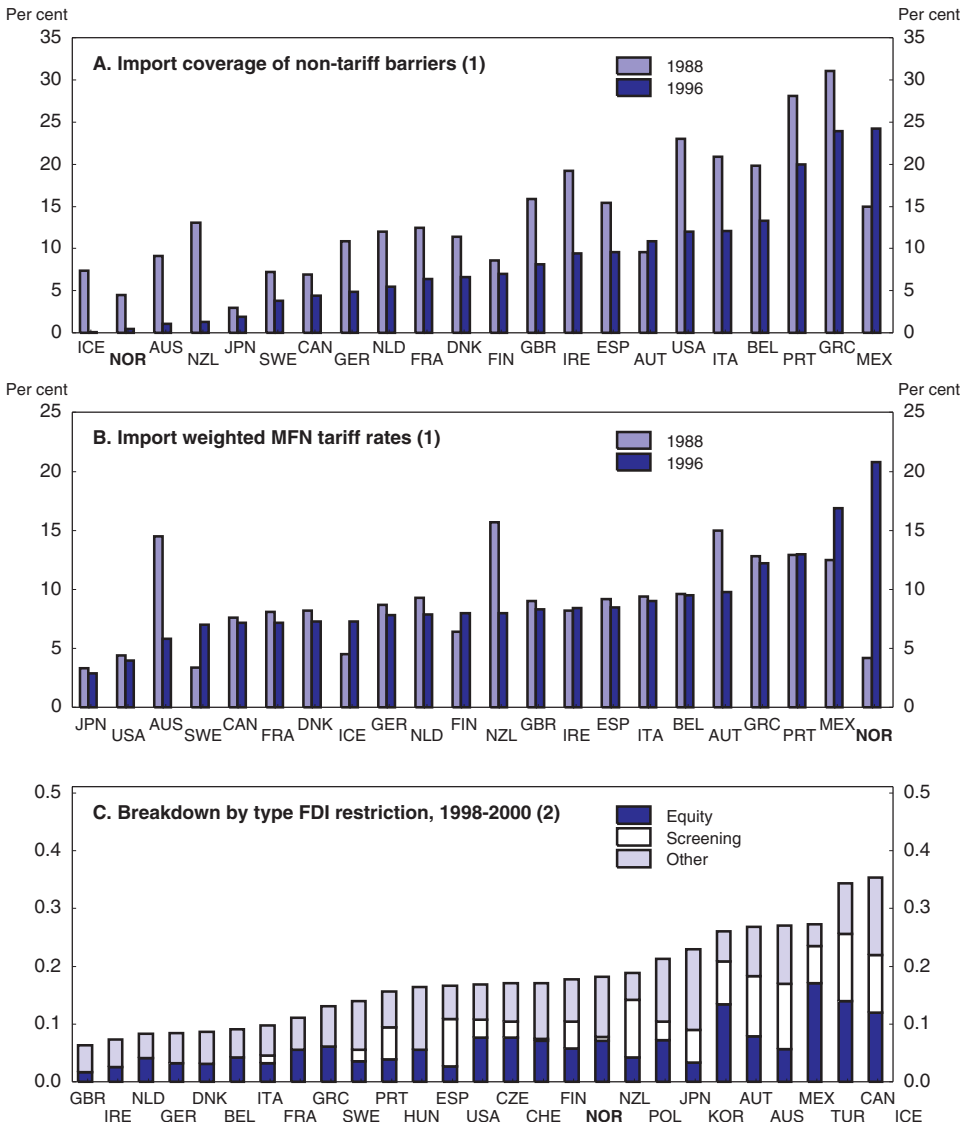
Source: Statistics Norway and OECD.

to their previous levels with the exception of prices for mostly imported food items.[7] The deterioration in consumer welfare may, in part, be the result of market power exercised by the highly concentrated and vertically integrated distribution sector and/or by highly concentrated domestic producers.[8, 9]

Market openness could be improved

Foreign competition is important for the promotion of competitive markets, particularly in smaller countries with weak competition in domestic product markets. Norway appears to be a relatively open economy from the point of view of the import share of GDP, which is as expected when taking into account such factors as per capita GDP and transportation costs. Nevertheless, there are areas, particularly agriculture, where market openness could be improved. Following the Uruguay round, Norway shifted from non-tariff barriers to having some of the highest tariff barriers in the OECD. The latter can almost exclusively be explained by very high barriers for agricultural products, which in terms of producer support estimate (including production and price support) has remained around 70 per cent over the past years – one of the highest levels in the OECD (OECD, 2003a, Walkenhorst and Dihel, 2003 and Figure 3.6). Some details of agricultural tariff barriers are provided in the Sustainable Development section of this survey (Chapter 5).

Figure 3.6. **Openness indicators in the OECD area**



1. OECD calculations based on UNCTAD data. Aggregation from 2-digit level tariffs to national level using sectoral value-added weights.
2. The indicator ranges from 0 (least restrictive) to 1 (most restrictive). The most recent year for which data are available varies across countries between 1998 and 2000.

Source: UNCTAD and OECD.

Inward FDI is fairly high and is mostly found in the off-shore sector and the financial sector. The relatively low inward FDI in other sectors is to some degree related to barriers to inward FDI. Formal barriers are only found in fisheries and indirectly in electrical power generation because of asymmetric concession rules (see below), but the relatively extensive government ownership (sometimes stipulated as requirements) hinders foreign investors' access and they are often faced with high effective marginal taxation of their inward FDI (Yoo, 2003) (Figure 3.6, panel C).[10] Moreover, politically motivated resistance to foreign control in areas such as banking may in itself have a perceived negative effect on inward FDI. In addition, other policies may also have a deterrence effect, such as trade policies and labour market policies. OECD research suggests that such policies are relatively strict in Norway and if they were aligned with the least restrictive in the OECD area, Norwegian inward FDI could be boosted by about a third (OECD, 2003b). Using a broad measure of international integration (including direct factors such as foreign investment and indirect factors, such as the possibilities for international economic transactions) indicates a more closed economy than if only using traditional trade openness measures (Andersen and Herbertsson, 2003). In sum, a number of sectors in Norway seem to be protected from foreign competition.

The competition law's compliance instruments need strengthening

The competition law's compliance instruments are not strong enough. The current law's provision for "intervention" against abuse of dominance does not provide sufficient deterrence to serious abuses, although the pending legislative package would adopt the more robust EEA-EU approach to abuse of dominance by 2004. Moreover, the Norwegian Competition Authority (NCA) has decisional independence, but the appellate body is the Minister of Labour and Government Administration, under which the NCA belongs. The powers of the NCA have been weakened by the power of the Minister to overturn its decisions on grounds other than competition policy and by parliamentary intervention. In this respect, some mergers involving government-owned firms have proved to be contentious (Box 3.1). The lack of independent appellate bodies is also found in areas with sector regulators. However, the creation of an independent appeal body – countering undue special interest and political pressures – may at the earliest take place after the next election as the government has committed itself not to submit such a proposal in this election period. The government's proposal for a new competition law would allow the Minister of Labour and Government Administration to overrule the NCA only if the authority's decision is not in accordance with the competition law. Sanction procedures are excessively cumbersome and time-consuming, in part because they require criminal procedures, and resulting fines are below the level that would be expected to deter. Instruments for ensuring compliance need to be strengthened. Additional resources are required to accelerate the

Box 3.1. Norwegian competition policy and enforcement

The current competition law dates from 1994, when efficiency was made the goal of competition policy and when the Norwegian Competition Authority (NCA) was established as the enforcement body. Norway's substantive law is moving toward the full EEA-EU system. The last step, included in the pending legislative package, would adopt the EEA-EU approach to abuse of dominance, in time for the "modernisation" of the EEA-EU enforcement process in 2004. At present, Norway's law provides only for "intervention" against abuse of dominance, a method that is appropriate for ambiguous conduct but that does not provide sufficient deterrence to serious abuses.

The Ministry of Labour and Government Administration provides the framework for NCA's activities, and the Minister may in principle instruct NCA about individual cases. There has, however, been a history of non-interference, and the right to instruct is removed in a proposed new competition law. But many of the NCA's enforcement decisions may be appealed to the Minister, who may reverse those decisions on grounds other than competition policy goals, such as the promotion of employment or regional policies. In a recent case even the parliament intervened. After the NCA prohibited the largest, state-owned, electric power firm from acquiring dominating interests in two other producers, the Minister permitted one of the acquisitions, conditional on structural measures, while upholding the NCA decision in the other. But parliament then enacted a special rule for electric power mergers and called on the Minister to reconsider the decision. The rule just restates standard analytical principles, though, and the Minister decided that he need not reconsider his decisions under the new, but similar, standard. The process may have left the public impression that political pressures affected the outcome. Another occasion to test competition principles against other claims – such as keeping the headquarters of a major bank in Norway – arose in a major bank merger. The lack of an independent appellate body is repeated in sector regulation, where in some cases the appellate body is the ministry that is responsible both for regulating the industry and for managing the State's ownership interests in it. Acknowledging the advantages of an independent appeal route, the government had planned to create an independent appeal body, as recommended by a study committee (and by the 2003 OECD *Regulatory Reform Report*), but it agreed not to submit that proposal to the parliament before the next election.

Sanctions against violations, fines and imprisonment for individuals, must be imposed through criminal processes. Thus the NCA must refer the case to the prosecutor for economic and environmental crime, Økokrim, who must often redo much of the NCA's investigation to address constitutional and human rights concerns. Hard-core price fixing and bid rigging are prohibited virtually *per se*, yet the enforcement record is spotty. Økokrim's resources are stretched and its priorities are complex, so the cases pile up. Taking action against allegations of price-fixing in electrical equipment took two years. The biggest success, four years ago, was a fine against ABB and Siemens for price fixing, market sharing, and bid rigging in supplying equipment to hydropower stations. In a promising sign of stepped-up attention to horizontal cartels, the NCA referred another large bid-rigging case, in construction, in mid-2003.

Box 3.1. **Norwegian competition policy and enforcement** (*cont.*)

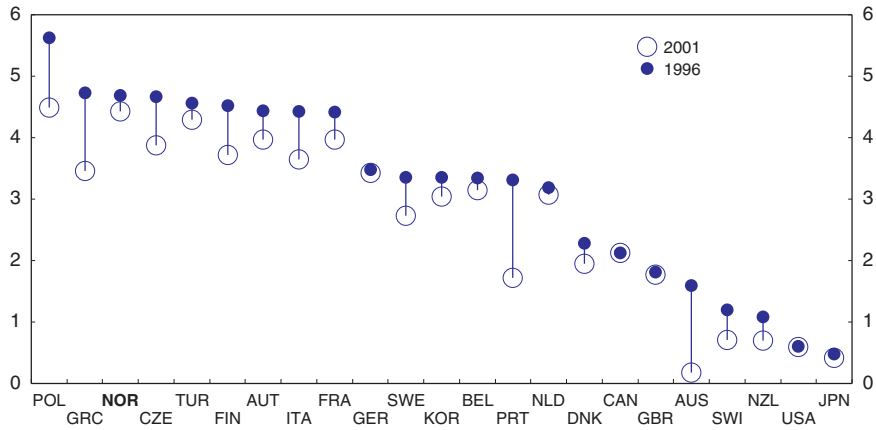
Still, fines are far below the level that would be expected to deter. In the ABB-Siemens case, the firms' turnover in the market at issue during the course of the conspiracy was 75 times greater than the fine (€ 2.5 million). Penalties against individual decision-makers are virtually unknown. Both problems appear to result from the reliance on criminal process for enforcement. In non-criminal matters, the only consequence of violating a statutory prohibition is an order to stop doing it. Injured parties can sue for damages, and that process has proved more successful. Customers who followed the ABB-Siemens case with claims for damages reportedly settled for nearly € 7 million. As an alternative to the criminal process, a 2003 committee report recommended empowering the NCA to issue fines against companies that violate prohibitions. Presumably, such administrative fines would be demanded after a simpler process that required a lower burden of proof. Whether it would be a more significant deterrent depends on how it fares in the inevitable appeals, testing both how this novelty fits into the Norwegian legal system and how large a sanction the judges will actually permit the NCA to demand.

legal process, and leniency and whistle-blower programmes are needed to destabilise cartels. Relating sanctions to the harm to individuals and the economy would increase deterrence and raise awareness of the damages of anti-competitive conduct.[11] Criminal liability should be limited to hard-core clandestine collusion, while the NCA should be empowered to issue administrative fines for lesser breaches. The proposed new competition law introduces powers to the NCA to issue administrative fines as well as a leniency programme.

Extensive public-ownership creates competition problems

A defining feature of the Norwegian economy is the high degree of public ownership (Figure 3.7).[12] As in many other OECD countries, publicly-owned firms are active in traditional network industries, but they are also active in sectors which in other countries often are within the private domain, such as alcohol retailing, air transportation, financial services and oil. When government-owned companies participate in market activities, the issue of a level playing field arises. In electricity generation, publicly-owned operators are favoured through asymmetric concession rules (see below). In other sectors, a perception of an uneven playing field is related to political interference, the acceptance of lower profit rates or implicit financial guarantees. Publicly owned firms in network industries have substantial scope for cross-subsidisation between competitive and monopolistic market segments, which is often countered by requiring accounting separation. However, this measure suffers from problems of asymmetric information that often

Figure 3.7. **Relative size of public enterprise sector**[1]



1. Index 0-6 scale from lowest to highest share of public enterprises, index based on the extent of state ownership and (gross) proceeds from privatisations.

Source: OECD.

exists between the regulated and the regulator and the subjective nature of accounting rules. These problems point to the need for formal – legal or ownership – separation.

Competition may be damaged by strategic behaviour, such as when dominant companies engage in predatory strategies. The competition law also applies to publicly-owned companies, but the deterrence effect of sanctions may be limited and there is a risk of political pressures being applied to reverse the competition authority's decision. Alternatively, privately-owned firms may refrain from competing fiercely because of the political risk associated with a state-owned company going bankrupt, and prefer to exploit their higher efficiency by allowing the government-owned company to be the price leader. Often the lower efficiency of government-owned companies has been related to their corporate governance not being focussed on profit maximisation and efficient operation (Box 3.2).[13] Nicoletti and Scarpetta (2003) have calculated that MFP growth in Norway could increase by as much as one percentage point per year over a 10-year period, if the level of public ownership is reduced to the average level prevailing in the OECD.

Recognising the above problems, the government's white paper "A Reduced and Improved State Ownership" in spring 2002 proposes a general reduction in public ownership as a means to level the playing field and increasing market discipline in corporate governance. However, due to a lack of parliamentary

Box 3.2. Government ownership and its implications for corporate governance

Corporate governance in government-owned companies is complicated by a number of factors:

- A 100 per cent state-owned firm has no market value to provide constant and direct monitoring and performance evaluation. The market valuation of partly-privatized firms will be influenced by the constraints that governments are facing in the management of their shareholding.
- The monitor function of lenders to state-owned firms is reduced as loans may be either explicitly or considered to be implicitly guaranteed by the government. Additional financial support may arise from governments having lower demands on rates of return on invested capital as compared with private investors.
- Managers of state-owned firms are less likely to be dismissed for poor performance and are seldom remunerated for good performance, further reducing performance incentives.
- In addition to maximizing profits state-owned firms are likely to be expected to pursue additional objectives linked to public policies, such as regional and employment considerations, universal service obligations, etc. Furthermore, these objectives may change over time in ways which are not clearly defined and may be in conflict with each other.
- The number of participants in the oversight of state-owned companies – boards, parliament, civil servants, ministers, etc. – is larger than for privately owned companies and they do not necessarily have uniform or consistent goals.

consent, the government has been asked to proceed on an *ad hoc* basis.[14] Most publicly-owned companies are organised as limited companies as a measure to level the playing field vis-à-vis private companies, furthered by the recent abolition of explicit state guarantees for loans. The ownership control of most government-owned companies has been transferred from the ministries with regulatory responsibilities to the Ministry of Trade and Industry. This process should be completed to include the government-owned companies in sectors that are still only partially liberalised, such as railways and postal services. A further step to level the playing field is to introduce measures to improve corporate governance of government-owned companies.[15] However, only an extensive privatisation programme in the context of extensive regulatory reforms would solve the competition problems associated with publicly-owned companies.

Regulatory policies at the sectoral level

Regulatory policies for private service sectors vary in scope. Some sectors, such as retail distribution and professional services are inherently competitive. However, entry controls and self-regulation hamper competition, pointing to the necessity of a forceful implementation of, and the removal of exemptions from, the general competition law. On the other hand, network industries are characterised by "natural monopoly" segments, where competition is difficult to introduce. In these industries regulatory efforts should be directed to securing non-discriminatory access to the networks for third parties and opening potentially competitive segments to competition. International experience shows that gains from regulatory reform in network industries are potentially very large. In cases where concerns about supply reliability and insufficient network capacity have been raised, these problems have been related to the design of reforms and not to deregulation *per se*.

Retail distribution is highly concentrated

Retail distribution in Norway is characterised by a relatively high outlet density and by high concentration. Food retailing is dominated by four vertically integrated chains, with each chain having a network of medium sized shops across Norway and with individual chains often having a very strong position within local areas. Labour productivity is on a par with northern Europe, but still lagging best practices. In addition, the high level of labour costs has led to a relatively low level of value added per unit of labour costs as compared with other European countries (Table 3.2). The structure of retailing is a reflection of the relatively dispersed population. In food retailing, it is the result of a marked restructuring during the 1990s, transforming a sector of small independent shops into one dominated by four chains, including co-operatives and franchises, who tend to compete on similar parameters and on a relatively narrow range of goods (restricted by the limited shelf space). The restructuring of food retailing has increased efficiency in the sector, which tends to improve consumer welfare through lower prices. Yet, consumer welfare may be undermined by the lack of choice, due to the absence of both small independent shops and also of large-scale shops. The lack of large-scale operations also means that potential efficiency gains are not realised. However, obtaining such consumer welfare gains is difficult as long as regional policies discourage concentrations of population and large commercial developments.

There are several indications of reduced competition in the sector. As mentioned above the experience with the recent VAT reduction indicates that market power is being exercised. The high concentration has induced the competition authorities to signal that further consolidation of the sector would not be tolerated – unfortunately such signals also blunt incentives for intense competition

Table 3.2. **Key structural features of the retail distribution sector, 2000**

	Outlet density[1]	Employees per enterprise	Value added per employed person[2]	Value added per unit of labour costs[2]	Concentration in food retail[3]
Austria	43	7.7	109	98	45
Belgium	80	3.5	109	95	48
Denmark	47	8.1	103	99	52
Finland	46	5.0	132	110	69
France	64	4.2	134	104	31
Germany	35	9.0	113	116	30
Ireland	36	9.3	95		52
Italy	130	2.2	82	72	9
Netherlands	54	8.5	80	117	41
Portugal	150	2.5	43	81	46
Spain	133	2.8	74	97	23
Sweden	65	4.3	130	88	60
United Kingdom	36	14.2	99	124	41
European Union	71	6.3	100	100	
European Union, excluding Italy, Portugal and Spain	70	7.4	111	106	. .
Norway	**68**	**6.0**	**112**	**98**	**86**
Switzerland	56	6.8	91		81

1. Number of enterprises per 10 000 inhabitants.
2. EU = 100.
3. Market shares of the three largest firms based on 1996 sales.

Sources: Eurostat, New Cronos.

as they rule out successful strategies for taking over competitors. In addition, the restructuring was in part brought about by a permissive attitude of granting exemptions from the competition law to franchises and co-operatives (OECD, 2003d). The NCA's price surveys reveal homogenous prices across the country within each chain, which is surprising given that transport costs and geographical differences in markets would normally give rise to significant price variation.[16] A lack of competition arising from tacit collusion or resale price maintenance could explain such homogenous prices. In addition, the high degree of vertical integration facilitates foreclosure of new entry along the product chain. Access to foreign suppliers can be a problem, particularly for new entrants, as imported food quotas are distributed according to historical market share. These problems are further accentuated by the high concentration in the food production industry and in agriculture (see Box 3.3).

Outside food retailing, there are also signs of competition problems in the retail market for gasoline, which is dominated by a few chains. Empirical studies indicate that the regional variation in gasoline prices is mostly a function of the existence of neighbouring competitors and that transport costs play little role (Konkurransetilsynet, 2001). Moreover, according to IEA statistics, pre-tax prices

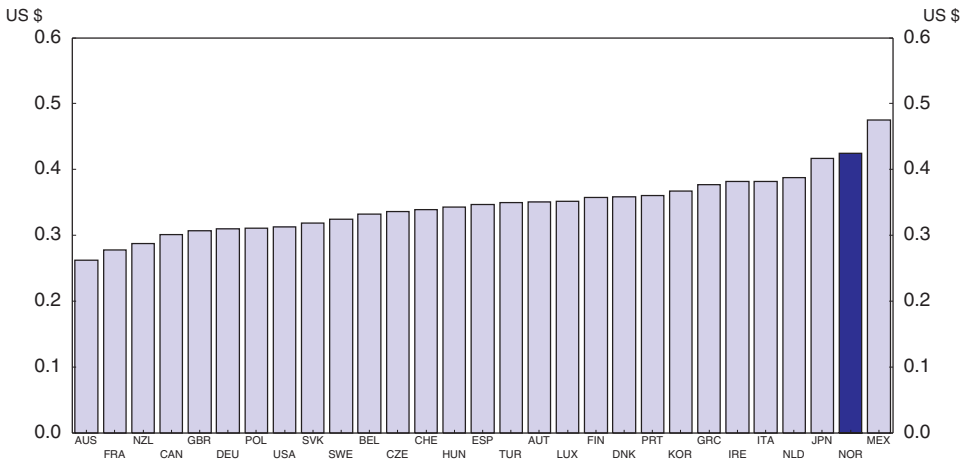
Box 3.3. Organisation of the dairy market in Norway

Strategies of preventing new entry (market foreclosure) are an issue not only in the retail sector. For example, in the dairy product market, government regulation has charged the dominant cooperative Tine AB – a vertically integrated producer, distributor and exporter of dairy products – with the role of maintaining the Ministry's target price for milk products.[1] Combined with a system of compensation payments, the target price has effectively become a maximum price and gives strong incentives for members of the cooperative to maintain their relationship with Tine AB (Konkurransetilsynet, 2003). To enable new entry into the dairy market small-scale producers can (since mid-2003) opt out of the quota system and the cooperative is under the obligation to deliver milk to other dairy producers, but only up to a quota limit.[2] While these measures have the potential to increase competition and establish alternative sources of supply, then they also contain an element of market foreclosure because of the dairy industry's substantial economies of scale in collecting, processing and distributing milk. The market foreclosure effects are reinforced by the high tariffs on imported milk. The import tariff is suggested to be made dependent on the price in the domestic market to allow import of milk when domestic production does not suffice to meet demand. However, given existing economies of scale and the importance of timely deliveries in this sector, foreign milk can only effectively compete if imported under long-term contracts. At the same time, the compensation payments imply a transfer from high to low productive units, which with the lack of competition from foreign milk means that there are no incentives to improve efficiency. On this background, it is perhaps not surprising that Strand and Aas (2001) can demonstrate that contrary to the developments in many other countries the price-margins of dairy products in Norway have not declined over the long-term – an indication of a lack of competition. This is further underpinned by the finding of the Danish competition authority that the Norwegian (whole) milk pre-tax price in 2001 was about 40 per cent higher than the average pre-tax price in other North European countries – reducing consumer welfare by about NOK 1 billion per year. Brunstad (2001) estimates that the cost to the economy is about NOK 2½ billion per year or about 22 per cent of value added in the sector. The Norwegian milk support system has the additional objectives of income distribution, landscape preservation, and the maintenance of regional economic activity. Within a liberalised dairy product market, such objectives could be pursued by policies that directly target such outcomes.

1. Other parts of the food industry also have high concentration and with the market leader having a regulatory role. The resulting high prices have led to border trade with for example meat products accounting for a substantial part of overall border trade. Finansdepartementet (2003a).
2. New regulation entered into force 1 January 2004, which set out increased quota limits. There is no limited quota for milk per year to be used as input into other dairy products, while the delivery obligation for milk designated for final consumption is only to secure the milk deliveries promised by the outsider's own suppliers. For new entry, Tine AB is obliged to deliver a maximum of 15 million litres of milk per year for three years. Beyond the limit of 15 million litres, own supplies of milk are required to release further deliveries from Tine BA, amounting to twice the volume of own supplies. The Ministry of Agriculture has proposed to significantly increase these quotas as well as introduce other reforms in 2005.

for gasoline are among the highest in the OECD area (Figure 3.8). This indicates that either competitive pressure is not sufficiently strong to secure efficiency or a rent is being obtained.[17]

Figure 3.8. **Pre-tax prices for gasoline in an international perspective, Q3 2003**[1]
US dollars per litre of unleaded gasoline



1. Or latest available.
Source: IEA, *Energy Prices and Taxes* (2003).

Framework regulation tends to reduce competitive pressure in the retail sector. Earlier zoning laws were interpreted as a ban on establishing shops larger than 3000 m^2. Still, new entrants in the food and gasoline retailing sectors have been denied permits by local authorities for ostensibly environmental reasons, such as visual attractiveness. This may mask the influence of local incumbents' interests. Shop opening hours have been partially liberalised and shops are allowed to choose their own opening hours during weekdays, while only smaller shops are allowed to remain open on Sundays. Special and more restrictive opening hour rules are in place for the government-owned Vinmonopolet, which has a monopoly on sales of alcoholic beverages (Box 3.4). As in other countries, only pharmacies are allowed sell prescription drugs, but there has been a recent partial liberalisation of sales of non-prescription drugs.

The variety of entry problems indicates that efforts to further enhance competition in retailing must rely on a multi-pronged pro-active strategy, involving enforcement (including leniency programmes to counter collusion), abolishing

Box 3.4. Vinmonopolet and the market for alcohol in Norway

The government operates a retail monopoly for sales of alcoholic beverages – Vinmonopolet – for public health reasons. The market for import and wholesales was liberalised in 1996 and has led to the entry of about 90 wholesalers. However, competition in the wholesale market remains limited. The Vinmonopolet has monopsony power as other importers and wholesalers can sell only to it or the much less important restaurant and hotel segment. Moreover, the law stipulates that wholesalers must deliver – at uniform prices – to all shops and warehouses owned by the Vinmonopolet, effectively amounting to entry-preventing price discrimination since transportation costs differ. The retailer's price policy – consisting of a fixed charge and a mark-up with an upper limit to cover costs – and a legal ban on promotional offers and discounts on alcoholic beverages prevent the use of strategies for promoting new products or clearing unwanted stocks. The latter leads to a demand for frequent deliveries of small quantities, increasing costs and further hampering new entry. Also the Vinmonopolet's selection process of products, including testing backlogs of two years, has a negative effect on new entry. Non-selected products can still be sold through a so-called ordering list. However, the list is not an attractive marketing device as the associated distribution costs can be high as ordering list products are sold in relatively small quantities and on an infrequent basis.

Since early 2003, the monopoly has come under increasing pressures as an EFTA court ruling led to the liberalisation of sales of alcoholic beverages with less than 4.76 per cent alcohol and as EU rules have required the other Nordic countries to remove import limits for private import of alcohol, inducing the countries to lower alcohol taxation to avoid an increase in cross-border sales. The latter is also a problem in Norway, where the high price differentials for liquor – estimated to be three times the EU averages and some 10-40 per cent higher than in Sweden, combined with their transportability, have induced Norwegians to cover half of their liquor consumption through private imports or illegal activities. Increasing border trade leads to tax revenue losses and blunts the effectiveness of controlling alcohol consumption through the state-owned monopoly. In other OECD countries, the main instruments for controlling the availability of alcohol – taxation, location, opening hours, age limits and right of refusal to serve – are compatible with retail competition.

Sources: OECD (2004), Norwegian Competition Authority (1995), Lavik (2003), Finansdepartementet (2003).

agricultural trade barriers, removing (self) regulatory responsibilities that enable market foreclosure, and a revision of the licence requirements for establishing large shopping centres outside densely populated areas. Furthermore, consumer welfare could be increased by allowing shops to exploit economies of scope in terms of selling a greater range of goods – as with the recently implemented liber-

alisation of selling non-prescriptive drugs – to other goods, such as alcoholic beverages. Such a liberalisation would also allow new entrants to use a wider range of items for promotional purposes, expanding possible marketing strategies and thus ease entry. An additional measure to increase competition in the retail sector could be to review Norway Post's high administrative charges for VAT handling for goods purchased over the Internet (see below).

Professional services are being exposed to more competition

Professional services are subject to the Norwegian Competition Act. At the same time, the NCA recognises that the self-regulation of these services to maintain professional standards in terms of educational requirements and codes of conduct is important to reduce asymmetric information problems *vis-à-vis* clients. Anti-competitive measures, such as restraint of entry or price collusion, are only allowed if an explicit exemption has been granted. The NCA has been active in promoting competition in professional services, such as lawyers, accountants, engineers, and architects by repealing association rules concerning size and application of fees and ethical rules restraining competition, such as with respect to advertisement. Nevertheless, a recent report (NOU, 2002) has highlighted additional problems in the area of legal services. Ownership restrictions remain in place, such as a ban on cross-ownership and a requirement that law firms must be owned by lawyers with a Norwegian degree (effectively preventing foreign ownership), hampering mergers in the professional services sector.[18] In terms of marketing, there are no general restrictions. However, the bar association's ethical rules prevent lawyers from describing themselves as specialists and stipulate that pricing practises should inform clients about the hourly charge, although an estimate of the full cost of legal advice could be more useful to a consumer. Thus, more could be done to promote competition in self-regulated professions.

Network industries are characterised by public ownership and high concentration

Network industries (*i.e.* electricity, gas, water, transport and communications) account for a bit less than 9 per cent of employment and about 11½ per cent of value added. Thus, not only is the performance in these sectors important for enhancing consumer welfare, but it can also have a significant impact on overall economic performance. There is now a solid body of cross-country evidence that liberalisation policies in network industries have led to higher productivity, better quality and, often, lower prices.[19] However, capturing these benefits is not straightforward and close attention needs to be paid to the design of reforms (Gonenc *et al.*, 2000). Apart from being a frontrunner in the liberalisation of the electricity sector, Norway has mostly been following EU deregulation programmes.

