

Chapter 1

Maintaining prosperity while dealing with overheating and labour supply constraints

The Norwegian mainland economy has expanded at a surprisingly strong pace since the 2007 Economic Survey, generating substantial real income gains, robust consumption growth and near full employment for its citizens. Favourable developments in world demand for key Norwegian exports and declining prices for many of its imports have played their part in this success. Macroeconomic policy has been tightened progressively, mostly through a long series of interest rate increases up to spring 2008 but also through a degree of fiscal restraint in 2007, and the economy seems to have started to slow in early 2008. Pressure on the labour market shows in rising wage inflation and increasing inflows of foreign labour while, paradoxically, there is only slow progress in dealing with aspects of labour and welfare policy that seem to restrict the supply of labour. Despite strong demand for labour, the compulsory education system performs rather poorly compared with many of Norway's partners.

In recent years, the Norwegian economy has generated wealth and jobs at almost unprecedented rates. Output growth has been rapid and unemployment low, while inflation pressures remained subdued until late 2007. But wage growth was increasing and, at the end of 2007 and into 2008, consumer price inflation picked up sharply; in the first half of 2008 the economy was looking rather overheated.

As the last *Economic Survey* noted, good fortune and good management have both contributed to Norway's success. To maintain this record of success, it will be important to ensure maximum flexibility of labour supply, whether in meeting the continued high levels of aggregate demand which have been putting pressure on capacity, or in helping to ensure a soft landing if the external environment changes for the worse. In the short term, record labour immigration has played a major role in maintaining high economic growth. Despite high overall participation and employment rates, there are potential weaknesses in domestic labour supply; in the longer term these trends, and the future potential for and desirability of immigration, will be key determinants of the potential rate of growth.

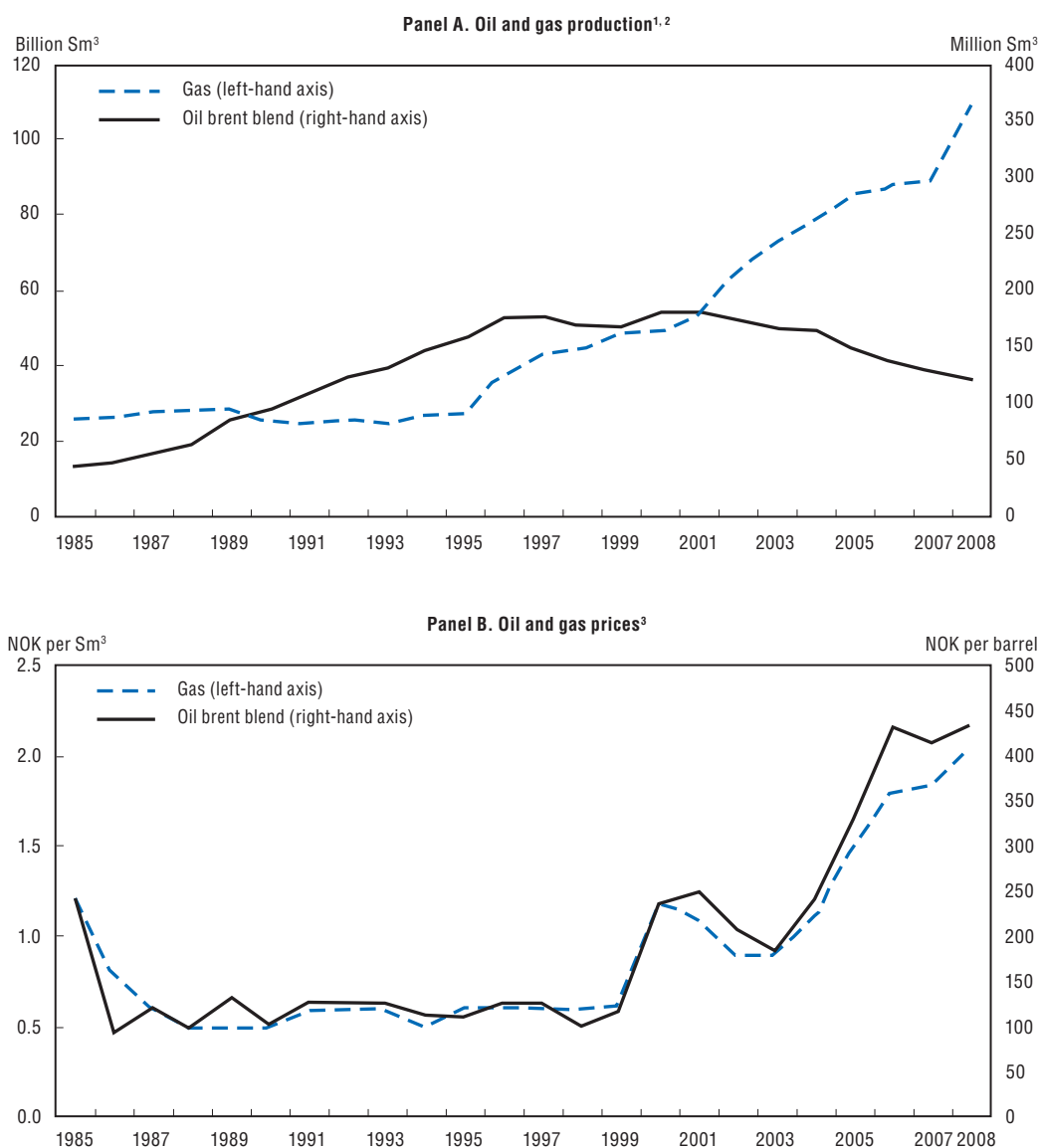
While recent experience suggests that the immediate challenges in Norway are largely related to high demand and growth, the economy may well have entered a period of much slower growth, for both domestic and external reasons. Managing macroeconomic policy and maintaining a well-functioning labour market will be no less important in such a period.

This chapter first surveys the key factors in recent growth performance, and discusses the macroeconomic policy challenges that recent growth has presented. It then looks at the labour market, migration and the education system, to highlight potential longer term problems for which Norway must be prepared, even while enjoying the fruits of current success.

Strong mainland output growth

The volume of output in the off-shore sector (including oil and gas extraction and related services, as well as the off-shore shipping industry) fell quite substantially in 2007, due mainly to temporary technical factors in oil production (Figure 1.1, panel A). Although output will bounce back, oil production has in fact probably peaked, while gas output will continue to rise for some years to come. But despite the output losses, record nominal levels for petroleum (i.e. oil and gas together) prices have boosted revenues (Figure 1.1, panel B); this has provided some direct stimulus to the mainland economy, through demand for goods needed by the off-shore sector, and through incomes and profits.

In 2007, the growth of real income in the total economy (as measured by nominal GDP adjusted by the deflator of domestic demand) was lower than in 2006. Real income was hit by falls in petroleum output and by the stagnation of the terms of trade, for the first time since 2002, as energy prices marked a pause and import prices increased. It is likely that real income gains received a boost in the first half of 2008 from the rise in energy prices, if judged by the rapid increase of total terms of trade in the first quarter (an increase of 15% from the same quarter of the previous year).

Figure 1.1. **Falling production and rising prices for petroleum**

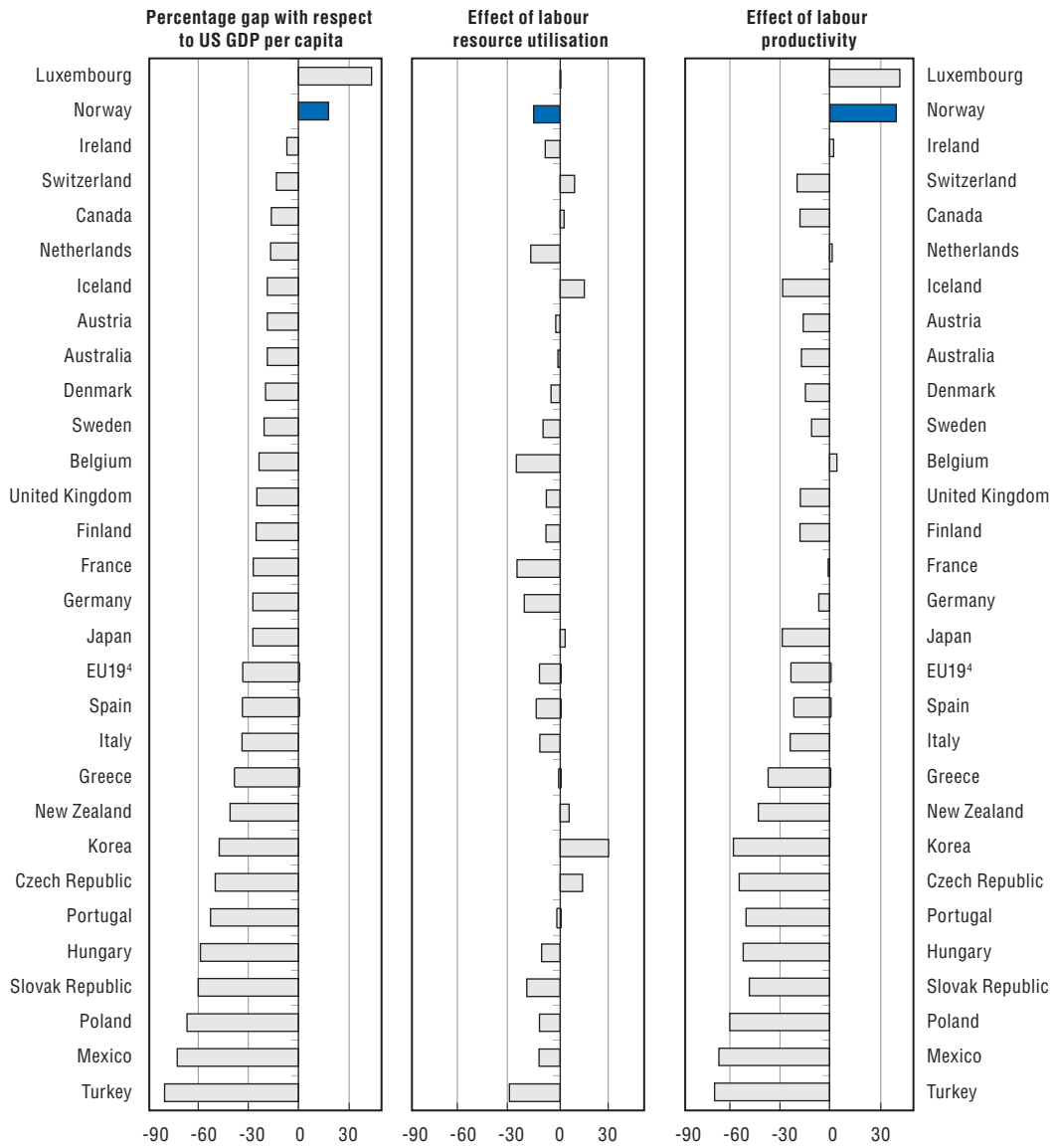
1. Oil and gas production in 2007 are inclusive of January-September data only.
2. Oil and gas production levels are measured in standard cubic meter oil equivalents (Sm³).
3. Gas prices refer to an average of export gas prices.

