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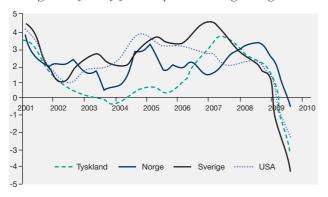
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### 1. The EU Strategy for Growth and Jobs

#### 1.1 A NEW ECONOMIC REALITY

The global economy has now entered its deepest crisis for many decades. We have probably not witnessed a corresponding fall in wealth creation and employment since the 1930s. The EU countries are badly affected, although the impact varies from country to country. In Spain, unemployment has increased from less than 11 per cent to 18 per cent in just one year, and the increase in Ireland has been equally strong. In Latvia, one in ten people of working age have lost their jobs since summer 2008. It is a dramatic development. On the other hand, in countries such as the Netherlands, Germany and, not least, Norway, unemployment has remained reasonably stable. During the period from August 2008 to August 2009, these countries have experienced an increase in unemployment of less than one percentage point. In Figure 1.1, it is shown that, compared with other countries, Norway is experiencing a more moderate economic downturn.

Figure 1.1: GDP growth: GDP-growth, year by year (4 quarter moving average)



In reality, the financial crisis, which is the cause of the dramatic fall in global wealth creation, is a confidence crisis rooted in the financial sector. The crisis has clearly demonstrated that a policy aimed at increasing growth and employment requires a stable and robust financial services industry. Financial stability must have a central place in the efforts to strengthen long-term growth and

employment in both the EU and Norway. European and Norwegian authorities have acknowledged this fact. The extensive public sector initiatives aimed at taming the crisis have to a large extent taken account of the long-term perspectives laid down in the EU Strategy for Growth and Jobs. It is all too easy for a so-called counter-cyclical policy to be dominated by measures that fail to support long-term, sustainable growth. In this context, the EU Strategy for Growth and Jobs has fulfilled an important function in the present crisis by ensuring that its counter-crisis measures are based on a long-term perspective.

This report discusses the EU Strategy for Growth and Jobs from a Norwegian perspective. It focuses on the Norwegian authorities' efforts to facilitate long-term sustainable growth, and it does so by studying Norway's policy in light of the EU Strategy for Growth and Jobs. This involves several policy areas: business and industrial policy, knowledge policy, environmental policy, employment and income policy, fiscal policy, energy policy, and health and social affairs policy. The report places particular emphasis on how the financial crisis has affected these areas and on what consequences the crisis will have for long-term efforts to increase growth and employment. The report primarily discusses measures that have been either initiated or adopted during the past 18 months.

### 1.2 GROWTH AND JOBS FROM A NORWEGIAN PERSPECTIVE

Norway has an open economy. Consequently, international trends and changes affect Norwegian businesses and the development of Norwegian society. This strong dependency has been clearly demonstrated during the past year. Turbulence in international financial markets, weaker economic growth, greater unemployment and increasing social unrest has left its mark on the global economy. The prospects for further growth have become uncertain and the social and political effects of the crisis are as yet unknown. In the international context, Norway's econo-

my is healthy. However, the Norwegian private sector has also been strongly affected by the large and rapid changes, although the Norwegian economy and Norwegian society in general have been shielded from the most radical challenges.

One should enjoy strong results. Good results can, however, generate a false sense of security that makes us less willing to restructure. Innovation and innovative thinking are important prerequisites for continuous development and improvement. Willingness to learn from experience is crucial when it comes to the ability to innovate. Measuring results and carrying out evaluations gives us valuable insights into which measures are correct and which are inadequate or do not produce desired results. An important source in terms of ensuring innovative development is to compare framework conditions and trends in Norway with developments in other countries. Comparisons enable us to learn from the experience of other countries. Critically reviewing policy instruments and their results in Norway and systematically learning from our own and others' experience helps us to continuously find possibilities for improvement. Chapter 2 contains a thorough comparison of Norway and the EU countries along relevant indicators for the Growth and Jobs Strategy.

It is against this background that the Norwegian government has chosen for several years to follow up the Lisbon Strategy, which from 2005 was relaunched and renamed as the EU's Lisbon Strategy for Growth and Jobs. A key part of this strategy consists of developing a comparable framework that facilitates learning between countries. This report therefore examines the EU's Strategy for Growth and Jobs from a Norwegian perspective. The report should also be regarded as part of the more extensive efforts to renew the Norwegian economy.

### 1.3 WHAT IS THE EU LISBON STRATEGY FOR GROWTH AND JOBS?

The Lisbon Strategy for Growth and Jobs is the generic term used to describe the long-term process creating growth and development in the EU. It all started at the EU summit in Lisbon in March 2000, at which EU heads of state and government agreed on the highly ambitious goal of transforming the EU into the world's most competitive, knowledge-based economy by 2010. This strategy was

intended to result in economic, social and environmental renewal of the EU. A stronger economy would imply more and better jobs, while at the same time giving due consideration to ensuring environmentally sustainable development and contributing to greater social equality.

The EU's Strategy for Growth and Jobs is not merely a goal, however. It also develops a method of promoting cooperation and development between states. Instead of being based on legislation and detailed regulations that are binding on the member states, the idea is that, together, the member states can learn and develop by cooperating voluntarily. This open method emphasises the adoption of common overriding guidelines at the European level and an agreed schedule for the attainment of goals. One important instrument is to develop a set of indicators and points of reference that can be used to compare best practice, thus enabling countries to measure and evaluate development and compare their own results with the results of other countries. The idea is that, over time, improved guidelines for an effective policy can thereby be developed. This form of cooperation is essentially intergovernmental, with few supranational decisions being involved. It is therefore called an open coordination method.

It is a long way from the formulation of ambitious goals to the achievement of specific results. In the first evaluation of the strategy in autumn 2004, the conclusion was that it had failed to achieve all the desired effects. There were several reasons for this. One was that the goals were probably too ambitious. Another was that the strategy itself was not sufficiently focused. Moreover, there has been discussion since the start about how effective this open method is in terms of coordinating policy, without having the same possibilities for the use of legal provisions as other areas of EU policy.

#### Reform of the process – a clearer focus

As a result of the review in 2004, a reform of the strategy was implemented in spring 2005. The main effect was to make the strategy more focused and concentrated on certain areas. It was decided to develop the Lisbon process by focusing more on growth and jobs. Consequently the name of the process was changed to the Lisbon Strategy for Growth and Jobs. The idea was that Europe needed to renew the basis for its competitiveness by concentrating

on knowledge, innovation and investing in competence. However, a clearer focus on growth and jobs was not seen as being in opposition to sustainable development or social equality. On the contrary, growth and competitiveness were viewed as instruments and necessary preconditions for ensuring that social and environmental considerations were taken into account. Both the Commission and the EU member states were to cooperate on coordinating measures, and synergies between countries and measures were to be given particular emphasis.

As the strategy became more focused, the strategy work was also reorganised. Three-year cycles were established for the strategy with the intention to boost the member states' ownership of the strategy, while at the same time clarifying responsibility. The idea was to create a partnership between the EU and the member states. The division of roles was clarified. A clearer distinction was drawn between the role of member states and the role of the EU bodies. The Commission was to develop its own reform programme. The member states committed themselves to a greater extent to establishing their own reform programmes, identifying national challenges and proposing reforms to deal with them. Agreement was also reached on a set of guidelines and regulations that would apply to these national reform plans, committing the member states to a greater degree of follow-up. A total of 24 so-called integrated guidelines were established. They comprised a number of general macroeconomic, structural and employment measures (see also the highlighted text on page 6).

The strategy has subsequently become gradually more targeted and focused. In 2006, the Commission defined four areas for priority actions: increased investment in knowledge and innovation, more support for small and medium-sized enterprises (SMEs), increased employment and the goal of developing a common energy policy.

This new reformed strategy has generally been perceived as positive, and appears to be working better than the previous one. The member states have also expressed greater satisfaction with the process in the Council. In its analyses, the European Commission has emphasised that the member states have increased their structural reforms during the period from 2005 to 2008, although there is

still considerable variation between member states in terms of their speed and intensity.

We have also seen clearer results. Most of the upswing in the EU's economy during the period from 2005 to 2008 was related to cyclical factors. In its analyses, the Commission nonetheless emphasised that the Growth and Jobs Strategy contributed to increasing the growth potential of the member states. There was greater focus on some of the structural difficulties facing many member states. The process had also helped to make Europe's economy more resistant to external shocks, for example in the form of increased energy and commodity prices. The continued integration of the member states' economies also implies that they to a larger extent follow the same cyclical fluctuations. This means that it is easier, in the euro area in particular, to pursue a monetary policy that is better adapted to the needs of each member state.

In the evaluation of the three-year cycle (2005-2008), the Commission therefore claimed that, all in all, the strategy had contributed to speeding up reforms and helped the member states to implement necessary, but often difficult, measures that could enable the European countries to better meet the challenges of globalisation.

Even though the Growth and Jobs Strategy had obtained certain results, there was nevertheless broad agreement that the EU countries were facing demanding structural challenges. There are large differences in per capita income, both within and between the different member states. For example, the average GDP per capita in the EU as a whole is 34 per cent lower than for the five best EU countries. As a continuation of the Growth and Jobs Strategy, the EU Commission, together with the Council and the European Parliament, therefore identified in 2008 a set of ten specific objectives and focus areas for the period 2008-2010. These ten measures, which include new legislation within several areas, are related to four areas in particular: (1) investing in people and modernising the labour market, (2) unlocking business potentials, particularly in small and medium-sized enterprises, (3) investing in knowledge and innovation, and (4) reforms of energy and climate policy. These focus areas have therefore been given special emphasis in this report.

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### The financial crisis has increased the desire for reform

The role and development of the strategy to ensure growth and jobs in Europe has been strongly influenced by the financial crisis. Issues and reform proposals that had already been raised in connection with the Strategy for Growth and Jobs took on renewed topicality and attracted new interest.

The financial and economic crisis has affected the strategy in at least two ways. Firstly, it has had a direct effect in that estimates and expectations for future growth and development have been strongly scaled down and there has been a marked increase in unemployment in most countries. The ambitious objectives will therefore be even more difficult to achieve, giving rise to a debate on what to regard as realistic objectives for the EU Strategy for Growth and Jobs.

Secondly, it has affected the strategy's content and work methods. The European Economic Recovery Plan is essentially the EU's concerted response to the financial and economic crisis. This plan is extensive and contains a number of both short and long-term measures. It consists of two pillars. The first, which amounts to approx. EUR 2 billion or 1.5 per cent of the EU's GDP, is primarily intended to stimulate demand in the short term. The other pillar comprises a number of different initiatives that are also intended to contribute to solving the more long-term and structural challenges. A key phrase in this context is the so-called "smart investments", which aim to ensure growth and sustainable prosperity in the long term. Some of these measures involve stimulating the shift to a low-carbon society and a more knowledge-based economy. The plan draws on resources in both the EU and the member states and involves several coordinated measures.

#### The 24 integrated guidelines

The integrated guidelines are an important tool and part of the EU Growth and Jobs Strategy. The guidelines, which are very general, are intended as guides to what national reforms should aim for. How the reforms should be designed in order to achieve the goals is up to the member states themselves. When the European Commission issues their annual country-specific recommendations to member states, the recommendations are linked to the integrated guidelines.

Chapter 3 contains a review of Norwegian policies that are relevant in relation to fulfilling the guidelines. We primarily focus on measures that have been implemented or planned during the past year, but we also delve further back in time if this is called for. To read more about Norwegian measures from previous years, see earlier editions of this annual publication. To make it easier to compare measures against each of the guidelines, we have listed in brackets which sub-chapters that correspond to the individual guidelines. Correspondingly, the titles in Chapter 3 refer to the relevant guidelines dealt with in the sub-chapters.

#### Macroeconomic guidelines

- 1. To secure economic stability for sustainable growth (Chapters 3.1 and 3.3).
- 2. To safeguard economic and fiscal sustainability as a basis for increased employment (Chapter 3.2, 3.3 and 3.10).
- 3. To promote a growth and employment orientated efficient allocation of resources (Chapters 3.2, 3.6 and 3.10).
- 4. To ensure that wage developments contribute to macroeconomic stability and growth (Chapter 3.10).
- 5. To promote greater coherence between macroeconomic, structural and employment policies (Chapters 3.1, 3.3 and 3.10).
- 6. To contribute to a dynamic and well-functioning EMU (not relevant).

#### Microeconomic guidelines (structural measures)

To increase and improve investment in R&D, in particular by private business (Chapter 3.4 and 3.6).

- 8. To facilitate all forms of innovation (Chapters 3.4, 3.5 and 3.6).
- 9. To facilitate the spread and effective use of ICT and build a fully inclusive information society (Chapters 3.8 and 3.9).
- 10. To strengthen the competitive advantages of its industrial base (Chapters 3.4, 3.5, 3.8, 3.9 and 3.11).
- 11. To encourage the sustainable use of resources and strengthen the synergies between environmental protection and growth (Chapter 3.6).
- 12. To extend and deepen the internal market (Chapter 3.7).
- 13. To ensure open and competitive markets inside and outside Europe and to reap the benefits of globalisation (Chapter 3.7).
- 14. To create a more competitive business environment and encourage private initiative through better regulation (Chapter 3.8).
- 15. To promote a more entrepreneurial culture and create a supportive environment for SMEs (Chapters 3.4 and 3.8).
- 16. To expand, improve and link up European infrastructure and complete priority cross-border projects (Chapter 3.9).

#### **Employment guidelines**

- 17. Implement employment policies aiming at achieving full employment, improving quality and productivity at work, and strengthening social and territorial cohesion (Chapter 3.1, 3.3 and 3.10).
- 18. Promote a life-cycle approach to work (Chapter 3.2 and 3.10).
- 19. Ensure inclusive labour markets, enhance work attractiveness, and make work pay for job-seekers, including disadvantaged people, and the inactive (Chapter 3.2 and 3.10).
- 20. Improve matching of labour market needs (Chapter 3.10 and 3.11)
- 21. Promote flexibility combined with employment security and reduce labour market segmentation, having due regard to the role of the social partners (Chapter 3.2 and 3.10).
- 22. Ensure employment-friendly labour cost developments and wage-setting mechanisms (Chapter 3.10).
- 23. Expand and improve investment in human capital (Chapter 3.11).
- 24. Adapt education and training systems in response to new competence requirements (Chapter 3.11).

This comprehensive plan for economic recovery was also seen in close conjunction with the Lisbon Strategy for Growth and Jobs (see Chapter 3.3). The national reform plans and their follow-ups are now regarded as important means to ensure a stronger economy as the financial crisis ebbs out. Moreover, the combination of short-term macroeconomic stimulation and structural reforms with longer term positive effects on public finances, growth opportunities and competitiveness is seen as a critical to the whole economic recovery plan. Summing up, the financial crisis has thus contributed to highlighting and intensifying the work carried out within the framework of the Growth and Jobs Strategy.

### 1.4 THE EU'S EXPERIENCE AS A SOURCE OF LEARNING

The EU and the EU countries are a particularly important source of experience-based learning. There are several reasons for this. Firstly, many EU countries are relatively similar to Norway. They are facing many of the same challenges in relation to demographics, globalisation and technological development.

Secondly, the EU is also an important region for Norway and Norwegian business and industry. The EU is Norway's most important trading partner. Most of Norway's imports come from the EU and the vast majority of our exports go there. Enterprises, organisations, employees and the authorities are closely integrated with Europe and are influenced daily by developments and cooperation within the EU. Even though Norway is not a member of the EU, a number of cooperation agreements between the EU and Norway have been developed over time, contributing to the close integration of the Norwegian economy and Norwegian society with the rest of Europe. The most important agreement by far is the EEA Agreement, but a number of other agreements also help to strengthen cooperation. Norway's cooperation with the EU therefore includes most areas of the economy and society. In many areas covered by these cooperation agreements, Norway has committed itself to obligations that influence the possibilities for growth and employment in Norway.

EU cooperation is not just about adopting legal provisions. The EU can also be regarded as an arena in which different states come together to share experiences and to develop common policies and guidelines, often without

the use of legal instruments. In the EU, a lot of effort has long been put into stimulating the exchange of experience and learning across national borders. Cooperation of this kind has emerged in areas in which the member states have either not wished to delegate legislative authority to the EU or where they do not wish to use legal instruments. The Growth and Jobs Strategy is the best known example of this type of experience-based learning process. This strategy is an important instrument for the EU in handling the challenges it faces as a result of globalisation and demographic changes, while at the same time ensuring sustainable development and safeguarding important social rights.

Norway is not a member of the EU, and nor is the Growth and Jobs Strategy part of the EEA Agreement. Therefore, Norway is not legally bound to take part in following up of the strategy, but it does provide an excellent opportunity to analyse Norway's experience and results in relation the experience of other countries. The report shows that Norway's policies and visions concur to a large extent with the objectives adopted by the EU in its Growth and Jobs Strategy.

Growth and jobs in the EU are closely linked to growth and jobs in Norway. Naturally, the primary goal for Norwegian policy is to underpin and promote growth and development in Norway. In many areas, EU policy also influences Norway and Norwegian policy. As a result of the EEA Agreement, changes in framework conditions in the EU often result in corresponding changes in Norway. EU policy therefore directly and indirectly affects opportunities for innovation, growth and employment in Norway. It is therefore necessary to closely follow developments in the EU.