The successful liberalisation of the electricity market should be secured by additional measures

The liberalisation of the Norwegian electricity market and the subsequent development of a Pan-Nordic electricity market during the 1990s yielded considerable benefits for consumers as prices fell to some of the lowest levels in the OECD area (Box 3.5). In addition, the substantial excess generation capacity that was prevailing in the early 1990s as the result of previous over-investments in hydro-power plants has been gradually removed as demand – in response to the lower prices – has grown faster than capacity (Figure 3.9).[20] Moreover, the liberalisation and subsequent integration of the Norwegian electricity market into the Pan Nordic electricity market largely removed national operators' market power in individual markets outside peak load periods despite existing entry barriers and increasing concentration (Bergman, 2002). However, very high prices were observed in the very cold winter 2002/3 as low precipitation in 2002 had reduced available hydro-power resources – a weather pattern that was shared with Sweden, the other major hydro-electric producer in the Nordic countries. Subsequently, prices declined but not to their prior level, indicating a more permanent increase in capacity utilisation. Adding to the problem is the planned phasing out of Swedish nuclear power plants. A more permanent increase in capacity utilisation is likely to increase the incidences of peak loads, which without countervailing measures may expand the possibilities for exercising market power.[21]

Market power can be limited through focussing merger control on competition issues (see Box 3.1), increasing generation capacity and by expanding interconnection capacity within Norway and to other countries.[22] The latter measure should be fairly simple to implement as the interconnectors are owned by the Nordic transmission system operators. Within Norway the income cap regulation in place does not provide sufficient investment incentives to secure an optimal interconnection capacity, pointing to the need for basing such investment decisions on cost-benefit analysis in the absence of market based incentives.[23] Expansion of interconnection capacity would also to some degree address security of supply concerns. Generation capacity can be increased through new private entry, although private investment in generation is effectively prevented by the asymmetric concession rules and environmental concerns. This also has negative spillover effects on consolidation efforts in the upstream part of the sector. Equalising concession rules for private and public investors enhances market based incentives for investing in upgrading hydro-power turbines as well for achieving at least minimum efficient size in the upstream part of the sector. An additional measure to secure the continued expansion of generation capacity is to remove restrictions on type of generators and address environmental concerns through taxes or other market-based instruments.[24]

Box 3.5. The Norwegian and Nordic electricity markets

The Nordic electricity market is one of the major European markets, only surpassed by Germany and France. This is mostly explained by a prevalence of energy-intensive industries and the importance of electrical heating in Norway, Sweden and Finland. Compared with the EU average, per capita electricity consumption in Norway is about four times higher and in Sweden and Finland about twice as high. As a result, electricity expenditures for high volume consumers are relatively high, constituting between 4 and 10 per cent of total production costs and household expenditures.

Almost all Norwegian electricity comes from hydro-power plants, which are flexible enough to provide both base and peak load. However, due to relatively large variations in precipitation – with generation being up to 40 per cent higher in wet years as compared with dry years – import and export of electricity can vary substantially from year to year. As a result the Norwegian inter-connector capacity is – at around 20 per cent of peak demand – fairly high, although internal congestion problems often lower available capacity. Most of the hydro-power generators were constructed before 1990. Hydro-power capacity can be expanded by up to 10 per cent by upgrading and extending existing hydropower plants (including the transfer of water resources), according to the Norwegian Water Resources and Energy Directorate (NVE). However, the concession rules act as a barrier for private investment in existing hydro-power plants as private concessions (defined as companies with a private shareholding of more than one third) are limited to 60 years from the day production commences, while the duration of public concessions is unlimited. A committee is currently reviewing this particular legislation. Moreover, for environmental reasons it is very difficult to get permission to develop new hydropower plants. Permission has been given to develop privately owned natural gas generators, but electricity prices are apparently too low to make them commercially viable.

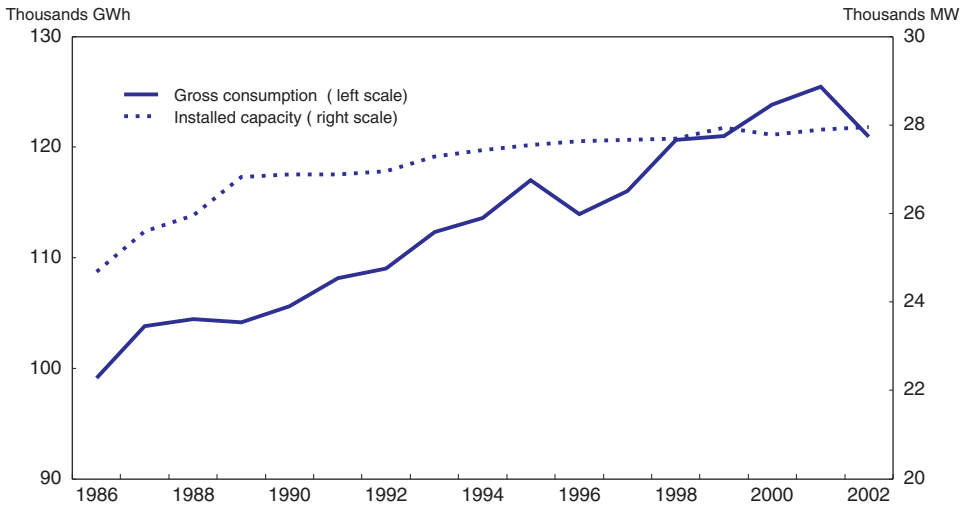
Since the liberalisation began in 1991 – a process well ahead of similar EU reforms – and with the subsequent integration of the Nordic electricity markets, there has been a considerable degree of structural change and increased concentration, particularly in generation, in the Norwegian electricity market, as companies strived to achieve at least minimum efficiency size. However, the consolidation has also led to a market dominated by the state-owned Statkraft – producing more than a third of all electricity in 2001 – while other generators are considerably smaller and mostly owned by municipalities. Statkraft's dominance is magnified by its substantial shareholdings in other electricity utilities, leading the NCA to block recent merger proposals (Nordic Competition Authorities, 2003). The sector is regulated by the Norwegian Water Resources and Energy Directorate, but its multiple functions – including economic regulation and technical planning – may conflict with the objective of promoting competition in the sector. Moreover, its independence is limited by the agency being subordinate to the Ministry of Petroleum and Energy. The latter is also the appellate body for decisions made by the regulator.

Box 3.5. **The Norwegian and Nordic electricity markets** (*cont.*)

Around half of the about 300 utilities are also engaged in distribution and retailing with accounting and management separation between monopoly and competitive activities (IEA, 2001). The transmission system operator – Statnett – is a publicly-owned company. Both Statnett and the distribution companies operate under an income gap regulation (a hybrid of RPI-X and rate of return regulation). All tariffs are set by the grid companies and should be cost reflective in accordance with NVE regulation. Tariff disagreements may be complained to the NVE. The cost of accessing the grid is rather low as compared with other countries. The final balancing is undertaken by so-called "balance responsible" parties, comprising generators and large consumers. In addition, Statnett is purchasing options from these parties to use generating capacity and/or curtail demand during peak hours – with the increasing use of the latter option being a new development (Nilsson and Walther, 2001). Due to transmission capacity limitations, the Nordic market is at times divided into different price areas. Norway is further divided into regional price areas, of which there are normally two but even more during periods with high capacity utilisation. Such effects can be significant – for example only during half of 2001 could the Nordic region be considered as a one price area. In Norway there was an average 8 per cent price difference between highest and lowest area price in June 2003 and similar sized difference between the highest Norwegian area price and Swedish prices during the spring of 2003 (Bergman, 2002).

The sector is characterised by the widespread local government ownership. Accounting separation is currently used to prevent cross-subsidisation between monopoly and competitive activities, although in merged firms legal separation is required. Due to the subjective nature of cost allocation and the problems of asymmetric information, separation through legal or ownership unbundling requirement would be more effective and should be in place prior to any privatisations.[25] Government ownership in itself gives raise to a risk of inefficiencies in the management and investment decisions. An additional problem is that the regulator's multiple and complex functions detract its attention from promoting competition. For reform to become effective and to avoid a conflict between the regulatory role and government ownership, it is necessary that the regulator become independent of both industry and government. An additional step in such a reform should be the establishment of an independent appellate body to replace the current arrangement where appeals have to be lodged with the Ministry.

Figure 3.9. **Electricity, consumption and production capacity**

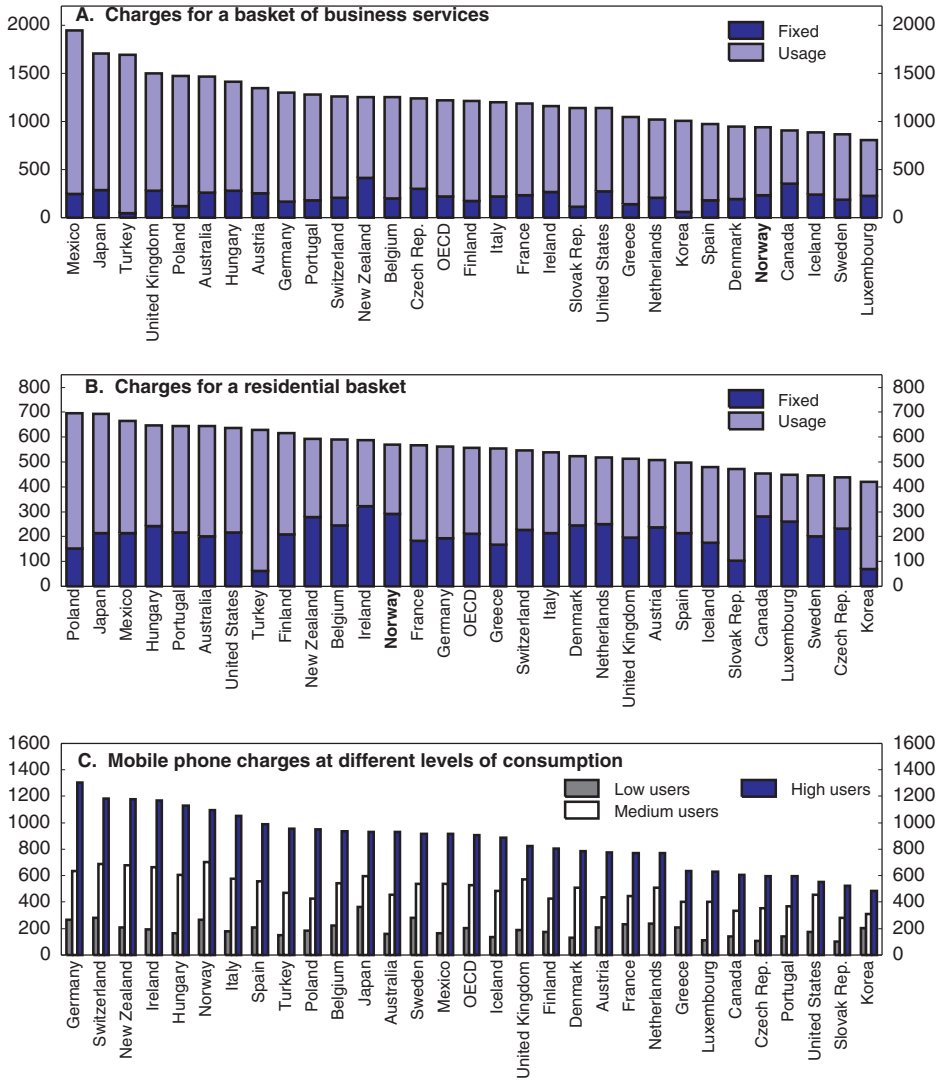


Source: Norwegian Water Resources and Energy Directorate (NVE).

The emergence of a competitive telecommunications market is slowed by the publicly-owned incumbent

The 1998 liberalisation of the Norwegian telecommunications market was somewhat behind similar developments in the other Nordic countries. The government owns about two-thirds of all shares in the incumbent – Telenor – although the parliament has approved a further reduction to 51 per cent and is requiring the government to retain majority ownership. With the new electronic communication law in July 2003, telecommunications regulation remains in conformity with the EU telecommunications framework. However, regulatory action in telecommunications has been slow. The telecommunications regulator decided in spring 2001 that Telenor's accounting separation was not sufficiently effective and recommended additional measures, but subsequent appeals to the relevant ministry led the confirmation of the decision to be postponed by more than two years. Even if it is only the perception that the delay is motivated by a desire to protect the incumbent's interests, this underscores again the need for an independent appellate body and the need for separating the government's role as an owner and as a regulator. The market structure remains highly concentrated, particularly in the mobile phone segment, where the incumbent's mobile phone service provider and one private provider have about 90 per cent of the market. The latter

Figure 3.10. **Telecommunication prices in the OECD**
US dollars, August 2003



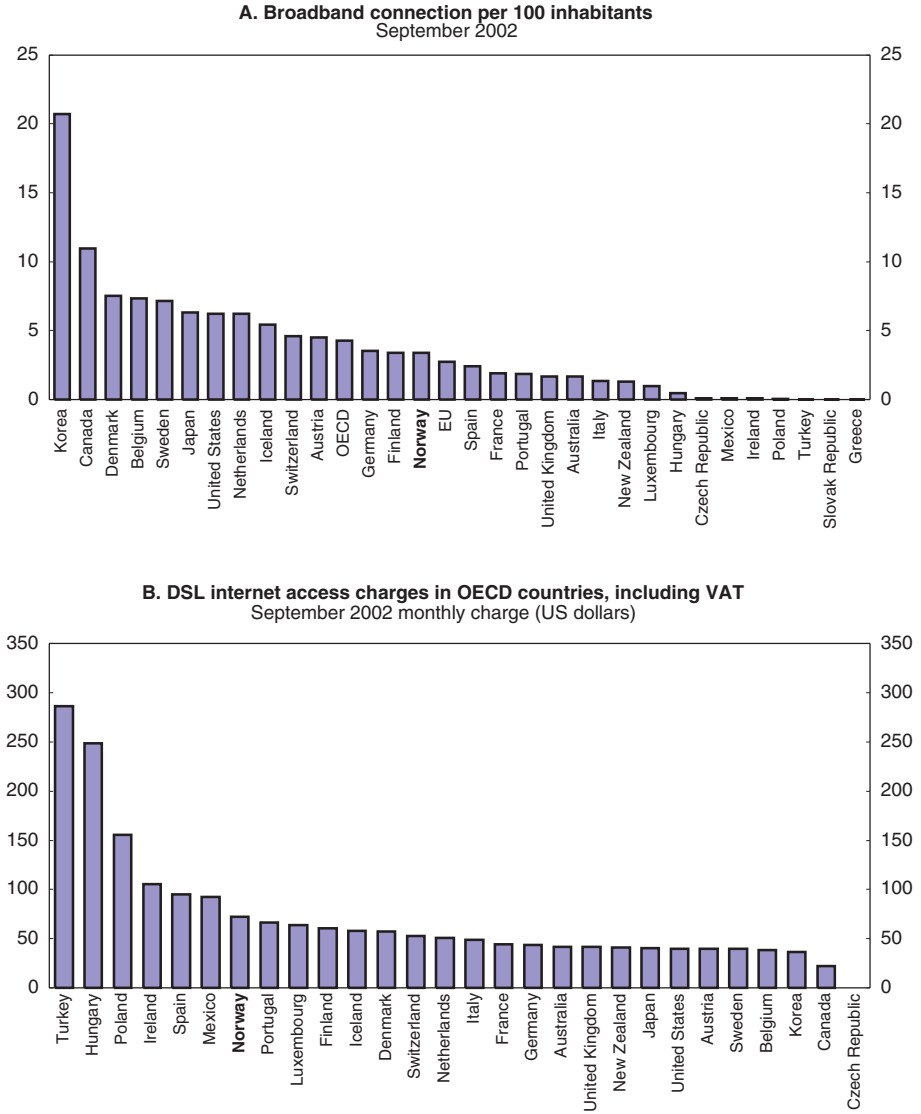
Note: Composite basket that includes international calls and calls to mobile networks.
Source: OECD.

has recently become subject to cost-based regulation of its termination charges as the regulator ruled that it is possessing significant market power (SMP). Concentration in the mobile phone market is likely to fall as the three UMTS licensees commence operations, although the third license was only issued in October 2003. An international comparison of telecommunications prices indicates that prices for business users are among the lowest in the OECD area, which is in contrast with the relatively high prices for household users and mobile phone services (Figure 3.10).

As in other telecommunications markets that are being liberalised, the key regulatory problem in Norway is assuring third party access to networks, and in particular ensuring non-discriminatory interconnection charges. Charges in Norway are currently set to cover the historical cost of constructing the telecommunications network (based on a historic Fully Distributed Cost Model).[26] The FDC model yields higher interconnection charges than the LRIC model preferred in the EU, which bases the charges on incremental costs, thus making it a more disadvantageous system for new entrants. Interconnection charges vary with distance with the highest charge being about three times higher than the lowest, yet marginal cost in telecommunications typically is a function of network capacity utilisation and largely independent of distance. Indeed, the incumbent has introduced a single price for all fixed line calls in Norway with the only variation arising from peak and off-peak time calls, which implies that there is little capacity restraint in the digital network, indicating trivial cost differences between local and long-distance calls.[27] Combining this with the distance related interconnection charges means that new entrants in the long-distance market could be subject to a price squeeze and placed at a disadvantage relative to the incumbent. In the mobile phone segment, termination charges in Norway are fairly low as compared with the EU countries, although some EU countries (such as the United Kingdom and France) are implementing regulation that will cut current termination charges by almost half over the coming couple of years. Nevertheless, termination charges for calls to mobile networks are amounting to as much as more than two-thirds of the pre-VAT telephony cost, pointing to the need for continued regulatory attention to this area with little competitive pressures.[28]

The government has ambitious objectives with respect to broadband coverage as outlined in its 2003 White Paper. Such objectives are most effectively pursued by a market based strategy focussing on introducing competition between networks. However, the incumbent (Telenor) is the proprietor of most alternative networks in Norway. In addition to the local loop, the incumbent (Telenor) controls other communication networks, including the national radio and television broadcasting networks, cable-TV networks, satellite and mobile telephony networks (Moen and Riis, 2003). These networks are potential competing networks for telephony services with for example almost half of all households being physically close to a cable-TV network, but such competition is unlikely to emerge as long as

Figure 3.11. **Broadband penetration and user charges in OECD countries**



Note: Commercial ADSL service was not available in the Czech Republic, Greece and the Slovak Republic. Modem rentals, where applicable, are excluded as in most countries these can be purchased by users.
Source: OECD.

the networks remain under common ownership. Moreover, the incentives for accelerating the roll-out of broadband connections are reduced by Telenor's ownership of alternative technologies. For example, the incumbent has a relatively large number of ISDN (Integrated Services Digital Network) connections, lessening incentives for investing in faster broadband technologies like DSL (Digital Subscriber Lines).[29] In order to exploit existing ISDN connections, charges for DSL are relatively high, explaining the relatively slow roll-out of broadband (Figure 3.11). Indeed, OECD (2003e) points out that private operators have been quicker in rolling out broadband networks and offering faster connections. Such rivalry requires the horizontal separation of networks, implying that Telenor should divest its networks (Norwegian Government, 2003).

The liberalisation of the postal market could be accelerated

The monopoly rights of Norway Post for postal services – granted to finance universal service obligations – were reduced in mid-2003 to delivering letters less than 100 grams (Norway Post, 2002). However, such a financing scheme provides no direct link between associated costs and compensation and is often a high-cost solution. The provision of universal service obligations should be evaluated in terms of the cost of provision and the benefits of a nation-wide network.[30] In Sweden and New Zealand, for example, the benefits of owning nation-wide networks (in terms of for example brand recognition) are considered to be larger than the associated costs of universal service obligation and the incumbents receive no compensation for performing such obligations. If the net cost is positive, the compensation should take the form of a fiscal transfer from the government, ensuring that no cross-subsidisation arises from servicing marginal areas and levelling the playing field vis-à-vis competitors. Dynamic efficiency could be pursued – as in the domestic air transport sector – through competitive tendering for the public service obligation. Such cost-benefit considerations should be extended to other services provided by Norway Post (Box 3.6).

There has been slow progress in opening up the transport sector

Between 1993 and 1997 the air traffic market was liberalised. However, the liberalisation process eventually led to the partly government-owned SAS taking over its only competitor (Box 3.7). The competition authority has been trying to introduce more competition in the *domestic air transport sector*, principally by banning the use of frequent flyer programmes on domestic routes (constituting asymmetric regulation as the ban is only applied to SAS).[31] A recent development is the entry of a new competitor, which got off to a flying start by obtaining a large customer contract with the central government. However, since its initial break-through the company has not been able to make further inroad into the important large customer contract market segment and it remains unclear whether the new entrant

Box 3.6. Norway Post and purchases over the Internet

The Norwegian postal market is being liberalised in line with EU directives. A number of EU members have moved more decisively than stipulated in the relevant EU directive by lowering the monopoly rights well ahead of the timetable in the directives, while Norway Post (the publicly-owned incumbent) was allowed to maintain monopoly rights for letters less than 350 grams until mid-2003. Furthermore, it is expected that in line with the EU deregulation programme for postal services the monopoly rights will be reduced to 50 grams by 2006 and completely abolished by 2009. As part of the liberalisation process, Norway Post was incorporated in mid-2002 under the responsibility of the Ministry of Transport and Communication.

Norway Post is also providing customs clearance service in connection with VAT payments for goods purchased abroad through postal-order catalogues and the Internet. The company is allowed to charge NOK 120 for goods with a value above NOK 200 (unless the purchase is destined to be a gift, in which case the limit is NOK 1000). For goods of a lesser value, customers are allowed to do the registration directly over the Internet with the tax authorities, but nevertheless Norway Post charges NOK 50. The charge is supposedly cost-based, although the recent introduction of commercial accounting rules makes this difficult to verify. In some other countries, the charge is lower (equivalent to NOK 61 in Denmark and NOK 115 in Sweden). Other countries, such as France and Germany, have no charge, but ensure VAT compliance through spot checks by the tax authorities on the premises of the postal providers. When charges are not cost based they can act as a barrier to entry and inhibit consumer welfare. An additional concern is whether – in a thinly populated country like Norway – the cost evaluation should include the benefit of promoting competition in the retail sector.

has obtained sufficiently high load-factors to secure long-term survival. However, additional measures can be taken to ease new entry into the domestic air transport market. New entry is hampered by the high cost of using government-owned infrastructures and by the incumbent SAS being able to dominate the market for routes with universal service obligations (see below). Moreover, the liberalisation process has only to a limited extent included effects of Scandinavia effectively being served by the incumbent SAS as one integrated air transport market, requiring a combined regulatory effort of the involved countries' competition authorities.

Since 2000, there has been new entry into the regional market of some 50 routes with public service obligation for serving regional airports. The market continues to be dominated by a SAS owned company Widerøe – the sole Scandinavian owner of aircraft that fulfil the narrowly specified service quality standards and the STOL (Short Take Off and Landing) criterion required on many of the routes.[32] Competition has been introduced in the form of tenders. However, the three-year contracts contain a one year withdrawal clause. This *de facto*

Box 3.7. Initial experiences with more competition in air transport

The initial attempts to open domestic air transport for competition led to a semi-public monopoly. The liberalisation of domestic air travel for Norwegian operators in the mid-1990s induced the two incumbent service providers to compete on expanding capacity but not on price, except on restricted discount tickets which were not attractive for the important business traveller segment (Steen and Sørgard, 2002). The consequent increase in capacity was not matched by a similar increase in passengers. In 1997-98 the market was opened to foreign operators and there was an expansion of slot capacity through the opening of a new main airport in Oslo. Capacity competition continued and the only new entrant was forced out after about one year. Subsequently, capacity was reduced in an apparently concerted manner at the same time as large customer contracts increased in scope, which again arguably increased full fare prices.* During the second half of 2001, SAS (with a combined 50 per cent shareholding by the Swedish, Danish and Norwegian governments) was allowed to take over the private service provider (Braathens), which was effectively bankrupt. The Norwegian Competition Authority invoked the "failing firm" doctrine to permit the acquisition; that is, because Braathens was going out of business in any event, allowing SAS to become a monopolist by purchasing its competitor would not change the market situation. The merger demonstrates why the "failed firm" argument is contentious, as it can permit a transaction that leads to adverse effects on competition and consumer welfare. Both the unions and the two airline companies were strongly in favour of permitting the merger, because it allowed the employees to keep their seniority based salaries and career paths, maintained some value (about NOK 1 billion) for the owners of Braathens and ensured for SAS that no new entry took place via a purchase of the bankrupt competitor. In September 2002, a new entrant came into the market, operating domestic and inter-Scandinavian routes, as well as some other international destinations typically served by charter companies.

The Scandinavian market is integrated through SAS's dominant position and the company's operation of a "spoke-hub-spoke" system, where intra-Scandinavian travellers are fed into the larger international airports in Scandinavia for transfer to international routes. SAS's dominance of the three segments of the Scandinavian market may allow the company to cross-subsidise loss-making activities in one segment with profits obtained in other segments. During the liberalisation of the Norwegian domestic air transport market the strategies applied by SAS might be described as being part of an anti-competitive predatory strategy, or at least leading to the outcome that predatory behaviour is seeking. The company has in other instances been engaged in anti-competitive actions, such as operating a price cartel with a privately-owned carrier on the important Copenhagen – Stockholm route, leading to a combined EU fine of about EUR 50 million in 2001.

* Large customer contracts are entered between the carriers and larger firms, specifying a percentage reduction of the full price ticket for large volume of tickets. Such "all-or-nothing" contracts mandate secrecy conditions for the involved parties, but the repeated nature of contracts in combination with intense rivalry typically leads to increasing discounts over time.

renegotiation of contracts is considered to benefit Widerøe, which has the capacity and experience to adopt schedules to allow for repeated bidding for new and for cancelled contracts, introducing incentives for strategic bidding.[33] Competitors have complained that Widerøe is engaged in predatory bidding by submitting low bids for potentially competitive routes (involving airports with longer runways) and high bids for routes where its aircraft fleet provides a comparative advantage.[34, 35] Furthermore, the relative shortness of the tender contracts – in line with EU regulations – may hinder new entry, which is discouraged by the inability to cover fixed costs of establishing services.[36] Measures to undermine the incumbent's dominant position should include a relaxation of the service standards to only specify the required service in terms of seat volume per relevant time period, opening up for the utilisation of other types of aircrafts. Moreover, to avoid strategic tender bidding a contract holder that has used the withdrawal clause should be excluded from bidding for the vacant contract.

Successfully introducing competition in the domestic air transport market also requires measures on the infrastructure side. The government-owned company Avinor is the proprietor and operator of 17 main and 28 regional airports across the country, of which only three produced a surplus in 2002.[37] The company is self-financing with the exception of a government subsidy of NOK 250 million for the regional airports. About 75 per cent of its revenue comes from geographically uniform aeronautical and airport handling charges (fixed by the Ministry of Transport and Communication) and the remaining from sale of services. Since cost structures vary across the network, the uniform charges imply a large element of cross-subsidisation. In addition, there used to be another cross-subsidy from profitable to non-profitable airports, amounting to some NOK 340 million in 2002. But from 2003 onwards the deficits of regional airports are financed by the central government. A cost-benefit analysis of ten regional airports concluded that all of them were clearly or most likely unprofitable. Maintaining operation of such airports with the current subsidisation system increases airport charges and thus hampers new entry. However, a proposal to close three of the airports was opposed by the parliament (OECD, 2003d). In addition, the subsidisation raises efficiency concerns in the absence of incentives to improve operations. Resource allocation could be improved by combining the tendering system for PSO services with making the airports independent, preferable through privatisation. The latter would give airports incentives to compete in the provision of services, lowering entry costs and thus stimulating new entry in air transport services.[38] In addition, a market based system for slot allocation would further improve resource allocation.

The first step to liberalise *railway transportation* was taken in the mid-1990s, when the incumbent railway company was split into a service provider (NSB) and a track owner, both fully owned by the government. At the same time, a regulatory authority was established, although it is mostly pre-occupied with technical regulation. Currently, the market for passenger transport is organised with the govern-

ment as the purchaser of passenger transportation services from NSB in the form of public service contracts. The next step of introducing competition through competitive tendering for these contracts awaits the establishment of rental rules for NSB's rolling stock.[39] Moreover, there is a lack of intermodal competition from long-distance bus companies. NSB is the proprietor of the largest bus company, offering long-distance as well as local bus transportation. Open licensing for long-distance transportation between counties was only recently permitted, so competition has only started to emerge on a few routes. Indeed, competition is restricted by the approval requirement of both operations and tariffs. Moreover, the ability to compete by offering alternative routes or bus stops intra-county is curtailed by restrictions on local transportation imposed at the local government level to avoid direct competition with (often government operated) local bus services. To further increase competitive pressures in the markets for land-based passenger transportation, non-discriminatory rental charge rules should be established along with granting the railway regulator the authority to secure competition in the market for railway services. As an additional measure, intermodal competition should be enhanced by implementing ownership separation between the incumbent railway company and its bus company. The latter should also be separated into long-distance and local service operations to avoid cross-subsidisation between profitable and loss-making activities. Moreover, local governments' restriction of bus services should be reviewed with the aim of giving greater freedom to long-distance bus companies to tailor their services to the market.