Source: Statistics Norway and Norges Bank.

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Unlike the offshore sector, the mainland economy has seen rapid growth in the volume of output in 2007. The direct spill-over from investment growth in the petroleum sector accounted for less than 0.2% of mainland GDP growth, but many other factors contributed. In common with many other OECD countries, relatively easy credit conditions have combined with rising incomes and rising income expectations to generate a housing boom. The construction sector, both residential and commercial building, has been expanding rapidly, and is a major source of demand for migrant labour, but most other sectors have been growing fast too, reflecting a general boom in the economy (as for

Figure 1.2. **The source of real income differences**



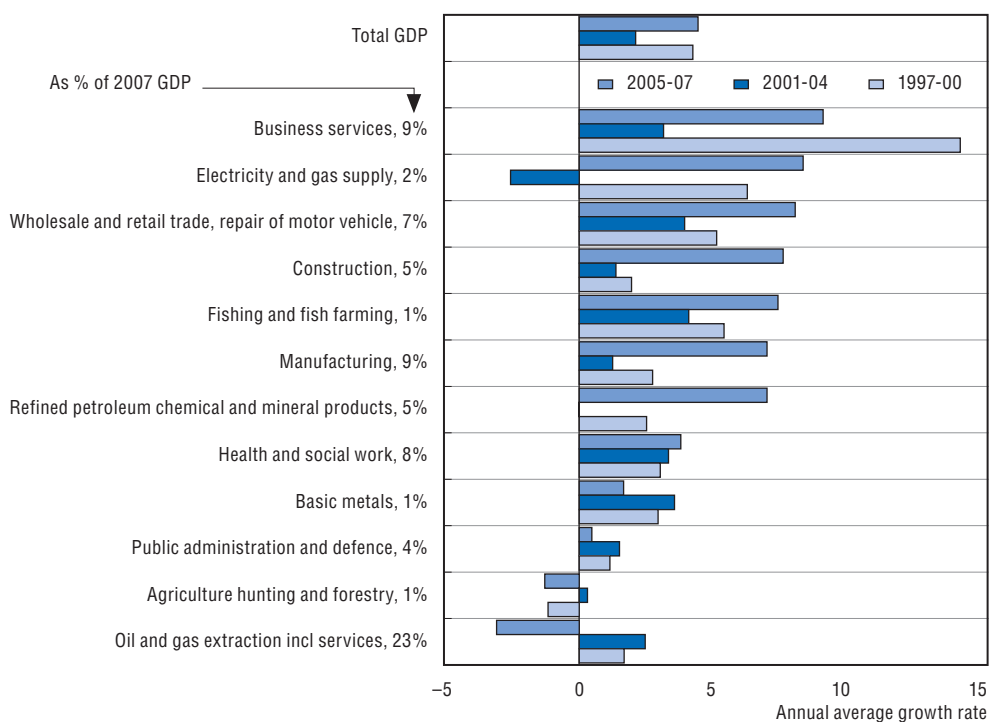
Source: OECD Analytical database.

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instance business services and manufacturing, where output grew twice as fast as total output) (Figure 1.3).

Employment growth has become spectacular by the standards of most European economies. It has driven down unemployment and may well have sparked the slight upturn in labour participation rates; most significantly it has both encouraged and been fed by a major increase in, and change in the nature of, immigration. Strong immigration has probably also contributed to sustaining this boom – the population rose by 1.2% in 2007, the highest growth rate for over 60 years, almost entirely due to immigration (Figure 1.4). The booming economy and the immigration inflows have been to some extent self-reinforcing.

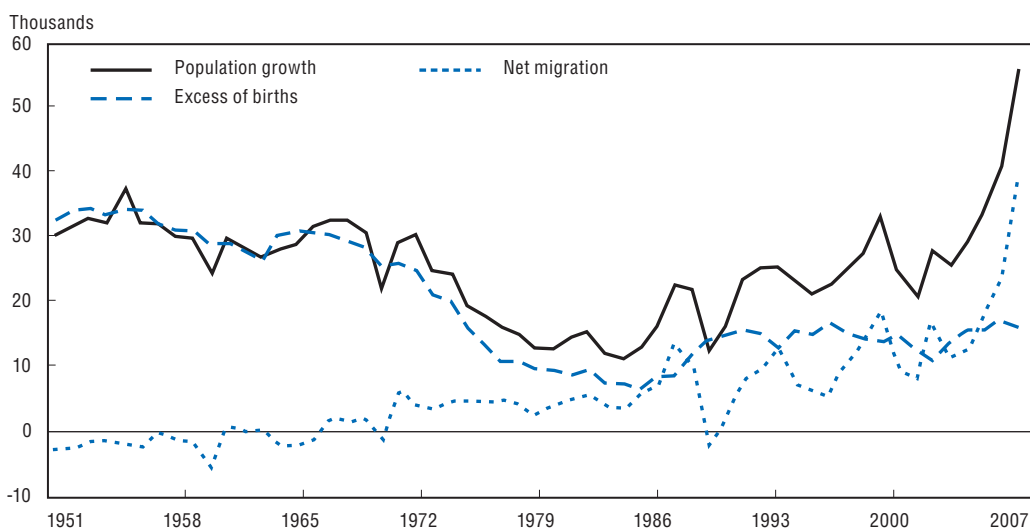
Figure 1.3. Real GDP growth by industry



Source: Statistics Norway.

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Figure 1.4. Excess of births,¹ net migration and population growth²



1. Excess of births is defined as live births net of deaths.

2. Population growth is the difference in population on January 1st between two subsequent years. For 1955, 1958, 1960, 1966, 1968 and later years population growth does not equal excess of births plus net migration.

Source: Statistics Norway.

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Productivity growth in the mainland economy remained more than respectable in 2006 and 2007 by international comparisons, but slowed distinctly compared with 2004-05 (see Table 1.1). Slackening productivity growth may just be due to the cycle reaching its peak (as employment usually lags output growth), but to the extent that product market reforms contributed to its acceleration in earlier years, the absence of enthusiasm for continuing such reforms in recent years may presage somewhat slower growth in the future (see Annex 1.A1). Insufficient innovation activity has also been identified in the past as a problem for Norway; although the previous *Economic Survey* already noted that if innovation was lacking the good productivity performance since 2003 was rather paradoxical. The *OECD Review of Innovation Policy* suggests that a part of the phenomenon may be explained by productivity enhancing innovative activity occurring in areas that are not typically picked up by conventional measures of innovation (OECD, 2008).

Table 1.1. **Sources of Real Output Growth in selected OECD countries, 2001-2007**

		2001	2002	2003	2004	2005	2006	2007
Norway (mainland)	<i>Real output growth</i>	2.0	1.4	1.3	4.4	4.6	4.8	6.0
	<i>Productivity growth</i>	1.7	1.0	2.0	4.1	4.0	1.6	2.6
	<i>Employment growth</i> ¹	0.4	0.4	-0.8	0.3	0.6	3.2	3.4
Norway (total economy)	<i>Real output growth</i>	2.0	1.5	1.0	3.9	2.7	2.5	3.5
	<i>Productivity growth</i>	1.6	1.1	1.8	3.6	2.1	-0.7	0.1
	<i>Employment growth</i> ¹	0.4	0.4	-0.8	0.3	0.6	3.2	3.4
Euro area	<i>Real output growth</i>	1.9	0.9	0.8	1.8	1.7	2.9	2.6
	<i>Productivity growth</i>	0.3	0.1	0.4	0.8	0.6	1.3	0.8
	<i>Employment growth</i> ¹	1.6	0.8	0.4	1.0	1.1	1.6	1.8
United Kingdom	<i>Real output growth</i>	2.4	2.1	2.8	3.3	1.8	2.9	3.0
	<i>Productivity growth</i>	1.5	1.3	1.8	2.2	0.8	2.0	2.4
	<i>Employment growth</i> ¹	0.8	0.8	1.0	1.0	1.0	0.9	0.7
United States	<i>Real output growth</i>	0.8	1.6	2.5	3.6	3.1	2.9	2.2
	<i>Productivity growth</i>	0.9	2.8	2.5	2.6	1.5	1.1	1.3
	<i>Employment growth</i>	-0.2	-1.2	0.0	1.1	1.6	1.8	0.9
Denmark	<i>Real output growth</i>	0.7	0.5	0.4	2.3	2.5	3.9	1.8
	<i>Productivity growth</i>	-0.2	0.4	1.5	2.9	1.6	2.2	0.0
	<i>Employment growth</i>	0.9	0.0	-1.1	-0.6	0.9	1.6	1.8
Sweden	<i>Real output growth</i>	1.2	2.4	2.1	3.5	3.3	4.5	2.8
	<i>Productivity growth</i>	-0.8	2.4	2.7	4.2	3.0	2.7	0.5
	<i>Employment growth</i>	2.1	0.0	-0.6	-0.7	0.3	1.7	2.3
Finland	<i>Real output growth</i>	2.4	1.6	1.9	3.7	3.1	4.8	4.3
	<i>Productivity growth</i>	0.9	0.6	1.8	3.2	1.6	3.1	2.1
	<i>Employment growth</i>	1.5	1.0	0.1	0.5	1.4	1.7	2.1