This dependence is not unilateral, however. In some areas, Norwegian policy also influences opportunities for long-term growth and employment in the EU. Norway's most important contribution is related to the stable and predictable delivery of energy to European markets. EU imports roughly half its energy consumption and this proportion could increase in the future. Natural gas from Norway currently accounts for approximately a fifth of EU gas imports, compared with a quarter from Russia. Instability or low predictability on energy supply could lead to considerable difficulties for growth and employment in Europe. To secure long-term access to energy is

therefore high on the EU's agenda and it has a crucial role to play in securing growth and development in the EU. In this light, it is not surprising that the EU and its member states have shown great interest in developments on the Norwegian continental shelf, in the High North and in the further development of Norwegian energy policy. There is a clear mutual interest in this area, for example in joint infrastructure projects. In relation to energy exports, Norway also has a strong interest in following developments in the EU's energy policy and in the regulations and framework conditions that apply to the EU's internal energy market. Since gas accounts for an increasing proportion of Norway's petroleum exports, Norway's energy policy is also becoming increasingly integrated with the European energy market.

Norway also has valuable resources, expertise and experience in other areas, for example in relation to maritime and fisheries policy. These resources are important in terms of securing growth and sustainable development in the EU. Both these policy areas are currently subject to extensive reform in the EU. A new platform has been adopted for the EU's integrated maritime policy and a number of initiatives are now being presented. Similarly, attempts are being made to initiate a more extensive reform of the EU's fisheries policy. This is the result of the recognition in the EU that the policy is inadequate in relation to ensuring sustainable fisheries and resource management in the longer term. Many therefore see a need for reorganisation and reform of the management policy. Norway's experience and knowledge in both these areas has been and will continue to be relevant to the development of the future policy of the EU.

In certain areas relating to social justice, employment and economic development, the EU and some EU countries have also shown interest in so-called «Nordic solutions», which have to a large extent succeeded in combining a

flexible labour market with security for individuals, for example by demonstrating trust, taking each other's interests into account and having equal opportunities for all as a main goal.

This list of policy areas in which we have reciprocal interests could have been longer of course. The point here is to highlight the fact that there are strong mutual interdependencies between the EU and Norway and that, together, we influence each other's conditions for growth, jobs and development.

#### 1.5 THE FUTURE DEVELOPMENT OF THE LISBON STRATEGY FOR GROWTH AND JOBS

Despite the reforms from 2005, the original ambitious goal of the Lisbon process of creating the most competitive economy in the world by 2010 will not be achieved. The reforms and measures that have been implemented have not been in vain, however. Recently, at the session of the European Parliament in September 2009, Jean-Claude Juncker advocated for extending the deadlines, although potentially with a change of focus. At the same time, there is increasing debate about the open coordination method and about how effective it is in terms of ensuring restructuring and reform. So far, the member states have been wary of delegating authority to the EU that could ensure even closer economic coordination. The financial crisis has helped to highlight the tensions relating to the Lisbon Strategy for Growth and Jobs. On the one hand, it has highlighted the communality of interest that exists between Europe's economies and demonstrated the need for coordinated regulation of the economy. On the other hand, the increase in unemployment has given rise to a more pronounced political and economic pressure on governments to find national solutions that ensure growth and development in their domestic economies.

### 2. Structural indicators

The European Commission has defined 14 statistical indicators that measure the progress of the work on the EU Strategy for Growth and Jobs. These structural indicators cover the following areas: general economic background, employment, innovation and research, economic reform, the environment and social cohesion. This chapter is divided in accordance with these categories. In addition to reflecting the strategic objectives of the EU Strategy for Growth and Jobs, the indicators also aim to include well-known measures that are easy to understand. In this chapter, we compare Norway with the EU countries and comment on the properties of each indicator. The other EFTA countries are included provided that Eurostat has reported data for them. The US and Japan are included in some figures in order to provide an international basis for comparison.

In 2006, the European Council chose to highlight four main focus areas: 1) investing in knowledge and innovation, 2) unlocking business potential, with the focus on SMEs, 3) increasing employment for certain groups (women, older workers and immigrants) and 4) an integrated environmental policy for Europe (see Chapter 1). During 2008 and 2009, financial stability has also become an important focus area in terms of securing growth and jobs in the short and long term. It is particularly important, therefore, that these areas are covered. Consequently, we have chosen to report additional indicators within these five main focus areas provided that they are not already satisfactorily measured by the 14 structural indicators. These additional indicators are presented in separate thematic boxes. Unless otherwise stated, Eurostat is the source of data in the figures. The figures are organised with the country with the best result at the top of the figure and the country with the poorest result at the bottom.

### GENERAL ECONOMIC BACKGROUND 2.1 GDP PER CAPITA (FIGURE 2-1)

Gross domestic product (GDP) is a measure of the total value of goods and services produced in the public and

private sectors. GDP per capita is relatively high in Norway (90 per cent higher than the average for the EU countries). Only Luxembourg had a higher GDP per capita in 2008. All the Nordic countries have a GDP per capita that is above the average for EU27, while all EU member states that joined after 2004 are below the average.

Figure 2-1 GDP per capita in Purchasing Power Standards (EU27=100), 2008

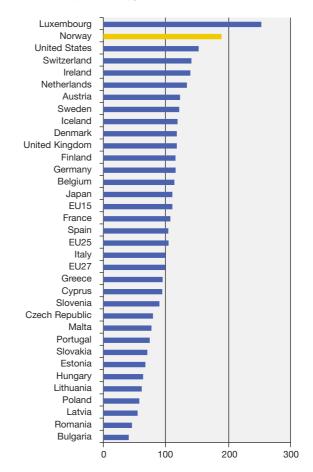


Figure 2-1 above shows GDP per capita adjusted for purchasing power. The series is indexed so that GDP per capita in purchasing power standards in EU27 is equal to 100. The figure shows that Norway has a GDP per capita

level relative to the EU of 190, which is clearly higher than the level of 178.4 in 2007. This means that Norway has improved relative to the average for EU inhabitants. This may be partly due to Norway having been hit less hard by the financial crisis than many EU countries.

GDP is the best measure we have for overall national wealth creation. However, the indicator does not include the value of production that is not measured in market prices or quantified in some other manner. For paid work that is not sold in a market, such as public administration, its value is simply measured as the costs spent producing the services. If the willingness to pay for public services is higher than the production cost, this could lead to the level of GDP being underestimated. The relative GDP level between countries will thus be influenced by such factors.

Comparing the value of GDP between countries will always be a problem since the general price level varies between countries. For example, a haircut will contribute more to GDP in Norway than in Portugal because it is more expensive in Norway measured in a common currency. That is why GDP per capita adjusted for purchasing power is used in the figure. This takes into account differences in price levels between countries, so that a country's GDP reflects consumers' actual purchasing power. The price level in Norway is high, which means that GDP adjusted for purchasing power is lower in relation to the EU average than ordinary GDP.

Part of the high GDP level in Norway can be explained by revenues from the petroleum industry. In reality, a large proportion of the revenues from petroleum recovery represent a transfer of wealth from oil and gas located under the seabed to financial wealth. The result is that, over a certain period, the GDP level in Norway will be higher than the normal return on labour and capital. This will affect all indicators related to GDP.

An alternative is to use GDP for mainland Norway, and to disregard the value of petroleum production on the Norwegian continental shelf and the value of international shipping. This provides a measure of wealth creation in Norway that is not directly dependent on changes in the petroleum sector activity. In 2007, GDP for mainland Norway was 75.3 per cent of Norway's total GDP.

Nonetheless, it was 20 per cent higher than EU15 and 34 per cent higher than EU27.

#### 2.2 LABOUR PRODUCTIVITY (FIGURE 2-2)

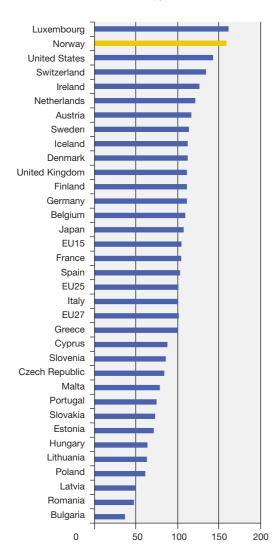
Labour productivity is a frequently applied measure of productivity that gives an indication of labour's contribution to wealth creation. The indicator is defined as GDP per person employed in Purchasing Power Standards (EU27 = 100).<sup>2</sup> A high GDP per person employed is often used as an indication of labour in a country being efficient.

However, productivity depends on several factors, implying that it may be misleading to draw a conclusion based on this measure alone. On the one hand, productivity per person employed will increase with the competence of the labour force, but it will also increase if the capital invested per employee increases or if Norway's terms of trade improve over time. Correspondingly, a country's labour productivity may fall when the proportion of persons employed in the population increases. This is because the most productive jobs are those that are filled first and because a higher employment rate probably means that there are more employees who do not work full time. Paradoxically, it is therefore possible to experience an increase in labour productivity measured as GDP per person employed at the same time as unemployment increases and GDP is reduced. This is because the least productive jobs disappear first.

Figure 2-2 shows that Norway had a labour productivity of 157.3 in 2008, i.e. 57.3 per cent above the EU27 average. The relatively high labour productivity can partly be ascribed to the high return per unit of labour invested in the petroleum industry, but even if we correct for this, Norway would be well above the average in EU27. On the other hand, Norway, like the other Nordic countries, is characterised by a high employment rate (see Figure 2-10a) and a large proportion of persons employed in the public sector. Seen in isolation, these factors should contribute to lower average productivity per person employed. If we assume that the value of the services performed in the public sector is greater than their cost, this means that the Nordic countries underestimate their productivity relative to EU countries with a relatively smaller public sector.

<sup>&</sup>lt;sup>2</sup> Persons employed include employees and self-employed persons.

Figure 2-2 GDP per person employed in Purchasing Power Standards (EU27=100), 2008



Since the petroleum industry and international shipping have a strong influence on Norway's GDP figures, it is of interest to look at labour productivity in mainland Norway. In 2008, it was 17 per cent lower than for the total economy, which is primarily due to labour being less capital intensive in the mainland economy and that the petroleum industry receives a high return in the form of oil resource rent. Although the productivity level is 17 per cent lower, mainland Norway still has a productivity level above the average for EU27.

If we look at the figures for 2007, Norway's labour productivity relative to EU27 was 149.4. This means that its relative productivity compared with the EU27 average increased by approximately five per cent from 2007 to 2008. If we trace the indicator further back in time, we see that Norway's labour productivity relative to EU27 varies somewhat from year to year. For the last nine years seen as a whole, however, there is a clear trend that Norway's GDP per person employed has improved over time, with a relative improvement in relation to EU27 of 13.6 per cent from 2000 to 2008. This is somewhat surprising given the rapid growth experienced by the new EU countries during the same period. Thus, Norway also stands out as one of the few Western European countries to have increased its labour productivity in relation to EU27.3

One explanatory factor is the favourable change in the terms of trade between Norwegian and foreign goods during the period, and a three to fourfold increase in the price of oil.4 Another factor is that, while Norway has had a relatively stable employment rate during this period (0.6 per cent growth), most of the other EU countries have experienced strong growth in the number of persons employed, which, as argued above, has a negative effect on GDP per person employed.

#### **R&D AND EDUCATION**

#### 2.3 GROSS EXPENDITURE ON R&D AS A PERCENTAGE OF GDP (FIGURE 2-3)

The indicator presented in Figure 2-3 on the next page measures gross domestic expenditure on research and development (R&D) as a percentage of GDP. The aim of this measure is to say something about how knowledge-based an economy is, and the ability to restructure and be innovative.

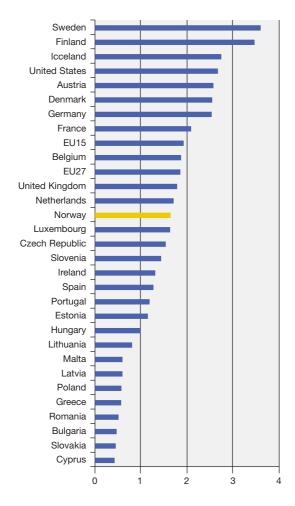
The EU has targeted an R&D expenditure amounting to three per cent of GDP by 2010. Norway operates with the same goal. Figure 2-3 shows that R&D expenditure in Norway in 2007 was 1.64 per cent of GDP. That is slightly below the EU27 average, and considerably lower than our Nordic neighbours all spending more than 2.5 per cent of GDP on R&D in 2007. The figure shows that there are relatively big differences between countries in how

The other Western European countries that have increased in relation to EU27 are Greece (9.4%), Ireland (5.5%), Switzerland (1.6%), Spain (1.3%) and the Netherlands (0.7%)

According to Statistics Norway, the spot price for a barrel of Brent Blend was a record-high USD 133 in June 2008, although it then fell sharply during autumn and winter 2008

much they invest in R&D. Countries with lower GDP per capita largely appear to also spend a lower percentage on R&D. Sweden and Finland stand out as the countries with the highest investment in R&D. As of 2007, they were the only EU countries to have reached the goal of spending more than three per cent of GDP on R&D.

Figure 2-3 Gross domestic expenditure on R&D as a percentage of GDP, 2007



R&D expenditure can be divided into public and private sector R&D investments. In the EU "Barcelona target" from 2002, the goal is that two-thirds of R&D expenditures should be privately financed, while one third should be financed by the public sector. The Norwegian Government has recently dropped its concrete target of one per cent of GDP in R&D expenditure from public sources in favour of a goal stating that public research funding should amount to "approximately one per cent of GDP" (Report no. 30 (2008-2009) to the Storting Climate for Research). The reason for the change is that a goal of

one per cent of GDP in public R&D investments is deemed to be a poor research policy instrument since it is dependent on fluctuations in economic activity (proportion of GDP) and because the goal is not linked to the results actually achieved by investing in R&D.

In order to reshape the goal for research investment, the Government has therefore decided, in addition to the three per cent target, to focus on indicators such as R&D employment per 1000 persons employed (sixth place among the OECD countries), R&D investments per capita (twelfth place among the OECD countries) and R&D investments linked to mainland GDP (public investment estimated to be 1.04 per cent of GDP). The authorities have not set explicit targets for these indicators.

An analysis of the national budget for 2009 carried out by NIFU-STEP shows that public R&D expenditure in Norway will in any case be close to one per cent of GDP (0.94 per cent). As regards private sector investment in R&D, however, it is far short of the goal of "approximately" two per cent of GDP. The figures for 2007 show that private sector investments were equivalent to 0.9 per cent of GDP.

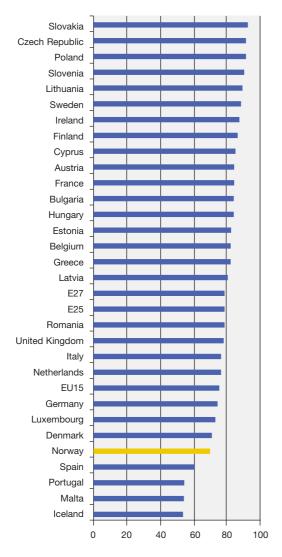
Part of the criticism of a centrally stipulated goal that a certain percentage of GDP should be invested in R&D is that research intensity is largely dependent on which sectors that dominate the economy. For example, investments in R&D normally amount to a larger percentage of wealth creation in industries such as ICT and the pharmaceutical industry than is the case in the industries that dominate the Norwegian economy. In production of petroleum and aluminium, fisheries and the maritime industry, activities are more capital and/or raw material-intensive. The OECD study *Economic Policy Reforms: Going for Growth* from 2006 shows that, corrected for the composition of industries, Norway is in fourth place among the OECD countries as regards research intensity.

In this light, many would argue that we must take account of our economic structure when considering how much R&D investment should be seen as optimal in relation to achieving the greatest possible growth in the economy.

#### 2.4 EDUCATIONAL ATTAINMENT (FIGURE 2-4)

A well-educated labour force increases labour productivity and is an important factor in terms of ensuring high wealth creation. Eurostat's structural indicator for educational attainment is defined as the percentage of the population aged 20-24 years that has completed at least upper secondary education.

Figure 2-4 Percentage of the population aged 20-24 years having completed at least upper secondary education, 2008



In practice, countries differ in how they measure the number of young people who have upper secondary education. In many countries, this indicator is reported as the number who have *started* upper secondary education, while others report the percentage that have *completed* and passed upper secondary education.

From 2005 to 2006, Norway switched from measuring the number starting to the number actually completing

upper secondary education. The intention was to ensure comparability with other countries by bringing the Norwegian definitions into line with international guidelines. While Norway topped the statistics with a percentage of 93.3 using the previous method, the statistics for Norway for 2008 show that Norway is among the lower-ranking countries with a percentage of 70. This is the same level of attainment as Denmark (71 per cent) and higher than Iceland (53.6 per cent), but considerably lower than Sweden (87.9 per cent) and Finland (86.2 per cent).

As pointed out above, the educational indicator is vulnerable to how countries define upper secondary education. The results presented in Figure 2-4 should therefore be seen in conjunction with other educational statistics. Nor does the indicator say anything about the quality of the respective countries' upper secondary education.

From 2006 to 2008, the proportion of the Norwegian population between the ages of 20 and 24 that had completed upper secondary education increased from 68.6 to 70 per cent. The statistics also show that the proportion that has completed upper secondary education is considerably higher among Norwegian women (74.7 per cent) than among Norwegian men (65.4 per cent). The fact that a higher percentage of women complete upper secondary education is also a recurring pattern in the rest of Europe.