The public sector has a key role to play in introducing more competition into the economy

Public procurement

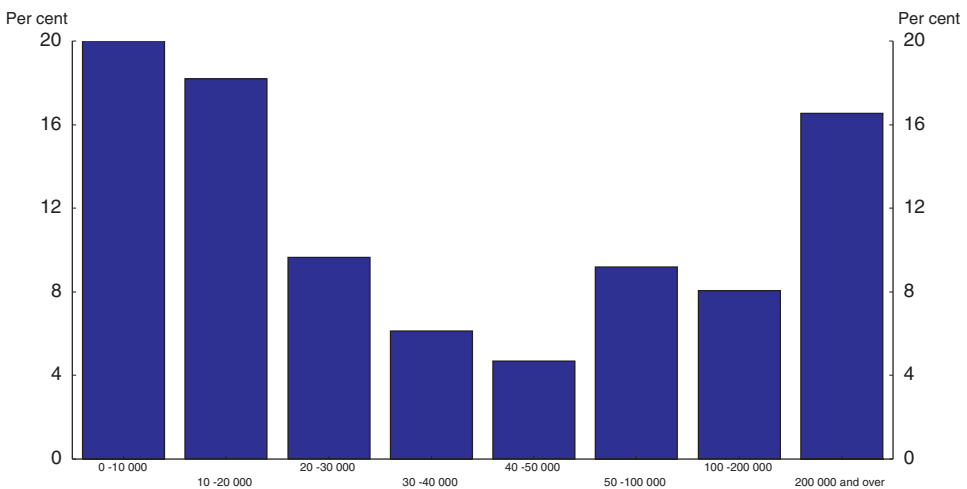
Public procurement is a vehicle to improve public sector efficiency and a means to increase product market competition. Public procurement accounts for around 15 per cent of GDP, with a roughly equal split between central and local governments. The 1994 public procurement law requires the publication of contracts above NOK 200 000 (stricter than the EU norm) in a single database and provides clear rules for information requirements. Moreover, the Ministry of Labour and Government Administration has introduced measures to decentralise contracts to make them the responsibility of the utilising administration. In a further move to level the playing field between private and public service providers, the government has introduced VAT compensation for all municipal purchases from private companies, removing an advantage for public service providers (Finansdepartementet, 2003b). A further step in this direction would be to establish clear and transparent rules for which activities should be fully left to the private sector and for which activities public participation is acceptable or at least, as in the Netherlands and Australia, introduce framework regulation for market access and conduct.

Firms that have lost the tender can request a written justification and in cases of non-compliance obtain compensation through the courts. To lower the cost of settling disputes a Complaint Board on Public Procurement was established in the beginning of 2003 with the powers to issue non-binding opinions, reviewing the legality of the procurement in question. The board received more than 70 complaints within its first four month of operation. The Auditor General has uncovered a number of purchases without due recourse to the law and reportedly not all municipalities publish their tender announcement.[40] Another area of concern is whether government-owned firms, such as Norway Post, are observing procurement rules when purchasing from subsidiaries. The lack of compliance may be related to a lack of administrative capacity at the municipality level and the recent decentralisation of contracts. However, public procurement regulation is clear and transparent, pointing to the need for introducing sanctions in case of non-compliance and a dispute authority with enforcement powers extended to declaring non-complying contracts null and void (OECD, 2003d).

Regionalisation carries a high cost to the economy

Regional policies have maintained a dispersed population pattern with nearly half of the population living in small municipalities (Figure 3.12).[41] In addition

Figure 3.12. **Population by municipalities**
As a percentage of total population



Source: Statistics Norway.

to their fiscal costs, such policies carry an indirect cost in terms of insufficiently competitive markets arising from the lack of agglomeration, which reduces the scope for economies of scale and choice. Indirect costs are difficult to estimate with any degree of accuracy.[42] Assuming that about half of the retail sector's 8 per cent productivity differential to Northern Europe can be explained by regionalisation effects then the associated costs would be about NOK 5 billion. This cost estimate would be doubled if the cost of reduced choice amounts to something like 2 per cent of the sector's value added. Consumer welfare is further reduced by agricultural protection. If the latter were reduced to EU levels a conservative estimate would indicate a halving of the price differential *vis-à-vis* the EU, adding NOK 15 billion to consumer welfare, and somewhat more if one takes into account the cost associated with the lack of choice. The increase in competitive pressures should also lead to a more efficient agricultural sector, which alone in the dairy sector could lead to efficiency gains on the order of NOK 2½ billion. The burden of financing universal service obligation in the transport sector is to a large extent carried by the consumers through higher prices and entry barriers, possibly amounting to 5 per cent of value added (about NOK 5 billion). Adding up these admittedly partial numbers, the indirect costs could easily be as much as 3 per cent of mainland GDP. The direct cost of regional policies, using a broad interpretation as those policies that preserve economic activity at the regional level (and which may include sectoral objectives), in terms of subsidies and tax expenditures and including price support to the agricultural sector, amounts to more than 2½ per cent of mainland GDP, boosting total costs to about 5½ per cent of mainland GDP.[43]

Macroeconomic effects of regulatory reform

The macroeconomic benefits of reforms to increase competitive pressures in the economy are substantial. The propagation and channels through which product market reforms affect the economy depend on a number of factors (Box 3.8). Obviously, assessing the impact of such reforms is a complex undertaking, but at least two simple approaches are useful to provide some rough indications. First, including synthetic indicators of regulatory stance in regressions of aggregate performance variables is a relatively straightforward method that does not require assumptions about the character of reforms. Following this method, Nicoletti *et al.* (2001) estimated that product market reforms in Norway in the 1980s and 1990s have increased the employment rate by an around 1¾ percentage point and if Norway moved towards best practices for product market liberalisation in the OECD, then the employment rate could increase by another 1¼ percentage point.

The second approach is to make explicit assumptions about the potential for product market reforms to reduce price-cost margins and to enhance productive

Box 3.8. Economy-wide effects of sectoral reforms

In general, sectoral reforms change relative prices, which improve overall resource allocation and consumer welfare – effects that are further enhanced by dynamic effects. Reforms within a sector improve the sector's economic performance through a number of channels.

Reforms reduce output prices via a lowering of price-cost margins, which in turn diminishes the scope for rent sharing, putting downward pressure on wage premia in the sector. Aggregated real wages, however, will be increased as output prices decline.

Reform forces firms to reduce slack in the use of input factors (boosting X-efficiency), enhancing labour and/or capital productivity.

In addition to these static gains, a more competitive environment stimulates efforts to innovate and adopt new technologies, which raises productivity growth.

Quantifying the possible magnitude of the effects of reforms on sectoral performance, let alone their timing, is bound to be subject to considerable uncertainty, which is only multiplied in the assessment of economy-wide effects. An example is that a sectoral reduction in wage premia may have beneficial effects on wage formation more generally. Furthermore, propagation of sectoral effects into the wider economy depends on the labour market, as the initial effects of a sectoral reform may be a reduction in employment, which has to be employed elsewhere in the economy, highlighting the importance of a flexible labour market in maximising the economy-wide effect of reforms.

efficiency and performance. Following this approach Table 3.3 presents estimates for the possible effects on sectoral and aggregate economic performance of reforms in network industries, distribution and professional and community services. The estimates presented suggest that the scope for regulatory reform in these sectors may increase aggregated labour productivity by 3-4 per cent and lead to a decline in producer prices of some 3-5 per cent. The estimates rely on judgemental assumptions about the scope for reducing price-cost margins and increasing labour and capital productivity within each sector based on realignment with practices internationally. The economy-wide effects are obtained by using the 1997 input-output tables. To avoid assessing the degree of labour market flexibility, aggregate employment was conservatively left unchanged even though dynamic effects of regulatory reform are likely to lower the NAIRU and increase the labour supply. The reported estimates do not include the effects of increased dynamic efficiency and an improved resource allocation.

Table 3.3. **Assumptions and effects of pro-competitive regulatory reform in selected industries**

	Energy	Post and telecom-munication	Road transport and railways	Retail distri bution	Profes-sional services[1]	Community social and personal services[2]	Total economy
Assumptions (per cent change)							
Costs of intermediate inputs	0	0	–5	–5	0	–5	
Labour costs							
Labour productivity	–5	–10	–12.5	–7.5	–10	–7.5	
Wages	–10	–5	–5	0	–10	–5	
Capital costs	–10	–20	–15	–10	0	–10	
Profits	–10	–10	–10	–10	–15	0	
Price elasticity of demand	–0.5	–0.5	–0.2	–0.5	–0.5	–0.2	
Sectoral effects (per cent)							
Direct price effect	–7.3	–8.6	–9.5	–6.4	–12.4	–9.2	
Price-induced output effect	3.7	4.3	1.9	3.2	6.2	1.8	
Employment, price-induced effect[3]	–1.3	–5.7	–10.6	–4.3	–3.8	–5.7	
Economy-wide effect on (per cent)							
Producer prices, direct effect	–0.1	–0.2	–0.9	–0.8	–0.5	–1.0	–3.6
Producer prices, total effect[4]	–0.2	–0.3	–1.3	–1.1	–0.9	–1.0	–4.9
Labour productivity (weighted by share in total economy)gregate output)	0.1	0.2	1.2	0.9	0.4	0.8	3.7
Memorandum items							
Share in aggregate employment	0.9	2.2	6.7	17.1	7.9	37.0	
Share in aggregate value added	2.6	2.2	7.4	11.8	13.5	21.5	
Share in aggregate output	1.9	1.9	9.8	12.5	4.3	11.3	

1. ISIC74, Other business services.
2. Effects from improving public procurement policies and greater use of competitive tendering.
3. Resulting from the direct effect via productivity and the induced (offsetting effect via higher output).
4. Combines the direct effect of the fall in prices of the sector being deregulated with that resulting from the fall in prices in other sectors due to lower input costs.

Source: OECD.

Overall assessment and scope for further action

The weakness of competitive pressures in Norway arises from a combination of factors. Historically, there has been relatively little enforcement of competition policy and the oil wealth may have diverted policy attention away from dynamically oriented structural reforms and towards statically oriented regional policies. Not surprisingly, economic performance in some sheltered sectors has suffered and the manufacturing sector has been trailing the performance in other

countries. Thus, the main thrust of reform must be to refocus policy attention on the cost of static policies and the benefits of structural reforms. The latter should aim at facilitating greater dynamism in the economy and at increasing rivalry in protected markets. This requires a strategy that recognises the important links that exist between the various policies that promote competition, as witnessed, for example, in the air transport market.

For the competition authority and the sector regulators to carry out their tasks effectively, it is important to ensure that they have the necessary instruments and powers. Measures should be implemented to separate out the public sector's roles and functions as owner and regulator. This implies strengthening the independence of sector regulators as well as establishing independent appellate bodies for both the competition authority and the sector regulators. Specific measures should be introduced to make enforcement less time consuming and more effective, such as powers to issue administrative fines, which would need to be subject to legal scrutiny but without delays in implementation. Moreover, leniency and whistleblower programmes should be introduced to combat cartel activities. The proposed new competition law introduces powers to the NCA to issue administrative fines as well as a leniency programme, and is therefore important for increasing the efficiency of the NCA. Other measures to create a level playing field and promote competitive markets include measures to increase foreign competition and an expansion of the government's privatisation programme. The latter should be supplemented by clear and transparent regulation stipulating acceptable public engagement in market activities as well as a more rigorous approach for evaluating and financing the net cost of universal service obligations. Besides these general recommendations, a summary of the more detailed recommendations is presented in Table 3.4.

Table 3.4. **Summary of recommendations**

The competition framework needs strengthening

- A more pro-active regulatory stance is required. Thus, the NCA should be able to issue administrative fines for relatively minor infractions of the competition law. An additional measure would be to increase prosecution capacity, possibly by giving such powers to the NCA.
- Sanctions need to be substantial and credible to secure deterrence. Moreover, the scope of criminal liability should be reduced to hard-core cartels. Such a rebalancing of sanctions could be instrumental in persuading courts to apply the law more severely. This would also allow the introduction of effective measures explicitly aimed at cartels, such as leniency and whistleblower programmes.
- Independent appellate bodies should be established to ensure that unwarranted special and vested interest groups do not have undue influences. Particularly, the possibilities for ministerial appeals should be constrained to exceptional cases of national interest.
- As a part of a comprehensive programme to expand the role of competition, remaining barriers to trade and inward FDI should be abolished to increase foreign rivalry.
- The economy-wide impact of regional policies should be included in their formulation, particularly with respect to improving the trend growth rate of the economy.
- In publicly owned companies – and more generally in network industries – formal separation between competitive and non-competitive activities should be introduced. A further step to level the playing field is to introduce measures to improve corporate governance of government-owned companies. However, only an extensive privatisation programme in the context of extensive regulatory reforms would solve the competition problems associated with publicly-owned companies.

Regulation in retail distribution should be relaxed

- Licence requirements for establishing shopping centres outside densely populated areas should be revised to facilitate new entry.
- Agricultural protection should be removed to increase competitive pressures from abroad.
- New entrants' access to imported food supplies should be secured by relaxing imported food quota rules.
- The state monopoly in alcohol retailing should be removed to increase economies of scope.

Sector regulation needs comprehensive reforms

- The role of sector regulators should be reviewed to focus their activities on economic regulation. Moreover, their independence should be secured and independent appellate bodies should be established.
- A common approach to universal service obligations needs to be introduced, entailing cost-benefit analysis to determine the net cost of such obligations, which should be financed through a fiscal transfer.
- The successful initial liberalisation of the *electricity sector* should be secured by expanding interconnection capacity within Norway and other countries. To stimulate private investment incentives, the asymmetric concession rules should be replaced with symmetric ones. Further measures to secure security of supply are to abolish the restrictions on generation technologies and pursue environmental objectives via market based instruments.
- In the *telecommunication sector*, government ownership restrictions should be abolished. To stimulate the creation of network competition, the publicly-owned incumbent should divest its holdings of alternative networks. Interconnection and termination charges require continued regulatory attention.
- In the *postal sector*, the incumbent's monopoly rights should be abolished and the financing of universal service obligation should be based on a cost-benefit analysis and competitive tendering for the USO should be introduced. Moreover, charges should be cost based.

Table 3.4. **Summary of recommendations** (*cont.*)

- In the domestic *air transport sector*, cost-based user charges for airport services should be introduced.
- Terminate present cross-subsidies of regional airports, which should be privatised and finance unprofitable airports through a fiscal transfer.
- A market based system for slot allocation should be introduced to improve resource allocation.
- The liberalisation process in the railway sector should be accelerated, including setting non-discriminatory rental charges for rolling stock.
- Inter-modal competition should be promoted through ownership separation between the incumbent railway company and its bus company. Local restrictions on long-distance bus services should be reviewed to promote inter-modal competition.

Public procurement can be used to promote competition

- Introduce clear dispute and settlement facilities in public procurement with sanction measures, such as fines for non-compliance or even the annulment of contracts.

Notes

1. For a discussion of problems associated with an international comparison of productivity performances in the manufacturing sectors, see Boug and Naug (2001).
2. The very high productivity growth in the service sector is apparently also related to some problems of comparability between data from the first and the second parts of the period (Klovland *et al*, 2003).
3. An additional factor that has boosted productivity in both sectors is the introduction of new ICT technology, although the importance of this factor is difficult to quantify.
4. Comparing prices across countries is complicated by exchange rate movements. Using PPP equilibrium exchange rates is a way to avoid being misled by short-term fluctuation in actual exchange rates. An additional issue is that the price effects of exchange rate movements vary depending on whether the goods in question are internationally traded and the degree of product market competition. For example, with fully competitive markets an appreciation of the krone would *ceteris paribus* lower energy prices in Norway relatively to other countries. On the other hand, the same exchange rate movement would increase price differentials for non-traded goods.
5. Prices tend to increase with income levels as wages in low-productivity service sectors may be determined by wages in high-productivity manufacturing sectors, resulting in relatively high prices for services, which are relatively more in demand in high per capita income countries.
6. As a consequence, nearly 30 per cent of all tobacco consumed in Norway is bought in other countries. (Finansdepartementet, 2003a).
7. Over the period there was a fall of about 5 per cent in the prices of imported goods.
8. Similar indications of market power have been found in the markets for non-food branded goods, where the price differentials with Sweden are on average about 20 per cent. (Finansdepartementet, 2003a).
9. An alternatively interpretation of these price developments could be that the relatively faster price increases reflect a faster expansion of Norwegian costs, again pointing to a lack of competition. This interpretation, however, runs counter of the finding that price margins in the dairy sector have been constant in contrast to falling price margins internationally, which indicate a certain degree of market power for Norwegian dairy producers.
10. The inward FDI position used to be dominated by investment in the off-shore sector, but the importance of this factor has receded with the strong growth of inward FDI in the financial sector since the mid-1990s.
11. Norwegian business evidently does not yet take the issue seriously: when two managers of a Norwegian shipping company were recently fined and jailed in a US cartel case, the company announced it would pay their fines and treat their prison time as paid leave.

12. The substantial amount of government ownership reflects partly historical developments, but also other considerations, such as cost control as a criterion for keeping the sale of alcoholic beverages in a state-owned monopoly; securing Norwegian headquarters and research activities (financial markets, oil industry); securing universal service obligations (telecommunication, postal services); and securing minimum standards (social and health services). It should be noted that other countries have managed to pursue similar objectives without resorting to public ownership.

13. An example of how other policy objectives are pursued is the March 2002 government announcement that board membership of state-owned enterprises should be at least 40 per cent female. Similar legislation is intended to be implemented for private companies in 2005.

14. The parliament did not endorse the white paper's proposal of reducing state-ownership in general or the proposal to concentrate state-ownership in sectors where such ownership can be an instrument in achieving particular policy goals or be a sensible investment of the state's savings. Instead, the parliament directed the government to improve management of state-owned companies and pursue industrial policy objectives. The parliament has also asked for an assessment of the benefits of transferring ownership to holding companies with a committee expected to report in March 2004.

15. Some measures are in place to counter such problems, such as rules that prevent civil servants and members of parliament from being board members of state-owned companies and that require a clear statement of non-commercial goals with transparent monitoring and reporting requirements. For a more extensive discussion see OECD (2003d).

16. In a throwback to the era when it was the Price Directorate, the NCA still issues survey reports about retail supermarket prices. The process might encourage competition among the small number of national chains – but it may inform the competitors, too, about how close they are to the industry consensus.

17. Two of the largest chains in the Norwegian market are partly owned by the government (Statoil Detaljhandel and HydroTexaco) and they have been fined in Sweden for participating in a price cartel (Konkurrensverket, 2003).

18. For example a law firm may hire accountants, but a merger between an accounting and a legal firm is not possible.

19. See OECD (2001) which reviews the literature and adds evidence on the relationship between regulation and performance in these sectors. In addition, the OECD Reviews of Regulatory Reform constitute a rich source of information on the effects of industry-specific reforms on performance.

20. Maintaining a certain degree of excess capacity may be socially beneficial as a measure to reduce supply and price risks, but the cost of doing so becomes excessive unless the market price structure reflects the society's preference for security of supply (Newbery, 2002). For an overview of the liberalisation process, see IEA (2001).

21. Currently an option based system is in place to secure peak load capacity either by calling in contracts on additional capacity or making very large consumers cease consumption. However, if demand continues to grow without corresponding expansions of generating capacity, the incidence of full peak load capacity utilisation will increase and thus raise the cost of buying reserve capacity (Nilssen and Walther, 2002).

22. A merger between hydro-power companies increases the possibility to exercise market power through hydro-power's ability to satisfy peak load demand. In addition, parlia-

ment has provided NOK 16 billion to Statkraft in equity, loans and guarantees, allowing the company to pursue an aggressive merger strategy.

23. Each of the participating countries in Nordic Market have their own transmission system operator, pointing to the need for replacing the current bilateral agreements on operations with the establishment of a single operator for the whole market to secure that interconnector capacity is developed in line with market developments.
24. The effects of the restrictions on choice of technology are currently probably rather small as three licenses for gas-powered generators have been granted but no investment has taken place due to the current low prices. A number of small hydro-power plants are in the pipeline, although because of their limited capacity during winter peak seasons, they are unlikely to be effective in meeting peak load demand.
25. Other members of the Nordic electricity markets – Finland and Sweden – require legal separation and with the latter even requiring legal unbundling of distribution companies into a network company and a supply company.
26. Moen and Riis (2003) have even argued that as much of the historical cost was financed by the government, the incumbent should only be compensated for its own investment, *i.e.* investment costs since 1994 – when the incumbent was incorporated.
27. Many other EU countries have retained a system with multiple areas as well as peak and off-peak price differentiation on the grounds that the marginal cost of telephony increases with capacity utilisation.
28. The lack of competitive pressures stem from the fact that the calling party has little option, while the receiving party (the subscriber) is only concerned in so far as termination charges have a deterrent effect on the calling party.
29. Spiller and Ulset (2003) directly link the slow roll-out of DSL with Telenor's previous large investment in the slower ISDN technology, leaving room for the main competitor (NextGen Tel) to exploit the new DSL market segment.
30. Post Norge is exploiting its network to provide private services, such as the selling of mobile phone subscriptions.
31. Frequent flyer programmes are considered to increase prices for non-members and lead to undesirable lock-in effects, thereby hampering new entry.
32. These standards – set individually for each route – include seat capacities on planes, minimum frequencies, maximum fares, non-stop flight requirements, etc. The only aircraft with STOL capabilities that fulfil all the criteria is a De Havilland Dash 8 with a non-standard high-power turboprop engine, which apparently is no longer produced.
33. Such clauses may reduce the cost risks for service providers, potentially leading to higher bids for the tenders.
34. Until 1998 Widerøe ran all domestic routes with a government subsidy. Between 1998 and 2000, Widerøe won all tendering contracts, while the claims of predatory bidding stems from the second tendering period 2001-2003.
35. OECD (2004) Non-commercial service obligations and liberalization. OECD: Paris.
36. The relevant EU regulation is The Council Regulation (EEC) No. 2408/92 on access for Community Air Carriers to Intra-Community Air Services article 4, which stipulates that contract terms shall not exceed three years.
37. Even the main airports tend to be fairly small in an international context, with only four of them having a passenger volume larger than 1 million passengers per year. Moreover, with 45 airports Norway appears well-endowed with airports when compared with the

47 airports in Sweden (which is larger both in geographical and population terms) and the 22 airports in somewhat smaller Finland.

38. An additional problem is that aircraft handling in most airports is carried out by the carriers themselves – a costly solution for new smaller entrants – or purchased from one of the three SAS owned handling companies. Independent handling is only secure at large airports as part of EU regulation. The lack of competition in handling in itself raises competition problems and outsourcing leads to asymmetric information problems.
39. Goods transportation on the railway system was formally opened up to foreign providers in early 2003.
40. The smallest public administrative units – the municipalities – are on average smaller than in other Scandinavian countries, which may possibly explain part of the lack of compliance. The average size of a Norwegian municipality is about 10 000 people as compared with about 20 000 in Denmark and 30 000 in Sweden.
41. Even before oil exploitation began, there was a tradition of conducting a wide range of policies – such as education, communication and transport, social security, labour market, health and general welfare – with a rather strong emphasis on regional objectives. The budgetary cost of regional policies in 2000 was assessed to be nearly NOK 2 billion for special programmes for regional development, NOK 14 billion for sectoral policies with the explicit goals of equalising regional imbalances and another NOK 100 billion for sector policy measures of vital importance to regional development, but without explicit regional goals. See OECD (2003f).
42. Even the high number of municipalities is a problem with an estimated savings of NOK 3 billion from halving the number of municipalities through efficiency gains in service provision (Langørgen and Aaberg, 2003).
43. The estimate includes subsidies to primary industries, but not around NOK 2 billion in transfers to local governments in the outer regions arising from the fiscal equalisation system in Norway. The source for the estimate is the recently approved National budget.

Bibliography

Andersen, T. M. and T. T. Herbertsson (2003), "Measuring globalisation,"IZA *Discussion Paper* No. 817.

Bassanini, A. S. Scarpetta and P. Hemmings (2001), "Economic growth: the role of policies and institutions. Panel data evidence from OECD countries,"OECD *Economics Department Working Papers* No. 283.

Bergman, L. (2002), "The Nordic electricity market – continued success or emerging problems", *Swedish Economic Policy Review*, No. 9, Vol. 2.

Boug, P. and P. Naug (2001), "Dårligere enn svenskene? – En sammenligning av produktivitetsveksten i norsk og svensk industri", *Økonomiske analyser* 2/2001.

Brundstad, R. J. (2001), *Deregulation of the Norwegian market for dairy products*, SNF, Oslo.

Finansdepartementet (2003a), *Særavgifter og grensehandel – Rapport fra Grensehandelsutvalget*, Oslo.

Finansdepartement (2003b), *Nasjonalbudsjettet* 2004, Oslo.

Gonenc, R., M. Maher and G. Nicoletti (2000), "The implementation and the effects of regulatory reform: past experience and current issues", OECD *Economics Department Working Papers* No. 251.

IEA (2001), *Energy Review of Norway*, Paris.

Klovland, J. T., G. Schjelderup and Ø. Thøgersen (2003), "Synspunkter på den økonomiske politikken i lys af statsbudsjettet for 2004", Norges Handelshøyskole og Senter for Internasjonal Økonomi og Skipsfart.

Konkurransetilsynet (2001), "Prisspredning bensin og autodiesel", *Skrifter fra Konkurransetilsynet* 05/2001, Oslo.

Konkurransetilsynet (2003), *Høring – endringer i markedsordningen for melk*, Oslo.

Konkurrensverket (2003), Pressmeddelande Nr. 6, 29 April 2003, Stockholm.

Langørgen, A. and R. Aaberg (2003), "Sammenslåing av kommuner: – Gevinster å hente", Oslo.

Lavik, R. (2003), "Prisutvikling etter merverdireformen – to år etter", *Prosjektnotat* nr. 8 – 2003, Statens institutt for forbruksforskning

Moen, E.R. and C. Riis (2003), "Effectiv og bærekraftig konkurranse i tele- og mediemarkedene – hva skal til?"ECON-*rapport nr*. 2003-84

Newbery, D. (2002), "Regulatory challenges to European electricity liberalisation", *Swedish Economic Policy Review*, No. 9, Volume 2.

Nicoletti, G., A. Bassanini, E. Ernst, S. Jean, P. Santiago and P. Swaim (2001), "Product and labour market interactions in OECD countries", OECD *Economics Department Working Paper* No. 312.

Nicoletti, G. and S. Scarpetta (2003), "Regulation, productivity and growth: OECD evidence", *Economic Policy*, April.

Nilssen, G. and B. Walther (2002), "Market-based Power Reserves Acquirement" in proceedings from the Conference: *Methods to Secure Peak Load Capacity on Deregulated Electricity Markets.*

Nordic Competition Authorities (2003), *A Powerful Competition Policy – Towards a More Coherent Competition Policy in the Nordic Market for Electric Power*, Oslo.

Norwegian Competition Authority (1995), *Annual Report*, Oslo.

Norwegian Government (2003), *Broadband for Knowledge and Growth*, Oslo.

Norway Post (2002), *Annual Report*, Oslo.

NOU (2002), Rett til rett – En vurdering av konkurranseforholdene i markedet for juridiske tjenester, Oslo.

OECD (2001), *Economic Studies: Special Issue on Regulatory Reform*, No. 32.

OECD (2003a), *Agricultural Policies in* OECD *Countries – Monitoring and Evaluation*, Paris.

OECD (2003b), *Economic Outlook* No. 73, June, Paris.

OECD (2003c), *Economic Survey of Austria*, Paris.

OECD (2003d), *Reviews of Regulatory Reform Norway – Preparing for the Future Now*, Paris.

OECD (2003e), Broadband and Telephony Services over Cable Television Networks, DSTI/ICCP/TISP(2003)1.

OECD (2003f), *Managing Decentralisation – A New Role for Labour Market Policy*, Paris.

OECD (2004), *Economic Survey of Sweden*, Paris.

Spiller, P.T. and S. Ulset (2003), "Why Local Loop Unbundling Fails", a CERNA seminar paper, France.

Steen, F. and L. Sørgard (2002), "From a regulated duopoly to a private monopoly: The deregulation of the Norwegian airline industry", *Swedish Economic Policy Review*, No. 9, Volume 2.

Strand, M. and E. Aas (2001), "Mapping the Price of Food – Norwegian Dairy Products" in *The Food Sector in Transition – Nordic Research*, NILF-report 2001:2.

Walkenhorst, P. and N. Dihel (2003), "Tariff Bindings, Unused Protection and Agricultural Trade Liberalisation", OECD *Economic Studies* No. 36.

Yoo, K.Y. (2003), "Corporate taxation of foreign direct investment income 1991-2001", OECD *Economics Department Working Papers* No. 365.

4. Reforms to boost labour supply and human capital

Labour market outcomes in Norway are among the best in OECD countries in several important respects. Notably, the labour force participation rate is one of the highest in the OECD and the structural unemployment rate one of the lowest. But some disquieting features are emerging, which will need to be controlled and, if possible, reversed, to ensure that the quantity of labour resources in future will suffice to maintain high and rising living standards as oil revenues decline and the population ages. Reforms to social benefit schemes are likely to play an important role here. The quantity of labour resources is high on some measures, but reforms are also desirable to raise human capital, especially in directions that would contribute to faster economic growth.

The following sections review the strengths and the weaknesses of the labour market, public benefit schemes and the education system in Norway. The government has already taken a number of initiatives to reduce or eliminate the current shortcomings and to reform and modernise these sectors. Fully implementing these reforms and pushing them even further would be crucial for Norway to respond to the challenges and to remain one of the best labour market performers.

Towards a more flexible labour market

The Norwegian labour market, as indicated in Table 4.1, is characterised by:

- High participation rates overall (80½ per cent in 2002 compared with around 70 per cent in the EU and the OECD).
- Very high participation rates for women and older workers (76½ and 69½ per cent respectively, compared with 61 and 43 per cent, respectively for the EU).
- Low structural unemployment, estimated at 3.6 per cent, compared with 7.6 per cent on average in the EU.

Thus, an above-average proportion of the working age population is in the labour force in Norway, and an above-average proportion of them is in fact working.