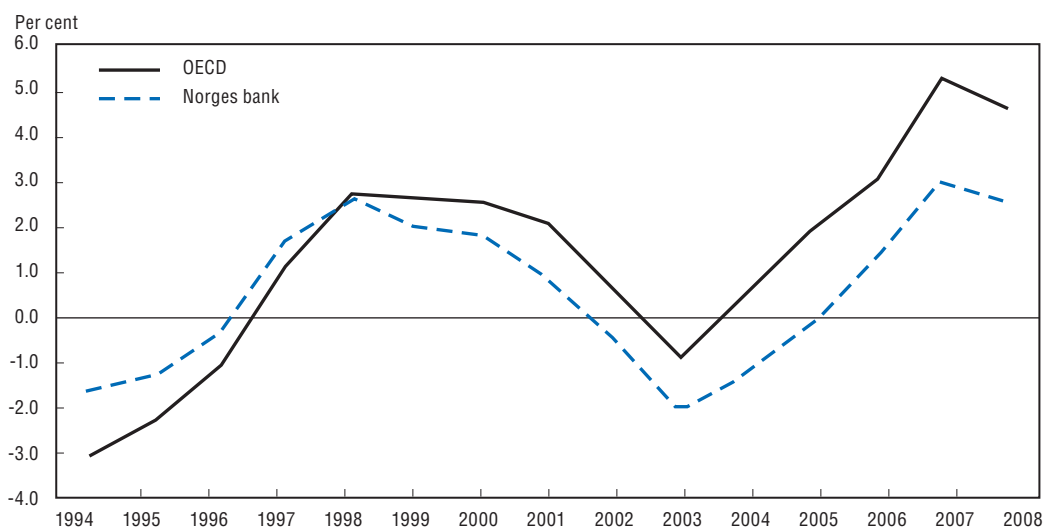
1. Based on labour force statistics rather than on national accounts.

Source: OECD Analytical database.

The strains of high capacity utilisation begin to show

As mainland GDP growth has increased, most slack in the economy has been absorbed and, to judge by the unemployment rate and measures of potential output, by the end of 2007 the economy had been operating well above capacity for some time. Quite how far above is hard to tell, however: output gap estimates are subject to great uncertainty and even when underlying estimation techniques are very similar, they can vary in a fairly large interval. Figure 1.5 shows the output gap as estimated by the OECD and various national authorities. While there are differences between OECD estimates and the national ones,

Figure 1.5. **Measures of the output gap**
Per cent of potential GDP



Source: OECD Analytical database, Ministry of Finance, Norges Bank.

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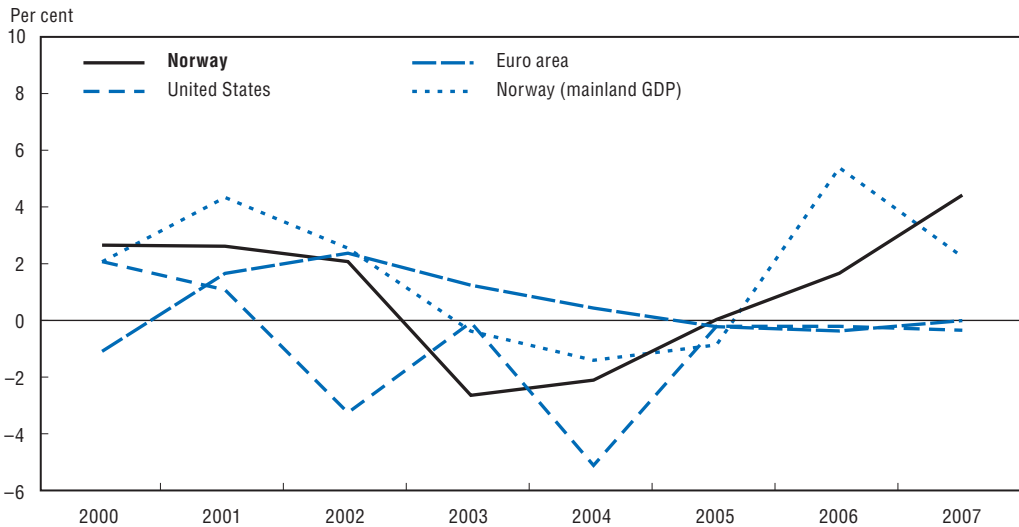
their movement over time is quite similar and the gap is now large whichever measure is used. In the first quarter of 2008 the ratio of job seekers to vacancies was very low (1.5 job seekers per vacancy), with recruiting difficulties in almost every sector but even more so for skilled workers. The spring round of collective wage bargaining was thus particularly tense. The outcome of the negotiations for the main private sector unions (5.6% including expected wage drift) is quite expensive if productivity growth falls, though acceptable to employers because of high current levels of profitability; but the unions would probably have struck for more if the government had not agreed to increase its subsidy to pension arrangements.

In early 2008, growth seemed to continue quite strongly, but as the year has progressed an increasing number of signs have suggested that the economy may be coming off the boil. According to Norges Bank's April regional network survey, capacity utilisation is very high but has begun to fall, with weaker growth in turnover in all industries, especially in construction, and growth in the economy seems to have slowed.

In the mainland economy, productivity growth is no longer offsetting wage growth and unit labour costs have thus been rising since 2005, though decelerating somewhat in 2007. They have picked up and risen rather more in the manufacturing sector in 2007, compared with broadly stable unit labour costs through 2005-07 in the United States and the euro area (Figure 1.6). This is particularly important for the tradeable, non-oil sector; cost-competitiveness for this "exposed" part of the economy has now been deteriorating for two years and is likely to continue to do so with high wage growth now likely in 2008 and 2009. Profitability, however, was still high in all sectors in early 2008.

A number of trends associated with "globalisation" have been particularly beneficial for Norway in recent years. The booming world economy has boosted commodity, especially energy, prices and at the same time the expansion of the supply of manufactured goods has kept Norway's import prices low. After deteriorating somewhat between 2000 and 2004, Norway's terms of trade have since increased by about 45% (even

Figure 1.6. **Unit labour costs, manufacturing**
Per cent change from previous year

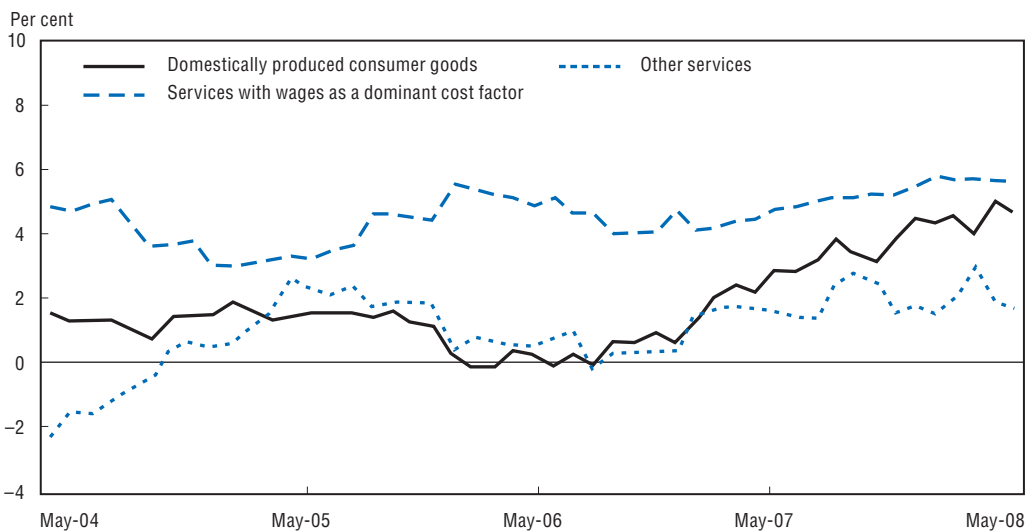


Source: OECD Analytical database.

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excluding oil and gas there was an improvement, though much smaller at only 10%). This has supported the general tendency towards increased relative prices of services (especially those with wages as the dominant cost factor) and falling actual prices of many manufactured goods. Low import prices have been particularly important in keeping inflation under check, particularly so in 2007 when domestically generated inflation was rising throughout the year (Figure 1.7).