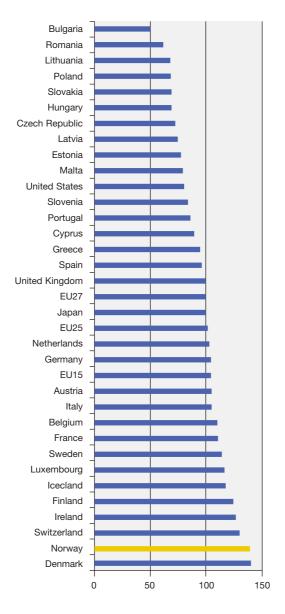
## **ECONOMIC REFORM**2.5 COMPARATIVE PRICE LEVELS (FIGURE 2-5)

This indicator measures the price of comparable baskets of goods in different countries measured in the same currency. The basket of goods used should be representative for final consumption of private households and consist of goods and services imported from abroad, as well as goods and services produced in the country in question. The purpose of the indicator is to provide an indication of how closely the national markets in the EU are integrated.

The comparative price level has been indexed on the basis of the EU average (EU27=100). As shown in Figure 2-5, Norway had an index value of 139.1 in 2008. That was the second highest price level for final consumption in Europe, after Denmark. The general price level is high in the Nordic countries. The Icelandic price level, which was highest until 2007, has fallen sharply as a result of the

economic collapse and the strong depreciation of the currency due to the financial crisis.

Figure 2-5 Comparative price levels of final consumption by private households, including indirect taxes (EU 27=100), 2008



In a fully integrated economy in which all four freedoms of the EU have been implemented, i.e. free movement of goods, services, capital and labour, we would expect the price level between countries to converge. A high price level relative to other EU countries would therefore indicate that Norway is less integrated with one or more of the

above-mentioned markets. However, there are also other factors that affect the relative price level.

Firstly, the measure includes indirect taxes. High value added tax and specific taxes will thus contribute to a high price level irrespective of the degree of market integration. The price level also depends on the cost of transporting goods and services to consumers. The Nordic countries are on Europe's periphery and will therefore have higher transport costs.

It is also often the case that the higher the labour productivity is, the higher is the price level. This is explained by the prices of sheltered products, often services that cannot easily be exported, being pushed upwards as a result of high domestic purchasing power. Compared with EU27, Norway's price level remained relatively stable during the decade from 1999 (134.3) to 2008 (139.1). If we view Norway's stable price level in conjunction with the fact that it has had higher productivity growth than EU27, this may be an indication that Norway's market integration with the EU has increased during the period.

This explanation should be qualified, however. A high price in sheltered industries can also be a symptom of a lack of competition or of regulation of wage costs at a high level. In such case, this is evidence of poor integration with the rest of Europe. A different but related explanation of high prices in the sheltered sector could be that productivity is poor in this sector.

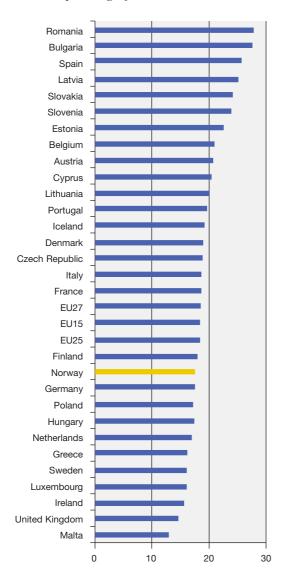
## 2.6 FIXED CAPITAL FORMATION BY THE PRIVATE SECTOR (FIGURE 2-6)

The indicator presented in Figure 2-6 shows private sector investment in fixed capital as a percentage of GDP in 2008. In 2008, the level of private sector investments in Norway was 17.7 per cent of GDP. This is lower than the EU27 average, and on a par with countries such as Finland, Germany and Poland.

The investment level is important because more capital can contribute to higher productivity per worker. An analogy can be drawn with the discussion concerning the R&D level and general educational attainment in the population, where it is argued that these factors also con-

<sup>&</sup>lt;sup>5</sup> The correlation between relative GDP per capita and relative price level in 2008 was 0.74 for the countries represented in Figure 2-5.

Figure 2-6 Gross fixed capital formation by the private sector, as a percentage of GDP, 2008



tribute to higher productivity per worker. Empirical evidence indicates that countries experiencing growth often have a high investment level relative to GDP. Correspondingly, countries that are already industrialised and that have a high level of capital per worker have a lower investment level relative to GDP.

Among the countries with the highest productivity (cf. Figure 2-2), we find the industrialised Western

European countries with a large capital base. However, these countries are also characterised by moderate investment levels. This is in line with the theory that countries with high capital per worker will have high productivity per person employed at the same time as the investment level will be lower because an extra unit of capital produces a smaller return on the margin. Correspondingly, countries with lower productivity, such as the majority of new EU member states, will wish to invest a great deal since the next unit of capital produces a high return.

It is difficult to stipulate the correct level of capital in relation to labour in a country. It will vary, for example, with the industrial structure, and, not least, with how far one succeeds in effectively turning investments into productive capital. Consideration must be given to such factors when assessing the optimal investment level in a country.

Norway's economy is dominated by industries based on natural resources. This means that we experience considerable fluctuations in the investment rate. When petroleum installations are being developed, investments are high. In subsequent periods, investments are low. At the same time, however, GDP grows once the installations produce a return. This is also apparent from the time series for fixed capital formation by the private sector, where 2008 was a year characterised by high investment in the petroleum sector. With the exception of 2007, when investment in the sector was also high, we must go all the way back to 1999 to find a higher investment level than in 2008.

#### THE ENVIRONMENT

#### 2.7 GREENHOUSE GAS EMISSIONS (FIGURE 2-7).

This indicator shows the development of greenhouse gas emissions from 1990 to 2007 for each country measured in CO<sub>2</sub>-equivalents.<sup>7</sup> In Figure 2-7, national emissions are compared with the commitments the countries have undertaken by ratifying the Kyoto Protocol. The national emissions level is indexed so that 100 is equal to the country's emission level in 1990.

Pursuant to the Kyoto Protocol, Norway has committed itself to not exceeding an increase of one per cent in rela-

Our calculations based on figures for 2008 show a negative correlation of - 0.57 between GDP per worker adjusted for purchasing power (EU27=100) and fixed capital formation by the private sector for the countries in Figure 2-6. This also concurs with calculations for previous years.

The indicator includes the greenhouse gases in the Kyoto Protocol: carbon dioxide ( $CO_2$ , methane ( $CH_4$ ), nitrous oxide ( $N_2O$ ) and three types of fluoride gases (HFK, PFK and  $SF_3$ ).

tion to its 1990 level during the period 2008 to 2012. By comparison, the EU, on behalf of EU15, has committed itself to reducing emissions by eight per cent from the 1990 level during the same period, i.e. to 92.

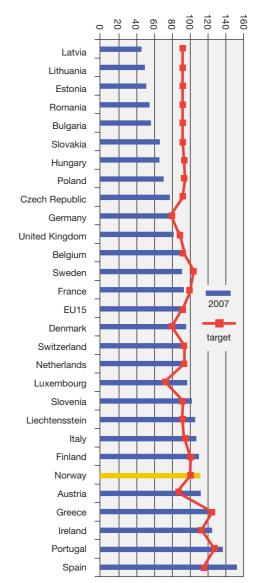
Figure 2-7 shows that Norway's national emissions in 2007 were higher than its Kyoto commitments. If we look at past statistics, the figures show that Norway's national emissions have never been higher than in 2007. On their part, EU15 have gradually reduced their emissions from 2004 to 2007.

In addition to the commitments under the Kyoto Protocol, the Norwegian Government has decided that Norway will over-fulfil its target by 10 per cent. This means that Norway's actual target is a level that is nine per cent lower than its 1990 level. If we compare this with the structural indicator, Norway's emissions in 2007 were almost 20 per cent higher than the emission targets for the period from 2008 to 2012.

When measuring a country's ability to reach goals in relation to the Kyoto Protocol, the indicator in Figure 2-7 has the clear weakness that neither reductions achieved by purchasing emission credits from other countries, investments in emission-reducing projects in other countries nor increased absorption of CO<sub>2</sub> through forestry and land management are included. If we look at how Norway, like many other countries, plans to fulfil its Kyoto commitments during the period 2008 to 2012, the purchase of credits from other countries through the international emissions trading system is a key element in how the emissions targets are to be achieved (see the box below for further discussion).

One of the four main goals of EU is a more integrated environmental policy. The EU's own emissions trading system (ETS) is an important instrument to achieve this. It is intended to ensure that emission reductions in Europe take place in the countries and industrial companies that can achieve this most cost-efficiently. In a transnational questionnaire survey carried out annually by analysts Point Carbon, an increasing percentage of respondents answer that they see the European emissions trading system as an effective market. While approximately 10 per cent of respondents answered that the market was effective in 2006, this percentage rose to 25 in the 2009 survey.<sup>8</sup>

Figure 2-7: Greenhouse gas emissions in 2007 (1990= 100) and emission targets in the Kyoto Protocol



#### 2.8 ENERGY INTENSITY (FIGURE 2-8)

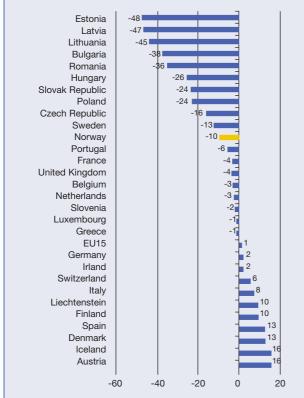
This indicator measures the energy intensity of the economy and includes domestic consumption of coal, electricity, oil, natural gas and renewable energy. Energy intensity is measured as energy consumption in kilos of oil equivalents in relation to production (GDP). It is necessary to point out that, even though consumption is measured in oil equivalents, it includes all forms of energy, both renewable and fossil energy.

Figure 2-8 shows that Norway had an energy intensity level of 129, which is among the lowest levels in Europe.

<sup>&</sup>lt;sup>8</sup> Point Carbon, 2009, Emission trading coming home

### Achieving the Kyoto targets using the flexible mechanisms

Gap between emissions and Kyoto targets, including use of carbon sinks and Kyoto mechanisms, 2006



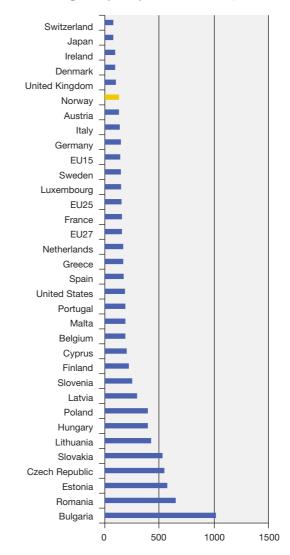
#### Source: EEA

Pursuant to the Kyoto Protocol, it is possible to use so-called flexible mechanisms, also called the Kyoto mechanisms, to meet emission targets. The figure above shows the countries' attainment of the emission targets taking into account 1) net trading in credits with other countries, 2) credits earned through emission-reducing projects in other countries, and 3) the use of carbon sinks.

If we compare the figure above with Figure 2-7, we see that Norway fares substantially better with respect to goal attainment. In 2006, Norway over-fulfilled its Kyoto commitments by approx. 10 per cent. Countries such as Luxembourg and the Netherlands are also active users of the flexible mechanisms, which means that they can have national emissions that exceed their emission targets and still meet their Kyoto commitments. Denmark, Finland, Germany and Spain also used the flexible mechanisms in 2006, but not sufficiently to meet their emission targets.

It is worth taking notice of that there are no direct retaliation mechanisms in place for those countries that do not fulfill their commitments according to the Kyoto Protocol. This indicator does hence not predict whether a country will be forced to alter its climate policy or not. This has also been the situation in previous years. In addition to energy efficiency in the production of goods and services, our goal for energy intensity is also dependent on factors such as the composition of our industries, settlement patterns and climate. Taking the cold climate into consideration (a lot of heating is required) as well as the dispersed settlement pattern (requires a lot of transport) and the substantial proportion of power-intensive industry, it is perhaps somewhat surprising that Norway scores as high as it does on this indicator.

Figure 2-8 Energy intensity of the economy, calculated as gross inland consumption of energy, measured in kilograms of oil equivalents divided by GDP, 2007



The fact that Norway's production of oil and gas is largely used to supply energy to other countries may be one of the reasons for this

The indicator shows that Norway's energy intensity increased by seven per cent from 2006 to 2007. For the whole period from 2000 to 2007, however, energy consumption in Norway was reduced by 10 per cent in relation to GDP. Changes in energy intensity tell us something about our ability to increase energy efficiency, but changes over time may also be due to changes in the composition of our industries. For example, large parts of the power-intensive manufacturing production have been moved abroad.

#### 2.9 TRANSPORT (FIGURE 2-9)

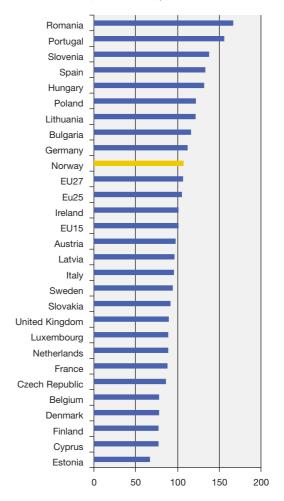
This indicator tells us something about developments in the volume of freight transport by road, rail and sea. It is defined as an index that measures the growth in domestic freight volume (tonne-kilometres) relative to GDP (measured in fixed prices). The base year for the index is 2000. It is important to point out that the indicator measures growth and that it therefore tells us about trends but not actual levels.

For Norway, the growth in freight transport from 2000 to 2007 is on level with developments in EU27. In 2007, Norway had a level of 107 (see Figure 2-9), i.e. a seven per cent increase in freight volume relative to GDP since 2000.

Figure 2-9 also shows that the development in transport volumes varies widely between EU countries. While many new member states from Eastern and Central Europe, as well as Spain, have experienced strong growth in transport as a percentage of GDP since 2000, both Denmark and Finland have reduced their transport intensity by almost 25 per cent during the same period.

The indicator is categorised as an "environmental indicator" by Eurostat. It is important to point out, however, that the indicator is poorly suited for registering emissions. Firstly, it does not measure the absolute level of freight volume, only how much it has increased or decreased. Secondly, it does not register the type of means of transport used, whether the energy consumption of these means of transport is becoming more efficient or which type of fuel is used.

Figure 2-9 Growth in volume of domestic freight transport measured in tonne-km relative to GDP (in constant euro) (2000=100), 2007



#### **EMPLOYMENT**

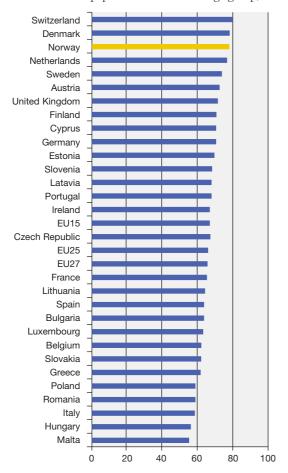
### 2.10 EMPLOYMENT RATE (FIGURES 2-10a, AND 2-10b)

Labour is regarded as society's most important resource and it is the most important input factor in the production of goods and services. The employment rate says something about the extent to which a country has succeeded in including its population in the labour market. Eurostat defines it as the percentage of employed persons of the total population aged between 15 and 64 years who were involved in at least one hour of paid work during the last week.

Galculations by Statistics Norway show that human capital amounted to approx. 73 per cent of Norway's national wealth in 2008. By comparison, oil and gas amounted to 12 per cent.

The EU has a quantified target for the employment rate of at least 70 per cent by 2010. Figure 2-10a shows that Norway had an employment rate of 78 per cent in 2008, which is the third highest rate in Europe, only marginally behind Switzerland and Denmark. The rate has also increased somewhat since 2000. Norway is thus well over the target in the Growth and Jobs Strategy. In 2008, EU27 had an employment rate of 65.9 per cent. That is almost three percentage points higher than in 2004, but still 4.1 percentage points below the minimum target for 2010.

Figure 2-10a Employed persons aged 15-64 as a share of the total population in the same age group, 2008



Increased employment for specific groups is one of the EU's four priority areas. Figure 2-10b shows that the employment rate is generally higher for men than for women. The EU's target is an employment rate of at least 60 per cent for women by 2010.

Figure 2-10b shows that employment participation by Norwegian men was 80.5 per cent, and 75.4 per cent for

Norwegian women. The Norwegian employment rate for women was the highest in Europe in 2008. It was also the highest registered employment rate for Norwegian women since the turn of the millennium. The employment rate for women in EU27 was 59.1 per cent in 2008. If the positive trend continues, the EU is well on its way to reaching the target of 60 per cent by 2010.

Figure 2-10b Employed women (blue) and men (blue and red) aged 15-64 as a share of the total population of same age and sex, 2008

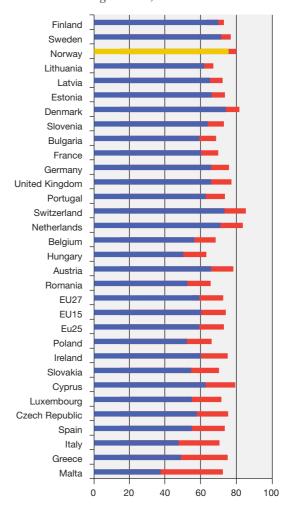


Figure 2-10b is sorted by the difference in the employment rate between women and men. As in previous years, the difference in employment participation between women and men is smallest in the Nordic and Baltic countries, while it is largest in the Southern European countries Malta, Greece, Italy and Spain.