Table 4.1. **Labour market performance**

	1999			2000			2001			2002		
	Norway	EU	OECD	Norway	EU	OECD	Norway	EU	OECD	Norway	EU	OECD
Employment rate[1]	78.0	62.6	65.5	77.9	63.6	65.7	77.5	64.2	65.5	77.1	64.2	65.1
of which:												
Men	82.1	72.2	76.1	81.7	73.0	76.3	81.0	73.3	75.8	80.2	72.9	75.0
Women	73.8	53.0	55.0	74.0	54.2	55.3	73.8	55.1	55.4	73.9	55.7	55.3
Unemployment rate	3.2	9.3	6.7	3.5	8.4	6.2	3.5	7.4	6.3	4.0	7.8	6.9
of which												
Men[1]	3.4	8.1	6.2	3.6	7.2	5.8	3.6	6.5	6.0	4.2	7.0	6.7
Women[1]	3.0	10.9	7.3	3.2	9.8	6.9	3.4	8.7	6.7	3.7	8.8	7.2
Long term[1, 2]	16.1	63.8	47.2	16.6	63.8	46.9	16.1	61.8	44.0	20.0	59.0	45.0
Young[3]	9.6	17.4	12.5	10.2	15.7	11.8	10.5	14.1	12.2	11.5	14.7	13.2
Participation rate	80.6	69.0	70.1	80.7	69.4	70.1	80.3	69.4	69.9	80.3	69.8	69.9
of which:												
Men	85.0	78.5	81.2	84.8	78.6	81.0	84.0	78.4	80.6	83.8	78.4	80.4
Women	76.1	59.5	59.3	76.5	60.1	59.4	76.4	60.3	59.4	76.7	61.0	59.6
Older persons[4]	68.0	41.1	50.7	68.0	41.4	50.4	68.5	42.0	50.8	69.7	43.2	52.1
Average hours worked[5]	1 023.0	880.0	1 137.2	1 010.0	891.6	1 138.6	983.5	894.6	1 128.5	969.4	893.0	1 117.9

1. Refers to population aged 15 to 64.
2. Share of unemployment for 6 months and over.
3. Refers to population aged 15 to 24.
4. Refers to the population aged 55 to 64.
5. Refers to annual average per working age person, unweighted average for EU and OECD.

Source: OECD.

Against this, the number of people of working age (including youth) who are on sick leave or drawing disability pensions is both comparatively high and rising, and the youth unemployment rate increased by two percentage points from 1999 to 2002 to reach the level of 11½ per cent. By adding to this a comparatively high proportion of employees working part-time, relatively low "standard" full time working hours, and four extra holidays introduced in 2001-2002,[1] the average hours worked per person of working age were only around 8½ per cent higher than the EU average in 2002 compared with 13¼ per cent two years earlier.

On current trends, available labour resources may be heading down further. A reversal of these trends could be achieved through reducing or eliminating work disincentives from the sick leave, disability and pension schemes. Nevertheless, even if appropriate measures are implemented in these areas, there is less scope for longer-term increases in labour resources, via lower unemployment and higher participation, than for many EU countries and this has implications for

Norway's potential growth and the sustainability of public finances (see Chapters 1-2). This calls for a comprehensive reform strategy aimed at a better allocation of resources between and within the private and public sectors, and a rolling back of the State from market activities through privatisation of state owned enterprises and a cutback in subsidies (see Chapter 3).

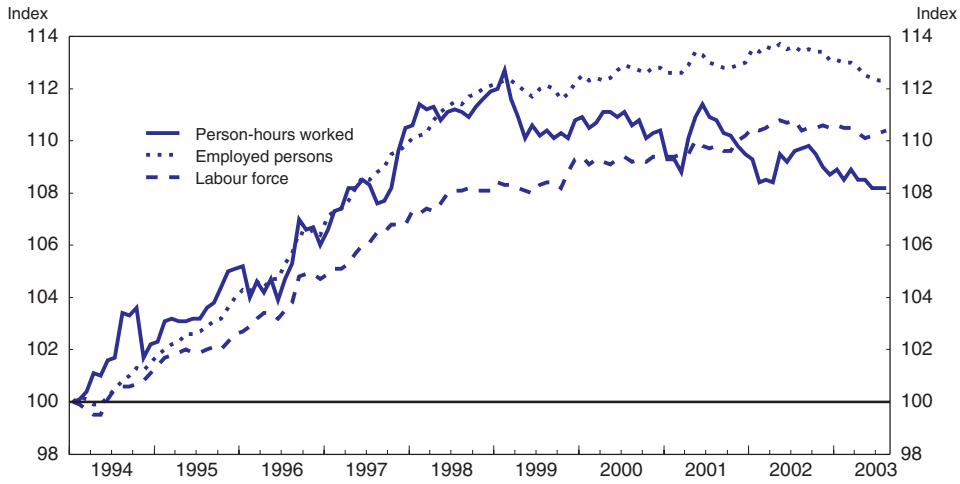
On the wages side, there is a significant measure of flexibility, as real wages in aggregate respond quite quickly to changes in unemployment.[2] Bargaining is highly centralised, and manufacturing traditionally plays the leading role. However, the relative decline of the manufacturing sector – as in most OECD countries – and the rising calls from high-skill workers for more wage differentiation poses a challenge to wage centralisation and coordination.

As demand for labour fell more rapidly than supply from 1999, the unemployment rate started climbing to reach 4½ per cent by mid-2003, well above the estimated rate of structural unemployment. Also the share of long-term unemployed (six months and over) started increasing and reached 20 per cent in 2002, around 4 percentage points higher than at the end of the 1990s. While the share of long-term unemployment is 25 percentage points lower than the OECD average, it is still a matter of concern. The unemployment rate is particularly high for immigrant workers from outside the OECD area.

The drop in employment and participation rates hit mainly the male labour force. From 1999 to 2002, the male employment ratio fell from 82 to 80 per cent whereas the participation rate decreased from 85 to 84 per cent. For females, these variables stabilised at around 74 and 77 per cent, respectively, remarkably high by OECD standards. These developments might be the result of the contraction of the industrial sector – where the share of male workers is higher – relative to the service sector, which was particularly acute in the last few years.[3]

Average annual working hours per person are declining from already low levels. While decreasing average working hours are a feature shared by most OECD countries, the pace of reduction in Norway has been relatively faster. Because of the decline in average working hours, the labour input measured in terms of person-hours has declined since the end of the 1990's, despite the increase in employment rates (Figure 4.1). The low level of average annual working hours is partly linked to a relatively large use of part-time employment, which is associated with higher labour force participation by females and by the youth who combine school and work. Nevertheless, collectively agreed full-time working hours are relatively low and restrictions on overtime work have been relaxed only recently (see below). Moreover, low annual average working hours could also be the result of the combination of high wage compression with a markedly progressive tax system, which could lead to relatively high substitution of household production for work especially by high-skilled workers. More importantly, the steep decline in more recent years is – besides the introduction of two more official holidays

Figure 4.1. **Employment, labour force and person-hours worked**
Seasonally adjusted, three months moving average, index, January 1994 = 100



Source: Statistics Norway.

in 2001 and 2002 each – the result of increasing recourse to some of the schemes of the public insurance and assistance system and these should be corrected (see section on social policies below).

Wage setting and incomes policy

Norway has a long history of centralisation and coordination of its wage bargaining system.[4] Wage bargaining has often involved incomes policy, such as tax reliefs or subsidies by the government to curb wage demands or lift employment.[5] Strong wage centralisation and cooperation among social partners and with the government saw only some exceptions in the past decades, notably in the first half of the 1980s. The "Solidarity Alternative" initiative – launched in 1992 – reinforced the importance of the interaction between incomes, monetary, and fiscal policy to improve external competitiveness and achieve sustained economic growth. A central theme of the initiative is that centralised bargaining results in lower structural unemployment, as at this level of negotiations the social partners might have more incentives to internalise the harmful macroeconomic effects of rising unit labour costs. In this respect, particular stress is given to the leading role of the exposed sectors in wage settlements.

An important feature of the Norwegian bargaining system is that for low-skill workers in the private sector and for some high-skill workers in the private

service sector, wage rises agreed at the centralised level represent a minimum for those bargained at the decentralised level.[6] In the public sector, aggregate average wage growth is determined at the central level, although some funds are allocated for bargaining in each single public institution. On the other hand, for high-skilled workers in the manufacturing sector as well as in most parts of the private service sector wage setting is completely decentralised.

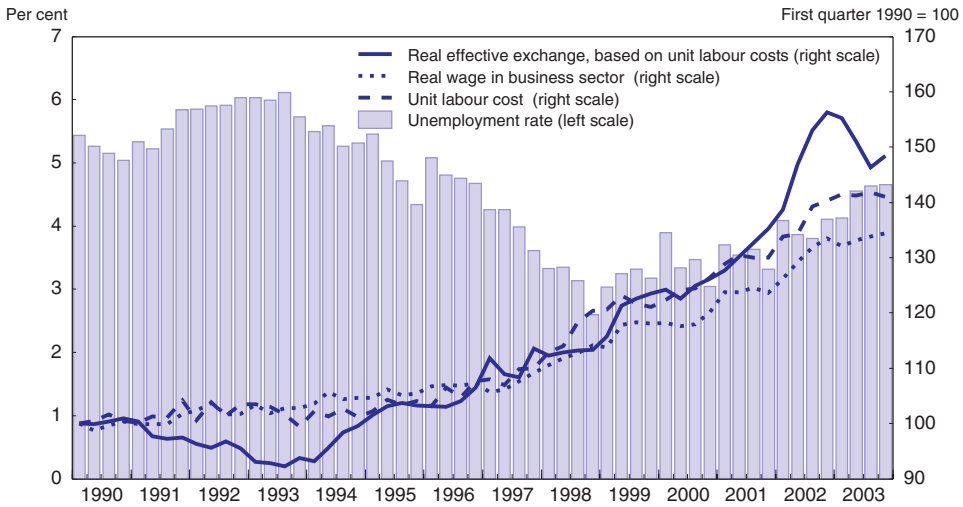
The high degree of centralisation and coordination in wage setting results in wage compression, notably among low-skill workers and in the public sector. Wages are not differentiated significantly across educational groups, reducing incentives by individuals to invest in human capital.[7] Moreover, wages set through collective bargaining are not very sensitive to local unemployment and labour market conditions.[8]

By internalising the effects of wage growth on unemployment, centralised bargaining could increase real wage flexibility at the aggregate level, *i.e.* it might facilitate downward real wage adjustments when the unemployment rate is above its structural level or when competitive pressures are more intense.[9] However, the moderating effect on wages from incomes policy might have been at times the result of imposed legislation on wage increases.[10] Moreover, high levels of bargaining centralisation and coordination seem to have coexisted with both low and high unemployment rates, unit labour cost growth and competitiveness pressure.

Starting from the 1990s, the Norwegian economy has been undergoing a number of structural changes that could pose a challenge to the traditional bargaining system. The sectoral shift from industry to services has accelerated (see Table 1.2). At the same time, there has been an increasing share of white-collar workers and of higher educational groups in the labour force.[11] Furthermore, the ongoing high level of wage centralisation in the public sector gradually led to a significant compression of public-sector wages. These developments strengthen the case for greater wage differentiation and flexibility in the labour market, one which indeed becomes more evident during an expansionary period. In fact, wage centralisation brought positive outcomes in terms of wage moderation during the first half of the 1990s but did come under strain in the second half of the 1990s, under the pressure of a tightening labour market. Wages in nominal terms started increasing more rapidly than in main trading partners in 1997, and in real terms they rose in excess of productivity. These developments affected competitiveness only after 2000 when the krone stopped depreciating. In 2002, wages accelerated further. In real terms, wage growth was approximately 4 per cent in the business sector, around 2½ percentage points higher than productivity growth.[12]

These wage increases – coupled with nominal exchange-rate appreciation – led to significant competitiveness losses in the exposed sectors (Figure 4.2). Initially, companies responded to competitiveness pressures by reducing profitability. However, such pressures eventually resulted in a significant number of

Figure 4.2. **Labour market developments**



Source: OECD.

redundancies, especially in the information technology, telecommunications and broader manufacturing sectors. Moreover, a number of companies relocated abroad. On the other hand, sheltered sectors of the labour market remained tight, for example the health sector. In the 2000-2002 period, employment in the manufacturing sector (number of employees and self-employed) decreased by 2½ per cent compared with an increase of ¾ per cent of total employment on average in mainland Norway and of ¼ per cent in mainland Norway's business sector.

As a result of these developments, the government and the social partners organised a series of meetings during autumn 2002 to discuss future cooperation on incomes policy. In January 2003, the social partners committed to bring wage growth more in line with that in trading partners and, to attain this objective, they reaffirmed the leading role of the exposed sectors in future wage negotiations. Therefore, settlements in industries under international competition were expected to represent the benchmark for wage increases also in other sectors, even if some room for relative wage changes among sectors was hinted at in the joint statement. These objectives were confirmed in April 2003 by the conclusions of the "Holden 2 committee" with representatives from the social partners and the government.[13]

In April and May 2003, collective agreements were finalised between the main social partners, and were characterised by overall wage moderation. In manufacturing and other exposed sectors, social partners agreed that only employees with wages below 95 per cent of the average would be awarded pay rises at the central level (with a stronger rise benefiting workers with wages 85 per cent below the average). Moreover, it was agreed that these pay rises could be exceptionally ignored or postponed in local negotiations. On the other hand, workers who did not enjoy pay rises at the central level were not prevented from bargaining for higher wages at the company level. Also in the retail sector, wage increases were awarded only to lower-paid workers (around 25 per cent of total workers in the sector). Only in the wholesale sector were increases awarded to all workers. In the public sector, there will be little increase beyond the high carryover from 2002. On its side, the government agreed to increase tax deductions on trade union membership fees from 2004, and to provide additional budget resources for labour market programmes. The revised 2003 budget law also advanced the start of a number of construction programmes for public universities in order to provide more jobs.

The moderate settlements in 2003 contributed – together with the depreciation of the Norwegian krone – to partially restore competitiveness. Nonetheless, wage moderation needs to be maintained in order to reverse more swiftly the loss of competitiveness suffered in the past years. To this end, the exposed sector, *i.e.* manufacturing, should continue to have the leading role in wage negotiations, as parties in these sectors have a stronger incentive than in sheltered sectors to maintain competitiveness.

In the medium term, a relaxation of the centralised and coordinated system of wage negotiations and a move towards a greater decentralisation according to sectors, skills and local labour market conditions could be beneficial to the Norwegian economy for a number of reasons. As a case in point, pay equalisation of lower-skilled workers across different sectors could pose a significant burden to many companies, especially in the service sector where usually the capital-labour ratio – and labour productivity – is lower than in the exposed sector.[14] As these companies have so far been less exposed to international and domestic competition, they can more easily translate higher labour costs into higher prices which would harm both workers and companies in the manufacturing sector. A mild but persistent wage-price growth spiral – and a subsequent gradual shrinking of the exposed sector – cannot therefore be excluded in the medium term.

Furthermore, wage compression combined with a markedly progressive tax system might contribute to low working hours. Indeed, wage rates for household work professionals (plumbers, decorators, painters and so on) are high while "do-it-yourself" is not taxed. Thus, workers – especially high-skilled – might find it more convenient to carry out household work themselves rather than paying

someone else to do it. In other words, the marginal tax rate schedule is much steeper than the pre-tax wage schedule, giving rise to perverse incentives and underutilised human resources. It is estimated that a Norwegian worker earning 1.67 times the APW wage would have to work 1.7 hours to pay a VAT-registered professional and 1.3 hours to pay a casual worker for one hour, assuming that in each case they were earning the average wage. These estimates are higher than for a number of other OECD countries, although Norway seems better placed than other northern European countries in this respect.[15]

More importantly, pay equalisation across skills can prevent individuals from earning adequate returns from education, job experience or work effort. This could discourage accumulation of human capital, with detrimental effects on productivity and per capita income.[16]

Employment protection legislation and working hours

The main legislation concerning employment protection is the law on worker protection and the working environment which dates back to 1977. The law regulates a number of issues ranging from the terms of termination of employment, working hours, overtime and unfair dismissals. This legal framework was mainly tailored to the then-dominant manufacturing sector and to traditional work relations. The law is therefore less suited nowadays to deal with the flexibility required by new forms of contracts, especially in the growing service sector where such contracts are more widespread.

On working hours, the law determines a maximum of 40 weekly working hours. However, collective agreements in all sectors determine the "standard" working week as 37.5 hours.[17] In February 2003, the law on worker protection was amended in useful ways, extending the possibility for workers to work overtime. The weekly and four-weekly restrictions on overtime work have been abolished, and overtime work is calculated over a four-month average period, which could be extended up to one year with the agreement of the trade unions. Moreover, the number of overtime hours beyond 200 can now be agreed individually between the company and the worker. These measures might help to raise the upward response of the overall economy's labour supply to wage changes.[18]

A committee comprising representatives from the government and the social partners recently reviewed the law on worker protection and the working environment, with its report targeted for publication in February 2004. Among other issues, the committee was asked to provide proposals on simplification of working time regulation to improve flexibility for both workers and companies, rules concerning temporary employment, and the areas best suited to be dealt with through individual agreements between workers and employers. It is clear that labour market regulations in these areas need modernising in order to provide greater flexibility, improve competitiveness and maintain job prospects.

In the 2004 budget bill, the government proposed to ease regulations on fixed-term contracts by removing restrictions on hiring on fixed-term contracts up to twelve months within a period of three years. It also proposed to allow the use of longer fixed-term contracts (more than twelve months) for specific projects. After strong opposition from the trade unions, the measure was removed from the budget bill and the issue was again under evaluation by the committee reviewing the worker protection law. Fixed-term contracts are currently used quite extensively in the public sector and much more so than in the private sector.[19] One of the reasons for this different use is that special legislation – less restrictive than the 1977 worker protection law – regulates fixed-term contracts in the public sector. Another reason is that public sector officials in some cases are allowed to spend prolonged periods (*e.g.* one year) working elsewhere (normally in the private sector or in international institutions), but have legally binding guarantees of returning to a post so that a number of vacancies need to be filled in the meantime. A reduction of entry barriers though fixed-term contracts could ease the access to the labour market for young workers and marginal groups also in the private sector. They could also represent a flexible instrument for small enterprises when they start new businesses. However, since firing costs on permanent contracts are considered relatively low also by the employers, the impact of more flexible contracts on employment might be less significant than in other OECD countries.

The measures recently implemented on working hours and those proposed on temporary contracts are welcome and go towards the direction indicated by some of the recommendations included in the 2002 OECD E*conomic* S*urvey of* N*orway*. To further increase flexibility for both workers and employers, it would be desirable to enlarge the range of issues concerning employment protection legislation and working hours to be defined by individual agreements rather than by law or collective agreements, including in the public sector.

Job placement services and active labour market programmes

The central role of the Public Employment Services (PES) is regarded as an important feature of the Norwegian labour market. The bulk of the allocated budget for A*etat* (the PES agency) – amounting to around 1.2 per cent of GDP in 2001 – is used to finance unemployment benefits and vocational rehabilitation schemes (almost 70 per cent of the total allocated budget). Around 20 per cent is spent in active labour market programme (ALMP), with the remaining 10 per cent used for administration.

Since the end of the 1990s, A*etat* has been subject to restructuring measures reducing the number of employees and introducing new IT tools to increase efficiency.[20] Performance measurements are being introduced, with fourteen input and output objectives being set in 2002. However, budget allocations were not directly linked to the attainment of these objectives. Moreover, no priority list was

established for the objectives, making it hard to assess actual performance. More recently, performance-related bonuses linked to a limited number of objectives have been introduced.[21] As a reaction to rising unemployment, the 2003 budget law allocations for PES were increased to allow the hiring of 220 new employees. A further increase of 200 employees has been subsequently approved by the parliament as well as a rise of NOK 276 million in spending for ALMP.

While cooperation with other institutions offering social services – the National Insurance Authority and municipalities providing social assistance schemes – is being improved, the number of workers having to deal with two or three institutions remains at a high level. To raise efficiency in the provision of labour market and social services, a parliamentary committee asked the government to consider the establishment of a single agency dealing with all the schemes. In response, the government recently published a White Paper listing a number of options to reform the social and labour market institutions. The option preferred by the government is to change and redistribute the responsibilities of the agencies at the central level (the PES and the National Insurance Authority which would also change their names) with no action taken at the local level.

ALMP mainly consist of: job-search and skill-enhancing training programmes for adult unemployed and new labour market entrants; employment subsidies; and, less frequently, temporary public employment (Table 4.2).[22] Participation to the programmes gives right to a training allowance or to the continuation of unemployment benefits. Consequently, the inflows to ALMP increase significantly when unemployment benefits are about to be exhausted.[23] Contrary to usual practice during the 1990s, job seekers are currently placed in labour market programmes only if they are judged to lack the necessary qualifications to get a job. For more qualified workers, the activity of the PES is rather directed towards helping them to rapidly find a new job. Therefore, only 10-15 per cent of the unemployed are presently being placed in training programmes compared with around one third during the previous downturn in the 1990s.

As in most other countries, the cost effectiveness of Norwegian ALMP is an unsettled issue. Røed and Raaum (2003) estimate that ALMP generally improves job prospects for most participants – especially adult men and non-OECD immigrants – after the programme is completed. Moreover, ALMP seems effective in reducing long-term unemployment. Nonetheless, while the programme is ongoing, the probability of finding a job of some groups – notably women and young workers – is severely reduced and the consequent opportunity cost could outweigh the positive impact of programme completion because of the lower search effort. In line with these results, Eriksson, Lilja and Torp (2002) find that participating in a labour market programme does not increase job search immediately but induces participants to search more intensively after programme completion. Raaum *et al.* (2002a) and (2002b) also show that labour market training improves

Table 4.2. **Participant inflows as a percentage of total inflows**

	1998	1999	2000	2001	2002
Labour market training	16.0	12.5	12.4	10.4	10.1
a) Training for unemployed adults and those at risk	16.0	12.5	12.4	10.4	10.1
b) Training for employed adults	–	–	–	–	–
Youth measures	**6.2**	**4.7**	**4.8**	**4.9**	**5.2**
a) Measures for unemployed and disadvantaged youth	6.2	4.7	4.8	4.9	5.2
b) Support of apprenticeship and related forms of general youth training	–	–	–	–	–
Subsidised employment	**4.8**	**3.0**	**3.1**	**3.2**	**2.4**
a) Subsidies to regular employment in the private sector	4.2	2.3	2.5	2.7	2.2
b) Support of unemployed persons starting enterprises	0.6	0.7	–	–	–
c) Direct job creation (public or non-profit)	–	–	–	–	–
Measures for the disabled	**23.1**	**22.4**	**27.0**	**30.7**	**27.8**
a) Vocational rehabilitation	15.1	15.3	18.6	21.5	. .
b) Work for the disabled	8.1	7.1	8.5	9.2	. .
Unemployment compensation	49.9	57.3	52.6	50.8	54.5
Early retirement for labour market reasons	–	–	–	–	–
TOTAL	100.0	100.0	100.0	100.0	100.0
TOTAL benefits (thousands)[1]	156.3	162.5	169.5	166.2	199.1

. . = Data not available.
– = Nil or less than half of the last digit used
1. The number of benefits could be higher than the number of participants since the latter can take part in more than one programme.
Source: OECD.

earnings prospect for participants compared with non-participants, especially for women with recent labour market experience. However, the impact of training is procyclical, and in many cases – especially for labour market entrants – the benefits in terms of relatively higher earnings for participants are lower than the cost of providing the service.[24] Overall, the available evidence suggests that the cost effectiveness of ALMP in Norway is uncertain, and that more stringent targeting of ALMP and lowering their duration could be cost effective.

Since 2000, the market for job placement services is being liberalised, leading to increased choice for the unemployed. Moreover, labour market training and job seeking courses are increasingly outsourced by A*etat*. These measures have improved flexibility of services and increased cost-effectiveness.[25] More recently, the government has also started outsourcing follow-up and placement services as well as introducing bonuses for private providers, linked to the share of ALMP participants finding a job.[26] Moreover, private providers have recently

been allowed to assist people losing their job in state-owned enterprises to find a new one, and their payment will be performance-related. In 2002, more than 400 firms were providing job placement services. Also several municipalities have started placement schemes. However, a level playing field among all actors is still to be achieved. Indeed, private placement companies – contrary to municipalities and trade unions – must hold a bank guarantee of NOK 100 000 (*i.e.* the minimum share capital required) to stay in business.

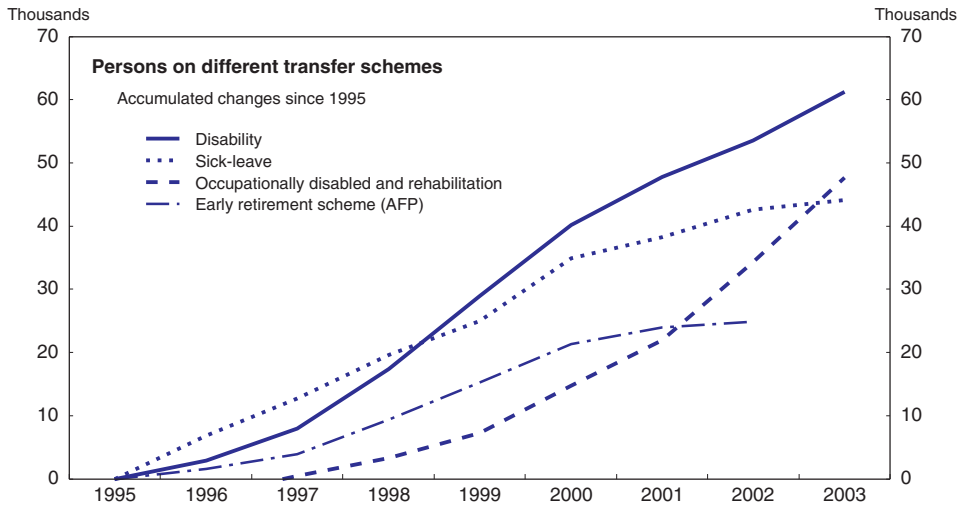
Further measures would be beneficial to ensure a smoother functioning of job placement services and ALMP. In particular, a level playing field between private and public agencies should be guaranteed. According to the government, the current pre-selection of private providers by A*etat* is deemed necessary to make sure that the providers can offer services of high quality to vulnerable groups of workers. However, this could be achieved though reinforcing performance measurement and outcome-based financing for private providers also based on their ability to cope with higher risk groups – such as low-skilled or older workers – as, for example, in the case of Australia.[27] Furthermore, the objectives of A*etat* should be prioritised, and a link between performance and budget allocations should be introduced. Greater co-ordination between institutions providing labour market and social services should be ensured and the possibility of merging activities under a limited number of institutions while reducing overstaffing should be considered. The cost-effectiveness of ALMP should be regularly evaluated and stringent targeting to workers with poor employment prospects should be continued.

Removing work disincentives from the benefit system

Norway has a generous and comprehensive benefit system. The number of beneficiaries started to grow especially rapidly in the early 1990s as a consequence of the increase in unemployment at that time. The number of beneficiaries has increased further since the mid-1990's – an expansionary period – in part reflecting the rise of labour force participation rates for older workers and female workers, who show a higher propensity to use these schemes (Figure 4.3).

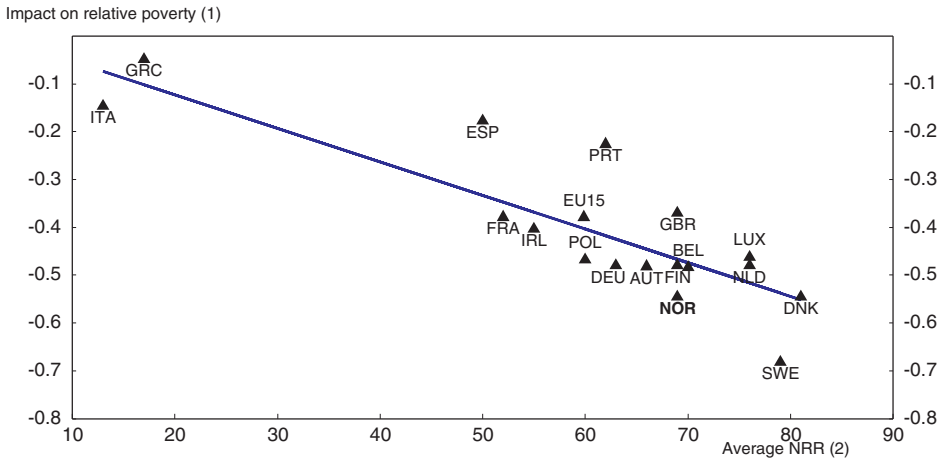
The stated objective of the social security system is not only to provide financial support to the unemployed workers or the disabled but also to maintain their skills and to attract into the labour force persons that might be less attached to the labour market, for example for health or disability reasons.[28] As a result, the different schemes cover unemployment insurance, social assistance, sickness and longer term disability benefits (including rehabilitation benefits), in addition to family and childcare benefits.[29] Also because of its generosity, the transfer system appears to be effective in reducing relative poverty (Figure 4.4).[30] However, the design of the different schemes could introduce various work disincentives that could take several forms, such as an unnecessary prolongation of unemployment or recourse to disability for non-health reasons. The sections below review the

Figure 4.3. **Beneficiaries of social security benefits**



Source: Ministry of Finance.

Figure 4.4. **Net replacement rates and relative poverty**



1. Percentage reduction of people below the poverty line before and after social transfers.
2. Average of net replacement rates over 60 months of unemployment for four family types. See OECD (2002) for details.

Sources: Eurostat and OECD.

main transfer schemes and highlight the measures recently implemented by the government to reduce the size of the work disincentives.

Unemployment insurance

A well-functioning and limited-in-time unemployment insurance system should encourage many workers to enter or remain in the labour force and actively search for a job rather than to operate outside the formal labour market and devote their time either to household production or some informal activity. However, relatively generous unemployment insurance and other assistance schemes, combined with high tax and contribution rates at relatively low wages, could lead to strong incentives for many unemployed workers to prolong job search longer than optimal.

In Norway, the replacement rate of the unemployment benefit system is relatively low (62.4 per cent). The eligibility criteria are in general strict and benefit sanction rates are high.[31] However, net replacement rates could be significantly high for some family types – in particular low-skill families with children – both during the first month of unemployment and for longer-term unemployment spells, although for all family types the replacement rates appear lower than in other northern European countries.[32] Lower replacement rates could speed the transition from unemployment into employment.[33] Perhaps of greater importance for job search than the initial replacement rate is the duration of benefits. In this regard, the two year entitlement period for unemployment benefits is relatively long in international comparison.[34] Finally, special regulations are in place for older workers which allow them to lengthen their period receiving benefits, raising further their disincentives to search for a new job.[35]

The government recently took some important steps towards improving work incentives in the unemployment compensation system. The 2003 budget reduced from three years to two the maximum period during which an unemployed person can receive unemployment benefits. Moreover, the gross replacement rate was effectively lowered for persons receiving benefits beyond eight weeks. Eligibility requirements were tightened as the minimum previously earned income was raised by 20 per cent and now amounts to around NOK 85 000, *i.e.* around 28 per cent of the average production worker annual gross earnings. Further eligibility restrictions were introduced for part-time workers as the minimum loss of working hours to be considered for benefits was raised from 40 to 50 per cent. Finally, the waiting period before a newly unemployed person can draw benefits was increased from three to five days. The 2004 budget reduced to one year the maximum benefit period for unemployed individuals whose previously earned income is below a certain threshold.