Figure 1.7. **Consumer price inflation**¹
12-month per cent change



1. CPI adjusted for tax changes and excluding energy products.

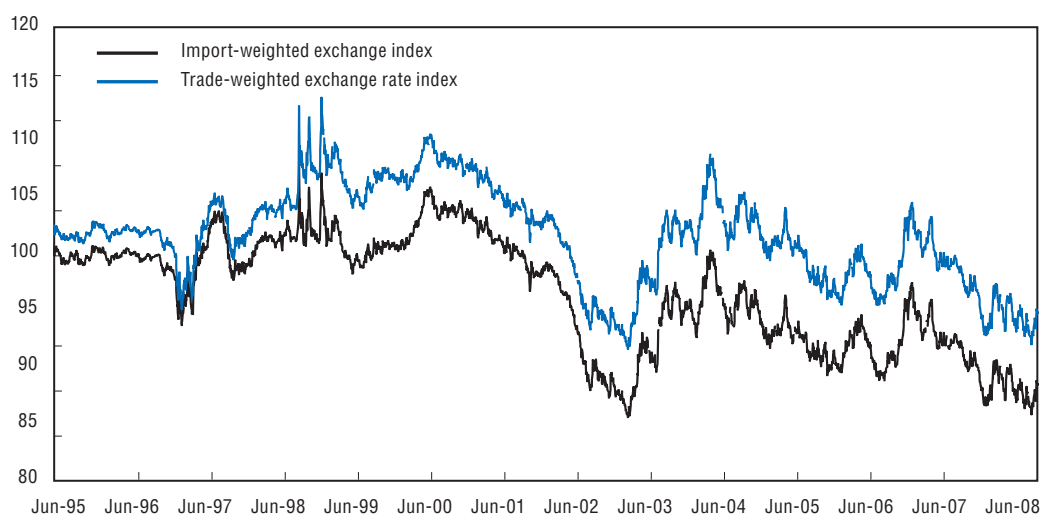
Source: Statistics Norway and Norges Bank.

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A relatively strong exchange rate has also helped to keep import prices low. The effective exchange rate has fluctuated but has generally strengthened since 2004 (Figure 1.8). High oil prices and the large current account surplus obviously favour the currency. Relative interest rates probably played little role for most of 2004-06, though at the end of 2006, after a period in which the exchange rate seemed to have begun to fall, they began to rise relative to other countries, and the exchange rate also resumed some appreciation.

Figure 1.8. **The nominal effective exchange rate**¹

Daily rates, index 1995 = 100



1. A decrease in the nominal effective exchange rate measures an appreciation of the currency.

Source: Norges Bank.

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These factors have helped to keep overall inflation quite low for some time. As mentioned earlier, excess capacity had disappeared by around the end of 2005 and by the end of 2007 overall demand was 3% or more above what long-term trends suggest normal capacity would be. Despite this positive “output gap”, large by historical standards, inflationary pressures were quite slow to appear, though wide differences between headline and underlying inflation due to swings in hydro electricity prices added to uncertainty over underlying inflation. The central bank had already begun to increase interest rates in mid-2005 from the low level reached in 2004. Although both actual and underlying inflation remained low, it continued to tighten throughout 2006-07 and into early 2008. This cautious approach seems vindicated by the quite sudden increase in headline inflation at the end of 2007, partly due to a reversal of erratic favourable effects from electricity prices, but also no doubt due to continuing pressures of demand on capacity.

While monetary policy was tightening steadily, fiscal policy may have been slightly pro-cyclical. The fiscal rule requires that the structural budget deficit, averaged over the cycle, should be no more than what can be financed by a 4% return on the oil and gas revenues that have been accumulated in the Norwegian sovereign wealth fund (the Government Pension Fund, Global, hereafter referred to as the Pension Fund, see Box 1.1). The deficit was higher than implied by this fiscal rule through to 2005, and slightly undershot for the first time in 2006, when the upswing was already quite advanced. Although the “4% rule” is an excellent prudential rule, a more ambitious target for the

Box 1.1. The Norwegian Sovereign Wealth Fund

The Norwegian authorities instituted a Sovereign Wealth Fund (SWF) called the “Petroleum Fund” in 1990 as a fiscal tool to support long-term management of the petroleum revenues. The fund was renamed the Government Pension Fund – Global in 2006 as part of a broader pension reform, highlighting also the fund’s role in facilitating government savings necessary to meet the rapid rise in public pension expenditures in the coming years. The Fund is not earmarked for pension expenditures. It is intended that the value of the real capital in the fund be left untouched for future generations.

The Norwegian fund model relies on three principles: 1) It is fully integrated in the fiscal budget, (where the fiscal guideline provides a medium-term anchor for the size of the flow from the Fund to the budget; see Chapter 2); 2) It is fully invested abroad in financial assets, with the aim of insulating the economy from the traditional negative effects of petroleum wealth, to protect the country from energy-related shocks through automatic sterilisation, and to diversify risk and maximize returns; 3) the Fund is managed with a high degree of transparency, with the Ministry of Finance regularly reporting to the Parliament and publishing all advice from external consultants. Performance, risks and costs are reported every quarter, with a focus on contribution to value-added in operational management.

The Ministry of Finance is the formal owner of the fund, holding overall responsibility for the strategic allocation of assets (setting a benchmark and a band of risk limits), for monitoring and evaluating operational management, for issuing the ethical guidelines and for referring to the Parliament. The operational management of the Fund’s international assets has been delegated to Norges Bank, the central bank of Norway. The bank has set up an asset management arm, Norges Bank Investment Management (NBIM), which is separate from the traditional central bank activities. The NBIM implements the investment strategy, exercises active management to achieve excess return, and controls risk; the NBIM also exercises the Fund’s ownership rights and provides professional advice on the investment strategy. NBIM manages the Fund partly internally and partly by engaging external managers.

The capital can be invested only in non-Norwegian financial instruments (bonds, equities, money market instruments and derivatives), with a long-term investment perspective (very little leverage, no claims for immediate withdrawals of funds and no direct links to liabilities). Of the changes in the investment strategy that have occurred since the first net allocation to the fund in 1996, the most important are an increased share of equities, more qualitative requirements in risk management and the establishment of ethical guidelines. After implementing the latest plans to gradually build up investments in real estate, the fund’s strategic asset allocation will consist of 60% invested in equities, 35% in fixed income and 5% invested in real estate assets. Investments are made in 42 developed and emerging equity markets and 31 currencies for fixed income investments.

The latest report of NBIM shows that the market value of the Pension Fund was NOK 1945.8 billion on 31 March 2008, approximately USD 388 billion or 90% of total GDP. Despite the subprime-related turmoil, equity management generated positive results in 2007, while fixed income management produced a negative excess return. Overall, the nominal return on the fund in 2007 was 4.3% measured in international currency, i.e. 0.22 percentage point below the benchmark portfolio defined by the Ministry of Finance. During the past ten years, the fund’s average annual nominal return has been 6.0%, of which 0.4 percentage point can be attributed to the manager’s outperformance of the benchmark.

Box 1.1. The Norwegian Sovereign Wealth Fund (cont.)

The management of the Pension Fund is often cited as an example to be followed by other SWFs. Several features appear to follow international good practices: these include a high degree of transparency in all aspects, the Fund's role as a financial investor with non-strategic holdings, an explicit aim to maximize financial returns, and clear lines of responsibility between political authorities and the operational management. The government has also adopted ethical rules barring the managers from investing in companies deemed to deviate from certain criteria. Recent examples of disinvestment include producers of cluster bombs and landmines, companies considered responsible for serious environmental damage, as well as firms seriously violating human rights.

budget balance could have eased pressure on capacity in the recent period. However, it is unlikely that the fiscal stimulus alone is at the origin of the boom in the economy and, as argued in Chapter 2, monetary policy remained expansionary well into the upswing; cheap credit conditions may have encouraged the growth of imbalances in the aggregate household sector.

The economy is slowing, with some downside risks

The strong growth performance that the Norwegian mainland economy recorded in the last few years is coming to an end (Table 1.2). Weaker global demand and lower consumer borrowing will cause a significant slow-down both in 2008 and 2009; the slowdown of domestic demand will come mainly from consumption and residential investments (housing market developments are discussed in more detail in Chapter 2); the household saving ratio, negative in 2007, is likely to rise in 2008 and 2009. While this, the high interest burden and a cooling housing market will tend to slow consumption, wage increases and sustained employment will keep incomes growing relatively fast.

It is also likely that the major positive shocks that contributed to fast growth in the last two years are gradually disappearing. Though export commodity prices (oil and gas and most likely metals) should remain high, non-commodity export prices are expected to fall. With stronger import prices, the terms of trade are likely to reverse some of the gains made in recent years, with negative effects on real income growth.

Despite slowing demand, the output gap will not be closed for some time; this is true even though potential output itself is expected to accelerate somewhat in 2009 thanks to continued migration and high level of capital stock accumulated in the last upswing. With a positive output gap, it is likely that inflationary pressures will continue for some time; underlying inflation already rose close to the central bank's target rate in April 2008.

In the medium term it is uncertain whether productivity will continue to be as dynamic as in recent years. Gains from diffusion of ICT have brought major productivity improvements, in areas such as retail distribution and the financial sector, with Norwegian banks currently in a healthier situation than many others in Europe. These gains, and those due to the effects of earlier deregulation policies, may now be slowing. There have been no new product market reforms recently, although policy indicators for Norway are relatively favourable. The Norwegian government still controls large corporations in a number of sectors and has occasionally ruled against the competition authority in merger decisions. As the traditional tradable sector is likely to suffer more in the future than in the

Table 1.2. **The short-term economic outlook for Norway**

Norway: Demand, output and prices

	2004	2005	2006	2007	2008	2009
	Current prices NOK billion	Percentage changes, volume (2005 prices)				
Private consumption	786.0	4.0	4.7	6.4	3.9	2.6
Government consumption	373.3	0.7	2.9	3.2	3.1	2.0
Gross fixed capital formation	314.2	13.3	7.3	9.6	4.9	1.3
Final domestic demand	1 473.5	5.2	4.9	6.4	3.9	2.1
Stockbuilding ¹	33.7	0.4	0.7	-0.6	0.3	0.0
Total domestic demand	1 507.2	5.5	5.5	5.4	4.3	2.1
Exports of goods and services	732.7	1.1	0.4	3.2	1.9	2.6
Import of goods and services	496.8	8.7	8.1	8.6	6.5	4.1
Net exports ¹	235.9	-2.0	-2.1	-0.9	-1.1	0.1
GDP at market prices	1 743.0	2.7	2.5	3.5	2.6	1.8
GDP deflator	..	8.7	8.4	2.3	8.3	1.8
<i>Memorandum items</i>						
Mainland GDP at market prices ²	..	4.6	4.8	6.0	3.3	1.5
Consumer price index	..	1.5	2.3	0.7	3.6	2.5
Private consumption deflator	..	1.1	2.1	0.7	3.2	2.5
Unemployment rate	..	4.6	3.4	2.5	2.5	2.8
Household saving ratio ³	..	10.1	0.1	-1.2	-0.5	1.4
General government financial balance ⁴	..	15.1	18.5	17.3	17.9	17.1
Current account balance ⁴	..	16.3	17.3	16.4	19.4	18.6

Note: National accounts are based on official chain-linked data. This introduces a discrepancy in the identity between real demand components and GDP. For further details see OECD Economic Outlook Sources and Methods, (www.oecd.org/eco/sources-and-methods).