The employment indicator does not adjust for sickness absence. If we take Norway's high sickness absence into

account, real employment participation would be reduced compared with the rest of Europe. In 2008, the average sickness absence in Norway was seven per cent among those in employment. If we convert this in relation to the indicator, real employment participation in Norway would be reduced to 72.5 per cent.

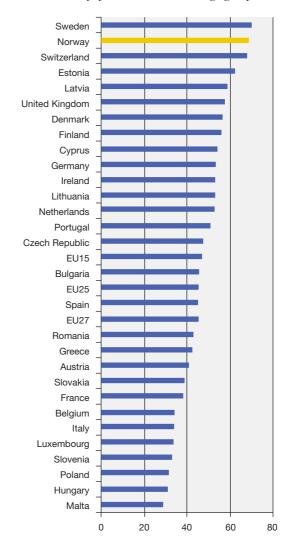
The employment rate measures the number of persons employed and not the number of hours worked. This means that it does not necessarily correctly describe the extent to which the labour resources in the population are utilised. In 2008, Norway was the country in the OECD with the second lowest number of hours worked per person employed, after the Netherlands. This is first and foremost due to the fact that there are many people working part time in Norway in addition to a relatively short work week.

### 2.11 EMPLOYMENT RATE FOR OLDER EMPLOYEES (FIGURE 2-11)

The ability to utilise the labour resources of older people by keeping the population longer in employment is important in terms of addressing the age wave. Many European countries have had a low employment rate among older people as a result of favourable arrangements for early retirement. One of the quantified targets in the Growth and Jobs Strategy is an employment rate among older workers of at least 50 per cent. Given the pension reforms currently being introduced around Europe, employment participation is expected to increase among older workers.

Figure 2-11 shows that the employment rate among older Norwegian persons, defined in this context as persons in the 55 to 64 age group, is 69.2 per cent. This is the second highest rate among European countries, close behind Sweden. Denmark and Finland follow a little behind, but are well over the EU target of 50 per cent. Average employment participation for EU27 was 45.6 per cent in 2008. There has been a strong positive development in EU27, however, and the employment rate among older workers in the EU was almost 10 percentage points higher than on the inception of the Lisbon Strategy in 2000.

Figure 2-11 Employed persons aged 55-64 as a share of the total population in the same age group, 2008

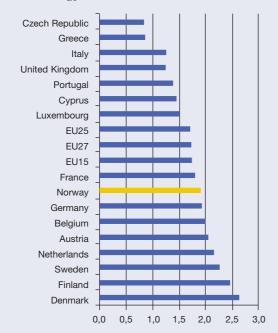


#### Immigrants in the labour market

Immigrants are an at-risk group that often face extra challenges in relation to entering the labour market. A lack of language skills and unwillingness to accept qualifications acquired in other countries implies that the employment rate among this section of the population is lower than for the population as a whole. Like women and older people, immigrants are therefore a priority group in the EU's Growth and Jobs Strategy. However, the European Commission does not have a separate structural indicator for the employment rate among immigrants.

In the figure below, we have constructed an indicator that shows the proportion of immigrants who are unemployed compared with the rest of the population. <sup>10</sup> The indicator shows the extent to which a country succeeds in utilising the labour resources of immigrants compared with the populations as a whole. If the value is low, less than one, this means that there are relatively fewer unemployed persons among immigrants than among the population as a whole. If the value is larger than one, this means that unemployment is higher among immigrants.

Immigrant unemployment rate relative to the unemployment rate in the working force as a whole, 2008



Source: Eurostat

The figure shows that in most countries the unemployment rate among immigrants is higher than in the population as a whole. <sup>11</sup> From the figure, we can see that the Nordic countries are not as good at utilising this labour force as EU27. In Denmark, unemployment among immigrants is 2.6 times higher than in the whole population, while in Finland and Sweden it is 2.5 and 2.3 times higher, respectively. Norway is near the average with relative unemployment among immigrants of 1.9.

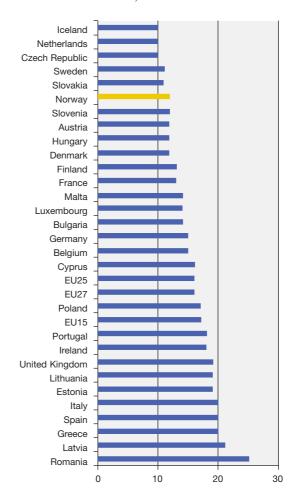
Even though Norway has almost twice as high unemployment among immigrants, it must be remembered that unemployment in Norway is low. In fact, the Czech Republic (3.7 per cent) is the only country with lower unemployment among immigrants than Norway (4.8 per cent). By comparison, unemployment among immigrants in Finland and Sweden is 15.8 and 14.1 per cent, respectively.

#### SOCIAL COHERENCE

#### 2.12 THE RISK OF POVERTY (FIGURE 2-12)

The European Commission has defined the risk of poverty as the proportion of the population with an income of less than 60 per cent of the median income after social transfers. The percentage of the population in this category can indicate the extent to which the policy of greater social equality has been successful.

Figure 2.12 Share of persons with a disposable income after social transfers below 60 percent of the national median income, 2007



In 2007, 12 per cent of the Norwegian population was in the group that risks ending up in poverty (Figure 2-12). This is roughly the same level as in the other Nordic countries and lower than the EU27 average of 16 per cent. The proportion of the Norwegian population in the risk group

<sup>10</sup> An unemployed person is defined as a person between the ages of 15 and 74 who has actively sought a job during the last four weeks.

<sup>11</sup> Many of the EU countries have not reported unemployment among immigrants to Eurostat and are therefore not included in the statistics.

for poverty has been relatively stable, having increased by one percentage point from 2001 to 2007.

There are more women than men in the risk group for poverty. <sup>12</sup> In Norway, 11 per cent of men are in the risk group and 14 per cent of women. However, the indicator does not take account of other economic factors, such as household income from employment or wealth. These are important factors that also have a bearing on the risk of ending up in poverty and that, ideally, should be included in such a measure.

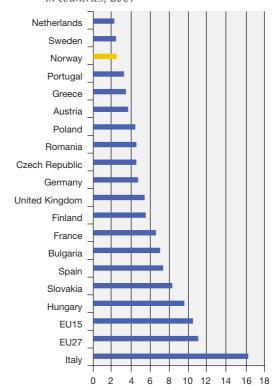
#### 2.13 VARIATIONS IN REGIONAL UNEMPLOY-MENT (FIGURE 2-13)

Large regional differences in the unemployment level indicate that labour resources are being poorly utilised and can be a symptom of low labour mobility between the regions in a country. This is unfortunate in terms of wealth creation and social redistribution. It is therefore a goal to increase mobility for optimal use of labour resources.

Eurostat measures variation in regional unemployment by calculating a coefficient for variation in employment across regions. An indicator value of zero means there is no difference in unemployment between regions. <sup>13</sup> Figure 2-13 shows that Italy, as in previous years, has the greatest regional disparity. The large differences between the north and south of Italy stand out from the other countries and help to push up the average for the EU. The lowest regional disparity in unemployment is in the Netherlands, with Sweden and Norway following close behind.

The fact that Norway has limited regional variation in unemployment is somewhat surprising, since Norway has a dispersed settlement pattern covering a large geographical area compared, for example, with the Netherlands. <sup>14</sup> The low coefficient is a sign that Norway has strong labour mobility, which may have to do with its homogenous population with small cultural differences between regions. Other explanatory factors for small regional differences in unemployment could be 1) a strong ability to create new jobs locally when old ones disappear, 2) active use of labour market measures in areas with higher unemployment, and 3) a relatively large

Figure 2-13 Variations in unemployment across regions within countries, 2007



public sector in peripheral regions that has a stabilising effect on fluctuations in unemployment.

### 2.14 LONG-TERM UNEMPLOYMENT (FIGURE 2-14)

Long-term unemployment is one of the most important forms of resource wasting in the economy. While a certain amount of short-term unemployment is a normal part of the dynamics of the economy and indicates flexibility and the ability to restructure, long-term unemployment indicates the opposite. In addition to a high level of long-term unemployment being a strain on society's ability to create wealth, unemployment also has a clear welfare aspect. Not being part of the labour force for long periods can have considerable negative social consequences for the individuals involved, and it can in itself reduce the ability of individuals to return to paid employment.

The indicator for long-term unemployment measures the proportion of the labour force that has been unemployed

<sup>12</sup> The only exceptions are Poland, Hungary and Sweden, where the at-risk-of-poverty rate of women and men is almost identical.

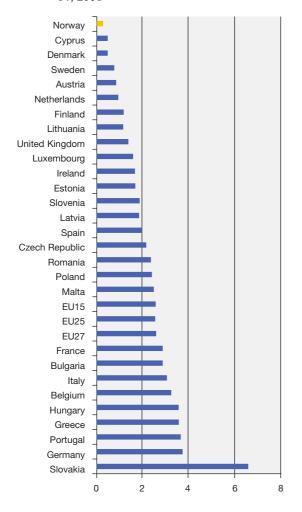
A region corresponds to a NUTS 2 area which means that it has between 800 000 and three million inhabitants. Small and relatively densely populated countries such as Denmark, Ireland, Luxembourg, Cyprus, Malta, Slovenia and the Baltic countries have not registered figures for the indicator since these countries only have one or two such regions.

<sup>14</sup> The seven Norwegian regions are: Oslo/Akershus, Hedmark/Oppland, South-Eastern Norway, Agder/Rogaland, Western Norway, Trøndelag and Northern Norway

for more than 12 months and that has actively searched for a job during the last four weeks. Figure 2-14 shows that, with 0.3 per cent, Norway had the lowest proportion of long-term unemployed in 2008. It is also the lowest level recorded in Norway during the nine-year period from 2000 to 2008. The EU average was 2.6 per cent long-term unemployed. At 6.6 per cent, Slovakia had by far the highest long-term unemployment. That was almost twice as high as in Germany, which was second highest at 3.8 per cent.

Like most other EU countries, and particularly the new member states from Eastern Europe, Slovakia has experienced a substantial reduction in long-term unemployment since 2000. Poland has experienced the strongest improvement. As recent as 2005, it had more than 10 per cent long-term unemployed, but in 2008 this figure was reduced to 2.4 per cent of the labour force.

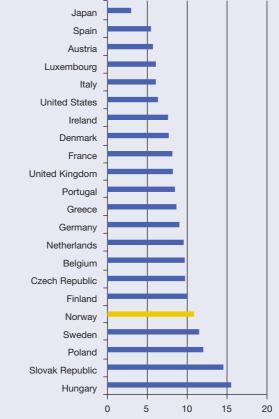
Figure 2-14 Long-term unemployed (more than 12 months) as a percentage of the active population aged 15-64, 2008



#### Long-term unemployment and disability combined

When comparing long-term unemployment between countries, it is a problem that countries differ in relation to whether they register people as long-term unemployed or as recipients of disability benefits. Big differences between countries in the numbers of registered recipients of disability benefits underpin this assertion. A person defined in one country as disabled may choose to register as long-term unemployed in another country if unemployment entitles to higher benefits. We can also envisage the opposite problem – that a person will endeavour to achieve disabled status if unemployment benefit is discontinued after a period without the recipient having obtained a new job.

Sum of long term unemployed as a share of the active population (15-64) and recipients of disability benefits as a share of the total population (20-64), 2007



Source: Eurostat and OECD

The figure above shows the sum of long-term unemployed and persons in receipt of disability benefits in the OECD countries in 2007. Here, we can see that Norway fares much worse because 10.3 per cent of the population between the ages of 20 and 64 receive disability benefits. This is third highest in the OECD after Hungary and Sweden. Germany, which had the second highest number of long-term unemployed, has a relatively low proportion of people on disability benefits, and it therefore scores much better if we look at these two categories combined.

## FRAMEWORK CONDITIONS FOR BUSINESS AND INDUSTRY

#### Framework conditions for business and industry

Business and industry, and small and medium-sized enterprises (SMEs) in particular, is one of the four main priority areas for the EU's Growth and Jobs Strategy. However, none of the 14 structural indicators chosen by the European Commission sheds particular light on this area. Every year since 2003, the World Bank has produced the "Doing Business Index", which ranks countries by how well the regulations in a country work with respect to the efficient operation of SMEs.

The index includes a total of 10 factors, including time and costs relating to: starting and closing down a business, procedures for the payment of direct and indirect taxes, the import and export of goods, hiring and firing of employees, the registration of property and the judiciary's effectiveness in terms of resolving commercial disputes.

The figure to the right shows the internal ranking among the EU27 countries, EFTA and the US and Japan. The figures beside each column show the country's ranking in relation to the 183 countries that are included in the World Bank's ranking. Among the countries in the figure, the US scores best in terms of ease of doing business. All the Nordic countries are among the 20 best in the world, and among the seven best in Europe.

While it is not directly apparent from the figure, one of the reasons Norway has a high ranking on the index is that it is easy to start a business. This could explain why Norway has many business start-ups every year compared with other countries. Norway also has an effective system for the payment of taxes, short processing times for the enforcement of contracts via the courts and effective handling of property transfers.

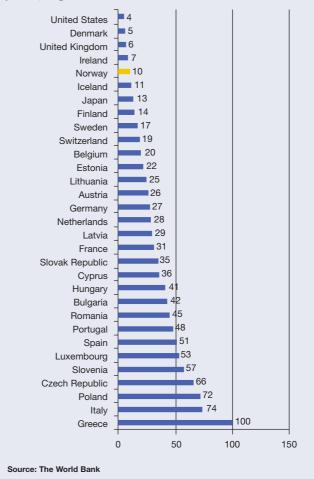
The factor where Norway scores poorest and that is also the indicator's most controversial element relates to employment matters. Here, Norway has most regulation among the Nordic countries.

The Doing Business Index is attractive because it gives clear answers to complex questions. At the same time, however, there is a lot of information that is not included and that has

a bearing on whether an investor sees it as favourable or unfavourable to do business in a country.

The production of indexes of this kind involves many potential sources of error and subjective assessments. Researchers claim that the Doing Business Index succeeds in distinguishing between the best and worst countries, but that there is great uncertainty attached to the ranking of the countries that score highest on the index. This is relevant because most countries in the EU are ranked near the top. 15

Doing Business Index, 2008 (lower value = more business friendly regulation)



<sup>&</sup>lt;sup>15</sup> The Doing Business Index is discussed, for example, in the article "The Tyranny of International Index Rankings" by Høyland, Moene and Willumsen

#### **FINANCIAL STABILITY**

#### Financial stability and fiscal freedom of action

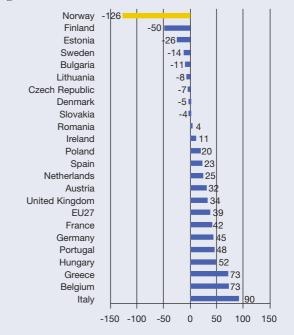
Financial stability is a precondition for achieving growth and high employment. However, none of the 14 structural indicators are designed to measure the risk of financial instability. One way of approaching this issue, is to apply a measure for financial soundness in the financial sector and see how it reacts to various shock scenarios. <sup>16</sup> An alternative and simpler approach is to look at the authorities' fiscal freedom of action to respond to macroeconomic shocks by taking counter-cyclical measures, for example following a financial crisis.

In the figure to the right, we compare public financial assets net of liabilities as a share of GDP. The figure shows that Norway's public finances are in a unique position, with net public *wealth* equivalent to roughly 1.25 times GDP in 2008.

With the exception of Iceland (not included in the statistics), the other Nordic countries also have net public wealth and are thus in a relatively favourable fiscal position. Italy, Belgium and Greece are in the weakest fiscal position relative to GDP. High levels of public debt will have a clear constraining effect on the ability to implement counter-cyclical policies, both with respect to actual access to credit and to the state's ability to provide general welfare services in addition to servicing large debts.

The level of net public debt is not a perfect measure of the authorities' ability to pursue a counter-cyclical policy. For example, countries with a good credit history will usually be in a position to take on more debt in relative terms because they can do so on more reasonable terms. It is also reasonable to assume that rich countries will be able to service a greater proportion of debt since these countries spend less of their revenues on necessities. On the other hand, it will be easier for countries with high production growth to grow out of the debt situation so that, over time, the debt will amount to a smaller proportion of their income.<sup>17</sup>

Public financial assets net of liabilities as a share of GDP (negative value = wealth), 2008



<sup>16</sup> The IMF carries out Financial System Stability Assessments (FSSAs), which, among other things, aim to identify the risk of financial instability and a country's ability to absorb macroeconomic shocks. The IMF has also developed Financial Soundness Indicators (FSIs). However, many countries are not obliged to report, and the indicators are in many cases not directly comparable across countries.

<sup>17</sup> There are many credit assessment agencies that carry out assessments of countries' solvency. They are also intended to take into account factors such as political risk, economic level and development, access to new capital etc. in relation to repayment.

### 3. Norway's policy

#### 3.1 SECURING ECONOMIC STABILITY FOR PERSISTENT ECONOMIC GROWTH (GUIDELINES 1, 5 AND 17)

#### 3.1.1 Fiscal policy

The Norwegian state operates with a large fiscal surplus as a result of high tax revenues from the petroleum sector. Instead of feeding the state's currency revenues from the petroleum activities directly into the Norwegian economy through the national budget, a political decision has been taken to treat these assets as funds, and to gradually phase the income into the economy over time in accordance with the so-called *fiscal rule*.