Other restrictive measures concern the unemployment benefits for temporarily laid-off workers. The period during which these benefits could be col-

lected was recently halved to 26 weeks, although for some industries temporary lay-off benefits were allowed to be granted for up to 42 weeks until June 2004. Starting from 2004, the period during which employers have to cover temporary unemployment benefits has increased from 3 to 10 days, to reduce the incentive of using the scheme as a wage subsidy.

These measures – in line with OECD recommendations – represent positive steps towards a proper incentive structure for the unemployment benefit system. To further improve their effectiveness, the maximum duration of benefit receipt should be further lowered to no more than one year for all workers.

Sickness benefits

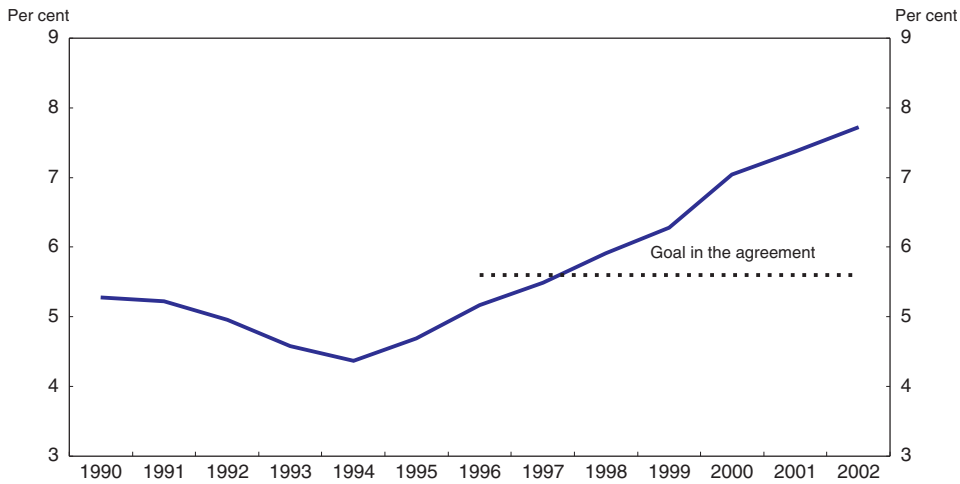
As pointed out in the 2002 OECD *Economic Survey of Norway*, the combination of a generous sickness benefit system (with a 100 per cent income replacement ratio up to one year), few incentives for the employers to discourage absence beyond 16 days (after which the National Insurance Authority pays full sickness compensation) and the tacit collusion of the treating doctors have contributed to a very high level of sick leave absence. Indeed, 8 per cent of total working days are lost because of sick leave. An excessive recourse to the sickness leave scheme is harmful not only *per se* but also insofar as participation in the scheme often represents the first step towards a longer-term period of work absence including paid rehabilitation and, ultimately, disability benefits (see below). To respond to the increasing trend of sickness leave take-up and the consequent decline of average working hours, the government and the social partners finalised an agreement in October 2001 with the objective of reducing the sickness absence rate by 20 per cent from mid-2001 to mid-2005, *i.e.* back to the 1997-98 level.[36]

One instrument to achieve this objective has been the setting up of agreements between individual companies and the National Insurance Authority. Under these agreements, companies commit to monitor more strictly employees on sick leave and also to adjust their workplaces to facilitate the return of older or disabled workers. In exchange, companies could receive compensation for a share of the related costs as well as special assistance from their local social insurance office, *e.g.* the availability of a personalised contact person. Moreover, the monitoring activities of the social insurance offices towards sick employees have been strengthened through the establishment of a specifically assigned service. By end-2003, 50 per cent of total employees were progressively covered by these agreements, with most of them working in the public sector.

Despite the implementation of the tripartite agreement, total sick leave rate is actually high and rising. Total sick leave has increased by 11.5 per cent since October 2001, and it would have to drop by more than 30 per cent over the next two years in order for the agreement's objective to be met (Figure 4.5). The

failure of the agreement so far could be due to the fact that it entirely disregards the economic incentives facing employers and employees. Hence, the authorities should explore other mechanisms to reduce absence rates, notably through a tightening of the sickness benefit levels and of the scheme's eligibility criteria. Workers should receive less than 100 per cent wage compensation, at least after a certain amount of sick absence days. Furthermore, the period paid by the employers should be lengthened, as they might have used the sickness and disability schemes as a route for companies' restructuring. In addition, enhanced monitoring of the working capabilities of beneficiaries should be further strengthened by the National Insurance Authority. Finally, the government could encourage the social partners to establish a fund financed by employers and workers' contributions ensuring the payment of both short-term and long-term sick leave, while gradually withdrawing its own financial support.

Figure 4.5. **Sick leave**
As a percentage of contractual worker-days



Source: Ministry of Finance.

Disability benefits

In part as a result of high net replacement rates for low-income groups coupled with loose medical eligibility criteria and controls, Norway witnessed a strong increase of disability benefit recipiency rates among the working population, reaching 9 per cent at the end of the 1990s, one of the highest in the OECD

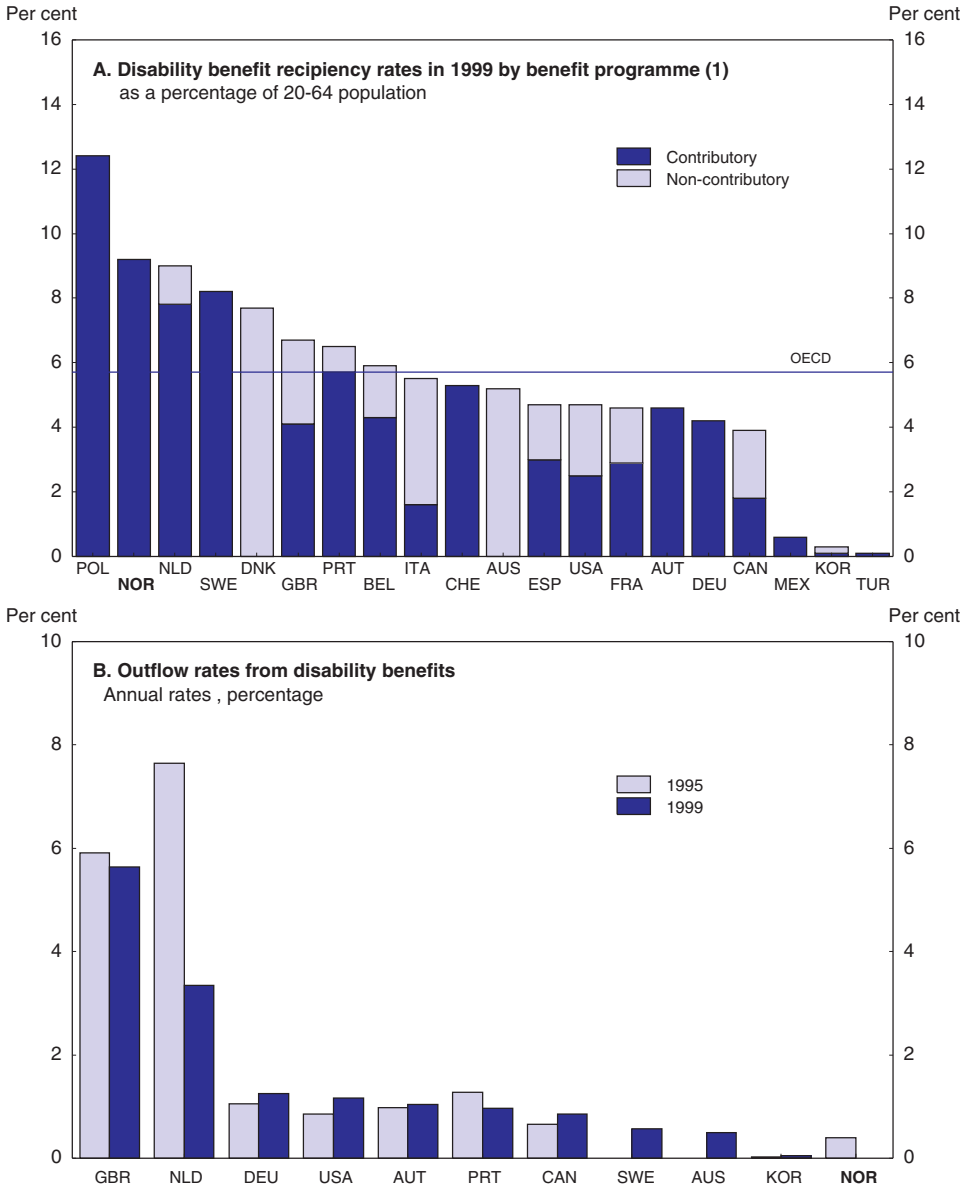
(Figure 4.6). In addition, outflow rates from disability benefits are very low. Moreover, as in many OECD countries – but noticeably more so in Norway – the propensity to work among disabled persons drops significantly at older ages, while disability benefit recipiency rates increase substantially. These trends suggest that disability benefits are being used as a means for early retirement.

In 1998, the share of the working age population (20-64 age range) reporting to have a disability was 16½ per cent.[37] Nevertheless, a remarkably high 61½ per cent of them were working (about 24 percentage points lower than the non-disabled population average). In 1999, public expenditure on disability benefit programmes was 4.8 per cent of GDP, the highest in the OECD.[38] For the disabled out of work, average personal income is 58 per cent of the income of the working disabled, a figure higher than the OECD average. Recently, the benefits for those receiving disability pensions actually increased since beneficiaries were exempted from cost-sharing on many pharmaceuticals and other health-care articles from the beginning of 2003. On the other hand, starting from 2004, a new scheme of temporary disability pensions has been introduced. The temporary disability pension will be granted for a renewable period from one to four years whenever the future work capacity of beneficiaries is uncertain; permanent disability pension will only be granted when the individual has no work capacity.

Disability benefits are typically preceded by vocational rehabilitation benefits, in which case the beneficiaries are also offered an educational or job training programme, mostly lasting for more than one year. In fact, since the mid-1990's the highest share activity of the PES has shifted from ALMP for the unemployed to measures targeted to the disabled. One reason for this shift could be that rehabilitation is now compulsory after the sickness benefit period has expired and that applicants for disability pensions are required to spend a period in vocational rehabilitation before drawing a disability pension. The aim of the vocational rehabilitation scheme is for beneficiaries to invest in improving skills so that disability out of work represents only a temporary status. Nevertheless, the probability for a disabled person in rehabilitation of finding a new job is low, with only around one third of the beneficiaries subsequently joining the labour force. This outcome could be due to the excessively long period before a worker on sickness leave is obliged to enter rehabilitation (typically two years). To address this problem, mandatory assessment for vocational rehabilitation at the end of the sickness leave period at the latest has been introduced in 2004. This measure is likely to reduce the period during which individuals passively receive benefits, and could increase the likelihood of return to work.

The decision to offer vocational rehabilitation benefits is made by the PES or social security offices, and is based not only on a recommendation of the treating doctor but also on labour market prospects and social integration reasons. Moreover, in most cases the interests of the beneficiaries could guide the

Figure 4.6. **International comparison of disability benefit indicators**



1. The rate is corrected for persons receiving both contributory and non-contributory benefits (overlap for Canada unknown).

Source: OECD.

decision of the vocational rehabilitation caseworkers regarding which education and training programmes to follow. These loose selection and eligibility criteria might have induced some individuals capable of work to use this scheme to attend free education or training while receiving benefits.[39]

Some recent measures have tightened the vocational rehabilitation scheme. Starting from 2003, annual and overall ceilings of NOK 50 000 and 100 000 (around EUR 6 000 and 12 000), respectively, were introduced for benefits covering educational fees. In the 2004 budget, the government reduced to one year the maximum period before a vocational rehabilitation scheme is offered to a worker on sick leave. Starting from July 2004, A*etat* will be the sole authority assessing eligibility for vocational rehabilitation. The period after vocational rehabilitation during which a worker could continue to receive benefits was halved from 12 to 6 months. Finally, a maximum period of three years for benefits related to education was introduced and individuals below 26 years of age are no longer eligible for benefits to pursue education under the vocational rehabilitation scheme.

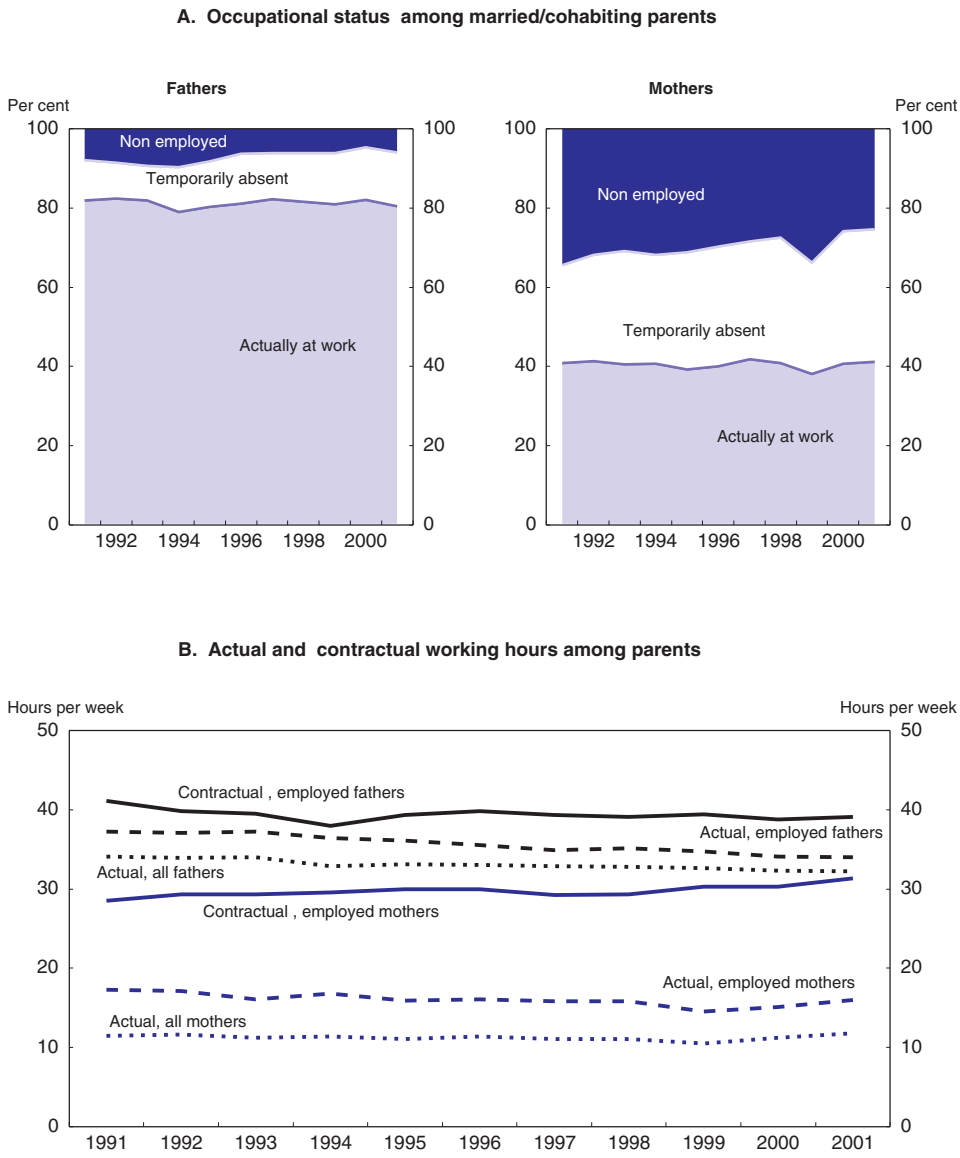
The objective of ensuring an adequate level of income security for the disabled is commendable, but this objective should be attained while minimising work disincentives and sustaining the disabled persons' attachment to the labour force. The recently proposed measures regarding the vocational rehabilitation benefits and the introduction of a temporary disability pension are steps in the right direction. However, these are unlikely to eliminate disincentives unless they are accompanied by other measures. In this context, the government should accelerate the review of assessment procedures for disability benefits, as announced in the 2004 budget bill. Moreover, independent medical specialists should be involved in the assessment of the disability status alongside the treating specialists. When feasible, participation in rehabilitation and vocational training programmes should be accompanied by compulsory job search support. Rehabilitation benefit payments should be conditional on completion of the programme and the cost-effectiveness of the different programmes should be routinely assessed.

Family benefits

Many reforms were implemented during the 1980s and 1990s, leading to a more generous benefit system for families with children. As a result, public spending devoted to family support has shown a significant rise since the 1980s and it is now one of the highest among OECD countries.[40] The system was conceived to attain greater gender equality and stronger involvement of parents in the care of their own children, and to improve work opportunities for women.

The schemes were such that work incentives should not have been harmed. Indeed, in 2001 the proportion of mothers with 0-2 year old children actually at work remained practically stable compared with a decade earlier, the result

Figure 4.7. **Employment by couples with children**[1]



1. Parents with children under 2 years old.
Source: Kitterod and Kjeldstad (2003).

of an increase of mothers' labour force participation by 8.5 percentage points and a similar rise of the share of mothers temporarily absent from work (Figure 4.7, panel A). Furthermore, while both contractual and actual average working hours for fathers marginally declined during the decade (an explicit policy objective of the reforms), average actual hours for mothers remained basically unchanged (Figure 4.7, panel B).

Nevertheless, some of these schemes might have introduced disincentives for participating or supplying more hours in the labour market, especially for females. In particular, in 1999 a "money-for-care" benefit was introduced for parents not using publicly-funded childcare centres.[41] The main objective of this measure was to increase parents' own care of their children. This would have also released congestion in public childcare centres, which suffer from queues and insufficient flexibility in opening hours.[42] However, the measure would have introduced work disincentives, especially for mothers, as well as being expensive.[43] The available evidence after several years indeed points to a reduction of mothers' employment and working hours as a consequence of the new scheme and to increasing specialisation within the family, mainly due to an increase of total hours devoted to household production by the mothers.[44]

Subsequently, measures were agreed introducing a ceiling for fees in publicly-funded childcare centres and building new public and private childcare centres by 2005. The estimated cost of the plan is NOK 2.8 billion. It is estimated that the effect of these measures on labour supply would be to broadly recover the female workforce lost as a consequence of the 1999 benefit scheme. Therefore, a small part of the costs could be recovered through higher receipts from increased labour input.[45] Nevertheless, a net cost of the money-for-care and of the subsequent measures would remain.

While the attainment of non-economic objectives through family benefits is commendable, the authorities should pursue them while minimising work disincentives. For example, the home care allowance could be substituted by a voucher system for families to be spent in formal private or public childcare centres reinforcing the current per-user public financing system.[46] In addition, childcare centres' opening hours should be liberalised.

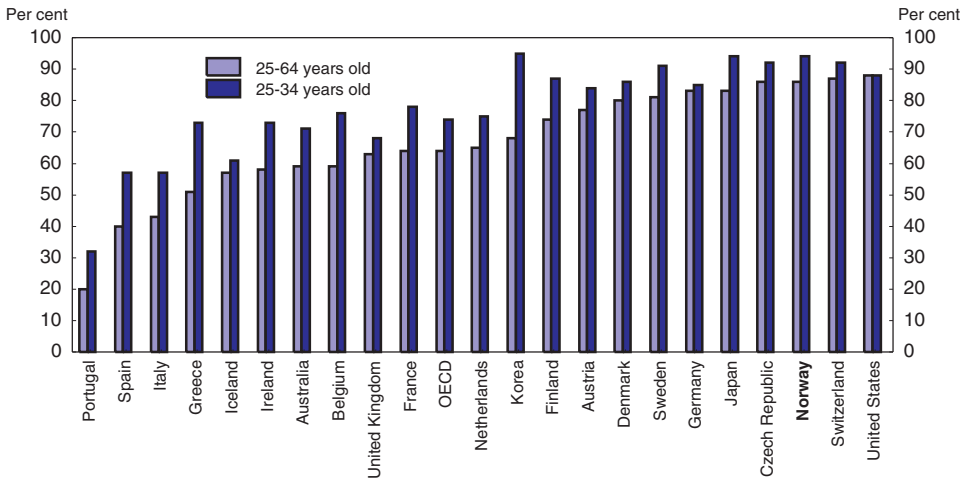
Improving education to raise human capital

Primary and secondary education

Compulsory education in Norway starts at the age of six and lasts for ten years, covering primary and lower secondary education. Education is free and enrolment is close to 100 per cent. Most of the population attains upper secondary education: 86 per cent of the 25-64 year cohort and 94 per cent of the 25-34 year cohort had upper secondary education in 2001.[47] Compared with other OECD

countries, Norway performs well, as only Switzerland and the US have a higher share with upper secondary education in the 25-64 years cohort, while in the 25-34 years cohort only Korea shows a higher share (Figure 4.8).

Figure 4.8. **Population with at least upper secondary education**
2001

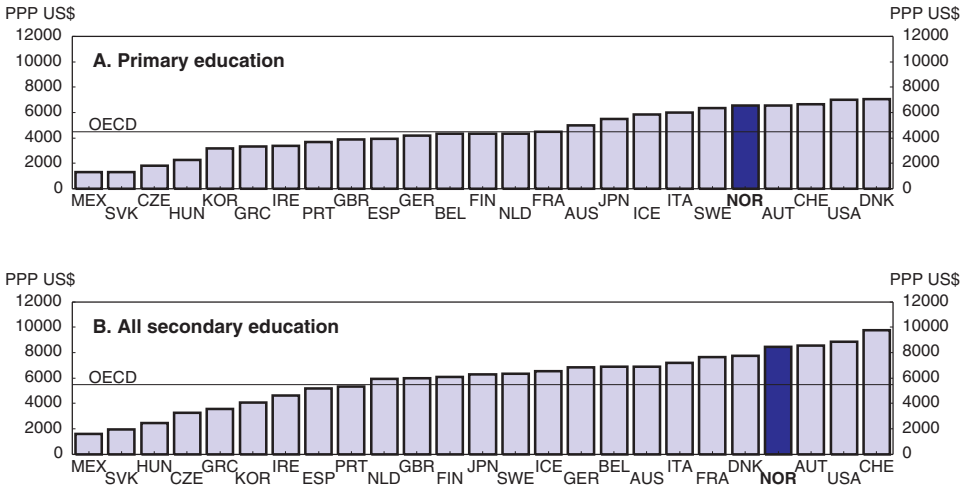


Source: OECD.

Expenditures per student (measured in dollars and adjusted for differences in average price levels) are among the highest in the OECD. In primary and secondary school, expenditures are around 45 and 55 per cent higher than the OECD average, respectively (Figure 4.9). On the other hand, expenditures on educational institutions relative to GDP – at 3.7 per cent – are at the OECD average and lower than other northern European countries (Figure 4.10). Resources distributed to this sector have been rather stable in the period 1997-2001 but declined slightly in 2002. But expenditures on education are expected to rise during the coming years because of an increase of students in upper secondary education.[48]

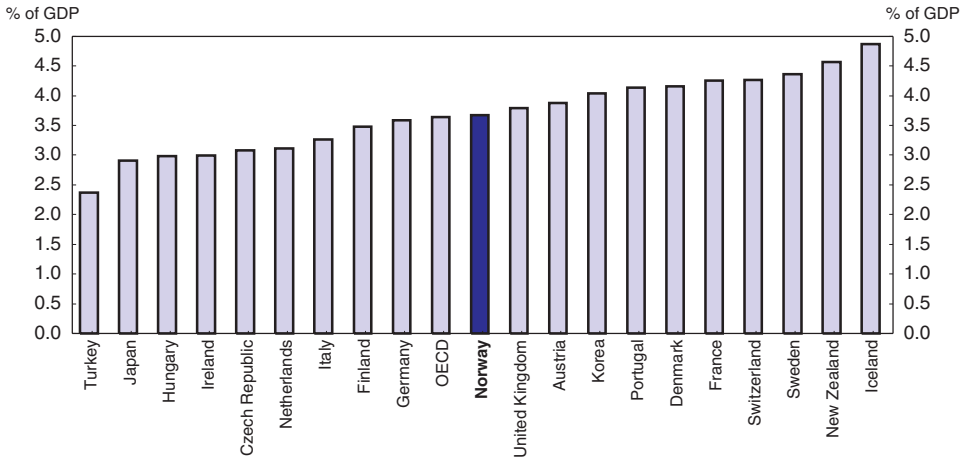
Municipalities are responsible for supplying and financing primary education and lower secondary education, whereas counties are responsible for upper secondary education. Spending differences are significant, with variations in per-student spending of as much as 80 per cent in primary school across municipalities. Also counties' differences in spending on upper secondary education are remarkably high (Figure 4.11).

Figure 4.9. **Expenditure in education in OECD countries**
Per student, in 2000



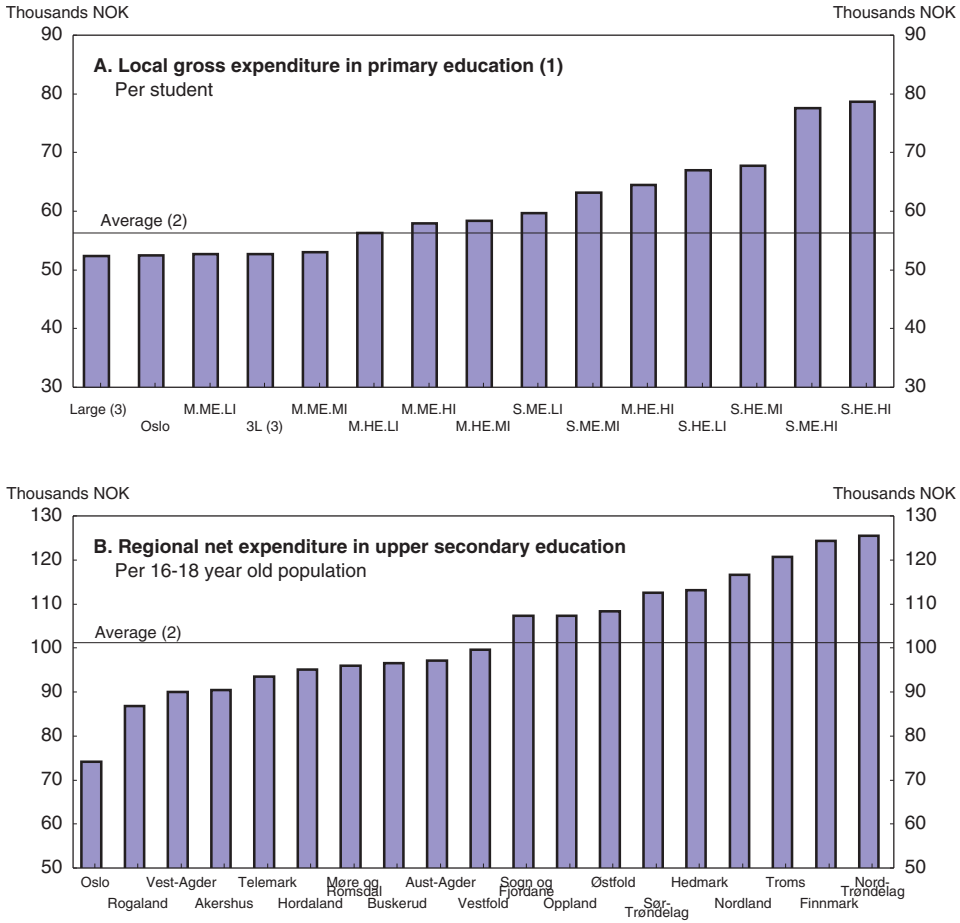
Source: OECD.

Figure 4.10. **Expenditure on educational institutions**[1]
As a percentage of GDP, 2000



1. Primary, secondary and post-secondary non-tertiary education.
Source: OECD.

Figure 4.11. **Local and regional expenditure on education**
2001

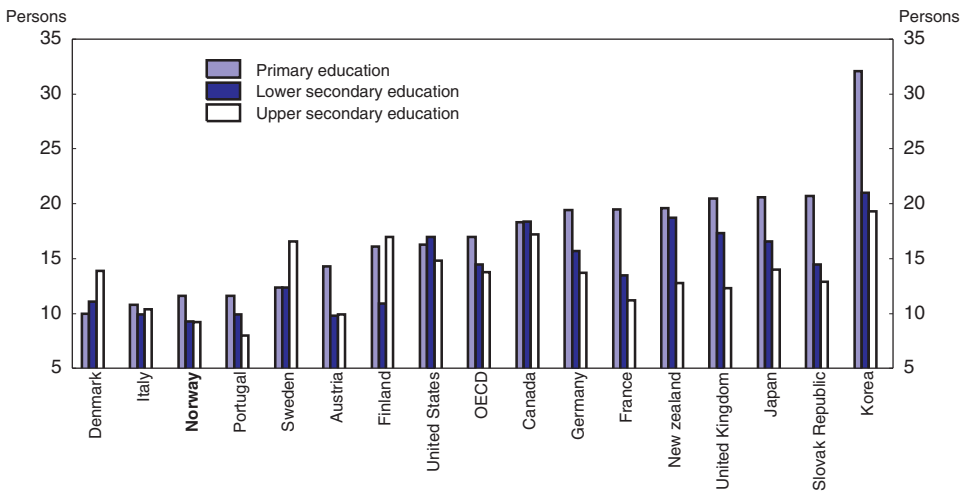


1. Municipalities are grouped according to 3 criteria: size of the municipality, small (S), medium (M), or large (L) amount of fixed expenditure per inhabitant, medium (ME) or high (HE); and amount of disposable income per capita, low (LI), medium (MI) or high (HI).
2. Average of the country excluding Oslo.
3. Large refers to large cities excluding the four largest. 3L is Bergen, Trondheim and Stavanger.

Source: Statistics Norway.