- Contributions to changes in real GDP (percentage of real GDP in previous year), actual amount in the first column.
- GDP excluding oil and shipping.
- As a percentage of disposable income.
- As a percentage of GDP.

Source: OECD Economic Outlook 83 database (does not incorporate revised data released with first quarter national accounts).

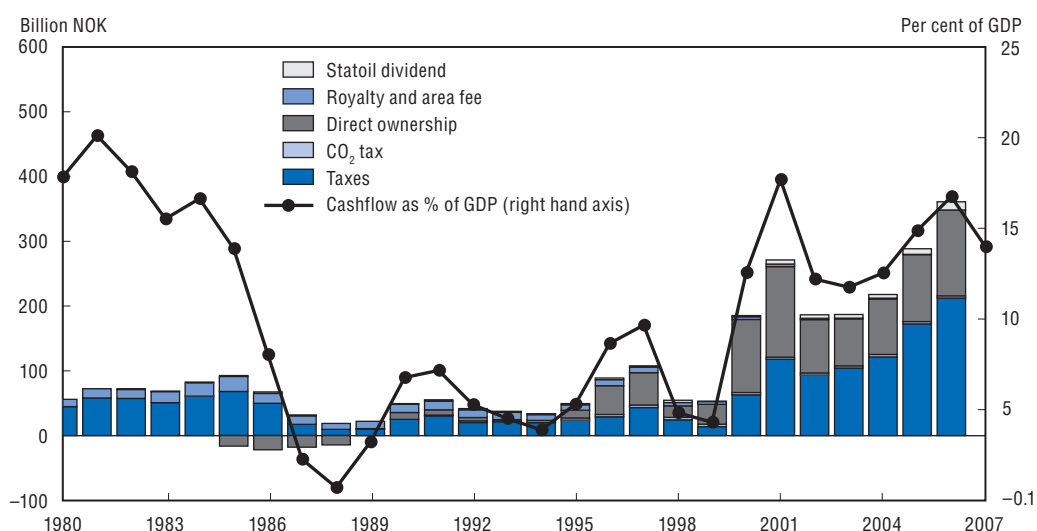
past from increasing competitive pressure and weaker foreign demand, the government will have to continue to behave in a strictly arms-length manner with its holdings, and allow consumer-welfare considerations to rule in competition cases. Otherwise, the continued restructuring on which productivity growth depends may be threatened.

Another good year for petroleum revenues


Although output volume declined, 2007 saw only a small fall in petroleum (combined oil and gas) export revenues, and these were growing rapidly at the end of the year. Exports were still almost NOK 500 billion, 22% of total GDP, the equivalent of nearly 30% of mainland GDP. Total net cash flow for the state government attributable to petroleum had risen rapidly in 2006, reaching 17% of GDP (near its highest ever level), as over 50% of the value of gross production of petroleum is channelled to the state in one form or another; increased investment expenditure and lower output caused it to fall back slightly in 2007 (Figure 1.9).

Petroleum income for general government arises through taxes, participation in licences (the "State Direct Financial Interest") or ownership of the producing companies (most production is from majority state-owned companies). Budget calculations including these revenues show that the general government ran a surplus of 17% of GDP last year, down from 18.5% in 2006. For more than a decade, however, this revenue has been

Figure 1.9. Taxes and royalties attributable to petroleum production



Source: Norwegian state accounts and National budget.

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notionally separated from the presentation of the budget figures, and channelled into the Pension Fund.¹ The level of inflows and gains on world stock markets raised the level of assets in this fund to about 90% of GDP by the end of 2007.

In this way, the rest of the economy is insulated from fluctuations in revenue from North Sea activities, whether these are due to changes in production volumes or world energy prices. The Pension Fund is held entirely in overseas assets, so that foreign currency inflows due to the North Sea are neutralised at the same time. The build-up of the fund effectively converts the non-renewable resources under the North Sea into financial assets.

The growing Pension Fund

The increasing value of assets in the Pension Fund poses some awkward questions as to how they should be used. They potentially give Norwegian governments' great scope for expanding public spending or reducing taxation. Since 2001 governments have agreed to constrain themselves by adopting a rule that only the financial returns on the fund should be used to finance government spending; this gives rise to the "4% rule", 4% being a plausible estimate of the average real rate of return that could be expected over the long term. But even spending only the returns on the fund may present a dilemma, since the expansion of the fund has meant that the real value of the 4% has grown rather rapidly and permits the government in effect to finance a significant and growing budget deficit in the mainland economy. This may appear to have had similar effects to a pro-cyclical fiscal policy in the recent boom period. Chapter 2 discusses whether any alternative approach is feasible.

As assets held abroad in the pension fund build up, income from them is becoming significant. It does not show directly in gross domestic product, but is included in national income, a less often used concept. Since it is retained offshore in the Pension Fund it is largely automatically saved.² Given the estimated real rate of return of 4%, on assets currently equivalent to over 90% of GDP, the Pension Fund should thus provide around 4% of national income; this compares with about 22% for oil and gas extraction, nearly 9% for

manufacturing or 1.2% for agriculture, forestry and fishing. In the future this contribution will grow significantly, but to what level is highly dependent on future prices and the extent to which new recoverable reserves can be discovered. Perhaps surprisingly, the build-up of foreign assets has not yet turned Norway into a significant net recipient of income from abroad. National income barely exceeds gross domestic product, as payments abroad, on foreign investment in Norway, along with employment income paid abroad, offset foreign earnings (Table 1.3). This is a reminder that holding large net foreign assets is not a guarantee of substantial net overseas earnings if the returns are insufficient or substantially less than those earned by foreign investors in Norway. In fact, while net foreign assets are increasing, gross liabilities to abroad are increasing too; the non-oil current account of the balance of payments is running a significant deficit around 10% of mainland GDP which is financed by borrowing from abroad.

Table 1.3. **GDP, income from abroad and national income**

	Per cent of national income					
	1990-94	1995-99	2000-2004	2005	2006	2007
Gross domestic product	102.49	101.09	100.03	99.31	100.25	99.57
+ Net compensation of employees from abroad	-0.24	-0.30	-0.43	-0.55	-0.62	-0.80
<i>Of which:</i> from abroad	(0.15)	(0.19)	(0.17)	(0.17)	(0.16)	(0.16)
to abroad	(0.39)	(0.49)	(0.60)	(0.71)	(0.78)	(0.96)
+ Net property income from abroad	-2.25	-0.78	0.40	1.24	0.37	1.23
<i>Of which:</i> from abroad	(2.54)	(3.31)	(5.50)	(7.93)	(9.04)	(9.82)
to abroad	(4.79)	(4.09)	(5.10)	(6.70)	(8.67)	(8.59)
= National income	100.00	100.00	100.00	100.00	100.00	100.00
<i>Memorandum item:</i>						
Net primary income from abroad due to Pension Fund ¹	..	< 0.5	1.2	2.2	2.5	3.3

1. In the national accounts conventions, capital transfers do not include capital gains, which can lead to serious distortions. Source: Statistics Norway.

Pressure on capacity has attracted immigrants

Capacity pressures would have been much stronger than they actually were if there had not been substantial and increasing flows of labour migration. Within the Nordic labour market there has been a tradition of labour movement between Sweden, Denmark and Norway in response to relative cyclical positions, whereas inward migration from other countries was for a long time mainly related to humanitarian flows and family reunification. Since 2004, however, inflows of labour migration from other countries have picked up markedly, as Norway allowed movements from the new members of the European Economic Area; in practice, this has mostly meant Polish immigrants.

The rate of population growth has been increasing slowly since its trough in the early 1980s, as fertility picked up a little. Net immigration too has been trending up since the late 1980s, with some fluctuations, but the recent acceleration has been quite sudden; in 2006 and 2007 more than half of the increase in population was due to immigrants. Although the actual increase in immigrant inflows came suddenly, pressure had been building up in the labour market for some time, and there was already some increase showing before 2004. The further opening of the European labour market that followed the accession of the new EU members allowed a sudden release of some of this pressure.

Movements of labour such as these are clearly beneficial overall, most of the gains accruing to the much higher earnings immigrant workers can get in Norway than in, say, Poland. The recent inflow has gone hand in hand with continuing – if slowing – labour productivity growth in the mainland economy. This contrasts with the experience of a number of other European countries – notably Italy and Spain – that have seen substantial immigration, but where the inflows have been accompanied by very low overall productivity gains. However, although many recent immigrants to Norway have been recruited to work in relatively unskilled construction or service jobs, at least some of them are in fact relatively skilled and are often recruited directly in Poland by employment agencies that have grown up specialising in selecting workers for specific kinds of job in Norway.