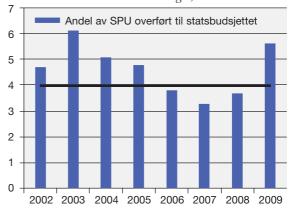
The fiscal rule has been applied to Norway's fiscal policy since 2001. The rule is that approximately four per cent of the value of the fund is transferred to the national budget, while taking into account the level of activity in the economy. In economic boom periods, somewhat less than four per cent is spent and a little more in periods of economic downturn. The rule thus has a counter-cyclical effect.

Figure 3-1 shows how the fiscal rule has been practised from 2002 to 2009. Somewhat more than four per cent of the fund's capital was used during the period 2002 to 2005. Less than four per cent was used during the period 2006 to 2008, which is in accordance with the rule. According to the budget for 2009, more than four per cent will be used as a fiscal response to the financial crisis. There is good reason to argue that the mandate for the fiscal rule has been complied with and, so far, the rule has had the intended stabilising effect on the Norwegian economy.<sup>18</sup>

#### 3.1.2 Monetary policy

Monetary policy is another important element in the Government's efforts to secure stable economic growth. Norges Bank, the Norwegian central bank, is responsible for pursuing a monetary policy that helps to stabilise pro-

Figure 3-1 Share of the Government Pension Fund - Global used in the national budget, 2002-2009



Source: The Norwegian Ministry of Finance

duction and employment, and contributes to stabilising expectations concerning the exchange rate. These goals have been operationalised through a target for low and stable price inflation, defined as an annual growth in consumer prices over time of 2.5 per cent. The monetary policy goal of price stability also has a stabilising effect on fiscal policy given that, all else being equal, an expansive fiscal policy will be counteracted by a higher key policy interest rate to prevent inflation.

However, the financial crisis and ensuing rapid transition to an economic downturn has led to both an expansive fiscal policy and an expansive monetary policy. In addition to an expansive national budget being adopted for 2009, the key policy interest rate was reduced from 5.75 to 1.25 per cent during the period September 2008 to June 2009.

### 3.2 LONG-TERM ECONOMIC STABILITY (GUIDELINES 2, 3, 18, 19 AND 21)

While the development of public financial assets has been negative in EU27 in the past ten years, <sup>19</sup> Norway has

<sup>&</sup>lt;sup>18</sup> This report does not include the 2010 budget. Nevertheless, it is important to notice that the budget is highly expansionary and viewed by many as a deviation from the fiscal rule.

<sup>19</sup> While EU27 have increased their public liabilities in absolute figures, net public liabilities in relation to GDP have been reduced by one percentage point.

experienced a considerable accumulation of public financial assets. In 2008, the public administration's net financial investments amounted to 18.8 per cent of GDP, while Norway's net financial wealth corresponded to 124.6 per cent of GDP. If we follow the fiscal rule, Norway's financial wealth will increase further, since the petroleum activities will result in substantial revenues for many years to come. Norway will thereby continue to be in a favourable fiscal position in the short and medium term, despite the financial crisis resulting in increased expenditure and falling tax revenues.

#### 3.2.1 The aging population and pension reform

As in the rest of Europe, however, in the longer term Norway will have an aging population, which will

### The white paper on long-term perspectives for the Norwegian economy

The Government's white paper on long-term perspectives for the Norwegian economy aims to describe the long-term challenges to a sustainable policy. Such white papers are normally produced every four years. In the white paper from 2009, it is estimated that the state's pension expenses under the National Insurance scheme will increase from 5.7 per cent of mainland GDP in 2007 to 11.75 per cent in 2060. It is estimated that, at the end of 2009, the Government Pension Fund will cover over 64 per cent of the National Insurance scheme's total current retirement pension commitments (the national budget, 2009).

The projections in the white paper indicate that continuation of welfare schemes at the current level will necessitate measures to increase revenues or reduce expenditure (corresponding to 3.25 per cent of mainland GDP in 2060). In the estimate from 2007, however, the same financing need was estimated to be 7.25 per cent. The main reason for the reduction in the financing need in the most recent projection is that the Pension Reform has been included in the projections. Moreover, a higher oil price has been used (NOK 400 per barrel of crude oil) than in previous projections.

There is great uncertainty attached to such projections. In the white paper, the effect of changing assumptions has been tested. If an oil price 25 per cent higher than in the main scenario is used, the financing need is more than halved. If the estimated oil price is halved (NOK 200 per barrel), the public financing need in 2060 increases to 6.5 per cent of mainland GDP.

increase the need for public transfers and thus increase the tax burden on those in employment. The main measure aimed at addressing this challenge is the Pension Reform, which will help to reduce the state's future pension commitments.

The new pension system introduces incentives to work both more and longer. Work on the pension reform has been ongoing since 2001, and the bill for a new retirement pension under the National Insurance scheme was passed by the Storting (national parliament) in June 2009. The new act, which implements the Storting's pension compromise from 2005, is based on the principle that each year in employment will count towards increasing pension entitlements (the "all years count" principle). Pensions will also be reduced if life expectancy increases (life expectancy adjustment). The system is flexible with respect to when a person wishes to retire (62 to 75 years) and it is possible to combine work and a pension without the pension being reduced. Certain features, such as improved pension entitlements for unpaid care work as well as during unemployment, mean that the new system has a larger element of solidarity but this will have the effect of increasing the state's pension expenses over time. The new entitlement earning rules apply from 2010. Flexible rules for drawing retirement pensions and new rules for the adjustment of pensions will take effect from 2011. The life expectancy adjustment will take effect for pensions drawn from 2011 onwards.

### 3.2.2 Short working hours, many recipients of disability benefits and high sickness absence

As shown in Chapter 2, a large proportion of the Norwegian population is employed compared with most other countries in Europe. At the same time, however, Norway is characterised by short working hours, high sickness absence and a large proportion of people on disability benefits compared with other countries. If this trend continues, long-term sustainability will be put to the test. Norway's policy in this area is discussed further in sub-chapter 3.10 on labour market policy.

# 3.3 THE FINANCIAL CRISIS AND ECONOMIC AND FISCAL SUSTAINABILITY (GUIDELINES 1, 2 AND 17)

The financial crisis has developed from an apparently national problem in the US market for subprime loans into

a threat to the stability of the global financial system. This has also resulted in a reduction in trade and investment activity, with major negative consequences for the real economy. Estimates concerning future growth rates have been strongly reduced and unemployment has increased, and is continuing to increase, in most countries.

#### 3.3.1 The Commission's recommended package of measures

In their recommendations to the national authorities, the European Commission and the European Council have strongly emphasised that national measures aimed at economic recovery are necessary, while at the same time stressing that such measures must underpin the long-term Strategy for Growth and Jobs (see separate box on the Commission's recommended package of measures). The Commission's main message is that measures must be timely, targeted and temporary.

#### 3.3.2 The Norwegian Government's measures to deal with the financial crisis

Several kinds of measures have been necessary during the different phases of the financial crisis. These countermeasures can be roughly divided into two types. One type

#### The Norwegian measures in light of the European Commission's recommendations

On 26 November 2008, the European Commission presented a plan for coordinated crisis measures for EU member states (the European Economic Recovery plan) that corresponded to 1.5 per cent of the EU's combined GDP. The document emphasised that the authorities' packages of measures should be linked to the long-term goals in the Growth and Jobs Strategy. The plan was approved by the European Council on 11 and 12 December 2008. The European Commission emphasises the following four strategic goals for stimulation packages:

- They should swiftly stimulate demand and boost consumer confidence in the future.
- They should lessen the human costs of the economic downturn and its effect on the most vulnerable, including those who lose their jobs.
- They should contribute to restructuring so that the European economy is in tune with the demands of competitiveness and the needs of the future.
- They should speed up the shift to a low-carbon economy in Europe. This is in order to limit climate change and promote energy security.

While the first of the above goals has a more one-sided focus on growth and jobs in the short term, the three other goals clearly concur with the long-term goals in the EU Strategy for Growth and Jobs (see Chapter 1). The goals are also very similar to those emphasised in the Norwegian package of measures presented two months later on 26 January 2009.

In the Norwegian package, the measures aimed at stimulating demand target the building and construction industry in particular. This sector is seen as particularly at risk in connection with the economic downturn. At the same time, however, it is argued that this is a golden opportunity to initiate maintenance work on public buildings and on new infrastructure projects for which it has previously proven difficult to find sufficient resources during the economic boom period.

As with the European Commission's principles, it was also emphasised in connection with the Norwegian measures that they should be targeted and temporary. The most extensive measures in the Norwegian package are also of a temporary nature, for example increased one-off allocations and temporary tax relief. The strengthening of the Skattefunn tax incentive scheme for R&D investments, the change in the rules for temporary lay-offs and the increase in the number of staff in the Norwegian Labour and Welfare Service (NAV) are the only increases in expenditure that appear to be of a more permanent nature. However, these changes are in line with the Growth and Jobs Strategy. The measures in the Norwegian package are targeted in relation to the short-term goals of stimulating employment in sectors at risk (building and construction) and increasing liquidity in enterprises that are particularly hard hit by the financial crisis (the carrying back of losses for enterprises that have previously made a profit). The package is also in line with the longer-term goals of reducing greenhouse gas emissions and increasing the focus on research and development.

The Commission also pointed out that the measures should take the form of increased budget expenditure and targeted tax incentives. Norway's package contains just such a combination of increased budget expenditure and targeted tax relief, with the main emphasis being on increased expendi-

The chief criticism of the Norwegian package of measures is that it is not possible to implement several of the measures immediately. For example, many building and construction projects take time to initiate because of the long advance planning phase required. Allocations for investments in business and industry through the government-owned investment company Argentum also take time.

### The financial crisis in Norway – the Government's measures targeting the financial services sector

A well-functioning financial system is a fundamental precondition for a resource-efficient economy, and thereby crucial in terms of securing the productivity of the economy and jobs. Measures aimed at ensuring financial stability are thus also highly relevant to the Growth and Jobs Strategy. The Norwegian Government has implemented a number of measures in 2008 and 2009 to strengthen the financial market. Taken together, these measures amount to more than NOK 500 billion, although, in principle, they are not an expense for the state since the schemes involve the acquisition of corresponding assets by the state or take the form of loans. However, many of the schemes involve the transfer of risk from financial institutions to the authorities, which entails potential losses if the counterparty were to experience payment problems.

Five measures in particular have been introduced. Firstly, liquidity-promoting measures have been introduced through Norges Bank in the form of increased lending limits. A swap facility was also introduced whereby government bonds can be swapped for covered bonds (NOK 350 billion). Guarantee and credit arrangements for export industries have also been strengthened (NOK 110 billion). A new State Finance Fund has been established that enables banks to apply for core capital in order to strengthen their financial soundness (NOK 50 billion). A new State Bond Fund has also been established in order to improve access to credit for Norwegian enterprises through the purchase of industrial bonds (NOK 50 billion).

consists of financial instruments directly targeting the financial sector with, boosting confidence and ensuring circulation in the financial system. In Norway, these measures, which have a financial frame of more than NOK 500 billion, have contributed directly to improving credit access for both banks and enterprises.<sup>20</sup> The other type consists of fiscal and monetary policy measures aimed at stimulating general demand in the economy.

# 3.3.3 The Government's stimulation package – focus on jobs in the building and construction industry

The financial crisis hit Norway just before the presentation of the national budget for 2009. Even though the budget was expansive, it was clear already then that further measures would be needed to stimulate the economy. The Government's package of measures, which was adopted by the Storting in February 2009, contains packages with an estimated budgetary effect in 2009 of NOK 21.6 billion.<sup>21</sup> Of this amount, NOK 16.82 billion consists of expenditure measures, while NOK 4.78 billion is in the form of tax relief for enterprises.

The package of measures has been launched as the biggest concerted effort to combat unemployment in Norway for more than 30 years. In line with the European Commission's recommendations for the design of national measures to deal with the financial crisis (see the box above) several of the measures are designed to stimulate employment by

focusing on long-term challenges such as the environment and a more knowledge-based private sector.

Of the increase in budgetary expenditure in connection with the package, well over half consists of funding for employment measures targeting the building and construction industry. These measures are mainly in the form of increased allocations for the maintenance of municipal and state infrastructure, and for transport projects such as roads and railways. Extra funds will also be allocated for labour market measures through an increase in the number of job creation places and an increase in the number of staff administering these schemes. The package also contains a change in the rules for temporary lay-offs. The maximum period for temporary lay-offs has been extended from 30 to 52 week. In addition, the expenses of enterprises relating to lay-offs are being reduced.

## Tax relief – improved liquidity for enterprises hit by the financial crisis

The aim of the tax relief measures in the package is to increase the liquidity of enterprises hit by the financial crisis. It means that enterprises can carry back operating losses in 2008 and 2009 against profits in previous years. The intention behind this change in the accrual rules is to achieve a targeted improvement in the liquidity of enterprises that are experiencing temporary problems as a result of the financial crisis, but which were previously profitable.

<sup>&</sup>lt;sup>20</sup> This does not include increased access to loans from Norges Bank.

<sup>21</sup> As originally presented by the Government in January 2009, the package of measures had an estimated value of NOK 20 billion. As subsequently adopted by the Storting, the package entailed an increase in budgetary expenditure of NOK 132 million and a reduction in tax revenues of NOK 1.53 billion.

When it was launched, the measure was estimated to increase enterprises' liquidity by NOK 3.25 billion in 2009. However, in connection with the Storting's consideration of the package, the limit on carrying back losses was raised form NOK 5 million to NOK 20 million per year. While this measure in its original form primarily targeted small and medium-sized enterprises, the change meant that it was also suitable for larger enterprises. It is worth noting here that the tax relief measure is limited, since the enterprises will have correspondingly smaller losses to carry back if they subsequently run at a profit again.

#### **Environmental measures**

Several of the employment measures also have a clear environmental profile. Increased allocations to Enova of NOK 1.2 billion, NOK 1.3 billion for railway maintenance and investments and NOK 0.5 billion for the building of pedestrian and cycle paths are the most extensive measures. In addition, almost NOK 1 billion was allocated through the package for the development of a technology centre for carbon capture. This was originally deemed to be a budget overrun, and it was not considered to be a part of the package.

#### R&D and general competence-raising

Measured in relation to the total package, the measures targeting R&D are moderate. One of the largest measures in this context is the strengthening of the Skattefunn tax incentive scheme for R&D investments in the private sector. In the package, the limit on the deduction basis has been raised from NOK 4 million to NOK 5.5 million for R&D carried out in-house and from NOK 8 million to NOK 11 million for R&D purchased externally. In connection with the presentation of this measure, it was estimated that it will result in a reduction in tax revenues of NOK 180 million. NOK 75 million was also allocated to research on renewable energy, with particular focus on offshore wind power.

#### 3.4 R&D, ENTREPRENEURSHIP AND INNOVA-TION (GUIDELINES 7, 8 AND 15)

The Norwegian Government's goal is that Norway should be one of the most innovative countries in the world. During the past four years, public allocations for research have increased by NOK 5.8 billion, which means an average real growth rate per year of 4.7 per cent. Based on calculations carried out by NIFU-STEP, public allocations for research amount to 0.94 per cent of GDP in 2009. This is close to the ambition that public allocations for research should be one per cent of GDP.

A total of NOK 12 billion has been allocated in 2009, divided equally between the Research and Innovation Fund and a newly-established regional research fund. The funds' returns are to be used for R&D purposes, thus ensuring long-term financing. The new regional research fund was established to strengthen cooperation between the private sector and university colleges in the regions. It is intended to supplement the national R&D policy instruments.

#### 3.4.1 The white paper on research

In April 2009, the Ministry of Education and Research presented the white paper *Climate for Research*, in which the Government reiterates the goal that three per cent of GDP should be spent on R&D, but the target is extended through new indicators focusing on the number of R&D FTEs per person employed and per capita, and on R&D investments in relation to mainland GDP. The white paper sets out certain strategic priorities for the future.

It is pointed out in the white paper that research must devote more attention to global challenges relating to climate change, the environment, the oceans and food security. Research must also focus on better health and health services. This is a clear signal to prioritise medicine and health. The white paper also advocates greater focus on knowledge-based business and industry throughout the country. Greater cooperation between the business community and research community is also recommended. This is discussed in more detail below.

### 3.4.2 Measures to stimulate research and development in business and industry

The Research Council of Norway, Innovation Norway and the Industrial Development Corporation of Norway (SIVA) are three central public institutions that are tasked for contributing to innovation and research in Norwegian business and industry. They administer a number of schemes that, each in their own way, help to stimulate increased research by different sectors of business and industry.

The Skattefunn tax incentive scheme was introduced in 2002-2003, and the maximum limits of the scheme were

subsequently increased in connection with the crisis package in 2009 (see also sub-chapter 3.3). The scheme gives tax reductions for enterprises that invest in R&D. In its evaluation of the scheme, Statistics Norway found that every *krone* given in tax relief has resulted in two *kroner* of increased private sector investment in R&D.

User-Driven Research-Based Innovation (BIA) is another programme that has received increased allocations in 2009. Since the programme was created in 2006, its budget has been increased from NOK 242 million to more than NOK 400 million in 2009. BIA co-finances R&D projects that are based on enterprises' own strategies and the challenges they face. While the Skattefunn scheme is wide-ranging and only has full effect for enterprises with low R&D investments, usually SMEs, BIA targets internationally-oriented R&D-intensive enterprises. BIA projects are typically carried out as collaborations between several enterprises and research groups, and with international partners. The projects run for two to five years, and the Research Council of Norway contributes between 25 and 50 per cent of the projects' total R&D costs.