The low number of students per teacher might be the single most important factor contributing to the high expenditure level. The student-teacher ratio is indeed around two thirds of the OECD average (Figure 4.12). This low ratio could *inter alia* be due to regional fragmentation, which also requires a comparatively large number of small scattered schools, and high expenditures on transport. Moreover, the Norwegian policy of integrating children with special needs as well as the integration of children with a minority language may be a contributing factor to high costs although in this case there are few indications that the impact is strong.[49]

Figure 4.12. **Ratio of students to teaching staff in public and private institutions**
2001



Source: OECD.

Quality in primary and secondary education

While Norwegian adults have relatively high scores in international literacy tests,[50] the youth population had only average scores in recent tests like PISA and PIRLS.[51] As many as 20 per cent of 10-year-old pupils (according to PIRLS) and 17.5 per cent of 15-year-old pupils (according to PISA) do not have basic reading capabilities. Thus, a significant share of Norwegian students has reading weaknesses that may cause them severe problems in future education as well as in working life. National tests indicate a similar situation, as well as decreasing achievements in literacy and mathematics over the past decade.[52] In addition,

PISA points to Norwegian students having poor learning strategies. In an evaluation of the 1997 reform of primary and lower secondary education in Norway, three groups of students are pointed out as fragile in the school system; male pupils, students with a minority language and students with parents of low education.[53] On the other hand, Norwegian students in general are reported to have a positive attitude towards education regardless to their actual achievements in reading. Moreover, the results from the Civic Education study show that Norwegian students have above average scores in democratic knowledge and attitudes.[54]

Several factors have been implicated in the deteriorating performance in some international tests. An OECD study noted that it is possible to maintain a successful integration policy through education, as attempted in Norway, but this may result in a lower overall quality if there are inadequate resources as well as insufficient support to students with behavioural problems.[55] Strand and Tjeldvoll (2002) point out that the Norwegian "Unified School" system was successful in providing equal educational opportunity and easier access to higher education, especially in the third quarter of the past century. However, the increasing stress put on equality of students' achievements relative to quality of results might have progressively decreased students' motivation. At the same time, as stressed by Haug (2003) and Ministry of Education and Research (2003), the Norwegian school system has not succeeded in reducing substantially the differences among pupils, as students with special needs are not given enough specific attention and individual tutoring. Ministry of Education and Research (2003) stresses that Norwegian educational policies – though ambitious – have so far not been concerned with monitoring, follow-up and control of the working methods used and of the results achieved by schools.

Another challenge is represented by the quality of teaching. For most subjects, there is no shortage of teachers in Norway for the time being. Nevertheless, a cohort of older teachers is set to retire over the next decade, whereas young applicants for teacher education are decreasing over time in contrast to developments in other northern European countries. Indeed, there is already a shortage of teachers with full qualifications in mathematics, science and foreign languages. In 2000, around one half of primary education teachers in mathematics and science had no formal qualifications in these subjects.[56] In upper secondary education, relatively larger student cohorts in addition to the ageing teacher population will probably lead to a shortage of qualified teachers in the forthcoming years.

Some initiatives were taken recently to attract young students into the general teaching education programme and to enhance teachers' competency in technical disciplines. Mathematics is now compulsory in all teaching education programmes, new five-year Master courses for teaching education in mathematics

and science were established and grants to teachers willing to upgrade their skills in mathematics were offered.

Reforms of primary and secondary education

Both primary and secondary education went through reforms during the 1990s – in 1994 for upper secondary education and in 1997 for primary and lower secondary education. Despite these reforms, a new comprehensive reform for primary and secondary education is being envisaged and a governmental working group was appointed in October 2001 to provide recommendations for change, which were presented in June 2003 (see Box 4.1).

Together with these recommendations, the government is increasing decentralisation of decisions regarding education (*e.g.* regarding the number of pupils per class and opening hours) and is introducing a result-based funding scheme for education providers. Municipalities are now taking decisions regarding the wage and career pattern of teachers and on the criteria used to evaluate them.

The proposed measures are extremely comprehensive and touch all aspects of primary and secondary education. The proposals are likely to improve the quality of education and the link between education and work opportunities. However, all the proposals for reforms should be assessed in relation to the financial costs for implementing them, which are likely to be high. A priority list should accordingly be arranged making clear what are the main objectives to be achieved, the costs of attaining them, and how each measure should be phased in.

Tertiary education

Norway has the highest share of persons with advanced education among the OECD countries, as 28 per cent of the 25-64 year-old population holds a tertiary-type A or advanced university degree.[57] In the 25-34 year-old group the share reaches 35 per cent. On the other hand, only 15 per cent of the students each year graduate in technical fields like engineering, manufacturing, construction, physical sciences, mathematics and statistics compared with an OECD average of almost 25 per cent.

Measured in USD PPP, Norway's total expenditure per student in tertiary education is around 20 per cent higher than the OECD average, but around two thirds of per-student expenditure in the United States, which is the highest in this area. Measured as percentage of GDP, Norway's spending has decreased from 1.7 per cent in 1995 to 1.3 per cent in 2000, which is lower than in the other Nordic countries and the OECD average. This is mainly explained by the 11 per cent reduction of nominal spending on tertiary educational institutions in the period 1995-2000.

Box 4.1. Recommendations for reform of the education sector by the governmental working group

The main recommendations of the governmental working group are:

- Strengthen basic competences, including reading, writing and mathematical skills, English, digital knowledge, learning strategies and motivation, social competence.
- Improve individual teaching for everybody by strengthening organisational planning, differentiation and quality management systems.
- Strengthen teaching in sciences, mathematics and languages.
- Eliminate the exam between lower secondary and upper secondary school.
- Introduce national tests as evaluation tools.
- Ensure a stronger link between primary and secondary education by letting students in primary education take subjects in secondary education; provide the opportunity for secondary school student to take subjects in tertiary education.
- Improve possibilities for teachers' training at all levels in mathematics, Norwegian and English.
- Increase use of ICT.
- Increase number of hours of teaching in mid-level (*i.e.* final years of primary education).
- Give minority language students special attention during the first period of reading and writing education.
- Introduce technology and design as a new subject in lower secondary education.
- Make a second foreign language compulsory in lower secondary education.
- Introduce eight fields of specialization in upper secondary education.
- Determine the content of the new fields of specialisation in cooperation with social partners.
- Increase compulsory mathematics teaching, in certain fields of specialisation, from 187 hours to 300 hours per year.

The government would implement a financial system that:

- Ensures necessary resources in primary and secondary education and a level playing field between public and private schools.
- Ensures students the same right to quality education independently of where they live.
- Introduces differentiated teacher education by requiring study specialisation relative to the subject where the teacher wants to teach.
- Introduces a master programme for teacher education in mathematics, Norwegian and English.
- Ensures an increase in recruitment.
- Ensures the publication of a research based report about the situation in Norwegian primary and secondary education every second year.

In April 1998, the Norwegian government appointed a commission to examine the higher education system in Norway. The commission's work resulted in a "Quality Reform of Higher Education" report, which was published in May 2000. A White Paper for reform was submitted to the parliament in March 2001 and the measures were actually implemented starting from the 2003-2004 academic year.[58]

The Quality Reform gives education institutions increased autonomy concerning management and organisation of their activities. This includes significant freedom concerning the choice of disciplines and subjects that the universities and colleges wish to offer. The institutions' performance, both in teaching and research, will be closely monitored by the central authorities. The outcome of the assessment will be an element in the new funding formula and will thus influence the resource allocation to educational institutions. In fact, under the new system resources are distributed in the following way: *a*) a "basic component", which is around 60 per cent of total allocation; *b*) an "education component" covering around 25 per cent of total allocation and based on the number of completed student credits, the number of graduates and the number of international exchange students; and *c*) a "research component" covering the remaining 15 per cent of total allocation, which is partly a result-based allocation. The reform introduces a new agency to independently monitor and ensure quality in higher education (NOKUT). The agency also has the important task of providing accreditation for private learning institutions and of recognising the equivalence of foreign education and diplomas.

A new degree structure is also being introduced consisting of a bachelor's degree (three years), a master's degree (two years) and a Ph.D. (three years). This facilitates the comparison of Norwegian degrees with foreign ones and thus the integration of studies completed abroad into the Norwegian higher education system. Moreover, the new structure reduces the expected advanced study period for certain fields by one year. The new arrangement is accompanied by a more uniform structure of academic courses.

The financial support to students is also changed by the reform. The individual support package is increased to a maximum of NOK 80 000 per year (around EUR 9 500). The package includes a 40 per cent grant, the remainder being a loan. Starting from the 2004/2005 academic year, the grant will be made conditional upon completion of the courses. The grant is means-tested to the students' income and is not distributed to students living with their parents. The new financial support system is accompanied by a new student evaluation and assessment system. In addition, students will be offered individual tutoring.

Although not tackled directly by the Quality Reform, the government is also taking initiatives to raise students' competence in technical disciplines as spelled out in the Ministry of Education and Research's strategy 2002-2007. A

National Centre for Contact with the Business Community on mathematical, science and technology subjects (RENATE) has been introduced. It is mandated to establish contacts between educational institutions and the business community in order to ensure the recruitment of students in technical subjects. Furthermore, nine science centres were established at universities or museums with the aim of disseminating science and technology among school students. From 2003 their activities are financially supported by the Ministry of Education and Research. Finally, additional financial support has been given to the universities during the last three years to update their science equipment.

Greater autonomy to higher education institutions coupled with performance-based funding could be a step forward towards improving the quality of tertiary education in Norway. It is important to monitor the impact of the reform to avoid unintended side-effects. For example, basing a funding system on students' credits and number of graduates could push some universities and colleges to ease requirements to reach targets. Another aspect to consider is how to take into account differences in cohort sizes from year to year. As the number of students will vary, the resource allocation could be quite variable. Since the universities have a significant amount of fixed expenses linked to infrastructure and – partly – teachers' salaries, funding could be uncertain and education quality could vary with cohorts' size. Concerning research, it is also uncertain to what extent the new funding system could improve the resource allocation. Indeed, a large part of research is long-term and its results are often difficult to divide into annual instalments and to judge in the short term.

On the other hand, the conditionality of the students' grant could be a first step towards increasing students' efforts towards finalising studies on time. Consideration should also be given to the gradual reduction of loans subsidisation while increasing their amounts and their repayment period, especially for students from poor families.

Finally, an assessment of the results of the financial efforts towards increasing competencies in technical disciplines should be regularly carried out, and the continuation of the programmes should be made conditional on their cost-effectiveness. Indeed, in most countries the growth in the number of graduates in technical disciplines is actually conditional on rising returns from human capital. As the latter are mainly pushed by flexibility and upward mobility in the labour market, the priority objective should be to carry out reforms in these areas as outlined in this and other chapters rather than through direct government policies in the education sector.

Box 4.2. Progress and recommendations on structural reforms

Area/Objective	Recent/planned action	Recommendations
I. Labour market		
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.	Relax the centralised and coordinated system of wage negotiations and move towards a greater wage differentiation according to sectors, skills and labour market conditions.
Modernise employment protection legislation	Introduced less restrictive rules on overtime work; *ad hoc* Committee reviewing the worker protection law.	Enlarge the range of issues concerning employment protection legislation and working hours to be defined by individual agreements.
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.	Ensure a level playing field among private and public providers of job placement services while introducing outcome-based financing to private providers based on their ability to cope with higher-risk groups; prioritise objectives and introduce performance-related budget allocations for Aetat, ensure greater co-ordination between institutions providing labour market and social services; regularly evaluate cost-effectiveness of ALMP; continue targeting of ALMP to low-skill workers.
II. Social protection		
Minimise work disincentives in the unemployment insurance system	Reduced from three to two years the maximum period during which an unemployed can receive benefits and cut to one year for workers with low previous income; lowered gross replacement rate for persons receiving benefits beyond eight weeks; tightened the eligibility requirement concerning the minimum previously earned income and the loss of working hours for part-time workers; increased the waiting period before benefits can be drawn.	Further lower the maximum duration of benefits' receipt to no more than one year for all workers.

Box 4.2. **Progress and recommendations on structural reforms** (*cont.*)

Area/Objective	Recent/planned action	Recommendations
Reduce sick leave	Implementing the measures agreed in October 2001 to reduce the sickness absence rate by 20 per cent by mid-2005.	Tighten the benefits for long-term sick leave; lengthen the period of sick leave paid by the employers; alternatively, create a fund financed by employers and employees to pay both short-term and long-term sick leave; strengthen the monitoring activity of the National Insurance Authority on the working capabilities of beneficiaries.
Tighten disability schemes	Introduced temporary disability pensions; determined ceilings for disability rehabilitation benefits covering educational fees; reduced to one year the maximum period before a vocational rehabilitation scheme is offered to a worker on sick leave; halved the period after vocational rehabilitation during which a worker continues to receive benefits from 12 to 6 months; tightened benefit eligibility criteria for younger individuals; introduced maximum period of three years for benefits related to education.	Accelerate the review of assessment procedure for disability benefits; tighten the medical eligibility criteria; involve independent medical specialists in the assessment of the disability status; link participation in rehabilitation programmes to job search support; make rehabilitation benefit settlement conditional on completion of the programme; routinely assess the cost-effectiveness of the rehabilitation programmes.
Implement work-friendly family policies	Building new public and private childcare centres and introducing a ceiling for fees in publicly-funded ones.	Substitute the "home care allowance" introduced in 1999 with a voucher system for families to be spent in formal private or public childcare centres; liberalise childcare centre opening hours.
III. Education		
Improve quality of primary and secondary education	Proposing a comprehensive list of reform guidelines; decentralising decisions regarding education, *i.e.* the number of pupils per class, schools' opening hours, and the wage and career pattern of teachers; introducing a result-based funding scheme for education providers; increasing teachers' competencies in mathematics and science.	Assess recent proposals in relation to financial costs; prioritise measures that reward students' achievements and provide specific attention and individual tutoring to students with special needs.

Box 4.2. **Progress and recommendations on structural reforms** (*cont.*)

Area/Objective	Recent/planned action	Recommendations
Enhance teaching and research in tertiary education	Implemented the "Quality Reform" giving educational institutions increased management and organisation autonomy; introduced an university funding formula linked to teaching and research performance; introduced a new degree structure; increased the student support package, part of which is made conditional upon course completion; establishing contacts between educational institutions and business to ensure recruitment of students in technical fields; opening science centres; providing financial support to universities to update science equipment.	Monitor the impact of the reform to avoid easing requirements for students or neglecting longer term research objectives; consider gradual reduction of loans' subsidisation while increasing their amounts and their repayment period; review cost-effectiveness of the initiatives towards increasing competencies in technical disciplines.
IV. Financial market		
Ensure competition in the banking sector	DnB and Gjensidge NOR merged to form DnB NOR; the Government Bank Investment Fund is buying additional shares in the financial group to eventually reach a 34 per cent stake (negative control); introduced new rules on ownership in financial institutions allowing holdings above 10 per cent conditional on authorisation by the Ministry of Finance (additional criteria required for holdings above 25 per cent).	Withdraw State participation from the banking sector; further relax acquisition and take-over regulation.
V. 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.	Further decentralise spending and tax responsibility and achieve more efficiency through performance-based budgeting.

Box 4.2. **Progress and recommendations on structural reforms** (*cont.*)

Area/Objective	Recent/planned action	Recommendations
Tackle ageing issues	A*d hoc* pension committee published reform proposals in January 2004, the main proposals being to: 1) allow retiring from the age of 62 to 70 while actuarially adjusting benefits in order to reward working longer, 2) consider all working years in the calculation of pension entitlements, 3) adjust pension entitlements for all cohorts should life expectancy increase, 4) index pension benefits to the average of prices and wages, 5) withdraw State's support to the early retirement (AFP) scheme, 6) establish a Pension Fund based on the Petroleum Fund and the National Insurance Fund.	Implement the proposals of the *ad hoc* committee while clarifying the role and operation of the new Pension Fund; remove favourable tax rules for pensioners; reconsider replacement rates for the central government occupational pension system for new entrants.
Reform the tax system	A tax committee reported in February 2003, and the proposals aim at: 1) reducing the marginal tax differential between labour income (reducing top marginal tax rates) and capital income (shareholder model), and 2) phasing out the net wealth tax while increasing the taxation of real estate.	Increase the real estate tax, while phasing out net wealth tax; reduce the marginal tax on labour, especially at the top and the bottom of the income scale; assess the benefits and costs of the shareholder model before its implementation.

Notes

1. EIRO (2003a) shows that in 2002 out of 18 European countries Norway has the fifth lowest collectively agreed full-time working hours (37.5 hours). At the same time, EIRO (2003b) reports that the threshold marking the beginning of overtime is 9 hours per day and 40 hours per week, in line with most European countries. While this second feature lowers the cost of demanding additional hours up to 40 for employers, it might introduce further disincentives to supply more hours beyond 37.5 and up to 40 by employees.
2. Another element of flexibility in the labour market is provided for by the swift reaction to the cycle of labour force participation by some groups of the population – mainly youth.
3. As pointed out by Kitterod and Kjelstad (2003), the share of female workers in the total is particularly high in the public sector.
4. Barkbu *et al.* (2003) provide a short description of wage setting in Norway. The European Industrial Relations Observatory (EIRO) website, *www.eiro.eurofound.ie*, contains a detailed chronological account of industrial relations in Norway.
5. According to Barkbu *et al.* (2003), the government contributed to wage bargaining through incomes policy in 28 out of the 39 years during the period 1961-1999.
6. Askildsen and Nilsen (2003) note that, as union density is relatively high, the percentage of workers covered by the centralised wage increases is also high. These authors also show that because of the strong bargaining power of the unions, the wage premium from membership is significant.
7. High wage compression might be damaging for employment prospects of older workers, as firms have strong incentives to dismiss them as their productivity declines relative to younger and better-educated cohorts. This incentive is strengthened by the presence of generous early retirement and disability schemes subsidised by the government (see the section on social policies below and the section on the pension system in Chapter 2). Bjornstad *et al.* (2002) show that the wage elasticity is high with respect to average unemployment but low with respect to education-specific unemployment. Salvanes and Forres (2003) report that the earnings gap for Norwegian high skilled workers relative to medium and low skilled workers has remained stable in the 1980s and 1990s, thus representing an exception among most OECD countries where it has tended to open up.
8. Barth *et al.* (2002) show that the wage elasticity with respect to local unemployment is in general not significant. They find a significant elasticity only for non-union workers.
9. Barkbu *et al.* (2003) show that a more centralised level of bargaining could have contributed to reducing unemployment, whereas incomes policy and a more favourable "overall bargaining climate" could have decreased the wage share and through this channel

lowered unemployment. On the other hand, their analysis suggests that union coordination could increase the wage share with a detrimental effect on unemployment.

10. See Nymoen and Rodseth (2003). These authors also argue that real wage flexibility is statistically significant but quantitatively small.
11. Salvanes and Forre (2003) show that Norway has witnessed positive net job creation rates for medium and high-skill workers and negative ones for low-skill workers during the 1980s and 1990s. These developments have mainly been due to technological changes creating new jobs for high and medium-skill workers while the rate of job destruction remained stable for all educational groups. On the other hand, international trade might have led to a reallocation of low-skill workers from sectors with a higher import penetration to others with better export conditions with an overall neutral impact on net job creation.
12. See also IMF (2003).
13. The committee owns its name to its president Steinar Holden, professor at the University of Oslo. The committee stressed the risks for the Norwegian economy of the real appreciation of the krone. To avoid it, the committee concluded that incomes policy should remain a central feature of the Norwegian economy, and that the manufacturing sector should remain the leading sector in wage negotiations. The committee also recognised the need to deal with the pressure for higher wages from high-skilled workers (especially teachers) or to take into account local conditions. In this respect, a certain degree of decentralisation could help in re-adjusting relative wages as long as the budget constraints of local governments – that are now responsible for teachers' salaries – were internalised in the bargaining process.
14. This might be changing for ICT-using service sectors. In fact, recently productivity in some service sectors like wholesale trade and banking significantly increased.
15. In these calculations it is assumed that productivity for household work is the same for "do-it-yourself" and professional workers, which might overstate the incentive to perform household activity. These estimates replicate the calculations in Table 22 of the 2002 OECD *Economic Survey of Sweden*, although the results presented here for Norway refer to 2002 whereas the ones in the 2002 OECD *Economic Survey of Sweden* refer to 2000.
16. Bjornstad *et al.* (2002) illustrate medium term scenarios for the Norwegian labour market by extrapolating recent trends showing a significant increase of relative demand for high-skill labour in the short to medium term. If the recent increase in the demand for skilled labour continues, it might not be matched by a corresponding rise in supply and this might force companies to move abroad.
17. Kitterod and Kjelstad (2003).
18. Rigid regulation of working hours – together with an already high participation ratio – may explain the observed weak upward response of the overall economy's labour supply to wage changes. Wage increases in one sector seem to result in higher employment in the concerned sector at the expense of the other sectors, with no overall labour supply shift for the whole economy. Dagsvik and Strom (2003) show that this is true for married females, whose labour supply is generally more elastic than for males. In a study involving nurses, Askildsen *et al.* (2002) find that institutional variables – notably contractual arrangements specifying standard hours of work and overtime compensation – are important in estimating the wage elasticity of labour supply.
19. In the Norwegian private sector, fixed-term contracts are currently allowed only for training and replacement purposes and depending on the nature of the job. For a comparison of legislation on fixed-term contracts in northern European countries see

Numhauser-Henning (2002). According to this author, the Norwegian legislation on fixed-term contracts is the most strict among northern European countries.

20. For details see OECD (2003*a*).
21. The objectives are assessing disabled jobseekers to find an appropriate labour market programme, processing unemployment benefit claims within a specified period, and reducing the duration of the labour market programmes while raising the percentage of participants getting a job.
22. See Røed and Raaum (2003) for a brief description of ALMP in Norway.
23. Røed and Raaum (2003).
24. In a macroeconomic framework, Nymoen and Rodseth (2003) show that the "equilibrium total unemployment rate" – *i.e.* the sum of the unemployed and participants in labour training – could actually be increased by a higher supply of ALMP. By using a panel of OECD countries including Norway, Arjona *et al.* (2002) find that active social spending could have a statistically and economically significant impact on per capita GDP growth. Still, the authors point out that: 1) there might be decreasing marginal returns from active social spending so that the marginal benefits are small when the level of active social spending is relatively high as is the case for Norway; 2) active social spending might be just an indicator of a growth-enhancing policy stance rather than a direct instrument to raise growth through the employment channel.
25. OECD (2003a).
26. The PES are currently running pilot projects concerning outsourcing to private providers of follow-up services for long-term unemployed and vocational disabled in three counties and for older workers in one county. The payment to private providers is partly based on a fixed fee and partly on the number of persons finding a job.
27. See OECD (2003b).
28. Askildsen, Bratberg and Nilsen (2002).
29. For a description of the National Insurance System see *www.dep.no/*.
30. Bratberg, Nilsen and Vaage (2003) also estimate a low correlation of earnings of individuals with those of their parents suggesting that the Norwegian welfare system does not impede or might even favour a certain degree of intergenerational earnings mobility.
31. OECD (2003c).
32. OECD (2002).
33. The impact could be strong especially for men. Indeed, the latter often represent the main family earners and a reduction in the replacement rate could raise their incentive to search for a new job. Røed and Zhang (2003) estimate that a 10 per cent benefit reduction could cut a 10-month duration by 1 month for men and by 1-2 weeks for women.
34. Furthermore, the unemployed may access one of the social assistance schemes available giving the right to receive benefits for a further period of time. Røed and Zhang (2002) show that the transition rate from unemployment to employment slightly rises just before unemployment benefit exhaustion but that the probability of transiting to sickness/disability programmes or to other labour market programmes rises much faster. Røed, Jensen and Thoursie (2002) show that employment prospects for the unemployed seem to fade away faster in Norway as unemployment duration rises than in countries with a comparably generous unemployment benefit system, like Sweden.
35. See Eriksson, Lilja and Torp (2002).

36. The agreement also included the stated objectives of reducing the flow into disability and to increase the average retirement age. See the 2002 OECD *Economic Survey of Norway* for more details on the agreement.

37. See OECD (2003c). Disability prevalence was higher for older individuals (26½ per cent) than for relatively younger ones (13½ per cent), higher for females (20 per cent) than for males (13½ per cent) and higher for individuals with lower educational attainment (22½ per cent) than for the ones with higher education (14 per cent).

38. See OECD (2003e).

39. For a description of the procedures and eligibility requirements followed to obtain vocational rehabilitation benefits see Aakvik and Kjerstad (2002). Aakvik (2003) shows that employment rates of disabled persons following educational programmes are higher than for the others, but that the probability of being employed for the former would be higher still even without attending educational programmes. Therefore, the author concludes that persons with good employment prospects even without training are over-represented in these programmes.

40. In 1998, public expenditure devoted to family was around 3.5 per cent of GDP, the second highest in the OECD.

41. See the 1999 and 2002 OECD *Economic Surveys of Norway* for a description of this measure.

42. Kornstad and Thoresen (2002) show a significant difference between the childcare hour distribution in public centres and the one agreed between families and informal private providers, the latter not being regulated.

43. In the 2004 budget bill, the cost of this measure is estimated at NOK 2.9 billion in both 2003 and 2004.

44. See Kitterød and Kjeldstad (2003) and Naz (2002). These authors also point out that fathers' employment and working hours were only marginally affected despite the fact that one of the aims of the reform was to increase the fathers' hours devoted to child-care. Kornstad and Thoresen (2002) estimate that the negative impact of this measure on market work for women at fertile age is 7-8 per cent in the short run and could be 16 per cent in the long run.

45. Moreover, a marginal tightening of the benefits was carried out starting from August 2003 when the supplement allowance granted to families with children under the age of 3 was terminated.

46. See the 2002 OECD *Economic Survey of Norway* as well as the web site odin.dep.nofor more details on the financing schemes of childcare centres.

47. OECD (2003e).

48. Storting (2002).

49. Ministry of Education and Research (2003).

50. OECD (2000).

51. PISA stands for "Programme for International Student Assessment" and is coordinated by the OECD. See OECD (2001). PIRLS stands for Progress in International Reading Literacy Study and is prepared by the U.S. Department of Education's National Center for Education Statistics. See *http://nces.ed.gov/surveys/pirls/*

52. Ministry of Education and Research (2003).

53. *Ibid.*

54. The Civic Education Study is carried out by the International Association for the Evaluation of Educational Achievement based in Amsterdam (*www.iea.nl/*).
55. See OECD (1999). These results have been confirmed by Ministry of Education and Research (2003).
56. Ministry of Education and Research (2003).
57. Tertiary type A degrees refer to programmes that are largely theory-based and are designed to provide sufficient qualifications for entry into advanced research programmes and professions with high-skill requirements. See the Glossary in OECD (2003d).
58. See Nyborg (2002).

Bibliography

Aakvik, A. (2003), "Estimating the employment effects of education for disabled workers in Norway", *Empirical Economics*, 28, pp. 515-533.

Aakvik,A. and E. Kjerstad (2003), "Skill formation among vocational rehabilitation clients – Public policy vs. private incentives", University of Bergen, mimeo.

Arjona, R., M. Ladaique and M. Pearson (2002), "Social protection and growth", OECD *Economic Studies*, 35, 2002/2, pp. 7-45.

Askildsen, J.E. and O.A. Nilsen (2002), "Union membership and wage formation", *European Journal of Political Economy*, 18, pp. 345-363.

Askildsen, J.E., B.H. Baltagi and T.H. Holmas (2002), "Will increased wages reduce shortage of nurses? A panel data analysis of nurses' labour supply", CES*ifo Working Paper*, No. 794.

Askildsen, J.E., E. Bratberg and O.A. Nilsen (2002), "Unemployment, labour force composition and sickness absence. A panel data study", University of Bergen, mimeo.

Barkbu, B.B., R. Nyomen and K. Røed (2003), "Wage coordination and unemployment dynamics in Norway and Sweden", *Journal of Socio-Economics*, 32, pp. 37-58.

Barth, E., B. Bratsberg, R.A. Naylor and O. Raaum (2002), "Explaining variations in wage curves: Theory and evidence", *University of Oslo Department of Economics Memorandum*, No. 03/2002.

Bjornstad, R., A. Cappelen, I. Holm and T. Skjerpen (2002), "Past and future changes in the structure of wages and skills", *Statistics Norway Documents*, 2000/4.

Bratberg, E., Ø. A. Nilsen and K. Vaage (2003), "Assessing changes in intergenerational earnings mobility", IZA *Discussion Paper*, No. 797.

Dagsvik, J.K. and S. Strom (2003), "Analysing labor supply behaviour with latent job opportunity sets and institutional choice constraints", *Statistics Norway Research Department Discussion Papers*, No. 344.

EIRO (2003a), "Working time developments, 2002", *www.eiro.eurofund.ie*.

EIRO (2003b), "Overtime in Europe", *www.eiro.eurofund.ie*.

Eriksson, T., R. Lilja and H. Torp (2002), "Determinants of job search intensity – Some evidence from the Nordic countries", *Labour Institute for Economic Research Discussion Papers*, 185.

Haug, P. (2003),*Evaluering av Reform 97: Sentrale resultat*, Norges Forskningsråd.

IMF (2003), *Norway: Staff report for the 2002 Article IV consultation*, Washington DC.

Kitterød, R.H. and R. Kjeldstad (2003), "A new father's role? Employment patterns among Norwegian fathers 1991-2001", *Statistics Norway Economic Survey*, 1/2003.

Kornstad, T. and T.O. Thoresen (2002), "A discrete choice model for labor supply and child care", *Statistics Norway Research Department Discussion Papers*, No. 315.

Ministry of Education and Research (2003), *Situasjonsbeskrivelse av grunnopplæringen*, Oslo.

Naz, G. (2002), "The impact of a cash benefit reform on parents' labour force participation", *University of Bergen Department of Economics Working Papers in Economics*, No. 1202.

Numhauser-Henning, A. (2002), "Fixed-term work in Nordic labour law", *The International Journal of Comparative Labour Law and Industrial Relations*, 18/3, pp. 429-457.

Nyborg P. (2002), "The Quality Reform of Higher Education in Norway: A national reflection of the Bologna process", Norwegian Council for Higher Education.