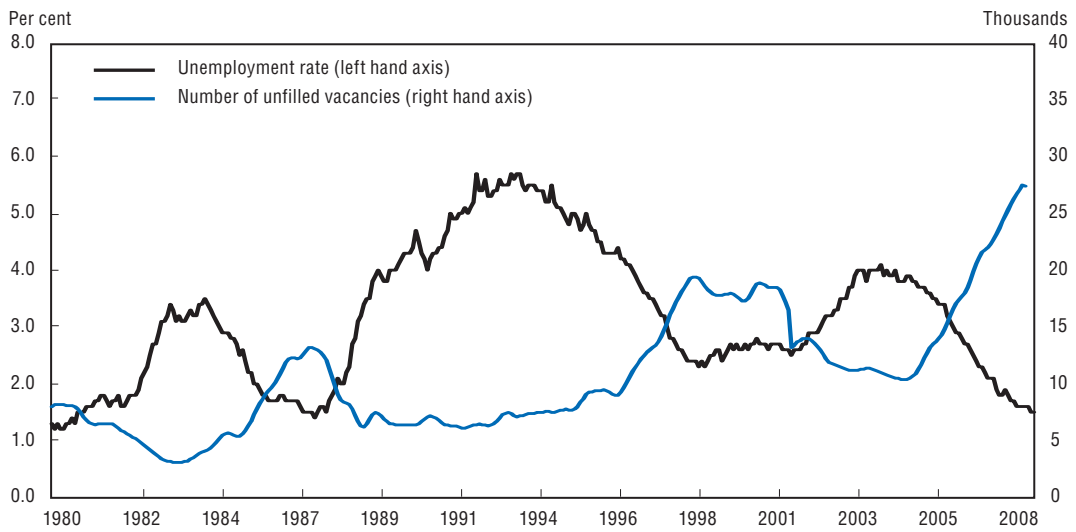
One question that arises is how long can Norway expect such inflows to continue, and what impact this might have on macroeconomic policy, in particular on how to assess capacity utilisation. While the gains to migrants are clear, other questions concern the kind of benefit the Norwegian economy obtains, especially outside the immediate sectors in which immigrants work – new immigrants are particularly concentrated in the construction sector and certain services. Casual observation – very low unemployment, rising wage inflation – suggests that the economy “needs” immigrant labour. But other information – high rates of sickness and disability, a tendency towards early retirement despite the high statutory retirement age – also suggests that some policies may be restricting labour supply from the existing population, accentuating the apparent need for immigration. If this is so, is it a deliberate policy choice or an unwanted side effect of other policies? Chapter 3 discusses some of these issues, in the context of a labour market which has become very tight.

The labour market is tight, some reforms have been neglected

Employment growth has been strong in nearly all sectors of the economy and the balance between vacancies and registered unemployment has never been so tight (Figure 1.10). While the booming private sector economy is behind increases in sectors such as construction, financial services and some manufacturing industries, growth in employment continued in public administration, education and health services. At the same time, as witnessed in an increasing number of European countries, the number of people on sickness and disability benefits – estimated at 10-13% of the labour force – appears to be much higher than can reasonably be justified by the population’s real health status. Furthermore, while it is true that the official retirement age in Norway is relatively high, there seems to be an increasing tendency to use disability or other benefits to retire early. In all of these areas, previous *Economic Surveys* have urged action. It seems clear that, while the open unemployment rate is kept very low because of strong demand for labour but also because of strict conditionality imposed on benefit recipients, immigration may not be the only way in which growing demand for labour can be satisfied.

The Nordic model puts great weight on achieving fair outcomes, whether in terms of employment, wages or, as discussed below, in education; wages vary relatively little from one sector to another (Figure 1.11). In the labour market, while a tripartite framework for negotiation of wages and conditions is the foundation of the model, the government’s role is generally limited to providing the framework, while negotiations themselves are conducted together by trade unions and employers only. There is, for example, no national legal minimum wage. But the system can react somewhat as if there were such a minimum wage. In 2004, a legal provision for the extension of collective bargaining agreements to

Figure 1.10. **Vacancy rates¹ and registered unemployment²**



- 1. Trend-adjusted.
- 2. Seasonally adjusted.

Source: Norwegian Labour and Welfare Administration (NAV).


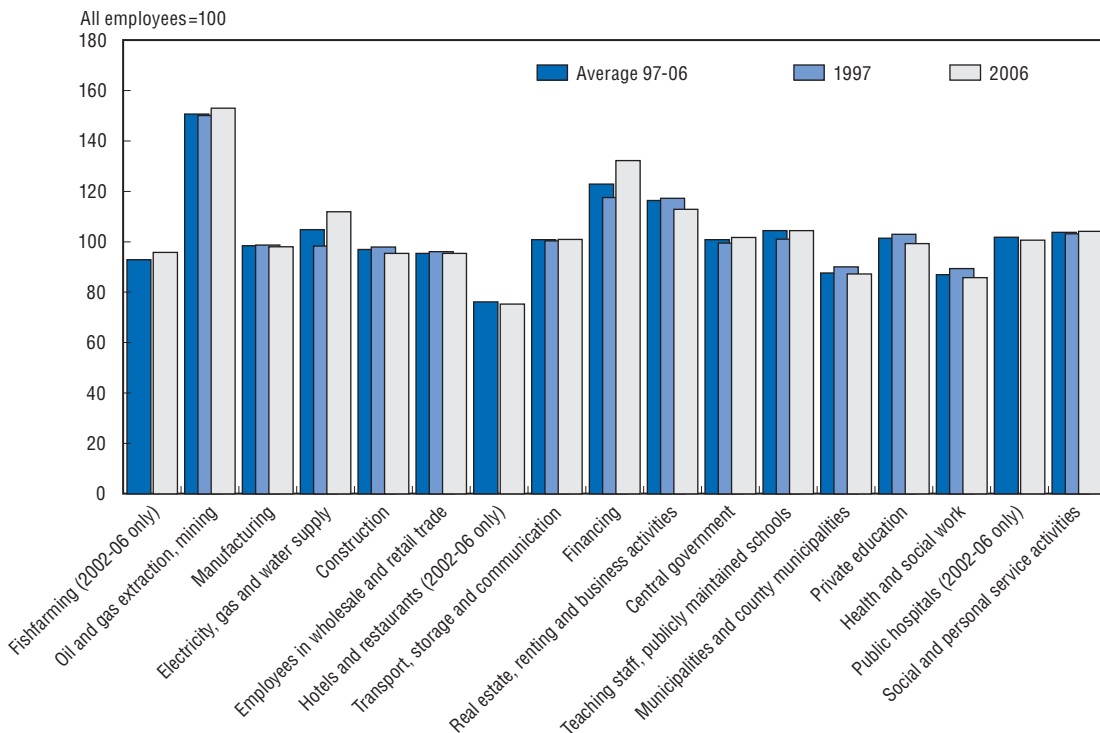

StatLink  <http://dx.doi.org/10.1787/425465510348>

Figure 1.11. **Average earnings by industry**



Source: Statistics Norway.

StatLink  <http://dx.doi.org/10.1787/425466471872>

cover groups of workers (foreigners, in particular), that had not been party to the negotiations, which had been in place for some years (since 1994) without ever being used, was activated for the first time to cover seven onshore petroleum installation sites, a second occasion concerned construction workers in the Oslo area.

Since then, the wage extension order for the construction industry has been expanded to cover construction nationwide. The government's declared aim to avoid "social dumping" is part of the justification for these actions. Some, for example employers in the Federation of Commercial and Service Enterprises, have suggested that a more effective way of achieving these aims would be a legislated national minimum wage. Both wage extension orders and a minimum wage would indeed protect immigrants from very low wages, although it seems clear that the workers had willingly agreed to their terms and conditions. Most employers seem also to have been in favour of the wage extensions, despite the resulting higher costs; a side effect may be that they are thus protected from competition by new or foreign entrants to the sector.

The shortage of construction workers in recent years has been fairly clear, and met by both relatively high wage increases and inflows of foreign labour. But there are also worries as to whether there are enough highly-skilled employees to satisfy current needs, and also whether the education system is producing enough for future needs. Here neither higher immigration nor increased wages seem to be the response: the existing immigration quota for highly-skilled people is never filled, and the share of university graduates in areas such as science and engineering is falling (see Chapter 4); this may be a rational reaction to the fact that wages for such graduates are not particularly attractive because of the highly compressed wage structure which is characteristic of Norway. Indeed, science/engineering graduates can expect starting salaries that are not much higher than graduates in sociology or in humanities, subjects which are certainly important but also less adequate to the production needs of the Norwegian economy.