To complement doctoral research fellowships funded through BIA and other research programmes, a new scheme has now been established for Industrial PhDs. The scheme involves collaboration on doctoral degrees between enterprises and higher education institutions for which the Research Council provides half the financing. It is intended to give enterprises an opportunity to increase their research competence without this work being part of an extensive research project. Approximately NOK 40 million has been allocated for the scheme, which is currently in a five-year trial period lasting from 2008 to 2012.

The Research Council of Norway has recently issued a new call for proposals for *centres for research-based innovation* (CRI). The CRI scheme is intended to stimulate increased innovation through close cooperation between active research-intensive enterprises and prominent research groups. The centres have been established for a period of five years, with a possibility of extension for a further three years. There are currently 14 such centres based on allocations made by the Research Council of Norway in 2006. The aim is to start up at least six new centres in 2011.

As part of the policy for environmentally friendly technology, funds were allocated in 2009 for the establishment of

eight research centres for environmentally friendly energy. The centres combine competence from research groups and the business community with the aim of solving specific, practical environmental challenges within specific areas. These centres are discussed in more detail in a separate box in sub-chapter 3.6.

# 3.4.3 The Government's package of measures – increased access to credit for small and medium-sized enterprises

In connection with the crisis package presented in January 2009 (see sub-chapter 3.3), substantial funds have been allocated to Innovation Norway with the intention to increase innovation and development in business and industry. The limit on venture loans from Innovation Norway was increased from NOK 300 million to NOK 1.4 billion, and the guarantee limit was increased from NOK 40 million to NOK 170 million. The venture loans that are granted are intended for innovative projects for which it is difficult to find sufficient venture-capital investors in the private capital market. The loans from Innovation Norway take second priority to long-term loans from other banks, and will not normally amount to more than 50 per cent of the borrower's capital requirement. The guarantee scheme, on its part, is intended for small and mediumsized enterprises that, for similar reasons, have difficulty securing operating credit or investment loans from banks. In order to stimulate people with innovative ideas to start their own businesses, NOK 150 million was also allocated for a new scheme for start-up grants in connection with the package of measures.

## 3.4.4. Development and innovation through customer/supplier cooperation

The package of measures includes NOK 65 million in increased allocations for R&D contracts. In many cases, no product exists in advance for delivery between customer and supplier. Instead, the product is to be developed by the two in collaboration. The aim of the R&D contracts is to underpin this type of customer/supplier cooperation (both private and public) by removing some of the financial risk relating to the development of such products.

The white paper on public procurement presented in 2009 emphasises the potential for innovation that exists in connection with public procurements. The regulations relating to public procurements do not require clients to focus on product development and innovation. Nor do they exclude

it, however. Formulating public tender documents more as a set of functional requirements for a service or product will make it easier for suppliers to submit innovative solutions. The white paper points out that high compe-

#### The white paper on innovation

In December 2008, the Ministry of Trade and Industry presented the white paper An Innovative and Sustainable Norway. This was the first Norwegian white paper on innovation. It emphasises innovation in small and medium-sized enterprises (SMEs), entrepreneurship, commercialisation, the protection of rights and design.

In the white paper, the Government states that it will:

- 1) strengthen instruments for innovation by increasing allocations to and evaluating Innovation Norway and the Industrial Development Corporation of Norway
- 2) allocate more funds for environmentally friendly innovation and research,
- 3) boost the use of design as a tool for innovation by establishing a design-driven innovation programme,
- 4) boost research in the private sector by increasing allocations for user-driven research programmes and funding for doctorates (Industrial PhDs), and
- 5) promote entrepreneurship through, for example, edu-

The white paper contains a review of various indicators of innovation activity in Norway. The indicators point in the direction of innovation activity being low in Norway compared with many other countries. It is argued that the indicators do not give a representative picture of innovation in Norway and that "the ability to adapt and innovate has been good in the Norwegian economy".

The OECD's analysis of Norway's innovation policy from 2007 points to a number of aspects that can be improved. The Norwegian authorities have already addressed many of these elements, but some of the remaining ones seem to be important. Among other things, the OECD points to the authorities' strong sector orientation as a problem in relation to innovation. This orientation limits Innovation Norway and the Research Council of Norway's freedom of action. Moreover, the OECD is concerned about the flight from science subjects and mathematics and urges Norway to increase its efforts to reverse this trend. The analysis also points out that certain innovation measures are too fragmented and too spread over the regions. It proposes organising the seed corn funds into larger entities. The OECD also believes that the Norwegian authorities should adopt a clearer strategy for international R&D and innovation cooperation.

tence is required in order to formulate the tender documents correctly, and that the Government therefore proposes to improve the competence of public procurers. One of the chief responsibilities of the newly established Agency for Public Management and eGovernment (Difi) is to develop procurement networks among public procurers, thereby facilitating the exchange of experience and competence.

#### 3.4.5 More entrepreneurship in education

In 2009, the Government launched a new action plan for entrepreneurship in education. The action plan, which applies during the period 2009 to 2014, replaces the previous plan for the period 2004 to 2008. The overriding goals of the plan are to improve the quality and scope of tuition in entrepreneurship at all levels and in all disciplines in the education system, and for Norway to lead the international field in relation to entrepreneurship in education. The action plan also presents 14 concrete measures aimed at increasing competence in innovation in education. One extensive and important measure in the plan is the incorporation by 2012 of competence in innovation in curriculums for all study programmes in higher education.

In 2008, 21 Norwegian state-run university colleges and universities reported that they offered courses in entrepreneurship. This includes everything from individual courses to Master's degree programmes, for example courses and degrees designed for teachers, economists, technologists and the tourism industry in addition to multidisciplinary courses. In order to increase the number of study programmes focusing specifically on entrepreneurship and innovation, a call for applications is planned in 2010 for stimulation funds for the development of more such courses at universities and university colleges.

#### 3.5 PRIORITISATION OF SECTORS IN BUSINESS **AND INDUSTRY (GUIDELINES 8 AND 10)**

In the Government's Soria Moria Declaration from 2005, the marine sector (seafood), the maritime sector, energy, the environment and tourism were given special attention as sectors in which Norway has particular competence or special natural advantages for business activity. One of the five strategic goals in the white paper on research -Climate for Research – which was presented in 2009, is to strengthen business-relevant research in the areas of food, the marine, maritime and tourism sectors, energy, the environment, biotechnology, ICT and new materials/nanotechnology.

As part of its focus on sectors in which Norway has a large potential, a state investment fund, Investinor, was established in 2008 with funds of NOK 2.2 billion, in order to ensure better access to capital for competitive, internationally-oriented Norwegian enterprises. The fund's mandate is to prioritise enterprises engaged in one of the five focus areas: the environment, energy, tourism and the marine and maritime sectors. Half a billion *kroner* of the funds is earmarked for enterprises in the marine sector. The fund started to invest in 2009, and, as of 1 October 2009, it has invested in three enterprises in the fields of energy and the environment, one company in the marine sector and one company engaged in a field outside the five main focus areas.

#### 3.5.1 Maritime industries

The Government's strategy for the maritime industry – "A steady course" – was launched in 2007. It emphasises that the Norwegian maritime industry should be at the forefront as regards the environment. In order to achieve this goal, the emphasis has been placed on increased investment in research and innovation. The authorities plan to channel funding via the Research Council of Norway and Innovation Norway for this purpose. The schemes require the industry to provide co-financing, but the public sector will cover a larger proportion of the costs of projects targeting the environment.

#### 3.5.2 Marine industries

The Government's strategy for the marine sector – "Sustainable seafood – alpha and omega" – was presented in 2009. It aims to maintain Norway's position as a leading international seafood nation. The four focus areas of the strategy are environmentally friendly utilisation of marine resources, greater market orientation, improving market access abroad and investment in R&D.

There are already several existing schemes and measures that target the marine industry. They include a dedicated marine wealth creation programme under the auspices of Innovation Norway. This programme, which was established in 2005, aims to develop seafood enterprises' ability to engage in long-term, market-based strategy work. More than NOK 75 million was allocated to the marine wealth creation programme in 2009, a substantial increase

from the year before. A separate national strategy for marine bioprospecting was also presented in 2009 as part of the Government's overall strategy for the marine sector. Marine bioprospecting involves the collection, categorisation and analysis of material from the ocean for research and development purposes.

#### 3.5.3 Tourism

The tourism industry is the third sector for which a separate national strategy has been adopted. Tourism is one of the fastest growing industries worldwide. The strategy, which was launched in 2007, focuses, among other things, on making Norway better known as a destination. A national internet portal (visitnorway.com) was launched in 2008, while a joint booking system is currently under development. Allocations for the tourism industry were increased by NOK 30 million in 2009, bringing the total budget for the development and marketing of Norway as a tourist destination to NOK 245 million. In cooperation with the industry, the Government has developed a national quality assurance scheme for hotels and other accommodation enterprises – a star system. The goal is for this system to be operative from 1 January 2010.

#### **3.5.4 Energy**

In 2007, the Government established Energy 21, a strategy body aimed at developing a broad and coherent R&D strategy for the energy sector. Energy 21 consists of representatives from business and industry, the research community and the government administration. It submitted a report in 2008 containing recommendations for how Norway can strengthen research, technology development and commercialisation in the field of environmentally friendly energy. An important task for the board of Energy 21 in the time ahead will be to advise the budgetary authorities and the energy industry on research priorities in relation to Energy 21.

#### 3.5.5 Environmental technology

Work started recently on developing a national strategy for environmental technology. A strategic council for environmental technology was appointed in 2008, consisting of representatives from business and industry, environmental organisations and academia. It will provide input and follow up work on the strategy for environmental technology. In spring 2009, three surveys were also carried out of Norwegian environmental technology. They will form the basis for the strategy.

### 3.6 SUSTAINABLE DEVELOPMENT AND THE ENVIRONMENT (GUIDELINES 3, 7, 8 AND 11)

Norway's environmental policy is based on the principle that the polluter pays. The main policy instruments in this context are the use of indirect taxes and emission allowances. These are market-based instruments that cut across sectors and contribute to cost-effective measures. Since Norway, through the EEA Agreement, joined the European emissions trading scheme in 2008, approximately 70 per cent of Norway's emissions are subject to either a duty to surrender emission allowances or CO<sub>2</sub> tax. In addition to allowances and taxes, a number of other instruments are used that are not market-based. This applies in particular to measures targeting R&D in the field of renewable energy and other environmental technologies.

#### 3.6.1 Consumption taxes

A  $\rm CO_2$  tax was introduced in Norway in 1991. It applies to  $\rm CO_2$  emissions from mineral oil, petrol and the combustion of oil and gas on the Norwegian continental shelf. This instrument is used actively. In light of the Government's goal that average  $\rm CO_2$  emissions from new cars should be 120 g/km in 2012, compared with roughly 160 g/km at present, one-off motor vehicle registration tax was increased in the budget for 2009 in order to reinforce the incentive to buy new cars with lower emissions.

#### 3.6.2 Emission allowances

Pursuant to the Kyoto Protocol, Norway has been allocated emission allowances corresponding to one per cent more emissions than Norway was responsible for in 1990. Total Norwegian emissions in 2008 amounted to 53.8 million tonnes. Pursuant to the climate compromise agreed by the Storting, Norway aims to over-fulfil its commitments under the Kyoto Protocol for the period 2008 to 2012 by 10 per cent and refrain from utilising the annual emission allowances allocated to Norway because of the increase in forestation. This over-fulfilment of six to seven million tonnes per year will be realised through the state purchasing emission allowances and through the increase in forestation, for which Norway, pursuant to the Kyoto Protocol, has been credited with 1.47 million tonnes of carbon equivalents.

Norwegian enterprises that have a duty to surrender emission allowances are responsible for ensuring that their own emissions are set off against a corresponding amount

# The difference between the international Kyoto emissions trading system and the EU Emissions Trading Scheme (ETS)

The international emissions trading system is one of the flexible mechanisms in the Kyoto Protocol (also called the Kyoto mechanisms). Under this system, trading in allowances takes place between national authorities, and private players cannot participate.

The EU Emissions Trading Scheme (ETS) targets operators of specific installations in the EEA area. The EU Emissions Trading Scheme is a tool for the effective reduction of greenhouse gas emissions within the EEA area and it is not part of the Kyoto mechanisms. In ETS, emission allowances are traded between *private players*, both within and between countries. In order to ensure consistent bookkeeping, an allowance traded in the ETS between private players in two different member states is backed by a simultaneous transfer of one Kyoto emission allowance between the two countries' authorities.

of allowances. The buying and selling of such allowances must take place within the framework of the EU Emissions Trading Scheme. Norwegian enterprises that have a duty to surrender emission allowances are allocated allowances free of charge by the Norwegian state in accordance with a national allocation plan. Pursuant to the plan, the enterprises with a duty to surrender allowances in the period 2008 to 2012 will, on average, receive fewer allowances as a percentage than their greenhouse gas emissions in 2005. The enterprises thus have a choice between cutting their emissions and buying allowances from other European enterprises. The idea is that if the price of an allowance is lower than the cost to the enterprise of cutting its own emissions, the enterprise will buy allowances from other European enterprises with lower emission-reduction costs.

Instead of allocating allowances to Norwegian enterprises free of charge, the Government decided to sell some of its allowances through the EU Emissions Trading Scheme. In 2009, Norway will sell 12.7 million emission allowances. These allowances are for both 2008 and 2009. Norway has chosen to sell a larger proportion of its allowances than the EU countries do. This is partly because the petroleum activities in Norway are not allocated free allowances.

# The climate compromise – breaking the link between economic growth and environmental load

In 2008, a broad majority of the political parties in the Storting agreed on the main direction for Norway's long-term policy on climate change. Through the so-called "climate compromise", it was decided that, if an ambitious global climate agreement is reached, Norway will be carbon neutral by 2030 and, if not, Norway's ambition will be to be carbon neutral by 2050. Norway also aims to reduce greenhouse gas emissions by 30 per cent by 2020 compared with the level in 1990.

An important element in the compromise is the target that two-thirds of the reduction in emissions shall take place in Norway (15 to 17 million tonnes of CO2 equivalents). If we assume that economic growth will continue, a national reduction in emissions means breaking the link between economic growth and increased environmental load. The Norwegian Pollution Control Authority's analysis of measures from 2007 concluded that, if measures up to NOK 600 per tonne CO2 equivalents are implemented, emissions will be reduced by 14.4 million tonnes in 2020, based on current technological assumptions. In addition to the instruments that are already in place, the climate compromise also states that reductions are to be achieved through increased efforts in the field of renewable energy and research and development, and through measures aimed at reducing emissions from the transport sector.

The parties that agreed on this compromise assumed that the new international climate agreement that is to be negotiated in Copenhagen in December 2009 will necessitate a revision of national targets and climate policy instruments. A new assessment will be carried out of how Norway's overall efforts should be organised in order to best contribute to reducing global greenhouse gas emissions.

#### 3.6.3 Green certificates

In September 2009, Norway signed an agreement with Sweden aimed at establishing a common market for green certificates with effect from 1 January 2012. Sweden has had a power certificate market since 2003. This market provides good, stable framework conditions for investments in renewable electricity. The market for green certificates is a cost-efficient subsidy of renewable energy since all kinds of renewable electricity can earn money from the sale of green certificates. It is thereby up to the individual producer to evaluate whether its production method is profitable under the certificate scheme.

Final clarifications relating to the common market for power certificates will take place after the conclusion of Norway's negotiations with the EU on a text concerning the Renewables Directive, and once the framework for Sweden's further development of its certificate market has been clarified. Under the Renewables Directive, Sweden's target is that 40 per cent of its energy consumption should come from renewable sources. Norway aims to start negotiations with the EU on the Renewable Directive shortly.

### 3.6.4 Allocations for R&D relating to renewable energy and environmental technology

In line with the climate compromise, allocations for research on renewable energy and carbon capture and storage were increased by NOK 70 million in the revised budget for 2008, and by a further NOK 230 million in the ordinary national budget for 2009. In addition to what was agreed in the climate compromise, a further NOK 75 million was allocated for research on renewable energy in connection with the Government's extraordinary budget package for 2009. Pursuant to the climate compromise, allocations for research on renewable energy and carbon capture and storage will be increased to at least NOK 600 million in the national budget for 2010.

The development of technology and facilities for carbon capture and storage is the Government's main climate measure. NOK 2695 million was allocated in 2009 for further work on carbon management at the Kårstø and Mongstad plants and for the running of Gassnova SF, which attends to the state's interests in connection with carbon management.

The Government wishes to integrate environmental considerations into existing policy instruments, and it has proposed strengthening the environmental focus of the User-Driven Research-Based Innovation programme (BIA). As mentioned in sub-chapter 3.4, the BIA programme involves close cooperation between enterprises and R&D groups. As many as 90 per cent of the projects have international partners, which is an important prerequisite if knowledge is also to flow across national borders. In 2009, the BIA allocations for environmental technology amount to NOK 30 million, NOK 20 million has been allocated for a broad-based focus on environmental technology projects, while NOK 10 million has been earmarked for renewable energy and energy efficiency.

The Government has set a combined target of 30 TWh for renewable energy and energy efficiency for the period 2001 to 2016. A state Fund for Renewable Energy and Energy Efficiency was established in 2007 with capital of NOK 10 billion. It was strengthened in the national budget for 2009 by the infusion of a further NOK 10 billion. In addition to increased allocations to the Fund in the extraordinary package of measures in 2009, a further NOK 1.2 billion was allocated for renewable energy and energy efficiency in new and existing buildings.