Nyomen, R. and A. Rodseth (2003), "Explaining unemployment: Some lessons from Nordic wage formation", *Labour Economics*, 10, pp. 1-29.

OECD (1999), *Inclusive Education at Work*, Paris.

OECD (2000), *Literacy in the Information Age: Final Report of the International Adult Literacy Survey*, Paris.

OECD (2001), PISA *Knowledge and Skills for Life: First Results from* PISA 2000, Paris.

OECD (2002), *Benefits and Wages*. OECD *Indicators*. Paris.

OECD (2003a), *Regulatory Reform in Norway*, Paris.

OECD (2003b), *Economic Survey of Australia*, Paris.

OECD (2003c), *Employment Outlook*, Paris.

OECD (2003d), *Transforming Disability into Ability*, Paris.

OECD (2003e), *Education at a Glance*, Paris.

Raaum, O., H. Torp and T. Zhang (2002a), "Business cycles and the impact of labour market programmes", *University of Oslo Department of Economics Memorandum*, No. 14/2002.

Raaum, O., H. Torp and T. Zhang (2002b), "Do individual programme effects exceed the costs? Norwegian evidence on long-run effects of labour market training", *University of Oslo Department of Economics Memorandum*, No. 15/2002.

Røed, K. and O. Raaum (2003), "The effect of programme participation on the transition rate from unemployment to employment", *University of Oslo Department of Economics Memorandum*, No. 13/2003.

Røed, K. and T. Zhang (2002), "The duration and outcome of unemployment spells – The role of economic incentives", *University of Oslo Department of Economics Memorandum*, No. 06/2002.

Røed, K. and T. Zhang (2003), "Does unemployment compensation affect unemployment duration?", *The Economic Journal*, 113, pp. 190-206.

Røed, K., P. Jensen and A. Thoursie (2002), "Unemployment duration, incentives and institutions – A micro-econometric analysis based on Scandinavian data", *University of Oslo Department of Economics Memorandum*, No. 09/2002.

Salvanes, K.G. and S.E. Forre (2003), "Effects on employment of trade and technical change: Evidence from Norway", *Economica*, 70, pp. 293-329.

Storting, (2002), *Om ressurssituasjonen i grunnopplæringen m.m.*, St. Meld, 33.

Strand, A.W. and A. Tjeldvoll (2002), "The Norwegian unified school – a paradise lost?"*Journal of Education Policy*, 17, pp. 673-686.

5. Some aspects of sustainable development

There is growing concern that long-run sustainable development may be compromised unless countries take measures to achieve balance between economic, environmental and social outcomes. This chapter looks at three issues of sustainable development that are of particular importance for Norway: containing greenhouse gas (GHG) emissions, making a sustainable use of renewable and non-renewable natural resources and improving living conditions in developing countries. In each case, indicators are presented to measure the progress and the evolution of potential problems, and an assessment is made of government policies that affect the issue. The section also considers whether institutional arrangements are in place to integrate policymaking across the different elements of sustainable development (see Box 5.1).

Climate change

Main issues

Norway is participating in international efforts to limit GHG emissions under the Kyoto Protocol that it ratified in May 2002. The treaty foresees that Norway should keep its emissions in the period 2008-2012 below 101.1 per cent of their 1990 level. In comparison with an initial overall goal of reducing emissions from industrialised countries by 5 per cent, this target was set in consideration of the relatively low carbon intensity of the Norwegian economy and of the expected rise in emissions from oil and gas production. However, in 2000, national GHG emissions were already 8 per cent above their 1990 level. The main issue is to abide by the Kyoto target in a cost-effective manner.

Performance

The ratio of emissions to GDP is well below the OECD average because almost all electricity is generated by hydropower which produces no greenhouse gases (Table 5.1). Norway has had a stronger reduction of GHG intensity in GDP than most OECD countries. The overall rise in emissions over the 1990s is primarily attributable to oil and gas extraction and to the transport sector (Table 5.2). Releases of greenhouse gases by the oil sector rose by one third over the 1990s, in

Box 5.1. Integration across sustainable development areas*

Sustainable development has been high on the policy agenda for some time: In October 2003 National Agenda 21, the national plan of action for sustainable development, was published as a part of the National Budget for 2004. The National Agenda 21 follows up on the national (2002) and Nordic strategies for sustainable development and on the UN summit in Johannesburg in 2002. The work on the National Agenda has been headed by the Ministry of Finance and has involved broad segments of Norwegian society. There has been broad support for presenting the National Agenda as a part of the National Budget, so as to include the work for sustainable development in important policy processes and documents. Some horizontal links across sustainable development areas are well established in Norway. Indeed, consensus building is a strong feature of the Norwegian model, which places a very high value on equity concerns, leading to a high degree of integration of social concerns in public policies (OECD, 2003). On the economic-environment interface, Norway is a pioneer in green taxation, with taxes levied on sulphur emissions since 1971, on pesticides since 1988 and on carbon dioxide emissions since 1991. However, cost-benefit analyses are not systematically made public prior to the enactment of environmental legislation. There is a strong tradition of environmental impact assessment for public or private projects, including the oil and gas sector. Effects on the environment must be assessed by the agency sponsoring the project, and are then discussed with the relevant authorities and with civil society. These extensive processes do not seem to have hampered the development of the offshore petroleum sector. Onshore, on the other hand, they have led to one fifth of the hydropower potential being permanently closed to exploitation and another 13 per cent remaining undeveloped (Statistics Norway, 2002).

* The sections in this report dealing with climate change, sustainable use of resources and improving living conditions in developing countries are inputs into the Organisation's follow up on Sustainable Development as mandated by the Ministerial Council decision in May 2001.

line with the expansion of the sector's activity. In the transportation sector, high emission growth reflected a strong increase in activity.[1] On current and adopted policies, total emissions are forecast to exceed the Kyoto target by 17 per cent in 2010 (Ministry of Finance 2003). However, the authorities expect planned reforms of their climate change policies to meet their commitment under the Kyoto Protocol in a cost-effective manner.

Policies

Norway pioneered the use of carbon taxes in climate change policy in 1991 with a CO_2 tax covering many sectors, several of which, such as domestic

Table 5.1. **Main indicators: climate change**

Indicators of greenhouse gas (GHG) emission intensity, grams of CO_2 equivalent per $PPP of GDP, in 1995 prices

	Total GHG emission intensity	CO_2 emission intensity, electricity	CO_2 emission intensity, transport	GHG emission intensity, other sources	Total GHG emission intensity	CO_2 emission intensity, electricity	CO_2 emission intensity, transport	GHG emission intensity, other sources
	Level, 2000				Average annual percentage change 1990-2000			
Australia	1 061	360	159	542	–1.82	–0.46	–1.52	–2.70
Austria	403	66	96	241	–2.05	–3.20	–0.02	–2.42
Belgium	600	105	97	398	–1.47	–1.27	–0.19	–1.81
Canada	888	156	183	549	–0.94	0.24	–0.85	–1.28
Czech Republic	1 082	468	100	514	–2.77	2.54	6.33	–6.58
Denmark	501	171	88	242	–2.38	–2.73	–0.84	–2.64
Finland	597	178	99	321	–2.56	–0.17	–1.83	–3.84
France	402	30	102	271	–2.00	–2.60	–0.02	–2.57
Germany	519	168	91	260	–3.92	–3.57	–1.05	–4.95
Greece	819	275	122	422	–0.16	0.07	–0.02	–0.34
Hungary	747	192	79	476	–2.60	–1.30	–0.24	–3.40
Iceland	398	0	84	314	–1.82	..	–2.47	..
Ireland	643	152	98	392	–4.63	–2.97	0.23	–6.03
Italy	432	108	89	235	–1.06	–0.43	0.01	–1.70
Japan	441	132	81	229	–0.34	0.13	0.89	–0.99
Luxembourg	314	6	249	59	–12.47	–27.09	0.62	–23.13
Netherlands	553	138	80	335	–2.49	–0.95	–1.09	–3.34
New Zealand	1 078	82	179	817	–2.21	2.87	0.80	–3.12
Norway	**454**	**3**	**97**	**354**	**–2.91**	**–1.57**	**–2.86**	**–2.93**
Poland	1 109	458	74	576	–7.12	–6.48	–1.39	–8.08
Portugal	516	129	111	276	–0.06	0.85	3.47	–1.51
Slovakia	846	249	70	526	–5.21	0.98	1.98	–7.60
Spain	536	130	127	278	0.35	1.21	0.97	–0.28
Sweden	340	35	110	195	–1.91	–1.52	–0.77	–2.56
Switzerland	267	2	78	187	–0.94	–3.82	–0.40	–1.11
United Kingdom	512	137	106	268	–3.58	–4.30	–1.41	–3.94
United States	779	273	192	315	–1.86	–0.73	–1.30	–3.04
OECD total	639	201	137	307	–1.88	–0.79	–0.58	–2.90
EU	491	120	100	272	–2.43	–2.36	–0.40	–3.10
Non Annex 1 countries								
Korea	. .	232	134	. .	. .	4.49	1.08	. .
Mexico	. .	150	124	. .	. .	2.86	–1.88	. .
Turkey	. .	178	84	. .	. .	4.52	–1.26	. .

Source: Greenhouse gas emissions: national submissions to the UNFCCC and national publications. Carbon dioxide emissions for electricity and transport: IEA (2001). GDP: OECD, SNA database.

Table 5.2. **Greenhouse gases emissions by sector**
Million tonnes of CO_2 equivalent

	1990	1999	2010[1]
Oil and gas production	7.7	10.2	12.8
Power generation	0.0	0.0	0.0
Industry	18.7	17.6	18.0
Transport	13.7	16.8	17.9
Agriculture	5.0	5.0	5.2
Waste disposal	4.0	4.1	4.1
Other sectors[2]	2.9	2.5	3.3
Total	52.0	56.2	61.3

1. Projection on implemented and adopted policies.
2. Including heating of residential and commercial buildings.
Source: National authorities.

transport by air and sea, are rarely included in carbon levies elsewhere (Table 5.3). Despite quite high rates, the tax is estimated to have reduced inland emissions by only 1.5 per cent from trend (Bruvoll and Larsen, 2002). The main reason for this is that tax rates on inland activities tend to be lower in sectors where energy demand is elastic (*ibid.*). In particular, land-based emission-intensive industries such as metals and chemicals are exempted because they face strong foreign competition although they account for one third of national CO_2 emissions. In oil and gas production, the tax has been more effective, bringing an estimated emission reduction of at least 3 per cent from the reference case (ECON, 1997). In this sector, the tax has spurred investment in innovative technologies, for

Table 5.3. **Rates of the CO_2 tax by sector**
NOK per tonne of CO_2 in 2004

Petrol	328
Diesel	194
Heavy oil	
Normal rate	168
Pulp and paper	86-99
Fishmeal industry	86-99
Domestic shipping[1]	114
Foreign shipping	0
Fishing	0
Domestic flights	114
Natural gas used on shore	0
Process-related GHG emissions from chemical and metal industries	0
Fossil fuel combustion on the continental shelf:	
Oil	282
Gas	325

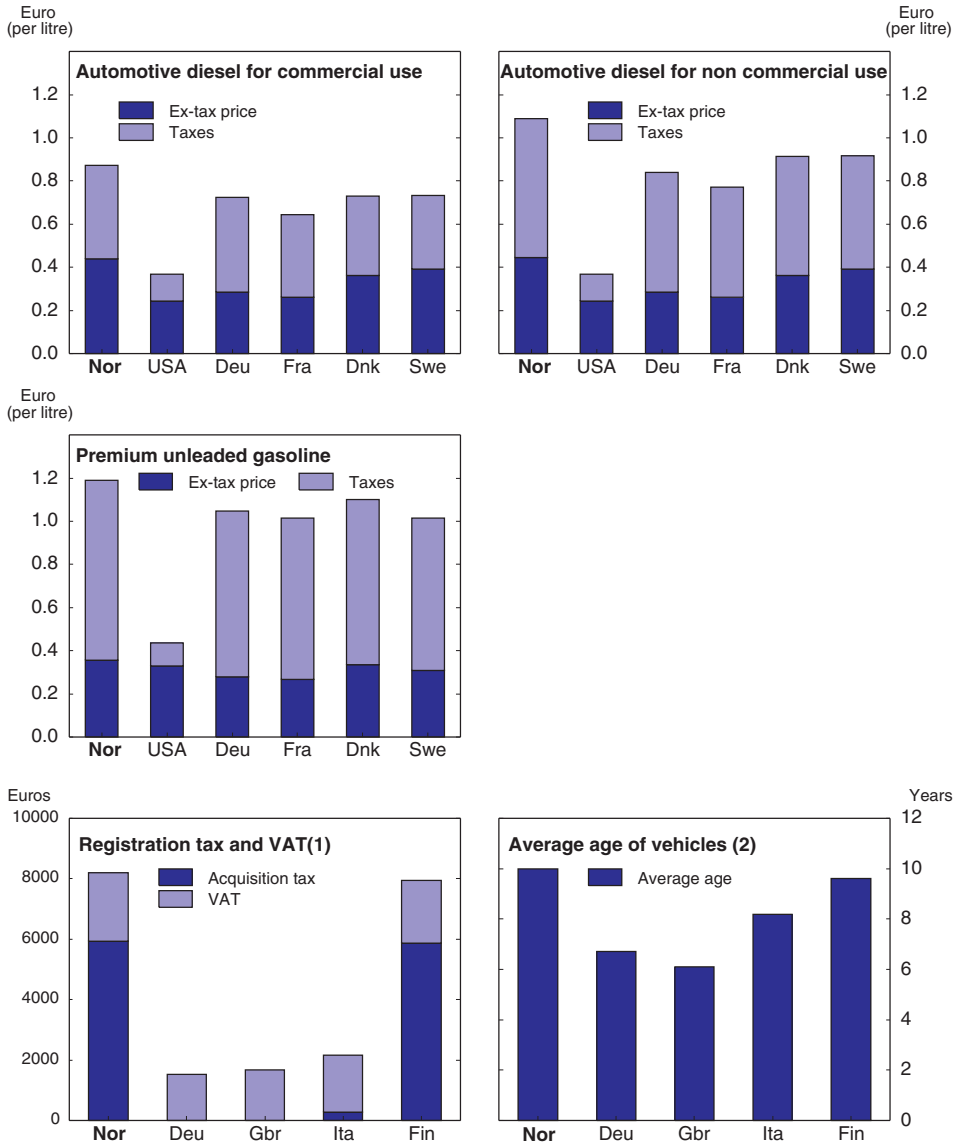
1. Including the supply of goods to activities on the continental shelf.
Source: National authorities.

instance making it economic to re-inject CO_2 from the Sleipner field into the Utsira saline aquifer for a cost in the order of NOK 85 per ton of CO_2 (Markussen *et al.*, 2002). Overall, the fact that the rates of the CO_2 tax vary by fuel and by sector results in an inefficient distribution of efforts. For the same cost to the economy, larger emission reductions could be achieved with a uniform price of carbon.

In the period 2005-2007 the authorities plan to put in place a cap-and-trade scheme that would cover emissions of all six climate gases from sectors that are currently exempted from the CO_2 tax. Allowances would be allocated on a grandfathering basis. The trading scheme has been designed to be complementary with the carbon tax, with the two instruments operating in parallel from 2005. As from 2008, the trading regime would replace the CO_2 tax, include all greenhouse gases and cover most of the economy (80 per cent of emissions). At that stage, the government will as a main rule sell the permits although it retains the option to give some without charge to firms exposed to foreign competition at the beginning of the period. This design is in contrast to the proposed EU-emission trading scheme, which will at least initially limit trading to CO_2 and will grandfather at least 90 per cent of the allowances for the period 2008-2012. Norway's projected trading regime will be superior to the EU scheme in that it would cover not only carbon dioxide but all GHG emissions and in that most of the quotas would not be allocated free of charge but sold. This would allow the government to capture the scarcity rent associated with the cap. The inclusion of sectors that are now fully exempted from the carbon tax in a cap-and-trade scheme could lead to the closure of a few plants that are at the edge of profitability. This should not be seen as an impediment to the implementation of the scheme but as a cost-effective way of fulfilling the agreement under the Kyoto Protocol. It is still undecided how the domestic cap-and-trade scheme will be linked to international trading arrangements.

Official projections expect transport-related emissions to increase over the next decade (Table 5.2). The main instrument of policy in this area is the CO_2 tax on motor fuels. However, the impact of the CO_2 tax on emissions in transportation is blunted by continued very high taxes on the purchase of cars. High taxes on purchases of cars will lead to an increase in prices and may affect the number of purchases of new cars or the size of new cars. Tax on purchase of new cars may therefore act as a disincentive to motorists to replace their old cars with modern vehicles, which will be more fuel efficient as a result of the commitments taken by European, Japanese and Korean car manufacturers (ACEA-JAMA-KAMA accords) (Figure 5.1). Even if the purchase tax were linked to CO_2 emission characteristics, as has been considered, its negative effect on emissions would remain, yet to a lesser extent. Reducing this levy and relying more on the annual tax on vehicle ownership would be more effective since an annual charge does not have the side effect of slowing the renewal of the fleet. Besides, the climate change strategy sets out other measures for this sector, which range from a purchase tax rebate for electric

Figure 5.1. **Taxes on motor fuels and road vehicles in 2002**



1. For a new vehicle of about 9 500 euros, 1 200 cm^3, 43 kW, 930 kg, in 1997.
2. 1999 for Norway, 1997 for other countries.

Source: IEA, *Energy Prices and Taxes,* 2002; European Commission: study on vehicle taxation in the member states of the EU; Statistics Norway.

cars to the priority goal of supplying more public transport. Such measures appear likely to be ineffective and costly because opportunities to slow road transport-related emissions at low cost have already been largely exploited as a result of the high level of taxes on motor fuels (Figure 5.1).

Conclusions

Norway has a long experience of using economic instruments to check GHG emissions. The carbon tax has been effective in sectors where it introduced a sizeable change in the cost of releasing GHG, such as in oil and gas production. However, the large cross-sectoral variation in rates and the exemption of the most pollution-intensive activities entails unnecessary costs. The project to introduce a trading scheme encompassing those sectors that are currently exempt from the tax appears to be an appropriate way to exploit untapped possibilities to reduce emissions at low cost. The objectives to include every greenhouse gas and to sell the permits in the 2008-2012 period are commendable, and are superior on both efficiency and equity grounds compared with the planned EU trading regime. Given that marginal abatement costs are likely to be higher in Norway than in many other countries, it is important to allow participants in the trading scheme to freely buy foreign emission permits. This would efficiently align the national price of emissions with the international price. In turn, for those sectors remaining outside Norway's cap-and-trade regime, the different rates of the carbon tax ought to be replaced by a single value, regularly equalized with the price of carbon as observed on the market. As regards the taxation of motor fuels, the induced incentive to switch to more energy efficient cars will be amplified if the purchase tax is replaced by a higher annual tax.

Making a sustainable use of renewable and non-renewable resources

Norway is abundantly endowed with both renewable and non-renewable natural resources, the oil industry and fisheries being the two major exporting sectors. Even though both subsoil and sea are the common property of the people of Norway, their resources are managed very differently and raise dissimilar issues. In oil and gas production, the main issue is to make sure that the government captures most of the scarcity rent from depleting the resource and that a sufficient share is set aside for future generations. As regards the management of wild fisheries,[2] the main issue is to ensure the recovery of fishing stocks to their economically optimal levels.

Non-renewable resources: oil and gas

Despite high levels of production which make Norway the third largest exporter of crude oil, the ratio of proven reserves over production has remained broadly stable, in the order of ten years, thanks to advances in exploration. For natural gas, proven reserves are equivalent to about four decades of current

extraction levels. Even more oil and gas is expected to be found in other fields, or extracted from existing ones.[3] There is however a high degree of uncertainty over future production levels, as is reflected by the wide margin between official scenarios (Figure 5.2, panel A). Future government receipts are even more uncertain with production gradually moving towards areas with higher extraction costs. Public policy in this area endeavours to get the largest possible share of the resource rent and to invest it in financial assets (van den Noord and Vourc'h, 1999). The government captures an estimated 80 per cent of the scarcity and oligopoly rent, thanks to the direct state financial interest (SDFI) in oil fields and to taxes on extraction activities (Van den Noord, 2000). The reform that accompanied the partial privatisation of Norway's foremost oil and gas producer Statoil should help the authorities to improve their focus on maximizing their share of the resource rent. Responsibility for managing the SDFI on behalf of the State has been transferred from Statoil to a new wholly state-owned company that was created for this sole purpose, named Petoro AS.

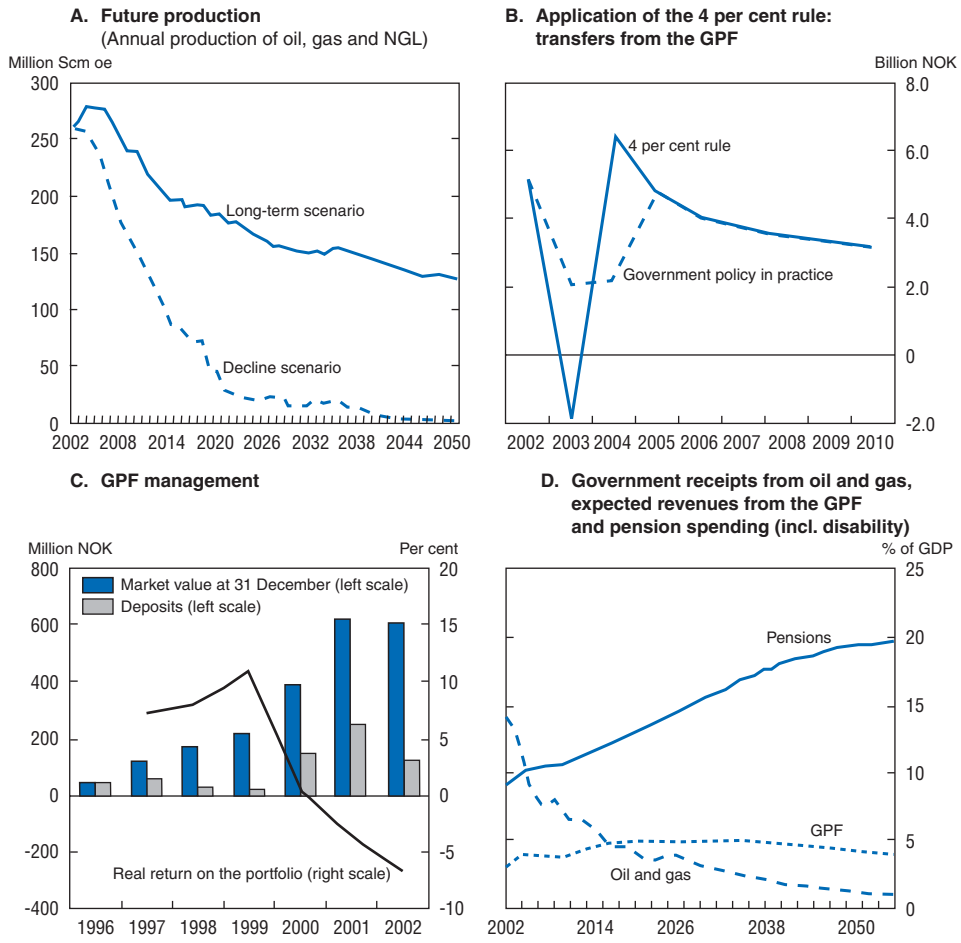
Government receipts from oil and gas activities accrue to the Government Petroleum Fund (GPF), which is invested exclusively in foreign securities. The main guideline for the use of the Fund is that, over the medium term, the size of the non-oil budget deficit, which is covered by transfers from the GPF, should not exceed the equivalent of a 4 per cent real return on assets in the Fund. Nonetheless, the rules governing the use of GPF resources may still pose risks of overspending. The possibility to depart from the spending norm so as to smooth the contribution of oil revenues to the budget may be used asymmetrically, resulting in fiscal slippage. This provision has indeed been used in 2003 to spend more oil revenues than indicated by the 4 per cent rule. It remains to be seen whether transfers in the coming years will be below the 4 per cent rule as is currently announced (Figure 5.2, panel B).

On unchanged policies, Norway's capacity to save oil and gas receipts for future generations will be severely tested by a huge increase in pension spending, which is set to rise more over the coming 50 years than in almost all OECD countries. Pension spending will largely outweigh cash flows from petroleum extraction (Figure 5.2, panel D). Even when asset accumulation in the GPF is accounted for, pension outlays are still bound to exceed GPF receipts by a wide margin (Ministry of Finance, 2003).

The institutional setting is in place to allow for the conversion of petroleum wealth to financial wealth which can later be used to sustain economic welfare as oil and gas reserves run out. To ensure that the extraction of oil and gas will continue to be accompanied by a build-up of income-generating assets, the authorities should introduce the following changes:

– Upward deviations from the spending norm should be matched by subsequent downward changes so as to avoid spending too much too early.

Figure 5.2. **Management of oil and gas resources**



Source: Ministry of Petroleum and Energy (panel A); Ministry of Finance (panels B and D); Norges Bank (panel C).

– Besides, long-term pension spending ought to be reduced so as to reduce the risk of GPF assets being depleted inefficiently early.

Renewable resources: fisheries

Stable levels of wild fish capture and surging aquaculture production over the 1990s have contributed to making Norway the largest fish exporter in the OECD area (Table 5.4). More recent long-term management plans for important

Table 5.4. **Performance indicators: fisheries**

	Fish catch (tonnes)	Fishing fleet			Transfers to the fishing industry	Aquaculture
	Per cent change	Per cent change			Per cent of landed value	Per cent change
		Tonnage	Employment	Number of vessels		
	1985-2000	1985-1997			1999	1990-1997
Australia	39.6	78.1	11.6	–81.4	. .	319
Austria	22.7					–31
Belgium	–33.9	1.6	–33.8	–31.2	. .	273
Canada	–31.3		–17.2	–31.6	42.1	1 301
Czech Republic	..					..
Denmark	–13.5	–29.9	–22	–46.1	7.4	80
Finland	–9.8	140.4	–27		136.8	52
France	–3.0	4.2		–39.2	7.2	18
Germany	–43.8	–86	82	58.6	31.0	–2
Greece	–11.8	–38.7	41.7	238.1	47.3	3 261
Hungary	–61.8					–30
Iceland	18.0	62.7	–5.1	8.5	4.4	3 418
Ireland	24.8			–65.7	51.3	328
Italy	–37.4	–12.3		–2.6	17.8	105
Japan	–53.6	–42.1	–35.6	–12.6	23.7	15
Korea	–19.2	15.6	–30.6	4.3	12.8	–18
Luxembourg						
Mexico	9.0		29.5	102.5	. .	379
Netherlands	13.1	20	12.8	–0.9	. .	–35
New Zealand	178.3		–45.7	–18.3	. .	624
Norway	**29.7**	**–3.8**	**–22.5**	**–42.6**	**14.3**	**1 310**
Poland	–67.1		–47.5	. .	. .	78
Portugal	–40.3	–39.3		–32.7	8.8	18
Slovak Republic	..					. .
Spain	–19.8	–18.7		–2.6	13.8	17
Sweden	43.1				23.9	57
Switzerland	–61.4					307
Turkey	–12.5	21.4	159.2		. .	2 827
United Kingdom	–14.1	–19.7	6.5		8	659
United States	2.3		–76.9		30.8	32

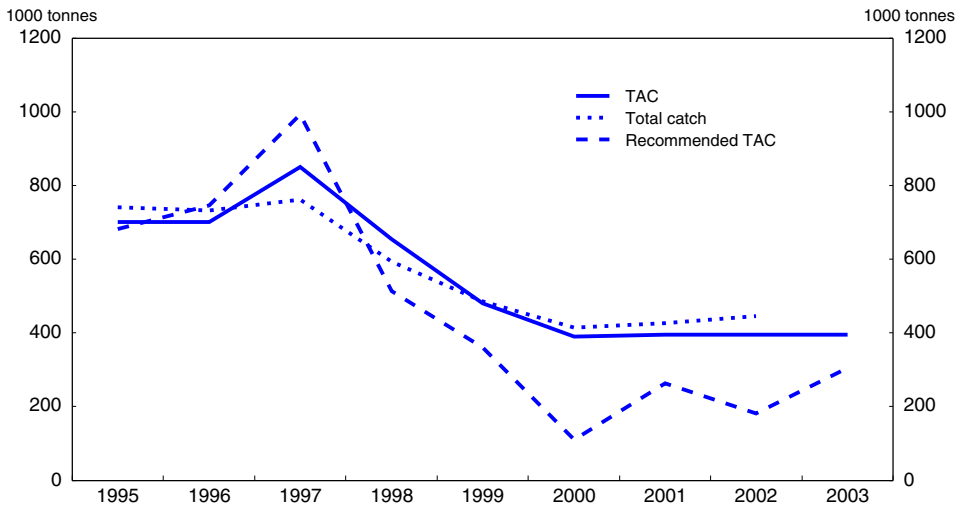
Source: FAO, OECD and World Bank.

commercial fish stocks have allowed these stocks to recover from over-fishing in the past and to exceed precautionary levels, thus reducing the risk of fish stock collapse. Nonetheless, even though most of the previously over-fished stocks are now above precautionary levels, further increases would be desirable as it would

give long-term rewards in the form of higher sustainable quotas. In contrast, the North Sea cod stock is significantly below the precautionary level and the stock of North Sea haddock is also a cause for concern.

Unlike policies concerning the oil sector, the authorities do not attempt to capture the natural resource rent from the fishing sector. Policy relies both on a number of technical regulations and on the setting of total allowable catches (TACs), which are allocated to individual boats. Current restrictions prevent the transfer of individual quotas between fishing vessel operating in different districts, so preserving fishing activity in remote areas. This restriction tends to preserve excess capacity and productive inefficiency in the fishing fleet. The fishing authorities are reluctant to make large changes in TACs from one year to another in order to protect the fishing industry from adverse shocks, given considerable uncertainty about the projected state of fish stocks as a result of mis-measurement, forecast error, and natural stock volatility. On several occasions over the past decade, the TACs set for various stocks have been well above scientific advice, though (with the exception of North Sea cod) not at levels that entail a high risk of stock collapse. However, allowing TACs to be set above scientific advice runs the risk of seriously depleting stocks as well as slowing the recovery of stocks to economically optimal levels, which would ultimately benefit the fishing industry. The setting of a TAC in these cases is only partly determined by Norway since fishing rights in the exclusive economic zone are shared with Iceland, Russia, and the European Union.