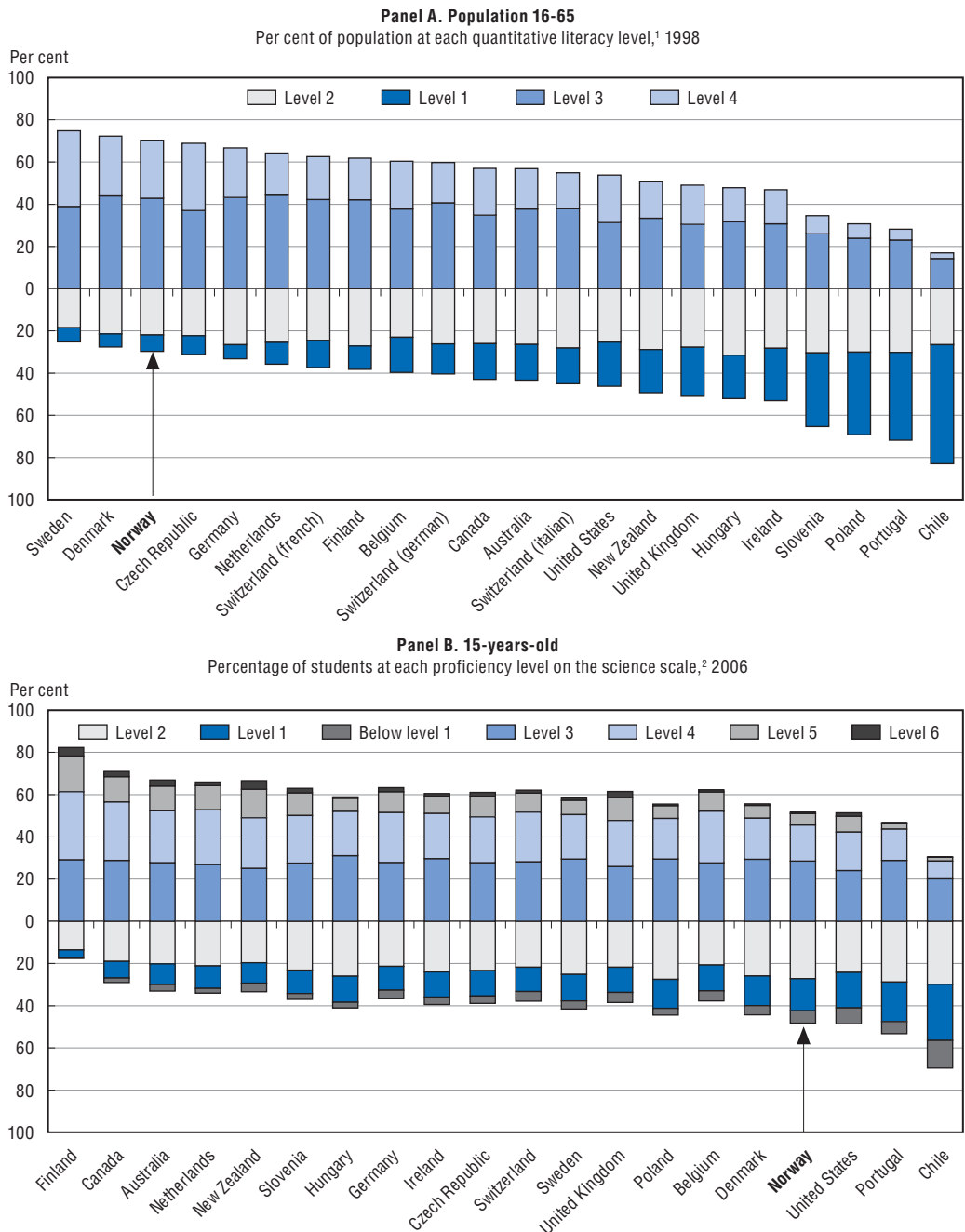
Room for improving cost-efficiency in education

Generally speaking the level of education among adults in Norway is very high, although direct measures to confirm this, comparable across countries, are few. Indirect measures such as the possession of a tertiary diploma or the number of years of completed education show Norway as being among the top OECD countries. The International Adult Literacy Survey of 1998, reporting literacy skills in the adult population, shows that Norway ranks with or above the very best countries (Figure 1.12, Panel A). Such results are on the one hand consistent with the observation that productivity in Norway is high and on the other hand comforting: it is widely accepted that as petroleum resources diminish, Norway will increasingly have to rely further on "knowledge based" industries, rather few at the moment, and the Pension Fund, to maintain its standard of living.

For this reason, results from the OECD cross-country assessment of educational achievement among 15-year olds, in the PISA programme, are both puzzling and disquieting (see Figure 1.12, Panel B). These results are puzzling, because Norway spends relatively more than most countries on its educational system and because of the contrast with the adult literacy comparisons. They are disquieting, because of the implications for the efficiency of the education system and the future of the knowledge economy in Norway if relative competence levels really are as poor (and declining) as PISA results suggest.

A relatively poor showing at age 15 is not automatically inconsistent with high performance among adults. It is noteworthy, for example, that while there appears to be a significant problem with students dropping out of upper secondary education (age 16-19), surveys of adults show that many of those who drop out do eventually complete upper secondary education at some time. In other words, the system appears to have some ways

Figure 1.12. **Percentage of the population and students at each proficiency levels in Norway**



1. Quantitative literacy scores, as performed by the IALS (International Adult Literacy Survey) rank from very poor skills (level 1) where the individual can only perform a single and relatively simple operation (usually addition) to higher skills (level 5) where the individual can perform multiple operations sequentially. The graph in Panel A reads as follows: The bars for each country are stacked to 100%, with each share representing the proportion of the population at a given literacy level. By convention, population shares at levels 1 and 2 are shown in the bottom quadrant, allowing much easier comparison of proficiency levels across countries. For example, the adult population with a proficiency level below level 2 is about 30% in Norway against 70% in Poland.

2. Science competencies, as defined by PISA (Programme for International Student Assessment) ranges from the lowest level (level 1) where students possess limited scientific knowledge and can only explain very easy stylised facts, to the highest level (level 6), where pupils' knowledge is good enough to develop scientific reasoning and arguments.

Source: IALS (1998), PISA (2006).

StatLink  <http://dx.doi.org/10.1787/425577701076>

of making up for certain problems. This does not mean that this is an efficient approach, however; for example, the level of mathematical ability in first year university students has declined. This may require remedial teaching that was not necessary in the past.

Since the first PISA results became known, policymakers have been looking for ways to improve the performance of compulsory education. Institutionally, the compulsory education system is quite decentralised, with a lot of independent decision making power vested in schools themselves. Furthermore, the degree of formal accountability seems quite low – the performance of schools is not systematically checked against centrally determined standards, for example. Nevertheless, schools across the country seem to have a quite similar performance, and the influence of parental background on results is lower than in most countries. This would appear to reflect the low level of social inequality in Norway, including a low level of segregation between social districts. On the other hand, within-school variation in pupils' performance is high.

An important question, to which research unfortunately provides no unambiguous answers, is whether it is possible to maintain an emphasis on equity while improving average performance. Finland certainly offers a tempting example in this respect, showing that there is no obvious trade-off between equity and average performance. It should certainly be an important inspiration for the Norwegian system because of the many aspects that the two education systems and, more broadly, the two societies have in common. However, it should not be seen as the only benchmark, because while the Finnish system is by many standards one of the most successful, the drivers of its success are still not fully known. In addition, there are other best-practices in this area that should be carefully studied by Norway. Chapter 4 discusses some of these best-practices and points to some lessons that might be useful for Norway too.

Prompted by the PISA surveys, there is a strong willingness at the political level and among the educational institutions to tackle education reforms in Norway and to improve educational outcomes. This is an asset that the Norwegian authorities can use to promote reforms, although careful thought is necessary since there have been a number of reforms implemented in the last few years; there is a risk of losing credibility both among education professionals and the population. Some of the objectives of these reforms were certainly sound, as for instance the key focus on improved competencies for teachers and better learning outcomes for pupils, which are central in the recent Knowledge Promotion reform. However, the strategy to reach their ambitious goals could be improved. The June 2008 White Paper presents further measures at the national and school level, to improve educational outcomes.

Educational systems are not easy to reform, because of the many actors involved and because many factors shape educational performance. Some issues are also controversial, such as the idea of benchmarking by publishing national test results at school level, which is opposed by some authorities and by some schools themselves. Similarly there is strong resistance in most areas to the idea of linking reward for teachers or school principals to their performance. But the municipality of Oslo, by far the largest in the country, has nevertheless been experimenting on these lines and reports that first results are encouraging; this is an important example because it shows that these reforms are possible in the Norwegian context and not necessarily too politically costly to implement.

Norwegian schools are not only performing below international standards, but they also cost quite a lot because of their small average size and because there are relatively few

students per teacher. These are not the best ways of getting value for money; resources can be saved, or usefully re-directed if ways could be found to close or merge schools so as to better exploit economies of scale, and if Norway would allow relatively fewer teachers but higher teaching hours. Chapter 4 considers these issues, together with the need to invest in strengthening teachers' competencies so as to improve teaching quality, as well as the role that improved accountability can play in reaching the goals of reform.

The environment

Norway has often been in the forefront of international efforts to work towards environmental improvements. An enthusiastic promoter of the Kyoto Protocol, the Norwegian government recently announced that it would in fact over-fulfil its Kyoto commitments by 10 percentage points, corresponding to 5 million tonnes of CO₂. This will be achieved by purchasing more emission reduction certificates than needed to offset the excess of national emissions over the Kyoto target. It will simply neutralise these excess purchases, and thereby reduce the supply of certificates, lowering overall emissions outside Norway. The government has also announced an ambitious plan to become carbon neutral by 2050, or by 2030 if it could be done as part of an ambitious global agreement, in which other industrialised countries also undertook strong commitments. This would entail Norway financing emission reductions abroad corresponding to the remaining domestic emissions in 2030.

Notes

1. Previously called the Oil Fund, it was renamed "Government Pension Fund – Global" to reinforce the idea that the assets are intended to be held in trust for future generations; but in fact there is no statutory or other link between old-age pension liabilities and the Pension Fund.
2. Or rather, any excess of total income over 4% is saved, since an average of 4% of the fund's value is transferred to the state government to finance the budget.