#### The establishment of Centres for Environmentfriendly Energy Research (FME)

Increased allocations for environmental research led to the establishment of eight Centres for Environment-friendly Energy Research (FME) in 2009. These centres are dedicated to research in (the name of the centre in brackets):

- carbon capture and storage (BIGCCS Centre and SUCCESS)
- offshore wind energy (NORCOWE and NOWITECH),
- bioenergy (CenBio),
- the design of renewable energy production that takes adequate account of environmental and societal issues, locally and globally (CEDREN),
- solar cells (the Norwegian Research Centre for Solar Cell Technology), and
- energy efficiency in buildings (ZEB).

The idea is that the centres will form the basis for more and stronger links and knowledge sharing between the research community and the business community in the field of environmental technology. The centres are time-limited centres that will receive funding of between NOK 20 and 30 million per year for five years.

## 3.6.5 Allocations for environmentally friendly transport

In 2009, funding was allocated for several projects addressing climate change challenges in the transport sector. The railway budget was increased by 30 per cent from 2008 and it is close to NOK 10.1 billion in 2009.

It has also been proposed to double the funding of the reward scheme for improving public transport in urban areas through an allocation of NOK 325 million. The National Transport Plan 2010-2019 includes a doubling of the reward scheme during the next four-year period.

Transnova is a trial project aimed at reducing CO<sub>2</sub> emissions from the transport sector in Norway. Transnova can

allocate funds to projects that contribute to reducing fuel consumption per kilometre (energy efficiency), measures that contribute to the use of more environmentally friendly means of transport and measures that reduce the volume of transport. In addition to the "normal allocation" of NOK 50 million in the national budget for 2009, Transnova was allocated a further NOK 50 million in connection with the Government's crisis package that was earmarked for the development of charging stations for electric cars.

### 3.6.6 Environmentally friendly public procurement

The public sector purchases goods and services for around NOK 270 billion every year. This corresponded to slightly more than 10 per cent of GDP in 2008. The Government has drawn up specific requirements in connection with public procurements, giving priority to procurements that are relevant to the climate, energy, health and hazardous chemicals and biological diversity. In line with the preparation of the requirements/criteria, expert support services called "focal points" will be established in each county/region in order to help the process of implementing environmental requirements in the procurement process. All counties/regions will establish a focal point in 2009.

## 3.7 INTEGRATION OF INTERNATIONAL MARKETS (GUIDELINES 12 AND 13)

Norway's economy is closely integrated with the European market, and the EEA Agreement ensures free movement of goods, services, labour and capital between Norway and the EU's member states. New markets are also opening up in countries with which we have previously had less trade. Trade with China has increased dramatically in the past decade, and countries such as India, Brazil and Russia have the potential to become important trading partners for Norway in the time ahead. In recent years, our trade policy has been influenced by the increasingly globalised market for trade in goods and services, not least through the Government's work on bilateral trade agreements.

Norway's foreign policy interests have been high on the agenda in the past year, and Norway's economic interests in the global economy have been discussed and clarified in the Ministry of Foreign Affairs white paper *Interests*, *Responsibilities and Opportunities: The main features of* 

Norwegian foreign policy and in the book Norwegian interests: Foreign policy for a globalised world. They both emphasise that Norway has a particularly strong interest in a well established international legal order based on multilateral agreements and conventions. The Norwegian authorities are therefore concerned with further developing the regulations for economic cooperation across national borders through the WTO's system of agreements. The white paper also clarifies Norway's strong interest in continuing the EEA Agreement and in developing its cooperation with the EU in other areas. It is emphasised that Norway has a particular interest in relation to the EU on matters of shipping policy, reform of the EU's fisheries policy, sustainable aquaculture, energy policy, social justice and gender equality.

### 3.7.1 The EEA Agreement

This year is the 15th anniversary of the EEA Agreement, and the Storting has requested the Government to review Norway's experience with the Agreement. The Norwegian authorities have been put under pressure at times in connection with the EU's gradual incorporation of new countries and accompanying demands for greater financial contributions to the member states. The EEA Agreement has also been gradually expanded through the implementation of new regulations in the EU. The agreement has proved to be stable and it has yet to give rise to clear conflicts between the parties. While the EEA Agreement is gradually becoming more extensive, it is also the case that it covers a smaller proportion of EU cooperation. This illustrates that the EU's integration efforts involve a number policy areas that are not covered by the EEA Agreement, but that are nonetheless relevant to growth and jobs in the member states.

On 30 June, Norway signed an agreement with the EU on changes in the EEA regulations. The agreement, which ensures simplified customs regulations for goods moving between Norway and the EU, entered into force on 1 July 2009. Without this agreement, Norwegian business and industry, and the export industry in particular, would have had to compete on poorer terms than competitors in the EU.

At the turn of the year 2008/2009, the Government decided to incorporate the EU's new Services Directive into Norwegian law through the EEA Agreement. This directive aims to stimulate increased trade in services across

national borders in the EEA area. While services are in principle one of the four freedoms, there have in practice been many national regulations and practices that have acted as an obstacle to foreign service providers. The directive deals with both temporary deliveries and the more permanent establishment of businesses in another EEA country.

The Norwegian authorities have demonstrated great willingness and ability to implement and put into effect EU regulations that Norway is obliged to implement as a result of the EEA Agreement. According to the EFTA scoreboard, Norway had a so-called transposition deficit of 0.4 per cent in July 2009. Only six directives have not been fully transposed into Norwegian law by the Norwegian authorities. On Norway's part, the average delay is around five months, which is well below the EU average and on a par with the Nordic member states. The number of cases pursued by the EFTA Surveillance Authority (ESA) in relation to Norway is very low and falling.

The current financing arrangement for the EEA Agreement runs from 2004 to 2009. The negotiations for a new financial arrangement have now overrun the deadline, but it is clear that all parties wish to see the agreement continue. The EEA funds are currently allocated to investment and development projects in the EU's twelve new member countries, and in Greece, Portugal and Spain, in areas such as the environment, climate change, sustainable development, preservation of the European cultural heritage, health and children, research, education and adaptation to the Schengen Agreement. Norwegian parties can participate as partners in these projects. So far, an average of 15 to 20 per cent of the projects have been supported by a Norwegian partner.

In the wake of the financial crisis, Iceland applied for membership of the EU in summer 2009. Iceland's new government is divided in its view on membership, and it is by no means given that the population will vote for membership in a referendum. The Commission and the member states are positive to Icelandic membership, and negotiations are expected to start relatively soon. Icelandic membership could be a challenge for the EEA Agreement, particularly in relation to the agreement's surveillance and judicial functions. The Norwegian Government is following developments in Iceland closely.

### 3.7.2 Bilateral trade agreements

In 2008 and 2009, Norway and EFTA have negotiated with a number of countries on the establishment of bilateral trade agreements. Many of these countries are large and important. Norway started negotiations with China (bilateral) and India (through EFTA) in 2008. EFTA started negotiations with Ukraine in 2009. These processes are well under way. Informal consultations are being held with Russia with a view to establishing a trade agreement in future. A trade agreement between EFTA and Canada entered into force in 2009. The EFTA trade agreement with Columbia was signed in November 2008, and an agreement between EFTA and the Gulf Cooperation Council (GCC) was signed in June 2009. Negotiations with Serbia, Peru and Albania have been concluded and agreements are expected to be signed shortly. Negotiations have also started with Algeria. Bilateral trade agreements secure good terms both for Norwegian exporters and for importers of foreign goods and services to the Norwegian market. This results in improved competitive conditions and increased wealth creation.

The Government has decided to lay aside work on a general model for investment agreements. In connection with the negotiations on bilateral trade agreements with India, Ukraine, China and Russia, it is being considered whether investment protection provisions are necessary in relation to each of these countries and how they should be formulated. Agreements of this kind are important to Norway because an increasing proportion of Norwegian capital is being invested abroad. Norwegian companies are rapidly becoming internationalised and are establishing subsidiaries in countries outside the EEA area where investment conditions can be highly unpredictable.

## 3.8 BUSINESS-RELATED SIMPLIFICATION AND RATIONALISATION OF THE PUBLIC SECTOR (GUIDELINES 9, 10, 14 AND 15)

As part of the process of administrative simplification in relation to business and industry, the authorities have initiated an extensive project aimed at developing the internet portal Altinn in order to improve businesses' access to public services. NOK 208.4 million was allocated in the budget for 2009 for the purpose of further developing the new Altinn solution, also called Altinn II. The goal is that, over time, online services should completely replace paper in communications between businesses and the public sector. The new Altinn solution is designed to enable information to flow more freely across and between the different public agencies, thus enabling businesses to save on resources by eliminating unnecessary double reporting.

### The mapping and simplification project

An extensive mapping and simplification project was concluded in early 2008. It identified regulations that affect business and industry. The results of the project show that information requirements relating to the regulations as they were in 2006 cost the Norwegian business community roughly NOK 54 billion per year<sup>22</sup>, or 2.5 per cent of GDP in 2006.<sup>23</sup> Comparable surveys in other countries have found that the costs are 3.6 per cent of GDP in the Netherlands, 2.2 per cent in Denmark and 2.8 per cent in Austria. The survey estimated that 70 per cent of the administrative costs are related to regulations for which the Ministry of Finance is responsible, largely relating to accounts and bookkeeping which is also valuable for internal use within the enterprise

In light of the survey, an action plan has been presented containing 120 concrete measures aimed at reducing businesses' administrative costs relating to official regulations.

The list contains measures implemented since 2006 (which was the base year for the survey), measures that are to be implemented by the responsible sector ministry and measures for consideration. The measures that represent the greatest potential savings include measures aimed at switching to electronic solutions, such as online prescriptions and online applications in planning and building cases.

The administrative requirements account for a proportionately much greater share of the resources of small and medium-sized enterprises (SMEs) than large companies. In this light and because the vast majority of enterprises in Norway are SMEs (99 per cent have fewer than 20 employees), some of the simplification measures target SMEs in particular. One of the measures which has been investigated and is currently being considered is exemption from the auditing requirement for small enterprises. The auditing requirement for small enterprises is estimated to cost somewhere between NOK 1.3 billion and 2 billion.

<sup>&</sup>lt;sup>22</sup> Former estimate was 57 billion NOK. New figure due to adjusted measurements.

However, this figure does not tell us what potential for simplification exists. Firstly, it is only expenses that are measured, not the societal benefits of the regulations. Secondly, it emerged from the survey that around 60 per cent of the information requested by public agencies is also used to a large extent internally within enterprises. The real administrative burden is assumed to be between 1.8 and 2.5 per cent of GDP.

### 3.8.1 Reform of the public sector

In 2007, the Government presented a strategy for reform of the public sector. The long-term goal for the reform efforts is an efficient public sector that offers good services, freedom of choice and user participation. Several reform projects are currently ongoing in the public sector. Some of these reforms apply to particular sectors, such as the reorganisation of the Tax Administration, which is scheduled for completion in 2009, a results-based funding system for the research institute sector from 2009, a new long-term plan for the Norwegian Armed Forces for the period 2009 to 2012 and the Coordination Reform, which is a health service reform that was presented in summer 2009.

Cross-sector reforms are also being implemented, such as the work of establishing a new and efficient Norwegian Labour and Welfare Service (discussed in more detail in a separate box in sub-chapter 3.10), the development of a web-based platform for submitting public forms and for public services, Altinn, and the development of a common electronic identification solution (eID) for users of web-based service portals. Weaknesses were uncovered in 2008 in procedures relating to public procurement. The white paper on public procurement (Report no. 36 (2008-2009) to the Storting) addresses these problems. It refers, for example, to the establishment of the Agency for Public Management and eGovernment (Difi) in 2008. Its main task is to strengthen the Government's work of reforming and regenerating the public sector, and it has a separate department whose job is to help the public sector to increase its competence in public procurement. Information offices for public procurement have been established, as well as a dedicated web portal that will provide information and help raise competence in public procurement, and provide guidelines in that connection.

With effect from 1 January 2010, open document standards will be mandatory on all public sector websites.

### The National Transport Plan (2010-2019)

In March 2009, the Government presented a new national transport plan (NTP), which sets out strategies for Norway's transport policy for the next ten years. The new transport plan has an overall framework of NOK 321.9 billion for the whole period. That is 45 per cent higher than NTP 2006-2015, and entails an annual increase in funding for road transport of 39 per cent, 58 per cent for rail transport and 77 per cent for sea transport.

The main focus areas in the transport plan for the next ten years are business and industry's transport needs and regional development, transport safety, reducing the environmental load, and universal design. The plan is to differentiate between urban and rural areas in the transport context. In and around large towns and cities, greater emphasis will be placed on public transport, while road transport will be emphasised in rural areas.

Major investments are planned in transport corridors that connect Norway directly with international markets. NOK 24.3 billion will be allocated for the development of roads and railways in order to link Oslo with the other Nordic capitals.

### Effective pricing systems

It is a goal of Norway's transport policy to reduce the environmentally harmful impact of transport, while at the same time improving accessibility for both passenger and goods transport. In the towns, the idea is to solve this by getting

much of the passenger car traffic to switch to public transport. In order to achieve this, the Government wishes to make public transport services more accessible while at the same time reducing passenger car traffic through the use of taxes, congestion charges and limiting the number of parking spaces.

### **Public-private cooperation**

In connection with the Storting's consideration of the National Transport Plan for 2002 to 2011, it was decided to carry out three trial projects involving public-private cooperation (PPC), the last of which was to be completed in summer 2009. The PPC model means that the state invites tenders for road projects and private contractors are given responsibility for planning, building, financing, maintaining and operating a stretch of road for a certain period. An evaluation initiated by the authorities of two of the first three PPC road building projects concluded that PPC has resulted in faster project completion, while the building costs are at the same level as for public road building projects. However, the Government has clearly signalled that it does not wish to continue with the PPC model. Its main argument is that PPC is deemed to be an unnecessarily expensive funding model for the state, and that it does not wish to bind future budgets through contractual commitments to private contractors. However, there are plans to develop alternative contract forms with private players that combine the operation, maintenance and improvement of longer stretches of road, but where the private contractor is not allowed to use loan financing.

This measure means that all users of public sector websites will be able to read documents irrespective of which software or type of computer equipment they have. The Ministry of Trade and Industry is in the process of developing a strategy for small and medium-sized enterprises in Norway. A strategic council has been appointed in that connection to give enterprises an opportunity to contribute advice and input.

# 3.8.2 Encourage enterprises to improve their corporate social responsibility

The white paper *Corporate social responsibility in a global economy* (Report no. 10 (2008-2009) to the Storting) was presented in January 2009. It clarifies Norwegian companies' social responsibility when operating abroad. In addition to complying with national legislation in the countries in which they operate, Norwegian companies are also expected to respect human rights and workers' rights, to safeguard the environment, combat corruption and exercise maximum transparency.

# 3.9 INFRASTRUCTURE (GUIDELINES 9 AND 16) 3.9.1 Transport and communications

Norway is covered by the Trans-European Transport Network (TEN-T) as a result of the EU's goal of integrating its transport systems with neighbouring countries in the north (Norway, Iceland and Russia). It was decided in October 2008 to establish a Partnership for Transport and Logistics with effect from 2010. The goal of the partnership is to facilitate coordination of infrastructure projects of regional importance. It is possible to involve international financial institutions in the partnership. Norway is part of the TEN-T projects aimed at facilitating effective transport routes in both the North Sea and the Baltic Sea. It is also part of the priority TEN-T project aimed at connecting the Nordic capitals by road and rail.

There is already transnational cooperation on transport in the Barents Region. The Barents Euro Arctic Transport Area (BEATA) aims to develop a strategy for an integrated transport system in the region.

### 3.9.2 Energy transport

Norway is part of a common Nordic power market that covers appr. 60 per cent of the region's power consump-

tion. This means that the Nordic region has more efficient pricing and greater supply security than would be the case if the national markets had operated separately. Close Nordic cooperation has also been established on development of the transmission grid, both at ministerial level and between the power companies with system operator responsibility and between the regulators. At a meeting of the Nordic Council of Ministers in Umeå in 2008, a concrete action plan was agreed for the development and operation of the grid as well as other forms of cooperation on development in the power market.

In autumn 2008, the Norwegian and Dutch power markets were integrated via the NorNed subsea cable. The cable is a Trans-European Energy Network (TEN-E) project that receives funding support from the The European Investment Bank (EIB). The cable is intended to contribute to more efficient pricing and greater supply security, and to give the Netherlands access to renewable hydroelectric power. The cable's capacity is 700 megawatts, corresponding to half of Amsterdam's power consumption.

### 3.9.3 Infrastructure for efficient use of ICT

Infrastructure relating to electronic communication and exchange of information has become as important to a well-functioning society as the road and rail networks. Given Norway's location on the periphery of Europe and the intentions of maintaining its dispersed settlement pattern, it is particularly important to reduce transportation and transaction costs.

According to the Norwegian authorities, 99.9 per cent of the Norwegian population now has access to broadband.<sup>24</sup> The HØYKOM programme, which was concluded in 2008, has been the authorities' most important instrument for increasing broadband coverage in areas without an existing service. During the ten years the programme lasted (from 1999 to 2008), the authorities allocated a total of NOK 771.5 million to HØYKOM.