Figure 5.3. **Northeast Artic cod: Recommendations and actual catch limits**



Source: Statistics Norway.

To ensure a transition to stocks that are both economically optimal and contribute to the functioning and productivity of the ecosystem, TACs should be set in line with scientific advice. In balancing the short term interests of the fishing fleet and attaining economically optimal stocks, a rule based adjustment procedure, as recently introduced in Iceland, may be useful in limiting inter-annual shocks to TACs while guaranteeing that quotas automatically adjust to target long term stock objectives. Improved international co-ordination in setting TACs is increasingly urgent if the two North Sea stocks most at risk from over-fishing are to be protected. Some possibilities to transfer quotas exist for ocean-going and larger coastal vessels but are limited and subject to various restrictions. Nonetheless, the efficiency of the Norwegian fleet could be improved by further relaxing the restrictions on TAC transfers.

Improving living conditions in developing countries

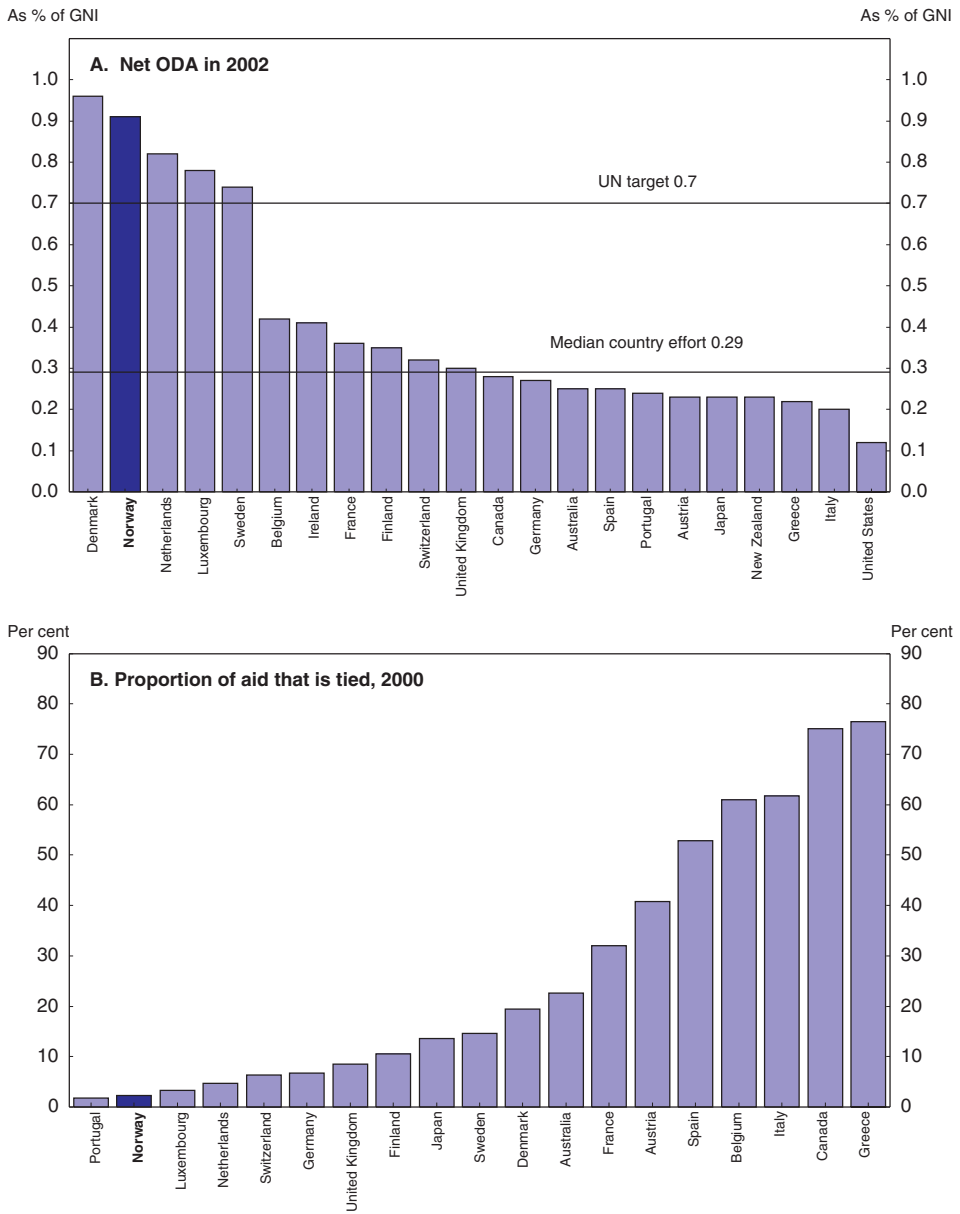
Main issues

Reducing poverty in the non-OECD area is essential to achieve globally sustainable development. Although developing countries themselves have the major responsibility to improve their living standards, OECD countries can help them do so by giving them access to markets and by providing them with official development assistance (ODA). Norway is strongly committed to international development, devoting a comparatively large share of its national income to development aid. The main issues are the allocation of aid amongst recipient countries and the degree of openness of the Norwegian market to developing countries, especially for farm produce.

Performance

Norway has the second highest ratio of official development assistance (ODA) to gross national income amongst donor countries, well above the UN target of 0.7 per cent of GNI (Figure 5.4). Half of Norwegian aid is channelled through multilateral institutions and a quarter through non-governmental organisations. Bilateral aid gives priority to social development and governance, which represents 28 per cent and 17 per cent of the total respectively, while humanitarian relief remains an important component (26 per cent). Assistance to economic development and trade accounts for 17 per cent (MFA, 2002). In contrast to the high official transfers, Norway's imports from developing countries account for only 9 per cent of the total (Table 5.5). Trade with least-developed countries (LDC) is particularly low, amounting to a mere 0.2 per cent of non-energy imports, once reflagging of vessels registered in Liberia is subtracted from commerce data (Table 5.6), but comparable to some other small OECD economies.

Figure 5.4. **Official development aid: an international comparison**



Source: OECD.

Table 5.5. **OECD non-energy imports from developing countries**

	Least-developed countries			Other low-income countries			All developing countries		
	Share in total imports, per cent	Annualised nominal growth (dollar terms), per cent	Share of manu-factures in total, per cent	Share in total imports, per cent	Annualised nominal growth (dollar terms), per cent	Share of manu-factures in total, per cent	Share in total imports, per cent	Annualised nominal growth (dollar terms), per cent	Share of manu-factures in total, per cent
	2001	1990-01	2001	2001	1990-01	2001	2001	1990-01	2001
Australia	0.2	7.9	70.6	12.6	15.1	88.7	22.1	11.8	83.2
Austria	0.3	13.1	89.5	2.7	9.1	92.0	7.6	5.8	85.4
Belgium	1.6	5.7	87.1	4.5	9.9	90.6	11.7	8.8	79.3
Canada	0.1	5.1	79.7	4.8	17.0	93.1	11.9	13.0	84.5
Czech Republic	0.1	8.9	36.2	4.1	39.7	88.7	7.7	20.5	82.0
Denmark	0.3	0.9	72.4	4.3	9.6	92.4	7.4	5.9	72.5
Finland	0.5	16.6	33.5	4.5	13.7	88.4	9.2	8.4	70.7
France	0.6	1.0	59.3	5.4	11.2	87.1	13.0	6.3	79.3
Germany	0.5	5.6	79.1	5.5	9.2	89.9	11.3	4.6	80.0
Greece	0.7	7.0	67.9	5.1	13.4	88.3	13.4	7.9	80.9
Iceland	0.1	20.0	86.2	4.2	21.7	98.7	10.4	19.0	76.9
Ireland	0.3	5.6	34.4	2.9	17.9	88.8	7.6	18.1	85.6
Italy	0.4	–1.1	59.2	4.9	9.8	84.1	13.4	3.7	71.7
Japan	0.2	–4.7	37.3	24.6	14.0	81.4	39.0	9.9	75.3
Korea	0.1	–2.6	45.4	14.3	12.1	79.3	24.5	9.2	75.7
Luxembourg	0.1		88.7	0.7		57.3	1.5		72.7
Mexico	0.0	–6.3	68.4	0.6	13.5	91.8	4.0	14.9	85.8
Netherlands	0.4	5.9	62.0	7.7	12.3	82.0	16.2	7.5	70.4
New Zealand	0.1	4.2	32.4	10.2	18.6	92.9	17.2	12.6	84.3
Norway	**0.4**	**–17.5**	**86.1**	**4.3**	**14.4**	**93.9**	**8.9**[1]	**–0.2**	**66.8**
Poland	0.4	12.4	70.9	4.9	22.7	81.3	10.3	18.5	75.8
Spain	0.5	3.2	34.3	5.5	13.9	79.5	13.1	9.3	61.6
Sweden	0.2	7.3	82.5	2.7	6.8	90.9	5.7	3.1	80.0
Switzerland	0.1	–1.2	63.1	2.5	10.2	89.5	5.8	2.7	80.6
Turkey	0.2	–2.4	49.4	5.7	11.4	83.3	12.7	6.7	73.5
United Kingdom	0.4	6.8	78.5	4.7	9.6	87.9	12.8	8.3	82.5
United States	0.5	9.1	87.3	12.6	16.8	94.3	35.2	13.3	88.9

1. The share of total imports from developing countries, including energy, is 8.6 per cent.
Source: OECD.

Policies

Norway is committed to comparatively low bound tariffs on industrial goods (Table 5.7), with 73 per cent of industrial tariff lines being zero-rated (WTO, 2000). In contrast to low tariffs on industrial products, Norway probably has one of the strongest regimes of agricultural protection in the OECD (Tables 5.7 and 5.8).

Table 5.6. **Norwegian non-energy imports from developing countries**
2001

	Low income countries		Middle income countries		All	Rest of world	World	LDC	Other developing countries	All
	Least developed	Other	Lower	Upper						
	Per cent of total imports							Annual nominal growth, 1990-2001		
By commodities										
Food and beverages	0.2	1.9	6.0	4.2	12.3	87.7	100.0	2.6	1.4	1.4
Raw materials[1]	0.5	1.6	12.1	12.6	26.8	73.2	100.0	–8.9	0.2	–0.1
Textile and clothing	2.1	27.9	3.1	1.2	34.4	65.6	100.0	9.2	9.5	9.5
Other manufacturing	0.0	2.9	0.5	1.0	4.4	95.6	100.0	18.4	13.8	13.8
Vessels	2.1	3.7	0.0	2.5	8.3	91.7	100.0	–22.2	–10.3	–15.6
Other	0.2	2.1	1.7	1.8	5.9	94.1	100.0	. .	4.6	4.9
Total	0.4	4.3	1.9	2.3	8.9	91.1	100.0	–17.5	3.2	–0.2
By area										
Food and beverages	4.0	2.9	21.0	12.5	9.2	6.4	6.7			
Raw materials[1]	9.5	2.9	49.6	43.3	23.4	6.2	7.7			
Textile and clothing	35.6	39.9	10.2	3.3	24.1	4.5	6.2			
Other manufacturing	1.2	46.4	18.3	30.6	34.5	73.2	69.7			
Vessels	49.2	7.6	0.1	9.7	8.3	8.9	8.8			
Other	0.4	0.4	0.7	0.7	0.5	0.8	0.8			
Total[1]	100.0	100.0	100.0	100.0	100.0	100.0	100.0			

1. Excluding energy.
Source: OECD International Trade database.

Table 5.7. **Tariffs on industrial and agricultural goods**
Post Uruguay Round

	Simple mean of bound tariffs, per cent	Standard deviation	Per cent of tariffs greater than 15 per cent	Maximum rate,[1] per cent
	Industry			
Australia	10.6	10.8	15.9	89.3
Canada	5.3	5.2	7.2	25.0
Czech Republic	4.5	3.3	1.0	31.5
European Union	4.1	3.6	0.6	22.0
Hungary	6.8	4.0	1.4	44.0
Iceland	10.0	12.1	30.0	107.0
Japan	3.6	3.8	0.6	49.0
Korea	11.4	9.0	18.9	110.8
Mexico	34.8	3.1	99.6	67.2
New Zealand	13.8	14.7	33.9	313.5
Norway	**3.4**	**5.5**	**0.2**	**170.0**
Poland	10.6	5.2	12.9	100.7
Switzerland	1.9	3.4	0.3	99.3
Turkey	40.7	34.2	77.3	360.0
United States	3.8	4.2	2.0	34.5
	Agriculture			
Australia	3.3	4.6	3.0	26.1
Canada	4.6	4.7	1.2	49.0
Czech Republic	13.3	19.2	23.4	146.5
European Union	19.5	22.1	33.9	198.3
Hungary	22.2	19.1	47.5	127.0
Iceland	48.4	85.7	58.9	563.0
Japan	11.7	12.6	17.5	126.4
Korea	62.2	108.8	74.1	800.3
Mexico	42.9	35.2	96.2	254.0
New Zealand	8.7	7.2	12.6	162.1
Norway	**123.7**	**147.6**	**61.1**	**630.0**
Poland	52.8	44.6	74.7	268.0
Switzerland	51.1	96.1	16.5	570.9
Turkey	63.9	55.4	86.7	225.0
United States	5.5	5.5	2.6	98.5

1. This is the maximum rate of tariffs aggregated at the six-digit Harmonised System level. Tariff rates on individual products may be higher.

Source: OECD.

In addition, high support payments (Figure 5.5) result in surpluses that are disposed of on world agricultural markets. Export subsidies averaged $78 million *per annum* in the period 1995-2000. In 2003 exports accounted for 5 per cent of agricultural production.

Table 5.8. **Preferential tariffs in 2000**

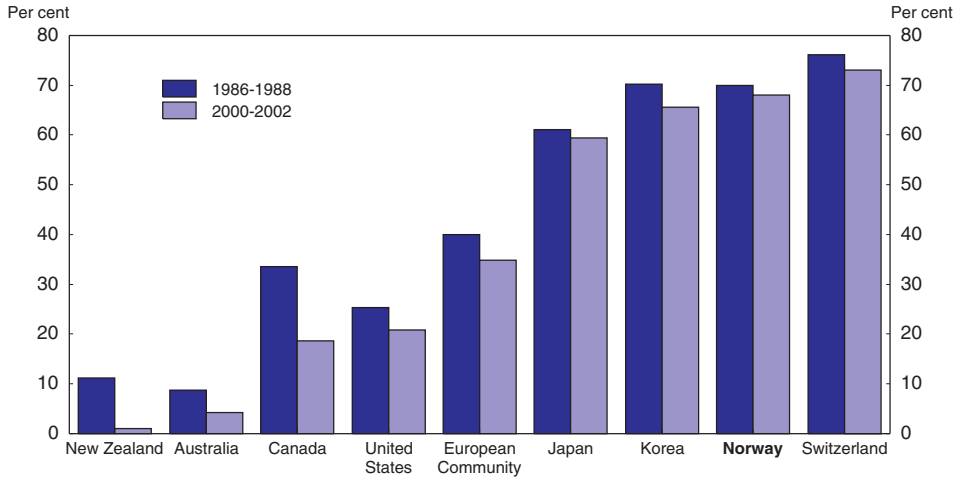
Analysis	No. of lines	Origin		
		EC	GSP-ordinary	GSP-LDC[1]
Total	6 972	5.7	5.3	1.2
By WTO definition				
Agriculture	1 267	36.0	31.0	7.2
Live animals and products thereof	111	186.5	164.6	16.5
Dairy products	26	81.6	81.7	22.6
Coffee and tea, cocoa, sugar, etc.	238	27.7	30.2	7.1
Cut flowers and plants	77	25.0	21.9	4.0
Fruit and vegetables	341	32.8	22.4	4.7
Grains	27	42.2	37.4	29.1
Oil seeds, fats, oils and their products	164	12.1	9.8	7.3
Beverages and spirits	67	10.0	7.0	0.0
Manufactures	5 685	0.1	0.4	0.1
Fish and fishery products	254	3.3	3.0	1.4
Textiles and clothing	981	0.0	1.6	0.0
By sector				
Agriculture and fisheries	525	26.4	21.1	2.7
Mining	113	0.0	0.0	0.0
Manufacturing	6 333	4.2	4.2	1.1
By stage of processing				
Raw materials	973	16.6	13.2	2.0
Semi-processed products	2 000	1.1	0.9	0.5
Fully-processed products	3 999	5.5	5.7	1.5

1. As of 1 July 2002 all products from LDCs are accorded duty free and quota free access to the Norwegian market according to the GSP scheme.

Source: WTO (2000).

Norway grants trade privileges to developing countries through its generalised system of preferences (GSP) with differences between agricultural products and other goods. GSP ordinary beneficiaries are entitled to duty free rates for most industrial goods but many of their agricultural products are subject to high tariff barriers, with rates that sometimes exceed those levied on similar imports originating in the European Union (Table 5.8). Least Developed Countries (LDCs) have enjoyed duty- and quota- free access to Norwegian markets since 1995 for industrial goods and most agricultural products, and since July 2002 for all products. The regime includes GSP safeguard mechanisms aimed at protecting domestic sectors if they were going to be seriously harmed by tariff-free imports from LDCs.[4] In world trade negotiations, Norway is advocating the generalisation of tariff and quota-free access for LDCs and is willing to bind its GSP in this regard provided that other countries do the same and that sufficient safeguard mechanisms are included. Safeguard mechanisms, which form part of the GSP system, do however, hamper the development goal of free market access as they can result in abrupt and unpredictable restrictions on imports.

Figure 5.5. **Producer Support Equivalent: 1986-88 and 2000-2002**
As a percentage of value of production at farm gate plus budgetary support



Source: OECD.

Measures to decouple support to farmers from production levels would be advantageous for developing countries because the measures would be less trade-distorting. At present, 80 per cent of producer support to farmers is directly linked to output or the use of farm inputs. Even with an unchanged envelope of total aid to agriculture, a further decoupling of support from production would improve the allocation of resources while improving the efficiency of income transfers. Indeed, such a re-orientation offers the possibility of targeting the transfers to less well off farmers or to smaller units although it still involves the risk of artificially maintaining the activity of uneconomic farms (OECD, 2003).

Norway's financial commitment to development is strong with official flows representing 0.93 per cent of GNI in 2002, a figure set to reach the target of 1 per cent by 2005. The high degree of untying of Norwegian ODA (Figure 5.4) suggests that it can be used to fulfil recipients' needs in a competitive manner. Bilateral aid consists mainly of humanitarian relief and of development programmes. The main focus of Norwegian developmental aid is on poverty reduction, an orientation that has been endorsed by the Storting in 2002 following a cabinet report. To be more effective in the pursuit of that objective, the list of partner countries has been narrowed down since 2002 from eleven to seven LDCs: Bangladesh, Malawi, Mozambique, Nepal, Tanzania, Uganda and Zambia. These seven countries clearly have strong poverty reduction needs while governance difficulties

would probably have limited the possibility of obtaining results in the four no longer appearing on the list (Eritrea, Ethiopia, Sri Lanka and Nicaragua). The effort to make aid more focused will require reversing the trend towards more dispersion that occurred over the last decade and led to more than 100 countries now receiving bilateral assistance, including humanitarian relief. Indeed, the top five recipient countries got only 29 per cent of bilateral flows in 2000-2001, against 50 per cent in 1987-88. Besides, Norway provides significant resources (US$13.5 million in 2001-2002) to trade-related technical assistance and capacity building activities. Although such efforts are helpful to prospective exporters in developing countries, there is a lack of coherence between this policy and the high degree of protection that characterizes Norway's agricultural sector.

Conclusions

With one of the highest ratio of ODA to national income amongst donor nations, and one set to rise further, Norway's commitment to international development is clearly strong, all the more so since its aid is almost entirely untied from national suppliers. Nevertheless, there appears to be room for improving the effectiveness of development assistance by increasing the concentration of bilateral aid on Norway's seven main partner countries.

Norway's efforts to raise living conditions in developing countries are hampered by a lack of policy coherence with an agricultural policy that contributes to reduced export opportunities for farmers in the developing world. Opening the Norwegian agricultural market and helping to build trade capacity in co-ordination with other development partners in the context of the Doha development round is an advisable option, which would improve social welfare both in developing countries and in Norway. In the shorter run, while the recent policy to allow duty and quota-free entry to agricultural imports from LDCs is laudable, associated GSP safeguard clauses ought to be lifted (and the reforms cited earlier implemented) so as to create more solid and durable export opportunities.

Notes

1. This average increase in emissions in transportation hides two diverging developments, namely a 15.6 per cent increase in road vehicle emissions and a 13.6 per cent decrease in the rest of the transport sector.
2. The section does not deal with fish farming because this activity does not raise the issue of ensuring that a given stock is exploited in a sustainable manner. Fish farms raise other sustainability issues, which are not discussed here, such as avoiding excessive water pollution and making sure that farmed species do not irreversibly take over from pre-existing wild ones.
3. These resources are not yet accounted for as proven reserves because of their contingent nature.
4. For example, in the wake of soaring beef imports from Namibia and Botswana, and following complaints by Norwegian farmers, the government in 1998 decided that the safeguard mechanism of the GSP scheme should be invoked if imports of duty free beef from the LDCs exceeded 2 700 tonnes *per annum*. Similar decisions were consequently made for each of the three years from 1999 to 2001. From 2002 only imports of duty free beef from Botswana and Namibia are to be included in the 2 700 tonnes. Actual imports have remained below the threshold.

Bibliography

Bruvoll, A. and B.M. Larsen (2002), "Greenhouse gas emissions in Norway: do carbon taxes work?", *Discussion Paper* No. 337, Statistics Norway, Oslo.

ECON (1997), "Effects of a CO_2 tax on CO_2 emissions from the Norwegian petroleum extraction sector", ECON *Report* No. 50/97, Oslo.

Markussen, P., J.M. Austell and C.W. Hustad (2002), "A CO_2 infrastructure for EOR in the North Sea: macro-economic implications for host countries", mimeo presented to the *Sixth International Conference on Greenhouse Gas Control Technologies*, Kyoto.

Ministry of Finance (2002), "National Budget for 2003", *Report* No. 1 *to the Storting* (*Parliament*), October, Oslo.

Ministry of Foreign Affairs (2002), "Focus on Norwegian Development Co-operation", *Statement to the Storting* (*Parliament*) *on Development Co-operation Policy* 2002 *and Report on Norwegian Development Co-operation in* 2001, April, Oslo.

Ministry of the Environment (2002), *Third National Communication to the United Nations Convention on Climate Change*, Oslo.

OECD (2001), *Environmental Performance Reviews*: *Norway*, Paris.

OECD (2002), *Agricultural Policies in* OECD *Countries*: *Monitoring and Evaluation*, Paris.

Statistics Norway (2002), *Natural Resources and the Environment*, Oslo.

Van Den Noord, P. (2000), "The tax system in Norway: past reforms and future challenges", *Economics Department Working Papers* No. 244.

Van Den Noord, P. and A. Vourc'h (1999), "Sustainable economic growth: natural resources and the environment in Norway", *Economics Department Working Papers* No. 218.

World Trade Organisation (2000), *Trade Policy Review*: *Norway*, Geneva.

Annex A

Calendar of main economic events

2003

January

DnB takes over Nordlandsbanken, which went bankrupt in the wake of the Finance Credit accounting scandal.

Norges bank lowers its key interest rates by 0.5 percentage points, the second of eight interest rate cut between December 2002 and December 2003. The overnight deposit and lending rates stand, after the January decrease, at 6 and 8 per cent, respectively. The exchange rate starts to weaken after a pronounced appreciation over the previous two years.

February

A softening of the Working Environment Act is adopted by parliament, *i.e.* allowed overtime is expanded from 200 hours to 400 hours each year.

A tax committee, chaired by Arne Skauge, delivers its recommendations on tax reforms.

March

In a letter to ESA, EFTAs oversight, the government makes clear its intentions to maintain zero employer's social security contribution in Finmark and Nord-Troms and that it will pursue the current system with regard to fishery and agriculture. Furthermore, the government requests a three-year transitional period for zones three and four and an arrangement for transport support. ESA approved in November.

Norges Bank lowers the overnight deposit and lending rates by 0.5 percentage points, to 5.5 and 7.5 per cent, respectively.

April

DnB and Gjensidige Nor enters into a merger agreement, making the new entity – DnB Nor – the country's largest financial corporation. The agreement is approved by the respective general assemblies in May and conditionally by The Financial Supervisory Authority of Norway (August), the Norwegian Competition Authority (November), and the Ministry of Finance (November).

Major changes are made to the ownership of two of Norway's largest shipping companies. B*ergesen* is sold to Hong Kong based World Wide Shipping. H*øegh* is removed from the stock exchange when the third generation of ship owners, Leif O. Høegh and Morten W. Høegh, buy all outstanding stocks.

May

Oslo city council's desire to sell the energy company Hafslund attracts attention from national politicians. The dispute centres around foreign ownership as Finnish company Fortum stands ready to carry through the acquisition. The government is deeply divided on the issue, but finally the foreign acquisition is rejected.

Norges Bank lowers the overnight deposit and lending rates by 0.5 percentage points, to 5 and 7 per cent, respectively.

June

The parliament decides that eight governmental supervision agencies, employing 900 people, should be moved outside Oslo.

Parliament decides that to provide sufficient places in kindergartens become a statutory requirement for municipalities.

Core inflation is 0.8 per cent, the lowest in 40 years. Norges Bank responds by lowering the overnight deposit and lending rates by 1 percentage points, to 4 and 6 per cent, respectively.

July

Core inflation becomes even lower than in June and ends at 0.7 per cent.

August

Confronted with inflation far off the target interval, Norges Bank once again reduces key interest rates by a full percentage point.

September

The Statoil board of directors was not informed on an agreement involving NOK 115 million payments to Mehdi Hashemi Rafsanjani, the son of the former Iranian president, via the British registered consulting company Horton Investment. Suspicion of corruption prompts the resignations of Chairman Leif Terje Løddesøl and CEO Olav Fjell.

The Progress Party (FrP) and the Social Left Party (SV) do best in the local elections, both achieving their best results ever. The Christian Democrat Party (KrF) does poorly, eventually leading to the resignation of party leader Valgerd Svarstad Haugland later that autumn.

A committee appointed by oil companies presents its recommendations to a reformed offshore tax system. The oil companies argue that the high marginal tax combined with few remaining unexplored oil fields act as a substantial drag on the continental shelf petroleum activity.

Two managers in Odfjell shipping company must serve a sentence of seven months in US prisons, while the company must pay a fine of NOK 300 million due to illegal price fixing.

Norges Bank lowers the overnight deposit and lending rates by 0.5 percentage points, to 2.5 and 4.5 per cent, respectively.

October

The government presents its fiscal budget for 2004 and argues that the proposition involves a neutral fiscal stance.

November

The Norsk Hydro board of directors proposes a demerger of Agri, the agriculture branch. Thus, Norsk Hydro will henceforth focus on oil and aluminium, while the agricultural branch will be listed on the stock market in March 2004 under the new name Yara.

The government parties and the Labour party reach a budget settlement, implying the first budget settlement between the Conservative Party and the Labour Party since 1945.

December

Regulations concerning the parental cost of having children in kindergartens are sent on hearing. The proposal involve a maximum monthly price of NOK 2750 and a maximum yearly price of NOK 30 250 to be implemented 1 April 2004.

The government decides to re-open Barentshavet, but not Lofoten, to all-year petroleum activity. The oil companies, which regard Lofoten as the most attractive area of the two, are not very enthusiastic.

2003 was one of the best years ever on Oslo Stock exchange. The main index grew by 74 per cent from February to December.

Core inflation is very low at only 0.5 per cent. Still, the subsequent 0.25 interest cut from Norges Bank surprises the market by moving directly from neutral bias to rate cut. After the cuts, overnight deposit and lending rates are 2.25 and 4.25 per cent, respectively.

2004

January

Norges Bank lowers the overnight deposit and lending rates by 0.25 percentage point, to 2 and 4 per cent, respectively. Since December 2002, key interest rates have been cut by 5 percentage points in total.

Consumer prices fell 1.8 per cent from January 2003 to January 2004, mainly because of the development in electricity prices. In the same period, core inflation rose 0.1 per cent.

February

A committee chaired by Ingeborg Moen Borgerud, delivers its report on proposed revisions to the Working Environment Act, proposing, *inter alia*, access to temporary (6 month) contracts, greater flexibility concerning working hours, and greater ease of lay-offs. The deadline for the hearing is set to 10 June.

Glossary of acronyms

ADSL	Advanced Digital Subscriber Lines
ALMP	Active Labour Market Policies
APW	Average Production Worker
CPI	Consumer Price Inflation
DSL	Digital Subscriber Lines
EIRO	European Industrial Relations Observatory
EU	European Union
EUR	Euro
FDI	Foreign Direct Investment
FDC model	Fully Distributed Cost Model
GDP	Gross Domestic Product
GNI	Gross National Income
GSP	Generalised System of Preferences
ICT	Information and Communications Technology
IMF	International Monetary Fund
ISDN	Integrated Services Digital Network
LDC	Least developed countries
LRIC model	Long Run Incremental Cost model
MFP	Multi-factor productivity
NIS	National Insurance System
NOK	Norwegian kroner
NOKUT	Norwegian Agency for Quality Assurance in Education
NCA	Norwegian Competition Authority
PAYGO	Pay-As-You-Go
PES	Public Employment Service
PIRLS	Progress in International Reading Literacy Study
PISA	Programme for International Student Assessment
PPP	Purchasing Power Parity
PSO	Public Service Obligation
RENATE	National Centre for Contact with the Business Community
RISK	Regulering av Inngangsverdi med Skattlagt Kapital
SMP	Significant Market Power
STOL	Short Take Off and Landing
Økokrim	The prosecutor for economic and environmental crime
VAT	Value Added Tax
WTO	World Trade Organisation

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Norway, June 2004
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United States, May 2004

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