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ANNEX 1.A1

Taking stock of structural reforms

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

Recommendations	Action taken since the previous <i>Survey</i> (January 2007)
A. SOCIAL PROTECTION	
Minimise work disincentives in the unemployment insurance system	The special benefit for persons who have exceeded the maximum employment period has been abolished. The maximum unemployment benefit period for temporary laid-off workers has been reduced from 34 to 30 weeks. The period in which persons on vocational rehabilitation (many of whom are formerly unemployed) are entitled to vocational rehabilitation benefits after completing rehabilitation, has been reduced from six to three months. All these measures were introduced 1 January 2008.
Reduce sick leave	Several measures implying a closer follow-up on the person reported sick, by both the employer and the Labour and Welfare Services, were introduced in March 2007.
Tighten disability schemes	No legislative action. A Government report on the disability scheme recommends improving incentives through cutting replacement rates after one year, but also recommends increased expenditure in other areas. The Government has announced that it will follow up this report with a legislative proposal in 2009.
B. LABOUR MARKETS	
Increase flexibility in wage setting	Backwards action: The use of a mandatory extension of wage contracts in certain construction areas to raise freely-contracted wages paid to immigrant workers, with the object of combating social dumping, was extended to construction sites nationwide.
Modernise employment protection legislation	Backward action: the power of unions to veto decisions by companies to use agency workers has been somewhat increased.
Enhance efficiency of job placement services and ALMP	No further action. July 2006 merger of the Public Employment Services and the National Insurance Services still taking effect.
C. EDUCATION	
Improve the assessment of education	Streamlined assessment tests introduced in autumn 2007. School-level results not published. See Chapter 4
Improve the quality of primary and secondary education	In the context of the strategy "Competence Development", funds were allocated to training programmes for teachers. However the funds are largely directed to informal training, and not to training that gives accreditation to teachers. See Chapter 4.
Increase local flexibility in teachers' wage bargaining	Despite the legal possibility of local bargaining, teachers' wages are still essentially fixed by the centralised, national settlement. See Chapter 4.
D. FINANCIAL MARKETS	
Ensure competition in the banking sector	Switching codes are introduced as from May 2008, with the objective of improving the portability of loans, and current accounts, therefore increasing competition in the sector. A public Internet site (www.finansportalen.no), was opened in January 2008 to provide updated information on rates, premiums etc. that can facilitate the comparison of offers from all banks and insurance companies In Norway. In February 2008 the Ministry of Finance asked the Competition Authority to undertake a study assessing competition enforcement and efficiency of the sector.

Recommendations	Action taken since the previous <i>Survey</i> (January 2007)
E. QUALITY OF PUBLIC FINANCE	
Raise the efficiency of public spending	The 2007 Budget widens experimental treatment of accrual accounting (in principle giving better cost information) with an evaluation planned in 2009.
Tackle ageing issues	The White Paper on pension reform presented in October 2006 presents a well-oriented reform, preserving three key principles: 1) consider all working years in the calculation of pension entitlements; 2) adjust pension entitlements for all cohorts should life expectancy increase, and 3) index pension benefits to the average of prices and wages. It also achieves a more progressive benefit structure (by raising the minimum pension and lowering the benefit ceiling), while preserving the long run fiscal saving (3% of GDP) envisaged earlier. But although discussions have taken place with the social partners, legislation has not been introduced. The recent wage agreement has deferred the life expectancy adjustment to pension benefits for the cohorts born between 1936 and 1952; on that occasion the reform of the AFP scheme (a pension supplement given to early retirees) has also been negotiated, with mixed results as far as incentives to stay in the labour market are concerned. The means testing of pensions against income is abolished for pensioners aged 67, from 1 January 2008.
Reform the tax system	The largely revenue-neutral 2008 budget made several changes to the net wealth tax in order to strengthen its distributional profile. It provides increased tax incentives to second and subsequent children and also reintroduces incentives for private pension saving. The balance of environmental taxation was somewhat further aligned on estimated costs, with increased tax on diesel fuel and on domestic air fuel. The process of "greening" the tax system on cars is continued by reducing the annual tax on cars with relatively low emissions of NO _x and particles.
F. ENVIRONMENTAL POLICIES	
Limit CO ₂ emissions	Following the logic of a quota system, CO ₂ taxes have been removed from emission subject to quotas. Government announced that it will buy quotas on the international market, but not use them, so as to reduce overall global emissions.
Develop renewable energy resources	Norway will allocate a NOK 20 billion fund to strengthen efforts in renewable electricity production, use of renewable energy and increased energy efficiency.
G. AGRICULTURE AND FISHERY	
Enhance competition in the agriculture market	No action.
Reduce tariffs and increase import quotas in the agriculture market	No action.
Reduce restrictions on transfers of fishing quotas	Transfer of fishing quotas when a vessel is withdrawn from fishing ("structure quotas") reintroduced as of 8 June 2007 (after structural "pause" from 20 Oct. 2005).
H. SUPPORT COMPETITION AND REDUCE STATE AID	
Increase regulatory power of competition authorities	There have been fewer rulings of the Norwegian Competition Authority (NCA) overturned on appeal by the government. Backward action: the government intends to simplify the procedure for political decisions of overturning rulings in merger cases that involves questions of principle or major significance to society. The suggested change is that the King in Council (full cabinet) can reverse a NCA decision without waiting for it to be evaluated by the Ministry of Government Administration and Reform on competition grounds. Cases taken up by the NCA have notably concerned transparency in electricity supply, competition in transport and food distribution.
Increase competition and reduce barriers to entry	The previous intervention against the SAS Group's Frequent flyer program for domestic flights was prolonged by a general statutory provision pursuant to the Norwegian Competition Act.
Reduce state aid, public subsidies and tax distortions	The Norwegian special tax system for shipping was amended in the 2008 budget, and is now mainly in line with the EU tonnage tax systems. As part of the agreement of all tax debt accumulated under the former system must be paid back within a 10-year period. of the accumulated tax debt can be used for certain environmental purposes during a 15-year period. Backward action: certain tax expenditures for agriculture were slightly increased in the 2008 Budget as "compensation" for increases in other taxes.
Reduce state ownership in corporate Norway	No further privatisation. Backward actions: The government has acquired authority of the Parliament to increase state interests in StatoilHydro (merger of Norsk Hydro petroleum activities and Statoil) from 62.5 to 67% but not exercised a purchase. The government took a 30% share, with veto rights, in Aker Holding AS (the holding company that controls 40% of Aker Kvaerner, a supplier of products and services to the energy sector).
Improve state-owned activities governance	A White Paper of December 2006 confirmed the organisation and main principles of state ownership in the business sector. Share options have been abolished.
Improve monitoring of cost-effectiveness of support for innovation and R&D	Statistics Norway's evaluation of tax-subsidy scheme (Skattefunn) shows it performs well on additionality compared to similar schemes in other countries.
I. PRODUCT MARKET COMPETITION	
Promote competition in the postal services	No action.
Reduce barriers to entry in the retail sector	Backward actions: an exception to the Competition Act, allowing booksellers to set fixed prices for educational books, has been extended to July 2008.
Enhance efficiency in transport services	No legislative action. A third airport serving the capital area (Moss Airport, Rygge) opened to civilian traffic as of 14 February 2008.

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

The economic situation and policies of Norway were reviewed by the Committee on 16 June 2008. The draft report was then revised in the light of the discussions and given final approval as the agreed report of the whole Committee on 2 July 2008.

The Secretariat's draft report was prepared for the Committee by Paul O'Brien and Romina Boarini with Statistical assistance from Thai-Thanh Dang, under the supervision of Patrick Lenain.

The previous Survey of Norway was issued in January 2007.

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BASIC STATISTICS OF NORWAY

THE LAND

Area (1 000 km ²):	Major cities (thousand inhabitants, 1.1.2008):		
Total (2005)	385.2	Oslo	560.5
Mainland (2005)	323.8	Bergen	247.7
Agricultural (2004)	10.4	Trondheim	165.2
Productive forests (2003)	74.7		

THE PEOPLE

Population (thousands, 1.1.2008)	4 737.2	Total labour force (thousands)	2 507
Number of inhabitants per km ² (1.1.2008)	12.3	Civilian employment (thousands)	2 443
Net natural increase (thousands, 2007)	16.5	Civilian employment (% of total):	
Net migration (thousands, 1.1.2007)	39.7	Agriculture, forestry and fishing	2.8
		Industry and construction	24.9
		Services	76.1

PRODUCTION

Gross domestic product:	Gross fixed capital investment:		
NOK billion	227.7	% of GDP	20.8
Per head (USD)	82 016	Per head (USD)	17 043

THE GOVERNEMENT

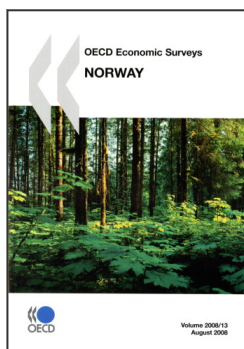
Public consumption (% of GDP)	19.8	Composition of Parliament (number of seats):	
General government (% of GDP):		Labour	61
Current and capital expenditure	32.2	Progressive	38
Current revenue	46.5	Christian Democrats	11
		Conservative	23
		Centre	11
		Socialist Left	15
Last general elections: 13.9.2005		The Liberals	10
Next general elections: September 2009		Total	169

FOREIGN TRADE

Exports of goods and services (% of GDP)	45.4	Imports of goods and services (% of GDP)	28.1
of which: Oil and gas	23.1		
Main commodity exports (% of total):		Main commodity imports (% of total):	
Fish and fish products	4.5	Ships	1.4
Base metals and products	10.6	Foods and animals	5.2
Machinery and transport equipment (excluding ships)	7.6	Chemicals and related products	8.8
Mineral fuels	64.5	Machinery and transport equipment (excluding ships)	35.6
Non-oil commodity exports by area (% of total):		Non-oil commodity imports by area (% of total):	
Denmark and Sweden	17.6	Denmark and Sweden	21.7
Germany	8.6	Germany	13.7
United Kingdom	8.4	United Kingdom	7.0
United States	8.3	United States	4.9

THE CURRENCY

Monetary unit: Krone	2007		
		NOK per USD	5.86
		NOK per euro	8.03



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