# 3.10 LABOUR MARKET POLICY (GUIDELINES 2, 3, 4, 5, 17, 18, 19, 20, 21 AND 22)

Society's ability to utilise its human resources is crucial to the maintenance of a sustainable welfare society. Labour

<sup>&</sup>lt;sup>24</sup> In this context, broadband corresponds to the capacity provided by ADSL (broadband via telephone cables) and upwards.

market policy is important both in terms of mobilising unutilised labour reserves and in strengthening labour market attachment for people on long-term sickness absence or who are at risk of falling outside the labour market. One of the Government's main goals is therefore to contribute to high employment participation and good utilisation of labour.

Continued high employment participation and low unemployment was also the main goal of the Government's package of measures introduced to address the financial crisis. The chief measure was to secure employment in the building and construction industry. This is an example of a proactive employment policy. It is interesting in this context to ask whether this promotes good utilisa-

tion of the labour force or whether it prevents a natural restructuring of the economy that would result in better allocation of resources in the long term.

As shown in Chapter 2, as many as 78 per cent of the adult population were in employment in 2008. Despite the fact that unemployment has increased in Norway as a result of the global economic downturn, unemployment is still low in Norway, both historically and in the international context. <sup>25</sup> An average of 75 000 job creation places for unemployed people and people with impaired work ability are planned for 2009. NAV had around 70 000 persons registered as wholly unemployed at the end of September 2009, and roughly 17 000 were participating in job creation schemes. Approximately 90 000 persons

## Income distribution and growth in the Nordic model

The models for organisation of labour and income policy, and the role of the public sector as provider of welfare services in the Nordic countries are often referred to as the Nordic model. The EU Strategy for Growth and Jobs has been particularly concerned with combining flexibility with security in the labour market, Denmark's labour market policy being a good example (so-called flexicurity).

An even income distribution is characteristic of the Nordic countries. The report of the Equitable Distribution Committee, which was presented in spring 2009, describes income distribution and the consequences of more or less income inequality. Low income inequality has been achieved in Norway through a centralised and coordinated system for wage formation and active redistribution of income through the tax system. From an economics perspective, it has traditionally been argued that, if equitable distribution is emphasised, society loses out in terms of economic efficiency, which in turn results in weaker growth in the long term (the equity efficiency trade-off). The experience in the Nordic countries, and Norway in particular, indicates that this argument is not necessarily valid. What is it about the Norwegian system that makes it possible to have both an even income distribution and high productivity and wealth creation?

The Equitable Distribution Committee's report points out that the redistribution of income through the tax system has been channelled through so-called work-oriented welfare schemes. One example of this is the provision of easily accessible kindergartens, which contributes to increased employment participation and thereby growth. The committee points out that high employment participation is the core explanation for why low income inequality and high growth can go hand in hand. If generous welfare schemes reduce the willingness to work, this will weaken the economy's ability to grow. It is also pointed out that income security makes the labour force more positive to globalisation and trade with other countries, since this type of activity is not allowed to put too much downward pressure on wages. This applies to the low paid in particular. Thus, the necessary conditions for an open competitive economy are secured through such a system.

In recent times, it has also been argued by the Government and in academic circles that income equality could contribute to stronger industrial dynamics because the least profitable and productive enterprises will experience the greatest problems if wages are high. The most profitable, on the other hand, can keep their wage costs relatively low. The least profitable enterprises therefore quickly die out and provide the most profitable ones with labour. It is important to emphasise that this mechanism has yet to be documented empirically. Moreover, many economists would argue that income inequality in itself has a dynamic effect because labour will gravitate to where the wage level is highest, whether within or between industries.

The Equitable Distribution Committee also points to a number of characteristics of Norwegian society that can explain its high growth ability, regardless of income distribution. It is argued that the existence of many small enterprises contributes to greater dynamics and that society is characterised by social capital that creates trust and thereby high efficiency.

<sup>&</sup>lt;sup>25</sup> In August 2009, the figures from NAV showed that unemployment was 3 per cent measured as the number of unemployed people at the end of the month.

with impaired work ability were also registered with NAV. NAV provides individual follow-up and necessary assistance for job seekers, whether they are ordinary job seekers or have impaired work ability.

Norway has many people on sick leave, people in parttime employment and people with occupational disabilities compared with other countries. It is within the groups occupationally disabled, under-employed, immigrants, early retirees and persons with impaired work ability that Norway is said to have the greatest potential to increase its utilisation of labour reserves. In 2008, an average of seven per cent of all employees were absent from work because of illness. In October 2009, there were more than 340 000 unique recipients of disability benefits. This corresponds to 11 per cent of the adult population (18 to 67 years), which puts us in top place among the OECD countries. Unemployment among foreign nationals in Norway is also almost twice as high as among the population as a whole. Below, we present recently-implemented measures aimed at increasing labour market participation among these groups of the population.

### 3.10.1 A life-cycle approach to work

Several schemes have been introduced in Norway in recent years that target these at-risk groups. For example, a right to longer holidays has been introduced for older employees, as well as the possibility of gradually drawing one's pension while remaining in work. A scheme has also been introduced for young people that guarantees school, work or a job creation place for young people under the age of 20, plus a follow-up guarantee for young unemployed people in the 20 to 24 age group.

The NAV Reform and the Pension Reform have been the Government's main priority in its labour market and welfare policy. This is also the case in 2009. These measures are discussed in more detail in a separate box below and in sub-chapter 3.2.

Until 2008, persons in the 67 to 69 age group had their retirement pension reduced by 40 per cent if their income from employment exceeded two times the National Insurance basic amount (G) (corresponds to approx. NOK 140 000). This rule was abolished for 67-year-olds in 2008, and for 68-year-olds from 2009. An effect study carried out by the Frisch Centre for Economic Research indicates that the removal of the rules for the reduction of pensions will result in an increase in the employment frequency for this age group of between 0.5 and 1 percentage point.

The Government's goal is that everyone who so wishes will be offered a place in a kindergarten at a stipulated maximum price. A statutory right to a place in a kindergarten was introduced in 2009 for all children who had reached the age of one by August in the admission year. This measure can potentially release resources to the labour market.

Good skills in the Norwegian language and basic knowledge about Norwegian society are preconditions for obtaining a job and an education. Recently arrived immigrants with permanent residence permits who come from countries that are not part of the EU or EFTA have therefore been granted a statutory right and/or obligation to tuition in Norwegian and social studies through the Introduction Act. The goal for this tuition in Norwegian and social studies is that adult immigrants, after a period of no more than five years of residence in Norway, should have learned enough Norwegian to function in the labour market and in society at large. In 2009, funding of the Action Plan for Integration and Inclusion of the Immigrant Population was increased by a total of NOK 125 million in order to strengthen integration efforts in the municipalities.

## 3.10.2 Inclusive workplaces - measures to combat sickness absence

The letter of intent on a more inclusive working life (the IW Agreement) between the authorities and the social partners is a potentially important part of the efforts to reduce sickness absence. The current agreement, which expires in December 2009, was first entered into in 2001. The Government has clearly signalled that the agreement will continue after 2009 in a renegotiated version. It is a concrete target in the current IW Agreement to reduce sickness absence by 20 per cent from the second quarter 2001 to 2009. The parties have also agreed that the average age of retirement from the labour market should be increased and that employment among persons with impaired work ability should be increased.

The IW Agreement states that the main responsibility for following up sickness absence rests with employers. Among other things, a follow-up plan must be drawn up

between the employee and employer no later than six weeks after sick leave begins. On the authorities' part, new rules have been introduced for doctor's certificates, including closer follow-up and clarification of the ability to work at an early stage. The treating doctor has also been given a clearer responsibility for following up persons on sick leave. The target of a 20 per cent reduction in sickness absence has not been reached, however. While sickness absence as a proportion of the agreed number of working days was seven per cent in the second quarter 2001, it had risen to 7.1 per cent in the second quarter 2009.<sup>26</sup>

## 3.10.3 Measures to reduce the proportion of persons on disability benefits

A trial scheme has been in operation since 2007 involving wage subsidies for an indefinite period for persons with impaired work ability. The aim is to keep people in work and to get people on disability benefits back into employment

Measures have also been implemented to make it easier for persons currently in receipt of disability benefits, but who wish to work part-time, to return to employment.

### The NAV Reform

Since 2006, the Government has been working on a new Norwegian Labour and Welfare Service (NAV), which will combine and coordinate labour and welfare services under one roof. The reform, a merger of the Norwegian labour market service, the Norwegian national insurance service and social security offices, means that NAV has responsibility for welfare schemes such as unemployment benefit, sickness benefit, rehabilitation, pensions, child benefit and cash benefits for parents staying at home with young children. Together, these schemes account for almost a third of the national budget.

The aim of the NAV Reform is to increase employment participation among the population, to increase the user-friendliness of public welfare services and to achieve efficiency gains in the form of economies of scale. The reform is very wide-ranging and involves the establishment of new offices in 431 municipalities in Norway. A third of NAV's 20 000 employees will have to switch workplaces and/or duties. A total of NOK 4.5 billion has been allocated for the years 2006 to 2009 for implementation of the reform. Implementation of the reform will largely be completed throughout the country in 2010, which means that every Norwegian municipality will have a NAV office.

The work of establishing one overall provider of labour and welfare services has proven demanding, however. For example, the reform has resulted in increased processing times for a number of benefits. This has been a particular problem in connection with the increase in unemployment in the wake of the financial crisis, and there was a large backlog of people waiting for unemployment benefit in the first six months of 2009. As a result of the service coming under pressure, the Government decided to postpone the

planned simplification of the benefits system, including the introduction of temporary work clarification benefit to replace occupational and medical rehabilitation benefit and temporary disability benefit. This scheme, which should have been introduced in October 2009, has now been postponed until March 2010.

There has also been criticism from within NAV of lack of training and little transfer of competence among staff, and of the fact that local key competence has been removed from many offices and transferred to central administrative entities.

A multi-year evaluation of the NAV Reform has been initiated under the auspices of the Research Council of Norway. It will evaluate the implementation of the reform and the effect it will have on utilisation of the labour force, user-friendliness and rationalisation of the services. While it is pointed out that the results are provisional and that it is too early to draw final conclusions, several challenges are mentioned in relation to the work of developing the labour and welfare administration.

The evaluation raises the question of whether increased user-friendliness for the 15 per cent of users who are defined as "multi-users" of welfare services can increase complexity and reduce user-friendliness for the remaining 85 per cent of users. The evaluation also points out that efficiency gains from the reform could be marginal if no employees from before 2006 are to lose their jobs as a result of the reform and all municipalities are to have their own NAV office with at least three employees. Moreover, it has proven difficult to fully integrate the ICT systems from the three former services.

<sup>26</sup> This includes both self-certified sick leave and leave documented by a doctor's certificate.

One of these measures is an extension of the so-called "freeze scheme" from three to ten years. The freeze scheme means that, if people on disability pension take a job but find that they are unable to remain in employment, they will be assigned the same degree of disability as they originally had.

It was originally planned to present a proposal for a new disability pension system in 2009, but this has now been postponed until 2010. The intention behind the new system is to make it easier to combine work and disability benefit for those who are partially occupationally disabled and need a percentage of full-time work that is more adapted to their needs than the current rules allow. This is an important measure that could potentially reduce the state's expenditure on disability benefits and increase the welfare of many people who are currently registered as one hundred per cent occupationally disabled, but who wish to work.

# 3.10.4 Ensure employment-friendly labour cost developments and wage-setting mechanisms

Norway has a tradition for centralised wage negotiations between national employer and employee organisations, where internationally-exposed manufacturing industry negotiates first, followed by the sheltered sectors and industries. By allowing internationally-exposed industry to set the standard, wage growth is kept within limits, thus preventing a strong downscaling of the internationally-exposed manufacturing sector.

Wage bargaining is the social partners' responsibility and the authorities are not directly involved in the process except in negotiations with the state's own employees. If wage negotiations result in a strike, however, the authorities have legal authority to propose compulsory arbitration if the strike endangers life or health. Norges Bank's operational target of stable growth in consumer prices of 2.5 per cent over time is an important premise for the centralised wage negotiations because the interest rate affects the purchasing power of employees.

The hourly wage rate in Norwegian industry was 28 per cent higher in 2008 than among our trading partners in the EU. In Chapter 2, it was shown that labour productiv-

ity in Norway is high, which, in turn, can explain a higher wage level.<sup>27</sup>

## 3.11 EDUCATION AND COMPETENCE (GUIDE-LINES 10, 20, 23 AND 24)

## 3.11.1 Reducing the dropout rate in upper secondary education

In June 2009, the Government presented the white paper *Education strategy*. Here, it was pointed out that the dropout rate in upper secondary education is one of Norway's biggest challenges. In 2009, almost half of those who were unemployed in Norway had not completed upper secondary education. There is a clear connection between the high proportion of unskilled people among the unemployed and the demand for knowledge and specialisation in the labour market. A survey carried out by the OECD in 2006 showed that only five per cent of occupations in Norway do not require educational qualifications.

In order to reduce the dropout rate from upper secondary education, the Government wishes to make the educational system more flexible and practical in its orientation in both lower secondary and upper secondary schools.

In some municipalities, trials will be carried out with a new subject at lower secondary school level called "work-related training". It is intended to give pupils who are interested larger opportunities to do practical work and test their interest in vocational training. The new subject will be linked to the vocational training programmes in upper secondary education, but will be adapted to lower secondary level. The purpose is to improve pupils' motivation, while at the same time ensuring the development of basic skills.

The current system of vocational training at upper secondary level includes several options involving more practical training. In individual cases, for example, it is possible to approve apprenticeship contracts under which all or a large part of the training takes place in an enterprise.

There are also alternatives that do not result in a full craft or journeyman's certificate. One example is the training

<sup>&</sup>lt;sup>27</sup> It must be pointed out here that, in the short term, fluctuations in the exchange rate are one of the most important factors in relation to wage costs compared with foreign competitors. For example, the Norwegian *krone* was 2.6 per cent weaker on average in 2008 than in 2007 compared with the Euro.

candidature scheme, which is a flexible scheme that gives pupils an opportunity to train in accordance with a curriculum that takes the individual's situation into account as far as possible. A training candidate signs a training contract leading to a competence exam. This exam is less comprehensive than an ordinary craft or journeyman's exam, and the training candidate is only examined in relation to the targets set for him or her. Another alternative is the certificate of practice scheme, whereby, after two years, a pupil can achieve approved competence that can later be used as the basis for taking a craft or journeyman's certificate. Pilot projects for certificates of practice are currently being carried out as part of the training candidature scheme.

### 3.11.2 Competence building and lifelong learning

People who become unemployed and need competence to qualify for vacant jobs can be offered a labour market training course. The courses can last for up to ten months and be combined with unemployment benefit from the Norwegian Labour and Welfare Service (NAV). For people who have great difficulty obtaining a job and who have not completed upper secondary education, this period can be extended by up to six months. It was decided in 2009 that, in cooperation with selected county authorities, the Ministry of Education and Research and the Ministry of Labour and Social Inclusion would initiate pilot projects aimed at developing vocational training that is more adapted to the needs of job seekers who have not completed upper secondary education.

The Government will consider establishing a central careers guidance body that will operate across sectors. The goal is to help people to be more aware in their choices of education and occupation, to prevent wrong choices and to prevent pupils dropping out of education or training. The proposal for a national body was submitted for consultation in 2009, and it is currently being considered by the Ministry of Education and Research.

An evaluation of the market for decentralised higher education presented in May 2009 indicates that demand for decentralised study programmes is limited. This means that the offer of such decentralised teaching will also be limited, since there is great uncertainty about whether educational institutions can recover the costs of such programmes.

Based on the OECD's international ALL Survey (Adult Literacy and Life-Skills Survey) carried out in Norway in 2003, it is estimated that 430 000 adults in Norway have insufficient literacy and numeracy skills to cope with the challenges in the workplace and in society at large. A report by Vox from 2008 estimated that 27 per cent of the adult population is incapable of mastering today's digital tools. This lack of skills primarily applies to persons who do not use a PC in their day-to-day work. The Programme for Basic Competence in Working Life (BKA) was established in 2006 in order to better enable adults to obtain training in basic skills such as reading, writing, numeracy and ICT skills. Under the programme, enterprises can apply for grants to hold training courses for their employees. During the period from 2006 to 2009, more than 6000 employees have taken part in training through the programme. The total allocation to the programme was almost NOK 80 million in 2009, more than twice the amount in 2008.

## 3.11.3 Adapting education and competence to the needs of the labour market

The Government believes it is important to be prepared for future needs for qualified labour and greater knowledge in central areas such as education, welfare, climate change and the environment. In areas that are deemed to be particularly important, such as teacher training, health subjects, science subjects and mathematics, special measures are also deemed to be required to stimulate interest and recruitment.

In light of the increasing number of applicants and society's competence needs, the Government allocated almost NOK 100 million in 2009 for the establishment of around 3000 new study places in higher education. They comprise 1000 new study places in teacher training, 850 in health and social care education, roughly 550 in mathematics, science and technical subjects and 600 study places in other disciplines to be prioritised by the institutions themselves.

For each of the years from 2007 to 2009, the Government has had dedicated action plans aimed at increasing general competence in mathematics and science subjects in schools and at increasing recruitment to mathematics and science subjects in upper secondary and higher education. These efforts are the result both of an increase short-

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age of persons with mathematics and science competence in Norwegian workplaces and of poor results in international tests among pupils in Norwegian primary and lower secondary schools. The action plans have been drawn up by the Government in cooperation with the business community and the National Forum for Science Subjects. <sup>28</sup>

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